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Publication Date

2009

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UNIVERSITY OF CALIFORNIA
RIVERSIDE

Variations in Biculturalism:
Measurement, Validity, Mental and Physical Health Correlates, and Group Differences

A Dissertation submitted in partial satisfaction
of the requirements for the degree of

Doctor of Philosophy

in

Psychology

by

Que-Lam Huynh

December 2009

Dissertation Committee:

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The Dissertation of Que-Lam Huynh is approved:

Committee Chairperson

University of California, Riverside

To the brightest star in my universe.

ABSTRACT OF THE DISSERTATION

Variations in Biculturalism:
Measurement, Validity, Mental and Physical Health Correlates, and Group Differences

by

Que-Lam Huynh

Doctor of Philosophy, Graduate Program in Psychology
University of California, Riverside, December 2009
Dr. Verónica Benet-Martínez, Chairperson

The goals of the studies reported in this dissertation were to expand on the measurement of Bicultural Identity Integration (BII) and to test BII theory in an ethnically diverse sample of bicultural individuals from different generational groups. BII is an individual difference construct that captures variations in the structure and experience of biculturalism (Benet-Martínez & Haritatos, 2005). In 3 studies, I examined BII using qualitative methods (Study 1) and wrote new BII items based on these qualitative data, examined the quality of the new measure (Bicultural Identity Integration Scale—Version 2 or BIIS-2) using subject-matter experts (Study 2a) and college students (Study 2b), and then collected validation data from bicultural college students ($N = 1049$) at a large,

public university on the West Coast (Study 3). Results showed that the BIIS-2 yields reliable ($.81 < \alpha < .86$) and stable ($n = 240$; $M = 6.93$ days, $SD = 0.90$ days; Time 1 and Time 2 correlations: $.74 < r < .78$) scores. I used exploratory factor analyses to select items and establish the factor structure of the BIIS-2 with a random subset of the large sample ($n = 600$), confirmatory factor analyses to show that the factor structure fit the data well ($n = 449$), and multi-group confirmatory factor analyses to show measurement invariance in two ethnic groups and two generational groups. The data also revealed interesting and important patterns of correlates. Specifically, there were significant and meaningful correlations with personality traits, acculturative stress, and psychological well-being. In addition, path analyses confirmed that in general, personality and acculturation variables influence individuals' perceptions about their dual identities (BII), which in turn influences adjustment, but there were interesting and important generational differences on how these variables are related. These findings lend support for the construct validity of BII, add to our understanding of the social, personality, and adjustment correlates of the bicultural experience, and have important implications for the well-being of bicultural individuals.

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Introduction

Demographers project that in approximately 33 years, more than half of the U.S. population will be comprised of U.S.-born and foreign-born racial, ethnic, and/or cultural minorities (U.S. Census Bureau, 2008a). In many states (such as Texas, California, New Mexico, and Hawaii; U.S. Census Bureau, 2008b) and large metropolitan areas around the country (such as New York, Los Angeles, and Chicago; U.S. Census Bureau, 2007), this is already a demographic reality. These impressive statistics do not include European Americans who have internalized more than one culture due to migration, mixed social networks, inter-group marriage, or frequent travel. Throughout the world, more and more individuals are being extensively exposed to cultures other than their own due to globalization, migration, travel, and technological advances such as the internet. Such individuals who have been exposed to and have internalized more than one culture – their ethnic culture and a dominant culture, such as the Anglo American culture in the US – can be described as bicultural or multicultural. Clearly, biculturalism and multiculturalism are important and pervasive social phenomena, yet these phenomena have only begun to be investigated empirically (Benet-Martínez & Haritatos, 2005).

Biculturalism Defined

Loosely speaking, “bicultural” individuals include immigrants, refugees, ethnic minorities, sojourners, indigenous peoples, biracial individuals, individuals in interracial relationships, etc. (Berry, 2003; Padilla, 1994). These bicultural individuals are said to be undergoing acculturation, the process of adapting behaviorally and psychologically to a second culture, or in the case of those born into two cultures, learning and adapting to

two cultures. Individuals undergoing acculturation face two key issues: (1) the extent to which they are motivated (and/or allowed) to maintain their ethnic culture and identity; and (2) the extent to which they are motivated (and/or allowed) to be involved in the host culture (Berry, 2003).

Four acculturation strategies result from the negotiation of these two issues: assimilation, separation, integration (sometimes referred to as biculturalism), and marginalization. An individual who does not want to or cannot maintain his/her heritage culture and identity *but* seeks to have contact with the host culture is using the *assimilation* strategy. Conversely, an individual who seeks to maintain his/her heritage culture and identity *but* does not have a desire to or cannot interact with the host culture is using the *separation* strategy. One who wishes to or is allowed to maintain his/her heritage culture while interacting with the host culture is using the *integration* strategy. Finally, when one has no preference or opportunity for maintaining his/her heritage culture or for interaction with the host culture, he/she is using the *marginalization* strategy. Empirically, integration (or biculturalism) is the most widely endorsed and used strategy by bicultural individuals (Berry, 2003; Van Oudenhoven, Ward, & Masgoret, 2006).

Bicultural Identity Integration

Although research has shown that most individuals undergoing acculturation use the integration/biculturalism strategy, and despite the acknowledged importance of biculturalism and multiculturalism in society, there is little research exploring differences among those within that group (i.e., differences among biculturals; Benet-Martínez &

Haritatos, 2005). Such bicultural individuals face the challenge of negotiating between multiple, and sometimes conflicting, cultural identities and value systems in their everyday lives. Therefore, Benet-Martínez and colleagues proposed a theoretical framework for understanding individual differences in how these bicultural individuals cognitively and affectively organize their two cultural identities: *Bicultural Identity Integration* (BII; Benet-Martínez, Leu, Lee, & Morris, 2002). In other words, BII captures the degree to which bicultural individuals see their identities as compatible and integrated (high BII) or as oppositional and difficult to integrate (low BII).

In less than a decade, a series of studies has demonstrated that BII is a meaningful individual difference variable, having associations with important constructs. First, in terms of adjustment, those higher on BII were found to have greater well-being in samples of Mainland Chinese immigrants in Hong Kong, natives of Hong Kong, and natives of Mainland China (Chen, Benet-Martínez, & Bond, 2008). Furthermore, in a diverse sample of tricultural individuals (heritage culture, English Canadian culture, and French Canadian culture), those higher on Multicultural Identity Integration also have greater well-being (Downie, Koestner, ElGeledi, & Cree, 2004). Second, in terms of cognition, Chinese American bicultural individuals low on BII construe and represent cultures in a more cognitively complex (e.g., more abstract, more detailed) manner than those high on BII (Benet-Martínez, Lee, & Leu, 2006). Third, in terms of behavior, Chinese American bicultural individuals high on BII, as compared to those low on BII, have a more richly interconnected network of host-culture and ethnic-culture friends (Mok, Morris, Benet-Martínez, & Karakitapoglu-Aygün, 2007). In addition, it was found

that those higher on BII also had higher levels of creative performance in a sample of Asian American bicultural individuals (Cheng, Sanchez-Burks, & Lee, 2008). Finally, individuals high vs. low on BII respond to cultural cue or primes differently. Chinese American and other Asian American bicultural individuals high on BII respond to cultural cues in a culturally consistent manner (e.g., making internal attributions when primed with American culture and external attributions when primed with Chinese culture), but those low on BII respond in a reactive manner (e.g., external attributions in response to American primes and internal attributions in response to Chinese primes; Benet-Martínez et al., 2002; Cheng, Lee, & Benet-Martínez, 2006; Zou, Morris, & Benet-Martínez, 2008).

In addition to the above research on BII as a unitary construct, there is also a program of research delineating the two independent components of BII: *cultural blendedness vs. compartmentalization* and *cultural harmony vs. conflict* (Benet-Martínez & Haritatos, 2005). Cultural blendedness is the degree of overlap versus distance perceived between the two cultures (e.g., compartmentalization: “Biculturalism seems to me to be a dichotomy”). On the other hand, cultural harmony is the degree of compatibility versus tension perceived between the two cultures (e.g., conflict: “I feel like you have to choose one or the other”). Overall, cultural blendedness is the performance-related component of BII, whereas cultural harmony is the affective component of BII. More specifically, Benet-Martínez Haritatos (2005) found that for Chinese American bicultural individuals, lower cultural blendedness is linked to performance-related challenges (e.g., lower openness to new experiences, greater

language barriers, and living in more culturally isolated surroundings), whereas lower cultural harmony stems from strains that are largely interpersonal in nature (e.g., higher neuroticism, greater perceived discrimination, more strained intercultural relations, and greater language barriers).

Furthermore, for Vietnamese American bicultural individuals, cultural blendedness is associated with the commonly measured acculturation of behaviors, whereas cultural harmony is associated with the acculturation of values (Nguyen, Huynh, & Benet-Martínez, 2009). Bicultural individuals who performed behaviors associated with both cultures had blended identities, but those who only endorsed only one set of cultural values perceived greater cultural harmony. The link between values and cultural harmony is also supported in a study of Chinese bicultural individuals by Ward (2008), who refers to high cultural harmony as low ethno-cultural identity conflict.

Cultural blendedness also has been shown to influence bicultural individuals' perceptions. Latino bicultural individuals high on cultural blendedness perceived the personalities of the self, a typical Latino, and a typical American to be overlapping and more similar to each other (Miramontez, Benet-Martínez, & Nguyen, 2008). Moreover, Asian American bicultural individuals high on cultural blendedness perceived persuasive appeals that contained messages targeted toward both Asians and Americans more favorably than did those low on cultural blendedness (Lau-Gesk, 2003). These findings suggest that cultural blendedness is concerned with the structure and organization of dual cultures.

In comparison, cultural harmony is related to one's attitudes and feelings toward one's cultures. In terms of interpersonal relations, for Chinese bicultural individuals in New Zealand and Singapore, greater cultural harmony (or lower ethno-cultural identity conflict) is predicted by less perceived discrimination, higher quality and greater frequency of contact with dominant group members, and greater perceived permeability of intercultural group boundaries (Leong & Ward, 2000; Lin, 2008; Ward, 2008). Regarding adjustment, across multiple studies with Chinese in New Zealand and Singapore, Chinese American, Mexican American, and other bicultural individuals, greater cultural harmony (not cultural blendedness) predicted lower depression and anxiety, and greater life satisfaction and sociocultural adjustment (Benet-Martínez, Haritatos, & Santana, 2009; Ward, 2008). In addition, greater cultural harmony (or lower ethno-cultural identity conflict) was predicted by the affective component of ethnic identity (Lin, 2008), thus lending further support for cultural harmony is as the affective component of BII.

Despite the progress made toward a deeper understanding and more thorough development of the construct of BII, there is one undeniable limitation of the research thus far: the homogeneity of the samples used. As illustrated above, all but two studies on BII used an Asian/Asian American (usually Chinese/Chinese American) sample. Consequently, it is uncertain what the structure of and associations with BII are for bicultural individuals from other ethnic groups. Therefore, the primary goal of my dissertation is to test BII theory with an ethnically diverse sample of bicultural individuals.

Measurement of Bicultural Identity Integration

Bicultural Identity Integration Scale–Pilot Version. The Bicultural Identity Integration Scale–Pilot Version (BIIS-P) is a short vignette rated on an 8-point Likert-type scale (1 = *definitely not true*, 8 = *definitely true*). This measure of BII was used in the first study of BII (Benet-Martínez et al., 2002), and it assesses the perceived opposition and distance between two cultures in a multi-statement paragraph. The vignette read as follows,

I am a bicultural who keeps American and Chinese cultures separate and feels conflicted about these two cultures. I am simply a Chinese who lives in America (vs. a Chinese-American), and I feel as someone who is caught between two cultures. (p. 498)

Using the BIIS-P, Benet-Martínez et al. (2002) found that bicultural individuals high on BII responded to cultural cues in an appropriate manner (e.g., they responded to Chinese cultural cues with external attributions of behavior in ambiguous situations), whereas bicultural individuals low on BII responded to cultural cues in a culturally incongruent manner (e.g., they responded to Chinese cultural cues with internal attributions of behavior in ambiguous situations). Although this measure had high face validity with respondents, it confounded the two dimensions of BII, cultural blendedness vs. compartmentalization and cultural harmony vs. conflict, by requiring participants to rate a statement that contains both ideas. Therefore, Benet-Martínez and Haritatos (2005) developed the next measure of BII, the Bicultural Identity Integration Scale–Version 1 (BIIS-1).

Bicultural Identity Integration Scale–Version 1. The BIIS-1 is an eight-item measure of BII harmony vs. conflict and blendedness vs. compartmentalization (Benet-

Martínez & Haritatos, 2005). There are four items assessing cultural harmony vs. conflict, and four items assessing cultural blendedness vs. compartmentalization. These items are rated on a 5-point Likert-type scale (1 = *strongly disagree*, 5 = *strongly agree*). Cultural harmony and cultural blendedness were independent components of BII, and they were related to important contextual and personality variables.

Although the BIIS-1 was adequately internally consistent (Cronbach's alphas for the cultural harmony and cultural blendedness components were .74 and .69, respectively), I wanted to increase the reliability of scores for this instrument. In addition, I was concerned that the few items assessing each dimension of BII were not adequately covering all relevant content domains of BII. Therefore, the secondary goal of my dissertation is to improve the measurement of BII by developing and validating the Bicultural Identity Integration Scale–Version 2 (BIIS-2).

Overview of Dissertation Studies

The overarching goals were to refine and expand the measurement of BII and gather more evidence of construct validity in an ethnically diverse sample of respondents from different generation groups. Following standard procedures for a construct-based approach to psychological instrument development (Crocker & Algina, 1986; Nunnally & Bernstein, 1994), there were three parts to the development and evaluation of the BIIS-2: item generation (Study 1), item evaluation and pilot testing (Studies 2a and 2b), and validation (Study 3). In all studies (except Study 2a), bicultural undergraduate students at a large, public university on the West Coast were recruited for participation with two criteria: (1) they must self-identify as “bicultural” and (2) if they were born outside the

US, they must have lived in the country of birth and in the US for at least 5 years each. I required that foreign-born bicultural participants have lived in both cultures for at least 5 years each to ensure that they have had sufficient time to internalize both cultures (Benet-Martínez & Haritatos, 2005). I examined BII in ethnically diverse participant groups because (a) I was interested in how *all* individuals who have internalized two cultures organize and negotiate their dual identities, (b) I was interested in extending the findings of past studies on mostly first-generation Chinese Americans (see Benet-Martínez & Haritatos, 2005; Benet-Martínez et al., 2009; Benet-Martínez et al., 2002; Hong, Morris, Chiu, & Benet-Martínez, 2000) to bicultural individuals of diverse generation and ethnic backgrounds, and relatedly (3) I was interested in testing measurement invariance across several generational and ethnic groups.

Study 1: Content Domain and Item Generation

Study 1 consisted of content and item generation via qualitative methods (i.e., open-ended essays). Qualitative exploration of BII is not only helpful in item generation, it also helps to broaden, refine, or verify the view of the construct of interest (Crocker & Algina, 1986). As noted earlier, the current measure of BII (the BIIS-1) has two dimensions, *cultural blendedness vs. compartmentalization* and *cultural harmony vs. conflict*, each with four items. The BIIS-1 has only acceptable score reliability, so increasing the number of items within each dimension could increase its internal consistency reliability. In addition, I was interested in exploring whether the BIIS-1 adequately measures the construct of BII, as there may be more issues related to the negotiation of two cultural identities that are not assessed by the BIIS-1 (e.g., perceptions

of compatibility between the two cultures as part of the harmony vs. conflict dimension, feelings of belongingness to both cultures as part of the blendedness vs. compartmentalization dimension).

First, I estimated the number of items needed to reach a desired internal consistency reliability level of at least .80 using the Spearman-Brown reliability formula (Rosenthal & Rosnow, 1991, p. 48). Currently, Cronbach's alpha for the cultural blendedness vs. compartmentalization dimension = .69, and the cultural harmony vs. conflict dimension = .74. If I doubled the number of items for each dimension (from four to eight items), then the reliability of the cultural blendedness vs. compartmentalization dimension would increase to .82, and the reliability of the *cultural harmony vs. conflict* dimension would increase to .85. The Spearman-Brown reliability computations were done with the assumption that the new items will be relevant to BII and will cover more content area based on the qualitative data collected in Study 1, but they will not be repetitive of the current items.

In addition to adding more items to the two existing dimensions of BII, I expect that at least one more dimension of BII capturing individual differences in the *clarity vs. ambivalence* of one's bicultural identity will emerge based a review of previous qualitative data (Benet-Martínez & Haritatos, 2005) and well-established self-concept theory (Campbell, 1990). Within these data, there are indications that some bicultural individuals feel confused or uncertain about their bicultural identities (status and nature) and express ideas such as: "I am uncertain as to what being bicultural means" or "Being bicultural is confusing" vs. "I clearly understand my bicultural identity." This dimension

is expected to be different from harmony vs. conflict, which captures feelings about compatibility or clashes associated with being bicultural, and blendedness vs. compartmentalization, which captures how a bicultural individual organizes his/her two cultures. I sought to explore this possible new dimension in this qualitative study. In summary, the goals of Study 1 were to verify and broaden the current two dimensions of BII and to explore a possible third dimension.

Method

Participants

To assist in content domain assessment and item generation, 108 bicultural undergraduate students were recruited to participate in Study 1. Table 1 shows participant characteristics. Approximately half (56.70%) of the participants were women, and the mean age of the sample was 19.34 years. The majority of participants were either Latinos/as (52.53%) or Asian Americans (37.37%), and most (60.61%) participants were second-generation Americans (i.e., born in the US of parents who were born abroad). Moreover, the majority of participants were either college sophomores (44.44%) or juniors (27.27%).

Materials

Participants were given a packet with five open-ended questions about their experiences as bicultural individuals (how they act, think, and feel as a bicultural individual, and whether they have come to any conclusions about being bicultural; see Appendix A). These questions were designed to provoke detailed responses about the experience of biculturalism without any reference to BII or its components. Participants

also answered several basic demographic questions after responding to the open-ended questions.

Procedure

Participants were recruited from the psychology subject pool at a large, public university on the West Coast. They were asked to hand-write their responses to the open-ended questions and the demographic items. They were given 30 minutes to complete the task.

Results and Discussion

The open-ended responses were entered into a word processing program and then Microsoft Excel for analysis. First, all of the responses were read, and I looked for themes regarding the negotiation of two cultural identities. The major themes that emerged included cultural harmony, cultural conflict (i.e., opposite of cultural harmony), cultural blendedness, cultural compartmentalization (i.e., opposite of cultural blendedness), identity clarity, identity ambivalence (i.e., opposite of identity clarity), pride, benefits of being bicultural, and problems with being bicultural.

Second, for the purposes of this study, I coded responses to two items: feelings about being bicultural ($N = 108$), and conclusions about being bicultural ($N = 104$) for the presence or absence of the major themes that emerged from a careful readings of the responses. Responses to the other three open-ended questions were not coded because they elicited mostly answers that were similar to or repetitive of the two coded items *or* answers that did not contain useful information (e.g. “I don’t know” or “I’m not sure”). A response was coded as having a certain theme if that theme appeared at least once within

the response, but the number of times a theme occurred within a response was not coded (e.g., if a participant mentioned cultural conflict between his/her two cultures twice in response to an item, that response was coded as having cultural conflict present). The definition of each coded dimension appears in Appendix B.

Overall, responses to the two open-ended items about the bicultural experience contained BII themes of cultural blendedness vs. compartmentalization (in approximately half of the responses) and cultural harmony vs. conflict (in approximately one third of the responses). Table 2 shows the number of times each theme appeared in these responses. In comparison to the themes of cultural blendedness vs. compartmentalization and cultural harmony vs. conflict, themes of identity clarity vs. ambivalence appeared more frequently in the participants' open-ended responses (in approximately three fourths of the responses; see Table 2). Furthermore, despite prevalent themes of cultural conflict, cultural compartmentalization, and identity ambivalence, the responses to these two items were overwhelmingly more positive in tone ($N = 123$) than negative in tone ($N = 12$). Along the same lines, respondents mentioned internal and external benefits of being bicultural (in approximately 7 out of 10 responses) more frequently than they mentioned internal and external problems with being bicultural (in approximately 1 out of 5 responses).

Note that the frequencies shown in Table 2 are under-counts of the number of times cultural blendedness vs. compartmentalization and cultural harmony vs. conflict actually appeared in the responses because each theme was coded as present or not present within a response, and I did not count the frequency of each theme occurring in a

response. Therefore, one can conclude that, even by these conservative counts, BII cultural blendedness vs. compartmentalization and cultural harmony vs. conflict are highly relevant and salient in the actual experiences of bicultural college students. They spontaneously appear in open-ended responses about the overall bicultural experience, without having been imposed by the researcher as specific questions or items to be rated. In addition, identity clarity vs. ambivalence may be another issue that is relevant to individuals as they negotiate their two cultural identities, and it may be a third dimension of BII. Also of notable interest is that bicultural college students also viewed being bicultural as having more benefits than problems, and overall they wrote about the experience of being bicultural in more positive than negative terms.

Based on the themes that appeared in these qualitative data and on the actual responses, I generated new BII items (see Table 3 for items). A new dimension of BII, identity clarity vs. ambivalence, was added because it emerged as a theme from the open-ended responses. Approximately half of the items were reverse-scored to prevent acquiescence. The new items were examined to ensure that they are not double-barreled, that there are no double negatives and no false premises, and that there are no leading or loaded items (McIntire & Miller, 2000). Next, the newly generated items along with BIIS-1 items were evaluated by subject matter experts and then pilot tested using the think-aloud method with bicultural undergraduate students in Study 2.

Study 2a: Item Evaluation

In Study 2, subject-matter experts (SMEs; Crocker & Algina, 1986) evaluated the set of 40 old and new BII items (Study 2a), and then these items were pilot tested using

the think-aloud method (or retrospective verbal protocol; Sudman, Bradburn, & Schwarz, 1996) on a small sample of undergraduate students (Study 2b). Psychological scaling methods allow SMEs to rate the items for their relevance to the construct being measured. I was interested in how each item is rated by all the raters, not in each rater's responses (i.e., the unit of analysis was the item, not the rater).

Method

Participants

SMEs ($N = 23$) were psychology faculty and graduate students whose areas of expertise include biculturalism, acculturation, identity, and/or cross-cultural or cultural psychology. These SMEs were chosen based on their research expertise as well as their familiarity with BII so that they can rate accurately the relevance of each item to the construct and distinguish it from related but distinct constructs (e.g., ethnic identity). Table 1 shows participant characteristics. The majority of participants (74%) were women between 18 and 40 years old. Approximately half of the sample (52%) had a Ph.D. or other doctoral degree in psychology.

Materials

The on-line survey was hosted by SurveyMonkey.com, and it consisted of the 40 BII items and several demographic items. The survey was divided into six sets of items, one for each sub-dimension of BII (i.e., cultural harmony, cultural conflict, cultural blendedness, cultural compartmentalization, identity clarity, and identity ambivalence). Within each set of items, the definition of the particular sub-dimension was given, along with the items for that sub-dimension. Participants rated the relevance of each item to its

BII sub-dimension on a 5-point Likert-type scale (0 = *not at all relevant*, 4 = *extremely relevant*). In addition, there was an open-ended item requesting comments and suggestions from participants. Finally, there were basic demographic questions about sex, age range, education, occupation, name, institutional affiliation, and research expertise.

Procedure

The SMEs were recruited via E-mail and letters and given 30 days to complete the online survey. I sent a reminder E-mail to all potential participants 1 week before the end of the 30-day survey period. The response rate from the original list of potential participants was 18 out of 29 (or 62%), but some of the participants forwarded my request to their colleagues and students, 5 of whom also completed the survey (final $N = 23$). All participants accessed the survey through SurveyMonkey.com. The program did not allow participants to skip any items except the open-ended comments and suggestions portions. The total time spent on the ratings by each participant was 15-20 minutes.

Results and Discussion

SME ratings were averaged for each item (Table 3). To identify items that received low ratings from SMEs, I used the Content Validity Ratio (CVR; Lawshe, 1975). The CVR formula quantifies the relevance of each item using the number of SMEs rating the item as “relevant” (i.e., items rated as 2 = *relevant*, 3 = *very relevant*, or 4 = *extremely relevant* in my study) and the total number of SMEs making ratings. Lawshe provides a table of critical CVR values for $p < .05$ that concurrence among the SMEs occurred by chance. Using this table, I identified the items that did not meet the

critical CVR value ($CVR_{\text{critical}} = 0.39$ for $N = 23$, $p < .05$). Table 3 shows all items and their CVRs. Of the 40 items, 5 items did not meet the critical CVR.

In addition to computing the CVR for individual BII items, I also computed the Content Validity Index (CVI; Lawshe, 1975) to quantify content validity for the entire set of items. The CVI is the average of CVR values for all items (including the four items that did not meet the minimum CVR cut-off in my study because I am retaining them for pilot testing and validation). In this study, $CVI = 0.72$, indicating that as a whole, the BII items were judged to be relevant to the construct.

Although some items received low ratings from SMEs (mean rating ≤ 2.00 or $CRV < 0.39$), none were eliminated before pilot testing (next step) and validation (Study 3) because I also was interested in how college students would respond to them (recall that SMEs were graduate students and faculty who are experts in this area of research, so their perspectives and responses to the BII items may differ from responses by college students). Therefore, I modified the wording of some items according to SME suggestions and comments for use in pilot testing. I also added some items based on SME suggestions (total number of items now = 45). After collecting validation data (Study 3), I will eliminate items that received low ratings from SMEs *and* do not perform well in exploratory and confirmatory factor analyses, item analyses, and internal consistency reliability analyses.

Study 2b: Pilot Testing

I pilot tested the new BII items using the think-aloud method (or retrospective verbal protocol; Sudman, Bradburn, & Schwarz, 1996) to ensure that all items are clear

and accurate before collecting validation data on the instrument. Such cognitive interviews have been used in developing and assessing self-report questionnaires to understand how respondents formulate answers and to illuminate problems inherent in the instrument. They are also helpful in examining whether the respondents' understanding of the items match the intention of the test developer.

Method

Participants

Participants in the think-aloud pilot testing were bicultural undergraduate psychology research assistants at the same large, public university on the West Coast ($N = 5$). I chose to use undergraduate bicultural participants in this pilot test because they are the population of interest for the validation study, and I was interested in how this group would respond to the items, some of which have been modified according to SME ratings. All were female college juniors or seniors. They were an ethnically diverse group, consisting of 1 Asian American, 1 European American, 1 Latina, and 2 Middle Eastern Americans. Two of the 5 participants were first-generation Americans (ages of arrival in the US = 2 years and 7 years), and the other 3 participants were second-generation Americans.

Materials and Procedure

All 45 old and new BII items were administered verbally to the participants. They were asked to verbally rate each item on a 5-point Likert-type scale (1 = *strongly disagree*, 5 = *strongly agree*) and to rate their level of confidence in their rating of the item (1 = *not at all confident*, 5 = *very confident*). In addition, they were asked to

vocalize their thoughts and possible confusion about each item. All interviews were recorded using a digital voice recorder and then transcribed by a research assistant. Respondents also answered several basic demographic questions after the think-aloud portion.

Results and Discussion

Using feedback from participants in the think-aloud pilot tests, I revised the wording of some BII items. The majority of items were deemed clear and accurate, and they were not modified. Next, the final version of the BIIS-2 after SME ratings and pilot testing is administered to a large sample of bicultural undergraduate students.

Study 3: Validation

The purpose of Study 3 was to gather evidence of score reliability and test-retest stability, examine the measurement model for BII using exploratory and confirmatory factor techniques, and examine convergent and discriminant validity for BII. In addition, I tested a path model involving BII. To this end, I administered the BIIS-2 along with several other psychological instruments to a large, diverse sample of university students.

I hypothesized that the BIIS-2 would consist of two factors (cultural blendedness and cultural harmony), and that the scale would yield reliable and valid scores, replicating previous findings on BII. Specifically, as Benet-Martínez and Haritatos (2005) found, I hypothesized that cultural blendedness would be related to traditional acculturation variables (more years in the US, higher English language proficiency and use, lower other language proficiency and use, stronger U.S. cultural identification, greater bicultural competence, and weaker separation attitudes), greater openness to

experience, and fewer contextual challenges (fewer language barriers and more culturally diverse surroundings). In terms of cultural harmony, as Benet-Martínez and Haritatos (2005) found, I hypothesized that it would be related to lower neuroticism and fewer acculturation stressors (less perceived discrimination, better intercultural relations, fewer language barriers, and more culturally diverse surroundings). Furthermore, replicating findings by Benet-Martínez et al. (2009) and Ward (2008), I hypothesized that cultural harmony would be related to better adjustment (greater well-being, fewer psychological symptoms). I also hypothesized that cultural harmony would be positively related to the affective component of ethnic identity (i.e., ethnic identity affirmation) as reported by Lin (2008). Extending research on BII, I will explore relationships between the BII dimensions and physical health and healthy behaviors. I had no specific hypotheses about these domains of adjustment because the research on biculturalism in this area has yielded mixed results, according to a recent meta-analysis (Nguyen & Benet-Martínez, 2009).

For the path analysis, I hypothesized that my model will replicate the model found in Benet-Martínez and Haritatos (2005; see Figure 4). Overall, the model contains paths reflecting the relationships stated above as well as the following indirect paths: (a) from openness to cultural blendedness through language barriers, separation attitudes, and bicultural competence; (b) from extraversion to cultural blendedness through cultural isolation; (c) from neuroticism to cultural harmony through intercultural relations and language barriers; and (d) from agreeableness to cultural harmony through intercultural relations. To fully reflect BII theory, I hypothesized that all domains of acculturation

stress would have negative paths to cultural harmony, thus adding a path from cultural isolation to cultural harmony and adding work challenges to the model. In addition, to better reflect BII theory, I hypothesized that there would also be a positive path from integration attitudes to cultural blendedness. Although culture orientations and ethnic identity have not been examined in relation to BII, based on the findings that cultural blendedness is predicted by traditional acculturation variables, I hypothesized that ethnic identity (as a global construct) and both (mainstream and heritage) culture orientations would have positive paths to cultural blendedness. In addition, based on previous findings regarding the inverse relationship between the affective component of ethnic identity and identity conflict (Lin, 2008), I hypothesized that ethnic identity affirmation would have a positive path to cultural harmony. Furthermore, based on Benet-Martínez et al.'s (2009) findings, I hypothesized that cultural harmony, as well as lower neuroticism, will have direct paths to greater general well-being, lower depression, lower anxiety, and lower hostility. Finally, expanding on BII research, I will test paths from the BII dimensions to physical health and healthy behaviors.

Method

Participants

Study participants ($N = 1049$) were bicultural individuals from the psychology subject pool at the same large, public university on the West Coast. All participants met two criteria: (1) they must self-identify as “bicultural” and (2) if they were born outside the US, they must have lived in the country of birth and in the US for at least 5 years each. Sample demographic characteristics appear in Table 1. Approximately half of the

participants (55.5%) were women. The mean age of the sample was 19.3 years, and study participants were relatively evenly distributed across years in school. The majority of participants were either Latinos/as (32.1%) or Asian Americans (48.6%), and most participants were either first (34.6%, mean years in the US = 10.6 years) or second (55.9%) generation Americans.

Materials

Participants completed a questionnaire packet consisting of measures of acculturation, identity, personality, psychological and physical well-being, and a detailed demographics questionnaire. A brief description of each measure follows.

Acculturation Measures

Vancouver Index of Acculturation. The Vancouver Index of Acculturation (VIA; Ryder, Alden, & Paulhus, 2000) consists of 20 items rated on a 9-point Likert-type scale (1 = *strongly disagree* to 9 = *strongly agree*). The VIA assesses the extent to which respondents participate in and identify with their *non-dominant/heritage culture* (10 items; e.g., “I believe in the values of my heritage culture”) and the *dominant/mainstream culture* (10 items; e.g., “I am interested in having American friends”). The score for each VIA dimension is obtained by averaging responses to all items in the dimension; hence, an individual’s score can range from 1 (low heritage or mainstream culture orientation) to 9 (high heritage or mainstream culture orientation).

Cultural identification. In addition to the VIA (Ryder et al., 2000), participants also responded to two separate items assessing their strength of identification with U.S.-American culture and their heritage culture. Each item is rated on a 6-point Likert-type

scale (1 = *very weak*, 6 = *very strong*). These items were used as the acculturation instrument in previous BII studies (Benet-Martínez & Haritatos, 2005; Benet-Martínez et al., 2002), and they will supplement the VIA in this study.

Bicultural Competence. I computed bicultural competence scores using composites of cultural identification (American and other) and language proficiency and use (American and other) scores. High bicultural competence is defined as strong and equal involvement with and comfort in two cultures (e.g., American and Chinese) in terms of identification and behavioral skills, whereas low bicultural competence is defined as more strong involvement with and comfort in one or the other culture, or moderate-low involvement in both cultures (LaFromboise, Coleman, & Gerton, 1993). I first computed two separate cultural orientation scores using cultural identification and language scores. With these composite cultural orientation scores, I created a dichotomous (high vs. low) bicultural competency score. Respondents who scored at or above the median for *both* the American and other culture orientation scores were categorized as high on bicultural competence ($n = 195$), and the rest of the sample was categorized as low on bicultural competence ($n = 848$).

Acculturation Attitudes. The Acculturation Attitudes Measure (Berry, Kim, Power, Young, & Bujaki, 1989) consists of 20 items rated on a 5-point Likert-type scale (1 = *strongly disagree* to 5 = *strongly agree*). This is a measure of the four acculturation strategies: assimilation, integration/biculturalism, separation, and marginalization. Endorsement of each strategy is measured across five life domains: *marriage* [e.g., “I would rather marry a Chinese than an American” (separation)], *cultural traditions* [e.g.,

“I feel that Chinese should adapt to American cultural traditions and not maintain their own” (assimilation)], *language* [e.g., “It’s important to me to be fluent in both Chinese and English” (integration)], *social activities* [e.g., “I prefer social activities that involve neither Americans nor Chinese” (marginalization)], and *friends* [e.g., “I prefer to have both Chinese and American friends” (integration)]. The score for each strategy is obtained by averaging responses to all items in the dimension; hence, an individual’s score can range from 1 (low endorsement of a strategy) to 5 (high endorsement of a strategy).

Riverside Acculturation Stress Inventory. The Riverside Acculturation Stress Inventory (RASI; Benet-Martínez & Haritatos, 2005) consists of 15 items rated on a 5-point Likert-type scale (1 = *strongly disagree* to 5 = *strongly agree*). The RASI assesses culture-related challenges in the following five life domains: *language barriers* (e.g., “I often feel misunderstood or limited in daily situations because of my English skills”), *work challenges* (e.g., “I feel the pressure that what ‘I’ do will be seen as representative of my ethnic/cultural group’s abilities”), *intercultural relations* (e.g., “I feel that my particular cultural/ethnic practices have caused conflict in my relationships”), *discrimination* (e.g., “I have been treated rudely or unfairly because of my cultural/ethnic background”), and *cultural isolation* (e.g., “I feel that there are not enough people of my own ethnic/cultural group in my living environment”). The acculturation stress score for each life domain is obtained by averaging responses to all items in the domain; hence, an individual’s score can range from 1 (low acculturation stress in a domain) to 5 (high acculturation stress in a domain).

Identity Measures

Bicultural Identity Integration Scale–Version 2. The Bicultural Identity Integration Scale–Version 2 (BIIS-2; see Table 3) is the measure to be validated, and it is a 45-item instrument assessing how bicultural individuals cognitively and affectively organize their two cultural identities. Currently, it consists of two independent dimensions, cultural blendedness vs. compartmentalization (13 items) and cultural harmony vs. conflict (19 items). All items are rated on a 5-point Likert-type scale (1 = *strongly disagree* to 5 = *strongly agree*). The score for each BII dimension is obtained by averaging responses to all items in the dimension; hence, an individual's score can range from 1 (low on BII dimension) to 5 (high on BII dimension).

Multigroup Ethnic Identity Measure–Revised. The Multigroup Ethnic Identity Measure–Revised (MEIM-R; Roberts, Phinney, Masse, Chen, Roberts, & Romero, 1999) consists of 12 items rated on a 5-point Likert-type scale (1 = *strongly disagree* to 5 = *strongly agree*). The MEIM-R assesses two components of ethnic identity, *exploration* (exploration of and involvement in one's ethnic group; e.g., "I think a lot about how my life will be affected by my ethnic group membership") and *affirmation/belonging* (commitment and sense of belonging to an ethnic group, pride and positive feelings about the group; e.g., "I have a strong sense of belonging to my own ethnic group"). Scores for each MEIM-R dimension is obtained by averaging responses to the items; hence, an individual's score can range from 1 (low exploration or affirmation/belonging) to 5 (high exploration or affirmation/belonging).

Ethnic Identity Scale. The Ethnic Identity Scale (EIS; Umaña-Taylor, Yazedjian & Bamaca-Gomez, 2004) consists of 17 items rated on a 4-point Likert-type scale (1 = *does not describe me at all* to 4 = *describes me very well*). The EIS assesses three components of ethnic identity: *exploration* (degree to which one has explored ethnicity; e.g., “I have participated in activities that have exposed me to my ethnicity”), *resolution* (degree to which one has resolved what ethnicity means to him/her; e.g., “I know what my ethnicity means to me”), and *affirmation* [the positive or negative affect that one associates with that resolution; e.g., “I feel negatively about my ethnicity” (reverse scored)]. Scores for each EIS dimension is obtained by averaging responses to the items; hence, an individual’s score can range from 1 (low exploration, resolution, or affirmation) to 5 (high exploration, resolution, or affirmation). Scores on the three EIS dimensions also can be used to classify respondents into 1 of 8 types of identity (positive or negative diffused, positive or negative foreclosed, positive or negative moratorium, and positive or negative achieved), which is a typology Umaña-Taylor et al. (2004) proposed based on ego identity (Erikson, 1993) and social identity theories (Tajfel, 1974).

Personality Measure

Big Five Inventory. The Big Five Inventory (BFI; Benet-Martínez & John, 1998) contains 44 short phrases rated on a 5-point Likert-type scale (1 = *disagree strongly* to 5 = *agree strongly*). These items assess the most prototypical traits associated with each of the Big Five basic personality dimensions (John, 1990): *extraversion* (e.g., “I see myself as someone who is talkative”), *agreeableness* (e.g., “I see myself as someone who is

considerate and kind to almost everyone”), *conscientiousness* (e.g., “I see myself as someone who does a thorough job”), *neuroticism* (e.g., “I see myself as someone who worries a lot”), and *openness* (e.g., “I see myself as someone who is inventive”). The score for each personality trait is obtained by averaging responses to all items for the trait; hence, an individual’s score can range from 1 (low on a trait) to 5 (high on a trait).

Psychological and Physical Well-Being Measures

General Well-Being Schedule. The General Well-Being Schedule (GWBS; Dupuy, 1984; Fazio, 1977) consists of 18 items rated on a 6-point or 11-point Likert-type scale with varying response options. It was used to assess perceived positive psychological adjustment (e.g., “During the past 7 days, including today, has your daily life been full of things that were interesting to you?”). A score for general well-being is obtained by summing responses to all items, and an individual’s score can range from 0 (lowest perceived psychological well-being) to 110 (highest perceived psychological well-being).

Symptoms Checklist–Revised. The Symptoms Checklist–Revised (SCL-90R; Derogatis & Lazarus, 1994) is a symptoms inventory that asks respondents to rate their level of distress during the previous 7 days, including the day of the study, on a 5-point Likert-type scale (0 = *not at all* to 4 = *extremely*). In this study, I administered items from the *anxiety* subscale (e.g., “Nervousness or shakiness inside”), *depression* subscale (e.g., “Feeling low in energy or slowed down”), and *hostility* subscale (e.g., “Getting into frequent arguments”). There are 29 items in total in these three subscales of the SCL-90R. A score for each symptoms subscale is obtained by averaging responses to all items

for the subscale; hence, an individual's score can range from 1 (low anxiety, depression, or hostility) to 5 (high anxiety, depression, or hostility).

Short Form–12 Health Survey. The Short Form–12 Health Survey (SF12-H; Ware, Jr., Kosinski, & Keller, 1996) consists of 22 items rated on Likert-type scales with varying response options. The SF12-H assesses physical and mental health over the course of the last month to a year (e.g., “In general, would you say your health is...”). There were also items assessing health behaviors, including safer-sex practices and substance use (e.g., “Within the past month, how frequently have you used these substances...”). Higher summed scores indicate higher mental and physical health and more health behaviors.

Demographics Questionnaire

The demographics questionnaire asked respondents for basic background information, including language use and ability (for English and one other language); sex; age; annual household income; ethnicity; country of birth for respondent, respondent's mother, and respondent's father; generation status; and years spent in the US (first generation participants only) and in other countries.

Procedure

Participants meeting study criteria [(1) self-identified as “bicultural” and (2) if born outside the US, have lived in the country of birth and in the US for at least 5 years each)] were recruited to take part in this study via an on-line research management system for the psychology department subject pool at the university. They completed paper-and-pencil versions of all the measures described above. The study took place in a

classroom-like setting, and it lasted approximately 50-75 minutes. Participants completed the study individually or in groups of up to 10 people. A subset of participants ($n = 240$) voluntarily returned to complete the test-retest portion of the study between 5-10 days ($M = 6.9$, $SD = 0.9$ days) after the first session.

Results and Discussion

Using the dataset described above, I examined the score reliability and validity of the BIIS-2. In other words, I conducted exploratory factor analyses with the BIIS-2 items to select the final items, and I verified the factor structure of the BIIS-2 using confirmatory factor analyses (CFAs) and multi-group confirmatory factor analyses (MGCFA). Before examining the relations between BII and other variables, I examined the internal consistency and test-retest stability of the BIIS-2. Moreover, I gathered evidence for the convergent and discriminant validity of the BIIS-2. Finally, I tested several path models involving predictors and outcomes of BII.

Exploratory Factor Analyses

First, I conducted principal axis factoring analyses on the initial 45 BIIS-2 items using a randomly selected subset of 600 participants. For these analyses, I chose a promax rotation because cultural harmony and cultural blendedness, intended to capture two dimensions of the same construct, should be allowed to correlate. Based on BII theory and the scree plot, I requested three factors. These three factors had eigenvalues greater than 1.00 and accounted for 41.20% of the cumulative variance explained. The factors represented cultural conflict vs. harmony, cultural blendedness vs. compartmentalization, and identity clarity vs. ambivalence. However, approximately half

of the identity clarity vs. ambivalence items had double loadings on the cultural conflict vs. harmony factor; therefore, I chose to disregard the identity clarity vs. ambivalence dimension for the purposes of this dissertation study and eliminate the identity clarity vs. ambivalence items from the BIIS-2.

As a result, I conducted additional principal axis factoring analyses with a promax rotation on the remaining 32 items (i.e., items for cultural blendedness vs. compartmentalization and cultural harmony vs. conflict only, see Table 4 for these 32 items and factor loadings). Based on BII theory and the scree plot, I requested two factors. These two factors had eigenvalues greater than 1.00 and accounted for 38.76% of the cumulative variance explained. Based on the factor analytic results, I dropped items that had low factor loadings (item 31), were poorly worded and did not seem to accurately capture the ideas I intended after more careful review (items 1, 3-4, 12, 14, 16-7, 19, 22, and 28), or loaded on both factors but it was not reasonable to put them on the higher loading factor (items 18 and 30; see Table 4). Two items (items 27 and 29) were retained despite their poor loadings because they were old items from the BIIS-1.

The final 19 items were again subjected to principal axis factoring with a promax rotation. The resulting two factors (cultural conflict vs. harmony and cultural blendedness vs. compartmentalization) accounted for 44.60% of the cumulative variance explained. The cultural conflict vs. harmony factor included 10 items, and the cultural blendedness vs. compartmentalization included 9 items. (Item 32 was retained on the blendedness vs. compartmentalization dimension despite its high loading on the harmony vs. conflict dimension because it was written to capture bicultural compartmentalization, and it was

rated favorably by SMEs in Study 2a and clearly understood by undergraduate pilot testers as an item about compartmentalization in Study 2b.) See Figure 1 for the scree plot, Table 5 for the final BIIS-2 items and factor loadings, and Table 6 for factor loadings by ethnicity. These final 19 items were written based on qualitative data (Study 1), evaluated by SMEs and a pilot sample (Study 2), and performed as expected in principal axis factoring. This new version of the BII measure covers more content area than the previous BIIS-1, which had only 8 items and relatively low reliability coefficients. Next, I performed confirmatory factor analyses (CFAs) to confirm and replicate this two-factor model.

Confirmatory Factor Analyses

Second, to test whether the two-factor model found in exploratory analyses fit the data in an independent sample, I conducted CFAs (using *Mplus* 5.1 software) on the final 19 BIIS-2 items using the remaining 449 participants. Due to the large number of BIIS-2 items, I created parcels, which would increase the likelihood of obtaining a simple structure solution. Because there were unequal numbers of items per dimension, I used the internal-consistency (unidimensional) method, instead of the more widely preferred domain-representative method, to create parcels (Kishton & Widaman, 1994). I created four parcels for the cultural conflict vs. harmony factor and three parcels for the cultural blendedness vs. compartmentalization factor. For each factor, I randomly assigned items to parcels, then examined internal consistency for each parcel and modified the parcels as needed to have alphas $\approx .60$. This method ensures that the items within each parcel are adequately correlated with each other while still being correlated to items on other

parcels. See Table 7 for the reliability coefficients and descriptive statistics of these parcels.

I hypothesized that a two-factor model, with one factor for cultural harmony vs. conflict and one for cultural blendedness vs. compartmentalization, would best fit the data. As indicated by the following fit indices, the two-factor model provided a good fit for the data: $\chi^2(13) = 18.02, p = .16$; CFI = 1.00; RMSEA = .03 (90% CI: .00-.06); SRMR = .03. (See Figure 2 for the two-factor model and standardized parameter estimates.) Furthermore, this theorized two-factor model fit the data significantly better than a one-factor model: $\Delta\chi^2(1) = 289.17, p < .0001$. In fact, the one-factor model fit the data poorly: $\chi^2(14) = 307.19, p < .0001$; CFI = .78; RMSEA = .22 (90% CI: .20-.24); SRMR = .12. (See Figure 3 for the one-factor model and standardized parameter estimates.) Therefore, I am confident that BII is comprised of two components (cultural harmony and cultural blendedness) as suggested by Benet-Martínez and Haritatos (2005) and is not a unitary construct as initially explained by Benet-Martínez et al. (2002).

Multi-group confirmatory factor analysis. My subsequent set of questions concerned measurement invariance of the BIIS-2; I wanted to test whether the two-factor model of BII applied to first- as well as second-generation participants and to Asian American as well as Latino participants (see Tables 9 and 10 for descriptive statistics and difference tests by ethnicity and generation status). To answer these questions, I conducted multi-group CFAs using *Mplus* 5.1 software. Prior to conducting the multi-group CFAs, I conducted separate CFAs for each group to determine whether the two-factor model is acceptable in each group alone. If the model fit the data, then I conducted

a test of configural invariance, which examines whether the groups have identical factor structures. If there was configural invariance, then I conducted a test of metric and scalar invariance, which examines whether the groups have equivalent factor loadings and intercepts, respectively.

Regarding generation status, overall fit statistics indicated good model fit for the two-factor solution for first- and second-generation participants separately (as shown in Table 8). Furthermore, BIIS-2 parcels loaded on the same factors for first- and second-generation participants (configural invariance). These parcels also had similar factor loadings (metric invariance) and intercepts (scalar invariance, meaning that the same observed score on a parcel for both groups would correspond to the same level of cultural harmony or cultural blendedness). With regard to ethnicity, overall fit statistics indicated good model fit for the two-factor solution for Asian Americans and Latinos separately (as shown in Table 8). As with generation status, BIIS-2 parcels loaded on the same factors for both groups (configural invariance), and these parcels had similar factor loadings (metric invariance) and intercepts (scalar invariance).

Validity

Third, I examined convergent and discriminant validity by correlating BIIS-2 scores with the acculturation, identity, personality, mental health, and physical health variables measured in this study. However, before examining the validity of the BIIS-2, it is necessary to first establish score reliability. Both the cultural harmony ($\alpha = .86$) and cultural blendedness ($\alpha = .81$) subscales had good internal consistency. Furthermore, both

subscales were shown to have test-retest stability: $r_{\text{harmony}} = .77$ and $r_{\text{blendedness}} = .74$ ($n = 240$, range = 5 to 10 days after the first session, $M = 6.9$, $SD = 0.9$ days).

Cultural harmony and cultural blendedness are distinct components of BII with different sets of antecedents and consequences. [Note: Due to the large sample size, which makes even very small correlations significant, I will interpret correlations based on their effect size rather than their significance level. Correlations with at least a small to moderate effect ($r_s \geq .20$) are interpreted as evidence of convergent validity, whereas $r_s < .20$ are interpreted as evidence of discriminant validity). See Table 11 for correlations.] Because cultural harmony is the affective component of BII, as expected, it had a small to moderate positive correlation with ethnic identity affirmation (as measured by both the MEIM and the EIS; Lin, 2008). In addition, it generally had moderate negative correlations with contextual acculturation stressors and neuroticism (Benet-Martínez & Haritatos, 2005). This suggests that cultural harmony involves affective elements of bicultural identity and is driven more strongly by contextual pressures. In addition, it had small to moderate positive correlations with mental health (higher well-being, lack of depressive symptoms; Benet-Martínez et al., 2009). Contrary to expectations, it was only weakly related to lower anxiety and lower hostility. Nevertheless, this suggests that there are some links between the perception of conflict between a person's two cultures and lower psychological well-being and higher psychological distress.

As evidence of discriminant validity, cultural harmony generally had weak relationships with traditional acculturation variables (e.g., years in the US, language

proficiency, cultural identification, bicultural competence, cultural orientation, acculturation attitudes; Benet-Martínez & Haritatos, 2005). However, the exception is mainstream culture orientation. Cultural harmony had an unexpected small to moderate positive correlation with this variable. Furthermore, as expected, cultural harmony had only weak relationships with the personality traits of extraversion, agreeableness, openness, and conscientiousness (Benet-Martínez & Haritatos, 2005).

As evidence of convergent validity and supporting previous findings that orientation to American culture tends to relate to cultural blendedness (Benet-Martínez & Haritatos, 2005), I found that cultural blendedness generally had moderate positive correlations with years in the US, English language proficiency and use, U.S cultural identification, mainstream culture orientation, and fewer language barriers in English. This suggests that exposure to American culture is related to perceiving the two cultures to be more similar and that it may be important in forming a combined identity. Furthermore, supporting previous research on the relationship between cultural blendedness and traditional acculturation variables (Benet-Martínez & Haritatos, 2005), I found that it had small to moderate correlations with stronger integration attitudes and weaker separation attitudes. This suggests that bicultural individuals who wish to integrate their two cultures and do not endorse separation from the mainstream culture are more likely to find it easy to combine their two cultural identities. Unexpectedly, cultural blendedness was weakly related to heritage language proficiency and use, heritage cultural identification, bicultural competence, heritage culture orientation, assimilation attitudes, and marginalization attitudes. With regard to ethnic identity, the

findings were mixed, with cultural blendedness having moderate positive correlations with some components of ethnic identity and only weak positive correlations with other components. Relationships between cultural blendedness and lower cultural isolation, greater extraversion, lower neuroticism, and greater openness, though expected to be stronger (Benet-Martínez & Haritatos, 2005), were weak. From my findings, it seems that the nomological network for cultural harmony is clearer and more established than that for cultural blendedness; therefore, further research is necessary to determine the variables consistently related to cultural blendedness.

With regard to the discriminant validity of cultural blendedness, the data supported all my hypotheses. In other words, cultural blendedness was weakly related to perceived discrimination, problematic intercultural relations, and work challenges (Benet-Martínez & Haritatos, 2005). Because cultural harmony, not cultural blendedness, is the affective component of BII, I expected cultural blendedness to have weak relationships with mental health. As expected, cultural blendedness was weakly related to higher well-being, lower anxiety, lower depression, and lower hostility. This suggests that the perception of differences between a person's two cultures is not linked to either contextual pressures or to these psychological adjustment variables.

Finally, both dimensions of BII had very weak correlations with physical health and healthy behaviors. This suggests that perceptions of bicultural identity conflict and the organization of cultural identities, as measured by the BIIS-2, are probably not related to adjustments in the physical health and health behaviors domains. Further research is needed to explore whether other aspects of health, such as willingness to seek

professional care or adherence to treatments, are related to BII. In summary, the above findings suggest that the BIIS-2, overall, yields reliable and valid BII scores for this ethnically diverse sample of undergraduate students.

Path Analyses

Fourth, as further evidence of convergent and discriminant validity, I conducted a path analysis with predictors and outcomes of BII. To test the above hypotheses based on the path analysis by Benet-Martínez and Haritatos (2005; see Figure 4) and on BII theory, I developed an initial model with mental and physical health predicted by cultural harmony and cultural blendedness, which in turn are predicted by proximal factors (e.g., acculturation stress, traditional acculturation variables) and more distal factors (e.g., personality). Due to the large number of variables included in the initial model, I consulted the correlation table to simplify and streamline the model [i.e., only exogenous variables with at least small to moderate correlations (i.e., $r_s \geq .20$) to endogenous variables were included].

The path analysis, conducted using *Mplus* 5.1 software, indicated that the path from the discrimination domain of acculturation stress to cultural harmony and the path from neuroticism to hostility were non-significant; therefore, these paths were dropped from the model. In other words, the only two modifications from the first tested model and the final model, shown in Figure 5 with standardized and unstandardized path coefficients, are the dropped path from discrimination to cultural harmony and the dropped path from neuroticism to hostility. This final model fit the data well. Although the χ^2 test of model fit was significant [$\chi^2(34) = 220.86, p < .0001$; probably due to the

large sample size], the other fit indices all suggest that this model provided a good fit for the data: CFI = .93; RMSEA = .07 (90% CI: .06-.08); SRMR = .05. Approximately 26% of variance in cultural harmony was accounted for by neuroticism and four domains of acculturation stress (intercultural relations, work challenges, cultural isolation, and language barriers). Approximately 23% of variance in cultural blendedness was accounted for by the language barriers domain of acculturation stress, ethnic identity (as measured by the EIS), mainstream culture orientation, integration attitudes, and separation attitudes. Approximately 30% of variance in depressive symptoms was accounted for by cultural harmony and neuroticism. Approximately 21% of variance in anxiety symptoms was accounted for by neuroticism. Finally, approximately 32% of variance in general well-being was accounted for by cultural harmony and neuroticism.

In other words, individuals who perceive the greatest cultural harmony between their cultures are those who are more emotionally stable (less neurotic); those who have harmonious intercultural relations, few culture-related work challenges, and few linguistic problems in English; and those who live in culturally diverse areas. Consequently, individuals who perceive cultural harmony between their cultures, as well as those who are emotionally stable, suffer the least from depressive symptoms. Those who are emotionally stable also suffer less from anxiety symptoms. Furthermore, individuals who blend their cultures most are those with few linguistic problems in English, those strongly identified with their ethnic culture, those highly oriented to American culture, and those preferring the integration strategy and not the separation strategy. Therefore, in addition to partially replicating Benet-Martínez and Haritatos's

(2005) path model with an ethnically diverse sample, I have expanded on this model with the inclusion of ethnic identity and mainstream culture orientation as predictors of cultural blendedness, and general well-being and fewer depressive symptoms as outcomes of cultural harmony.

Separate path analyses by generation status. Because the path analysis by Benet-Martínez and Haritatos (2005) was conducted on a sample of only first-generation bicultural individuals, I wanted to conduct path analyses separately for first- and for second-generation bicultural individuals in order to better understand BII for these groups. Moreover, researchers have documented important generational differences in acculturation (e.g., Padilla, 1994; Tsai, Ying, & Lee, 2000) and identity (e.g., Cuellar, Nyberg, Maldonado, & Roberts, 1997; Phinney, 2003; Rosenthal & Feldman, 1992; Wiley, Perkins, & Deaux, 2008). Thus, it is worthwhile to explore whether there are generational differences in these predictors of BII in this sample and how that might play out in the overall path model.

For first-generation participants, I started with the same initial model as above [based on Benet-Martínez and Haritatos's (2005) path analysis and on BII theory]. Next, I simplified this initial model using the correlation table [i.e., only exogenous variables with at least small to moderate correlations (i.e., $r_s \geq .20$) to endogenous variables were included, see Table 12 for correlations by generation status]. The path analysis indicated that the following paths were non-significant: (a) from cultural harmony to general well-being; (b) from cultural harmony to depressive symptoms; (c) from the language barriers domain of acculturation stress to cultural harmony; and (d) from separation attitudes,

integration attitudes, the language barriers domain of acculturation stress, and ethnic identity to cultural blendedness. Therefore, these paths were dropped from the model. The resulting final model (see Figure 6) fit the data well. Although the χ^2 test of model fit was significant [$\chi^2(29) = 99.70, p < .0001$; probably due to the large sample size], the other fit indices all suggest that this model provided a good fit for the data: CFI = .94; RMSEA = .08 (90% CI: .07-.10); SRMR = .06.

For first-generation bicultural individuals, those who perceive the greatest cultural harmony between their cultures (19% of variance explained) are those who are more emotionally stable (less neurotic), those who have harmonious intercultural relations and few culture-related work challenges, and those who live in culturally diverse areas. Individuals with the most harmonious intercultural relations (11% of variance explained) are those who are more agreeable and more emotionally stable. Furthermore, individuals who blend their cultures most (20% of variance explained) are those highly oriented to American culture and those who live in culturally diverse areas. Finally, individuals enjoying the greatest general well-being (31% of variance explained) and suffering the least from depressive (29% of variance explained), anxiety (19% of variance explained), and hostility (18% of variance explained) symptoms are those who are emotionally stable.

Unlike results with the general sample, the final path model for first-generation bicultural individuals included indirect effects of personality (in addition to the direct effect of neuroticism) on BII, thus supporting findings by Benet-Martínez and Haritatos (2005). Moreover, cultural harmony does not seem to predict any indicator of adjustment

for first-generation bicultural individuals; neuroticism was the sole predictor of adjustment for this group. Interestingly, the language barriers domain of acculturation stress did not predict either component of BII, and neither acculturation attitudes nor ethnic identity predicted cultural blendedness for first-generation bicultural individuals.

For second-generation participants, I followed the same data analytic procedures that I used with first-generation participants. That is, I started with the same initial model as above [based on Benet-Martínez and Haritatos's (2005) path analysis and on BII theory] and simplified it using the correlation table [i.e., only exogenous variables with at least small to moderate correlations (i.e., $r_s \geq |.20|$) to endogenous variables were included]. Based on the path analysis results, I dropped the paths from the language barriers and discrimination domains of acculturation stress to cultural harmony and the path from integration attitudes to cultural blendedness because they were non-significant. The resulting final model (see Figure 7) fit the data well. Although the χ^2 test of model fit was significant [$\chi^2(45) = 147.29, p < .0001$; probably due to the large sample size], the other fit indices all suggest that this model provided a good fit for the data: CFI = .94; RMSEA = .06 (90% CI: .05-.07); SRMR = .05.

Second-generation bicultural individuals who perceive the greatest cultural harmony between their cultures (30% of variance explained) are those who have harmonious intercultural relations and few culture-related work challenges, those who live in culturally diverse areas, and those who feel positively about their ethnic identity (as measured by the EIS). Consequently, individuals who perceive cultural harmony between their cultures, as well as those who are emotionally stable, enjoy the greatest

general well-being (34% of variance explained) and suffer the least from depressive symptoms (32% of variance explained). Those who are emotionally stable also suffer less from anxiety (22% of variance explained) and hostility (15% of variance explained) symptoms. Furthermore, individuals who blend their cultures most (20% of variance explained) are those strongly identified with their ethnic culture, those highly oriented to both their heritage culture and American culture, and those who do not endorse separation attitudes.

Unlike results with first-generation participants and results from Benet-Martínez and Haritatos (2005), the final path model for second-generation participants did not include any direct or indirect paths from personality to BII. However, ethnic identity was an important predictor of BII; as a global construct, it predicted cultural blendedness, and its affective component (ethnic identity affirmation) predicted cultural harmony. Although only mainstream (but not heritage) culture orientation predicted cultural blendedness for first-generation participants, both mainstream and heritage culture orientations predicted cultural blendedness for second-generation participants.

General Discussion

Summary of Results

The overarching goals of this set of studies were to refine the measurement of BII and gather more evidence of construct validity for BII in an ethnically diverse sample of different generation groups. In Study 1, I examined open-ended responses about the overall bicultural experience, which were coded for BII themes of cultural blendedness vs. compartmentalization, cultural harmony vs. conflict, and identity clarity vs.

ambivalence. These themes appeared spontaneously in participants' responses, without being elicited by my open-ended questions. Interestingly, these responses were overwhelmingly more positive than negative in tone, and bicultural respondents viewed being bicultural as having more benefits than problems. Using these qualitative data, I generated new BII items, and then asked subject matter experts (SMEs) to rate their relevance to BII in Study 2a. Based on SME feedback, I revised the new BII items, and then pilot tested them using the think-aloud method on a small sample of bicultural undergraduate students in Study 2b. These think-aloud tests were used to ensure that all items are clear and accurate before collecting validation data on the BIIS-2 in Study 3.

From exploratory factor analyses in Study 3, the final 19 items of the BIIS-2 were identified. These items comprised two factors, corresponding to hypothesized BII dimensions of cultural blendedness vs. compartmentalization and cultural harmony vs. conflict. The dimension of identity clarity vs. ambivalence was not distinct enough from cultural harmony vs. conflict and thus was not included in the definition and measurement of BII. CFAs verified that BII is better described with two factors (cultural blendedness and cultural harmony) than as a unitary construct. Furthermore, MGCFAs suggest that BII is operationalized similarly and that its structure is consistent or invariant across two generation groups and two ethnic groups.

With regard to the two dimensions of BII, both the cultural blendedness and cultural harmony subscales demonstrated good internal consistency and test-retest stability. Moreover, major findings from the BIIS-1 study (Benet-Martínez & Haritatos, 2005) were replicated in this study. BII cultural blendedness vs. compartmentalization

and cultural harmony vs. conflict were associated with acculturation variables, acculturation stress, personality, and psychological adjustment in meaningful and mostly expected ways. Specifically, lower acculturation stress and lower neuroticism predicted greater cultural harmony, which predicted greater psychological adjustment, and a variety of acculturation variables predicted cultural blendedness. In addition, I have extended previous work done on BII by examining the construct in relation to ethnic identity, by examining acculturation (cultural orientations) using a full measure of acculturation, by measuring psychological distress as well as well-being, and by examining physical health and health behaviors. Overall, these results provide evidence that I have developed a longer, more comprehensive measure of the two BII dimensions that yields more reliable scores. In addition, BII theory and its nomological network has been confirmed and expanded in samples of Asian American and Latino bicultural college students and also for first- and second-generation bicultural college students.

Discussion of Major Findings

The major findings of this study provide evidence that the two dimensions of BII are related but conceptually and psychometrically distinct, and this holds true across two ethnic groups and two generational groups. In other words, the feelings associated with being bicultural (harmony vs. conflict) are relatively independent from the ways in which bicultural individuals perceive and organize their cultures (blendedness vs. compartmentalization). For example, a bicultural individual can perceive conflict between her cultures and at the same time, blend those cultures in her everyday life (e.g., Chicano culture is a unique blend of Mexican and American culture which does not deny

the important differences and clashes between the cultures). Another bicultural individual can perceive harmony and compatibility between his two cultures, but he can choose to keep them separated in his everyday life (e.g., someone who keeps his professional and parental identities separated without perceiving conflict between these identities).

The results also confirm that the two BII dimensions have different antecedents and consequences. The nomological network of harmony vs. conflict in this sample corroborates previous findings that this is the more affective dimension of bicultural identity negotiation, and it is driven more strongly by contextual pressures. Individuals high on cultural harmony also tend to have lower neuroticism, stronger feelings of belonging and positive affect toward their ethnic groups, and perceive fewer stressors associated with the acculturation process. Not surprisingly, this affective dimension of BII is also associated with greater well-being and lower psychological distress. On the other hand, blendedness vs. compartmentalization seems to be the more performance-related and cognitive aspect of bicultural identity negotiation based on its nomological network. Individuals high on cultural blendedness also tend to be more American: they have spent more time in the U.S. (if they are immigrants), have higher English proficiency and use English language more often with fewer language barriers, are more identified with American culture, and more oriented toward American culture overall. Because they have more extensive exposure to and higher comfort with the English language and American culture, these things may facilitate the formation of a combined identity. Although individuals higher on blendedness tend to be more Americanized, it is worth noting that all participants in my studies self-identified as “bicultural,” which is

confirmed by mean scores on cultural identification and cultural orientation toward the American and ethnic or heritage cultures (see Tables 8 and 9). This speaks to the claim that BII is a meaningful individual difference construct that captures how bicultural individuals affectively and cognitively organize their dual identities.

According to path analysis findings using data from the entire sample, when bicultural individuals do not experience cultural conflict in their environment (e.g., in their relations with others, at work, or due to the language skills), they seem to also not perceive cultural conflict within themselves. However, regardless of situational factors, there are individuals who are predisposed to perceive cultural conflict or are sensitive to these conflicts, due to their neurotic personality. The perception of cultural harmony vs. conflict has important implications for bicultural individuals' mental health because it predicts greater well-being and lower depression. In terms of cultural blendedness, my results support previous findings regarding the association between cultural blendedness and traditional acculturation variables (Benet-Martínez & Haritatos, 2005). Cultural blendedness is predicted by the integration of and an orientation to both of one's dual cultures.

A strength of this dissertation is the separate path analyses by generation status because they shed light on the dynamics of biculturalism for first- vs. second-generation bicultural individuals. Because first-generation individuals were reared in their ethnic culture and are learning the mainstream culture, biculturalism for this group is likely to be determined by their involvement and identification with the mainstream culture (Phinney, 2003; Tsai et al., 2000). In comparison, second-generation individuals were

reared in the mainstream culture and are learning their ethnic culture; therefore, biculturalism for this group is likely to be determined by their involvement and identification with their heritage culture. These differences in the mechanisms of biculturalism are reflected in my separate path analyses. Cultural blendedness is predicted by mainstream culture orientation for first-generation bicultural individuals, whereas cultural blendedness and harmony are predicted by ethnic identity and heritage culture orientation (in addition to mainstream culture orientation).

Furthermore, in the path analysis with only first-generation bicultural individuals, personality traits play a strong role. Agreeable individuals are less likely to experience or report conflict in their relations with others, whereas neurotic individuals are more susceptible to those interpersonal cultural conflicts as well as greater BII cultural conflict and lower reported mental health. With this group of first-generation bicultural individuals, neuroticism, as compared to cultural harmony, seems to exert a greater influence on mental health. Conversely, for second-generation individuals, personality traits do not seem to impact BII at all. Contextual and acculturation factors revealed themselves to be the major predictors of BII for this group.

Limitations

There are several limitations in this project. First, all participants (except the SMEs in Study 2a) were college students. Future studies should be done with community samples to explore the generalizability of my findings to non-college students, who are likely to experience different acculturation stressors and may have different acculturation attitudes, which may lead to different ways of negotiating two cultural identities.

A second limitation of this project is the ethnic diversity of the validation sample in Study 3. Traditionally, construct validation studies are conducted with one homogenous sample, and then the factor structure and convergent and discriminant validity relationships found with that sample are tested on another homogenous sample, and so on (Crocker & Algina, 1986). However, the benefits of this method outweighed the potential psychometric problems associated with it. The ethnically diverse sample of bicultural individuals allowed me to examine how all individuals who have internalized two cultures organize and negotiate their dual identities. In addition, it allowed me to perform the analyses separately for major generation and ethnic groups to examine possible generation and ethnic differences in the factor structure of the BIIS-2.

Implications

In terms of measurement and application, this longer and more reliable and valid BII measure strikes a balance between more comprehensively covering the content domain and being short enough so that it is still practical and feasible to administer. Because most individuals undergoing acculturation use the integration/biculturalism strategy, whenever acculturation is measured, BII should also be measured to further understand important and meaningful variations among bicultural individuals. The new BIIS-2 should make it easier to use and administer a measure of BII. Furthermore, researchers can use the BIIS-2 with confidence between it has demonstrated evidence of score reliability and validity. Finally, researchers can use the results in this study to guide their own studies and to determine the BII structure and associations to expect.

In terms of BII theory, the findings from this study underscore the need for researchers to move beyond the four widely used acculturation strategies, as most individuals undergoing acculturation self-identify as bicultural or integrated. Within the diversity and variations among these bicultural individuals lies an interesting opportunity to understand the affective, behavioral, and cognitive implications of the acculturation process. In addition, the findings extend the BII framework in an ethnically diverse sample of different generational groups. Not only is the operationalization of BII similar across groups, there are other important similarities across groups that speak to the underlying acculturation process: personality and social situations (acculturation and acculturative stress variables) influence perceptions (BII), which in turn influences adjustment (well-being and distress). However, there are notable group differences as well that speak to the power of personality as well as lived experiences: acculturative stress influences adjustment through the perception of cultural conflict for second-generation bicultural individuals, but for immigrants, adjustment is predicted solely by personality, not by acculturative stress or BII. Perhaps immigrants have different personalities and motivations than other individuals (Boneva & Frieze, 2001), which in turn leads them to have different expectations than their American-born counterparts. These expectations might effectively buffer them from experiencing maladjustment when they encounter acculturative stress. These group differences should be studied more extensively so that we can gain a better understanding of what it means to be bicultural.

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Appendix A

Study 1: Open-Ended Questionnaire

Instructions: We would like to know how you feel, act, and think about being a bicultural individual. Please answer the following 5 questions honestly and to the best of your ability. There are no right/wrong or good/bad responses. Provide examples to illustrate your points when necessary. If you run out of room, write on the back of this sheet.

1. How do feel about having 2 cultures? In other words, what feelings and emotions do you associate with having 2 cultures? Are these feelings positive, negative, both, or neither?
2. How does having 2 cultures affect your behavior (i.e., how you act)? Do you think you would act differently if you had only 1 culture? Why or why not?
3. Do you think about having 2 cultures? If yes, what are your thoughts on having 2 cultures?
4. How often and how much have you thought about having 2 cultures? Is thinking about this topic a constant part of your life, or do you think about it only when you are asked to? Are you somewhere in between? When you think about having 2 cultures, how extensively do you think about it? Please explain.
5. Have you come to any conclusions about having 2 cultures? For example, if you have to tell someone about what it means to have 2 cultures, what would you say?

Appendix B

Study 1: Definition of Coded Dimensions

CONFLICT = degree of tension perceived between the two cultures (e.g., “I sometimes feel that it is a struggle because you are raised with certain family values and as you grow, those values change through schooling”).

HARMONY = degree of compatibility perceived between the two cultures (e.g., “I feel that it allows me to explore and be involved in both of my cultures”).

DISTANCE = degree of compartmentalization, dissociation, or differences perceived between the two cultures (e.g., “I get two totally different perspectives of the world”).

OVERLAP = degree of overlap or similarities perceived between the two cultures (e.g., “I adapt to both easily because they have many similarities”).

AMBIVALENCE = degree of uncertainty of attitudes or feelings toward having two cultures (e.g., “I have mixed feelings as to how I feel about having 2 cultures”).

CERTAINTY = degree of certainty of attitudes or feelings toward having two cultures (e.g., “I have reached the point where I know who I am”).

BENEFIT: INTERNAL = values and beliefs internal to a person, such as tolerant, open-minded, proud, rich perspective, etc. (e.g., “I think that being exposed to two cultures is good and makes me feel better as a person”).

BENEFIT: EXTERNAL = instrumental qualities, such as marketable, practicality of two languages, easier to get jobs, viewed as unique, types of skills, etc. (e.g., “I feel that my biculturalism helped me have the upper hand in most scholastic/academic endeavors”).

PROBLEM: INTERNAL = values and beliefs internal to a person, such as feeling torn, conflicting values, confusion, etc. (e.g., “There is a lot of confusion, tension”).

PROBLEM: EXTERNAL = qualities external to the writer, such as judgments and/or expectations of others, discrimination, racism, norms of behavior, etc. (e.g., “Not being able to embrace both cultures equally. The norms expect me to be more Asian”).

POSITIVE = overall, the tone of response is positive.

NEGATIVE = overall, the tone of response is negative.

BOTH = overall, the tone of response is equally positive and negative.

NEUTRAL = overall, the tone of response is neutral, devoid of attitudes and feelings.

Table 1
Participant characteristics for Studies 1-3

Variable	Study 1	Study 2a	Study 2b	Study 3
<i>N</i>	108	23	5	1049
Percent female	56.70	73.91	100.00	59.70
Mean age	19.34	--	21.00	19.34 (1.91)
Age range (%)				
18 to 30 years	99.00	52.17	100.00	99.80
31 to 40 years	1.00	34.78	0.00	0.00
41 to 50 years	0.00	8.70	0.00	0.20
51 to 60 years	0.00	0.00	0.00	0.00
61 years or older	0.00	4.35	0.00	0.00
Ethnicity (%)				
African American	5.05	--	0.00	4.67
Asian American	37.37	--	20.00	47.09
European American	3.03	--	20.00	2.96
Latino/a	52.53	--	20.00	26.69
Middle Eastern	--	--	20.00	4.00
Multi-racial/multi-ethnic	--	--	0.00	13.35
Native American	0.00	--	0.00	0.10
Other	5.05	--	20.00	1.14
Generation (%)				
First (average years in US)	27.27(14.34)	--	40.00(4.5)	35.04(10.57)
Second	60.61	--	60.00	56.56
Third	4.04	--	0.00	4.05
Other	6.06	--	0.00	4.35
Median annual household income (\$)	49,000	--	--	60,000
Education (%)				
High school	0.00	0.00	0.00	0.00
Some college	100.00	0.00	100.00	100.00
Freshmen	10.10	--	0.00	30.08
Sophomores	44.44	--	0.00	27.66
Juniors	27.27	--	20.00	20.30
Seniors	12.12	--	80.00	21.96
BA, BS, or other 4-year degree	0.00	26.09	0.00	0.00
MA, MS, or other master's degree	0.00	21.74	0.00	0.00
PhD, or other doctoral degree	0.00	52.17	0.00	0.00
Occupation (%)				
Graduate student	--	47.83	--	--
Post-doctoral fellow	--	8.70	--	--
Faculty member	--	39.13	--	--
Other	--	4.35	--	--

Note. Some percentages across groups do not sum to 100% due to missing cases.

Table 2

Frequency of themes in open-ended responses about the overall bicultural experience

Theme	Frequency	Percentage
Cultural blendedness vs. compartmentalization	120	56.60
Blendedness	4	1.89
Compartmentalization	116	54.72
Cultural harmony vs. conflict	71	33.39
Harmony	23	10.85
Conflict	48	22.64
Identity clarity vs. ambivalence	155	73.11
Clarity	95	44.81
Ambivalence	60	28.30
Benefits of being bicultural	147	69.34
Internal benefits	95	44.81
External benefits	52	24.53
Problems with being bicultural	48	22.64
Internal problems	15	7.08
External problems	33	15.57
Overall tone of response		
Positive	123	58.02
Negative	12	5.66
Both	33	15.57
Neutral	34	16.04

Note. Percentages are based on $N = 212$ total responses to two open-ended questions.

Table 3
BII items with subject matter expert ratings

(Sub-dimension) Item	Subject matter expert ratings				
	Min	Max	<i>M</i>	<i>SD</i>	<i>CVR</i> ¹
(B) Both [heritage] and American identities make me who I am.	0	4	2.39	1.41	0.48
(B) I cannot ignore the [heritage] or American side of me.	0	4	1.91	1.35	0.13
(B) I feel [heritage] and American at the same time.	0	4	2.57	1.31	0.57
(B) I relate better to [heritage] American culture than to [heritage culture] or American culture.	0	4	1.96	1.36	0.04
(B) I feel [heritage]-American.	0	4	2.17	1.34	0.30
(B) I feel part of a combined culture.	0	4	2.74	1.18	0.65
(C) I find it difficult to combine [heritage] and American cultures.	1	4	2.87	0.97	0.83
(C) I do not blend my [heritage] and American cultures.	2	4	3.22	0.80	1.00
(C) Being bicultural is like being divided into two parts.	1	4	3.30	0.82	0.91
(C) I have a foot in each culture, [heritage culture] and American culture.	0	4	2.30	1.15	0.65
(C) I am simply a [heritage] who lives in North America.	1	4	2.61	1.08	0.65
(C) I keep [heritage] and American cultures separate.	1	4	3.39	0.89	0.91
(H) I find it easy to reconcile [heritage] and American cultures.	0	4	3.00	1.21	0.65
(H) I do not find being bicultural difficult.	1	4	2.09	0.95	0.39
(H) It is possible to make [heritage] and American people happy at the same time.	0	4	2.35	1.27	0.30
(H) I find it easy to belong to both [heritage] and American cultures.	1	4	3.17	0.89	0.83
(H) I rarely feel conflicted about being bicultural.	1	4	2.83	1.03	0.74
(H) I find it easy to balance both [heritage] and American cultures.	1	4	3.04	0.88	0.83
(H) I do not feel trapped between the [heritage] and American cultures.	1	4	2.65	0.98	0.74
(H) My [heritage] and American cultures are complementary.	2	4	3.35	0.57	1.00
(Co) When I am in a situation where I feel very [heritage], I cannot feel American, and vice versa.	1	4	2.78	1.00	0.74
(Co) I feel torn between [heritage] and American cultures.	2	4	3.35	0.71	1.00

(Co) It is effortful to be [heritage] and American at the same time.	1	4	2.87	1.06	0.74
(Co) Being bicultural means having two cultural forces pulling on me at the same time.	1	4	2.70	1.02	0.74
(Co) My [heritage] and American cultures are incompatible.	1	4	3.43	0.79	0.91
(Co) I feel conflicted between the American and [heritage culture] ways of doing things.	1	4	3.61	0.72	0.91
(Co) I feel like someone moving between two cultures.	0	4	1.87	1.06	0.30
(Co) I feel caught between the [heritage] and American cultures.	2	4	3.17	0.72	1.00
(Cl) I am certain about what it means to be bicultural.	0	4	3.04	1.19	0.74
(Cl) I am confident in my [heritage] and American identities.	0	4	2.57	1.16	0.74
(Cl) I clearly understand my bicultural identity.	0	4	3.09	1.08	0.91
(Cl) I have come to an understanding about being bicultural.	0	4	3.13	1.14	0.83
(Cl) I can say confidently that I am a bicultural person.	1	4	3.35	0.83	0.91
(Cl) I know how I feel about being bicultural.	1	4	3.00	1.13	0.74
(A) As a bicultural person, I am not sure if I am [heritage] or American.	1	4	3.09	0.90	0.83
(A) Being bicultural feels like not having any culture.	0	4	2.83	1.07	0.74
(A) As a bicultural person, I feel that I do not belong to either [heritage culture] or American culture.	2	4	3.39	0.58	1.00
(A) It is confusing to be bicultural.	0	4	3.22	1.13	0.83
(A) Being bicultural is like having no true identity.	1	4	3.13	0.87	0.91
(A) I have mixed feelings about being bicultural.	0	4	3.35	1.07	0.83

Note. Min = minimum rating received, Max = maximum rating received, CVR = content validity ratio, B = cultural blendedness, C = cultural compartmentalization, H = cultural harmony, Co = cultural conflict, Cl = identity clarity, A = identity ambivalence.

$${}^1\text{CVR} = \text{content validity ratio} = \frac{n_r - N/2}{N/2},$$

where n_r = number of SMEs rating the item as “relevant”, and N = total number of SMEs. $\text{CVR}_{\text{critical}} = 0.39$ for $N = 23$ SMEs, $p < .05$ (one-tailed) that concurrence by SMEs occurred by chance (Lawshe, 1975). **Bolded** CVRs are those that did not reach the minimum value.

Table 4

BII harmony vs. conflict and blendedness vs. compartmentalization items and factor loadings

Item	Factor	
	Harmony	Blendedness
1. It is a challenge to be _____ and American at the same time.	.79	.09
2. <i>I feel caught between the _____ and American cultures.</i>	.76	.13
3. I feel pulled by the two cultural forces in my life.	.73	.11
4. It takes a lot of effort to be _____ and American at the same time.	.71	.07
5. Being bicultural means having two cultural forces pulling on me at the same time.	.71	.16
6. <i>I feel like someone moving between two cultures.</i>	.68	.18
7. <i>I feel conflicted between the American and _____ ways of doing things.</i>	.62	.10
8. <i>I do not feel trapped between the _____ and American cultures.</i>	-.62	.00
9. I find it easy to balance both _____ and American cultures.	-.61	.13
10. I feel torn between _____ and American cultures.	.60	.07
11. I rarely feel conflicted about being bicultural.	-.59	.02
12. I find it easy to belong to both _____ and American cultures.	-.58	.13
13. I feel that my _____ and American cultures are incompatible.	.57	-.14
14. I do not find being bicultural difficult.	-.52	.05
15. I find it easy to harmonize _____ and American cultures.	-.49	.18
16. When I am in an American situation, I cannot feel _____ at the same time.	.47	.02
17. When I am in a(n) _____ situation, I cannot feel American at the same time.	.35	-.05
18. I feel that my _____ and American cultures are complementary.	-.35	.24
19. I feel that it is possible to make _____ and American people happy at the same time.	-.32	.11
20. I feel _____ and American at the same time.	-.03	.73
21. <i>I feel _____-American.</i>	.01	.72
22. Both _____ and American identities make me who I am.	.02	.68
23. <i>I feel part of a combined culture.</i>	-.01	.67
24. I relate better to a combined _____-American culture	.10	.65

than to _____ or American culture alone.		
25. I cannot ignore the _____ or American side of me.	.06	.58
26. I do not blend my _____ and American cultures.	.17	-.47
27. <i>I keep _____ and American cultures separate.</i>	.23	-.41
28. I have a foot in each culture, both _____ and American cultures.	.18	.34
29. <i>I am simply a(n) _____ who lives in North America.</i>	.01	-.26
30. Being bicultural is like being divided into two parts.	.52	-.22
31. I feel that there are more similarities than differences between _____ and American cultures.	-.20	.12
32. I find it difficult to combine _____ and American cultures.	.57	-.10

Note. $N = 600$ ethnically-diverse college students. Harmony = Cultural harmony vs. conflict, Blendedness = Cultural blendedness vs. compartmentalization. BIIS-1 items are in **bold italics**, and factor loadings above .20 are **bolded**.

Table 5

Factorial structure of the Bicultural Identity Integration Scale–Version 2 (BIIS-2)

Item	Factor	
	Harmony	Blendedness
1. I feel caught between the _____ and American cultures.	.75	
2. I feel like someone moving between two cultures.	.68	
3. Being bicultural means having two cultural forces pulling on me at the same time.	.66	
4. I do not feel trapped between the _____ and American cultures.	-.65	
5. I feel conflicted between the American and _____ ways of doing things.	.62	
6. I find it easy to balance both _____ and American cultures.	-.60	
7. I rarely feel conflicted about being bicultural.	-.60	
8. I feel torn between _____ and American cultures.	.58	
9. I feel that my _____ and American cultures are incompatible.	.57	
10. I find it easy to harmonize _____ and American cultures.	-.45	
11. I feel _____-American.		.77
12. I feel _____ and American at the same time.		.73
13. I relate better to a combined _____-American culture than to _____ or American culture alone.		.69
14. I feel part of a combined culture.		.67
15. I cannot ignore the _____ or American side of me.		.56
16. I do not blend my _____ and American cultures.		-.50
17. I keep _____ and American cultures separate.		-.45
18. I am simply a(n) _____ who lives in North America.		-.27
19. I find it difficult to combine _____ and American cultures.	.50	-.26

Note. $N = 600$ ethnically-diverse college students. Harmony = Cultural harmony vs. conflict, Blendedness = Cultural blendedness vs. compartmentalization. BIIS-1 items are in **bold italics**, and only factor loadings above .20 are shown.

Table 6

Factor loadings of the BIIS-2 items harmony vs. conflict by ethnicity

Factor	Item	Groups			
		Entire EFA sample (<i>n</i> = 600)	Asian American only (<i>n</i> = 494)	Latino only (<i>n</i> = 280)	Multi-racial/ Multi-ethnic (<i>n</i> = 140)
Harmony	1	0.75	0.74	0.72	0.88
	2	0.68	0.60	0.81	0.68
	3	0.66	0.66	0.63	0.63
	4	-0.65	-0.68	-0.57	-0.71
	5	0.62	0.61	0.65	0.72
	6	-0.60	-0.54	-0.65	-0.64
	7	-0.60	-0.63	-0.68	-0.51
	8	0.58	0.64	0.59	0.73
	9	0.57	0.62	0.46	0.51
	10	-0.45	-0.44	-0.47	-0.48
Mean absolute loading		0.62	0.62	0.62	0.65
Blendedness	11	0.77	0.78	0.76	0.74
	12	0.73	0.72	0.65	0.63
	13	0.69	0.70	0.67	0.75
	14	0.67	0.63	0.68	0.57
	15	0.56	0.63	0.50	0.44
	16	-0.50	-0.45	-0.52	-0.62
	17	-0.45	-0.43	-0.52	-0.55
	18	-0.27	-0.29	-0.38	-0.15
	19	-0.26	-0.22	-0.27	-0.50
Mean absolute loading		0.54	0.54	0.55	0.55

Note. Item numbering in this table follows the item numbering in Table 5. Only groups with $n \geq 100$ were included. Harmony = Cultural harmony vs. conflict, Blendedness = Cultural blendedness vs. compartmentalization, Entire EFA sample = entire exploratory factor analysis sample consisting of 600 randomly chosen participants.

Table 7

Descriptive Statistics for Parcels

BII Dimension	Parcel	α	M	SD	Minimum	Maximum	Skew	Kurtosis	
☞	Harmony	Parcel 1	.61	3.66	0.80	1.00	5.00	-.56	.16
		Parcel 2	.62	3.61	0.90	1.00	5.00	-.23	-.53
		Parcel 3	.60	3.76	0.88	1.00	5.00	-.46	-.22
		Parcel 4	.58	3.50	0.99	1.00	5.00	-.42	-.60
	Blendedness	Parcel 1	.55	4.10	0.73	1.33	5.00	-.92	.90
		Parcel 2	.62	3.87	0.83	1.00	5.00	-.80	.35
		Parcel 3	.63	3.87	0.78	1.33	5.00	-.67	.10

Note. $N = 449$ ethnically-diverse college students.

Table 8

Tests of Measurement Invariance of BIIS-2

	χ^2	<i>df</i>	<i>p</i>	CFI	RMSEA (90% CI)	SRMR	AIC	BIC
Generation Status								
First-generation alone (<i>N</i> = 361)	13.11	13	.44	1.00	.01 (0.00 - 0.05)	.02	5,245.59	5,331.15
Second-generation alone (<i>N</i> = 583)	40.45	13	.0001	.99	.06 (0.04 - 0.08)	.03	8,288.49	8,384.59
Configural invariance	69.94	31	.0001	.99	.05 (0.04 - 0.07)	.04	13,540.45	13,729.60
Metric and scalar invariance	77.42	36	.0001	.99	.05 (0.03 - 0.07)	.04	13,537.93	13,702.83
Ethnicity								
Asian American alone (<i>N</i> = 493)	25.30	13	.02	.99	.04 (0.02 - 0.07)	.03	6,822.49	6,914.90
Latino alone (<i>N</i> = 280)	31.50	13	.003	.98	.07 (0.04 - 0.10)	.03	4,059.71	4,139.67
Configural invariance	74.27	31	< .0001	.98	.06 (0.04 - 0.08)	.03	10,889.67	11,071.03
Metric and scalar invariance	77.16	36	.0001	.98	.05 (0.04 - 0.07)	.04	10,882.55	11,040.66
Comparison: Metric and scalar invariance - configural invariance								
Generation status	$\Delta\chi^2$	Δdf	Δp					
	7.48	5	.19					
Ethnicity	2.88	5	.72					

Table 9

Descriptive statistics and difference tests of main study variables by ethnicity

	Scale range	African American		Asian American		European American		Latino/a		Middle Eastern		Multi-racial/ Multi-ethnic	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>Demographics/Acculturation</i>													
1. Percent female ¹	1-2	63.27 ^{ab}	-	50.92 ^a	-	64.52 ^{ab}	-	75.00 ^b	-	52.38 ^{ab}	-	62.14 ^{ab}	-
2. Age	open	19.18	1.25	19.38	1.92	19.26	1.24	19.25	2.13	19.62	1.55	19.29	1.74
3. Median income	open	62,500	-	70,000 ^a	-	75,000	-	40,000 ^b	-	77,500	-	70,000 ^a	-
4. Years in US ²	open	11.32	4.12	10.33	3.88	9.67	3.78	11.65	4.63	11.70	3.44	11.16	4.28
5. English proficiency/use	1-5	4.76 ^a	0.39	4.25 ^b	0.64	4.39 ^{bc}	0.48	4.41 ^c	0.47	4.33 ^{bc}	0.60	4.79 ^a	0.34
6. Other language proficiency/use	1-5	2.49 ^{ab}	1.17	2.98 ^a	0.91	2.76 ^{ab}	0.98	3.54 ^c	0.79	3.09 ^a	0.84	2.40 ^b	1.22
7. US identification	1-6	5.05 ^{ab}	1.02	4.57 ^c	1.00	4.57 ^{ac}	1.14	4.62 ^{ac}	1.02	4.67 ^{abc}	1.01	5.15 ^b	0.93
8. Other identification	1-6	4.52 ^{abcd}	1.63	4.65 ^a	1.04	4.80 ^{abcd}	0.96	4.95 ^{bc}	0.98	5.08 ^c	0.80	4.29 ^d	1.26
9. Percent high bicultural competence ³	1-2	18.37 ^{abcd}	-	12.15 ^{ac}	-	12.90 ^{abcd}	-	28.06 ^b	-	9.52 ^{cd}	-	26.47 ^{bd}	-
10. VIA heritage orientation	1-9	7.47 ^{ab}	1.36	7.16 ^a	1.26	7.28 ^{ab}	1.46	7.63 ^b	1.22	7.27 ^{ab}	1.49	6.86 ^a	1.37
11. VIA mainstream orientation	1-9	6.93 ^{ab}	1.08	7.03 ^a	1.13	7.02 ^{ab}	1.14	7.36 ^b	1.23	6.88 ^{ab}	1.15	7.17 ^{ab}	1.24
<i>Bicultural Identity Integration</i>													
12. Harmony (vs. conflict)	1-5	3.51 ^{ab}	0.80	3.66 ^a	0.71	3.63 ^{ab}	0.68	3.69 ^a	0.76	3.18 ^b	0.86	3.65 ^a	0.80
13. Blendedness (vs. compartmentalization)	1-5	3.69 ^{ab}	0.64	3.91 ^{ac}	0.64	3.48 ^b	0.78	4.03 ^c	0.68	3.70 ^{ab}	0.76	3.92 ^{ac}	0.65
<i>Ethnic Identity</i>													
14. MEIM total ethnic identity	1-5	4.17 ^a	0.75	3.86 ^b	0.69	4.01 ^{abc}	0.66	3.95 ^{ab}	0.62	3.88 ^{abc}	0.71	3.67 ^c	0.63
15. MEIM exploration	1-5	3.98 ^a	0.84	3.54 ^b	0.82	3.54 ^{ab}	0.84	3.47 ^b	0.79	3.64 ^{ab}	0.84	3.38 ^b	0.73
16. MEIM affirmation/belonging	1-5	4.31 ^{ab}	0.80	4.08 ^b	0.71	4.34 ^{ab}	0.65	4.29 ^a	0.65	4.06 ^{abc}	0.74	3.87 ^c	0.72
17. EIS total ethnic identity	0-4	3.56 ^{ab}	0.46	3.37 ^a	0.45	3.45 ^{ab}	0.55	3.57 ^b	0.39	3.59 ^{ab}	0.39	3.37 ^a	0.52
18. EIS exploration	0-4	3.37 ^{ab}	0.77	3.15 ^a	0.64	3.19 ^{ab}	0.76	3.36 ^b	0.63	3.43 ^{ab}	0.63	3.16 ^{ab}	0.70
19. EIS affirmation	0-4	3.77 ^{ab}	0.56	3.70 ^a	0.50	3.82 ^{ab}	0.47	3.85 ^b	0.32	3.79 ^{ab}	0.51	3.68 ^{ab}	0.53
20. EIS resolution	0-4	3.67 ^a	0.48	3.28 ^b	0.62	3.34 ^{ab}	0.66	3.53 ^a	0.54	3.55 ^{ab}	0.62	3.24 ^b	0.74
<i>Acculturation Attitudes</i>													
21. Assimilation	1-5	2.20 ^{ab}	0.81	2.31 ^a	0.64	2.46 ^a	0.68	2.00 ^b	0.67	2.15 ^{ab}	0.67	2.20 ^{ab}	0.64

22. Integration	1-5	3.89	0.65	4.03	0.69	4.01	0.59	4.14	0.61	3.95	0.58	3.99	0.64
23. Separation	1-5	2.52 ^{ab}	0.92	2.48 ^a	0.71	2.37 ^{abc}	0.75	2.24 ^b	0.75	2.44 ^{ab}	0.77	1.96 ^c	0.66
24. Marginalization	1-5	1.77 ^{ab}	0.77	1.85 ^a	0.63	1.77 ^{ab}	0.61	1.67 ^b	0.60	1.65 ^{ab}	0.61	1.82 ^{ab}	0.62
<i>Acculturation Stress</i>													
25. Language barriers	1-5	1.32 ^a	0.72	1.97 ^b	1.04	1.71 ^{ab}	0.92	1.57 ^a	0.79	1.64 ^{ab}	0.86	1.43 ^a	0.68
26. Discrimination/prejudice	1-5	3.27 ^{ab}	1.28	3.06 ^a	1.03	2.47 ^a	1.16	3.31 ^b	1.11	3.25 ^{ab}	1.09	3.14 ^{ab}	1.29
27. Intercultural relations	1-5	2.37	1.27	2.55	0.98	2.24	1.02	2.35	1.00	2.76	1.01	2.40	1.15
28. Cultural isolation	1-5	2.83 ^a	1.10	2.41 ^b	0.89	2.41 ^{ab}	0.81	2.55 ^{ab}	0.96	2.44 ^{ab}	0.92	2.54 ^{ab}	0.96
29. Work challenges	1-5	3.36 ^{ac}	1.10	3.25 ^a	0.91	2.29 ^b	0.85	3.26 ^{ac}	0.97	3.07 ^{ac}	0.82	2.93 ^c	1.10
<i>Personality</i>													
30. Extraversion	1-5	3.72 ^a	0.78	3.27 ^b	0.71	3.62 ^{ab}	0.69	3.43 ^a	0.69	3.67 ^a	0.65	3.47 ^{ab}	0.87
31. Agreeableness	1-5	4.00 ^{abc}	0.62	3.73 ^{ac}	0.56	4.01 ^{abc}	0.66	3.96 ^b	0.52	3.80 ^{abc}	0.72	3.77 ^c	0.68
32. Conscientiousness	1-5	3.85 ^a	0.64	3.19 ^b	0.59	3.49 ^{abcd}	0.64	3.67 ^{ac}	0.58	3.41 ^{bcd}	0.77	3.47 ^d	0.62
33. Neuroticism	1-5	2.53 ^a	0.82	2.97 ^b	0.70	2.88 ^{ab}	0.95	2.87 ^{ab}	0.75	2.93 ^{ab}	0.83	2.88 ^{ab}	0.75
34. Openness	1-5	3.87 ^{ac}	0.62	3.57 ^b	0.53	3.78 ^{abc}	0.59	3.69 ^a	0.53	3.71 ^{abc}	0.56	3.85 ^c	0.55
<i>Mental Health</i>													
35. General well-being	0-110	76.59	12.1 2	72.83	12.46	74.40	14.59	74.01	13.06	74.70	13.82	73.26	13.59
36. Anxiety	0-4	0.40	0.53	0.66	0.69	0.53	0.68	0.62	0.63	0.71	0.72	0.63	0.62
37. Depression	0-4	0.80	0.76	0.93	0.77	0.86	0.82	0.86	0.76	0.96	0.86	1.00	0.82
38. Hostility	0-4	0.53	0.65	0.60	0.73	0.42	0.63	0.58	0.77	0.77	0.89	0.68	0.86
<i>Physical Health</i>													
39. Physical health	7-31	25.67	4.34	25.95	4.24	27.25	3.86	26.61	3.53	24.40	5.46	25.72	4.17
40. Healthy behaviors	0-74	42.40	2.61	39.74	7.80	38.00	5.89	42.56	6.38	42.10	8.13	41.34	7.87

¹Coded as 1 (male) and 2 (female). ²Years in US is computed for first generation participants only. ³Coded as 1 (low) and 2 (high) bicultural competence. ^{abcd}Superscript letters indicate significant differences ($p < .05$).

Table 10

Descriptive statistics and difference tests of main study variables by generation

	Scale range	First generation (<i>N</i> =361)		Second generation (<i>N</i> =583)	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>Demographics/Acculturation</i>					
1. Percent female ¹	1-2	56.47	-	60.58	-
2. Age	open	19.75 ^a	2.20	19.09 ^b	1.69
3. Median income	open	50,000	-	60,000	-
4. Years in US ²	open	10.57	4.02	-	-
5. English proficiency/use	1-5	4.07 ^a	0.65	4.54 ^b	0.45
6. Other language proficiency/use	1-5	3.36 ^a	0.88	2.93 ^b	0.96
7. US identification	1-6	4.25 ^a	1.10	4.85 ^b	0.89
8. Other identification	1-6	4.84	1.02	4.71	1.04
9. Percent high bicultural competence ³	1-2	12.40 ^a	-	21.92 ^b	-
10. VIA heritage orientation	1-9	7.37	1.22	7.29	1.31
11. VIA mainstream orientation	1-9	6.95 ^a	1.21	7.24 ^b	1.13
<i>Bicultural Identity Integration</i>					
12. Harmony (vs. conflict)	1-5	3.57 ^a	0.70	3.67 ^b	0.78
13. Blendedness (vs. compartmentalization)	1-5	3.76 ^a	0.71	4.01 ^b	0.63
<i>Ethnic Identity</i>					
14. MEIM total ethnic identity	1-5	3.91	0.66	3.90	0.67
15. MEIM exploration	1-5	3.53	0.79	3.55	0.82
16. MEIM affirmation/belonging	1-5	4.18	0.69	4.14	0.71
17. EIS total ethnic identity	0-4	3.46	0.47	3.47	0.44
18. EIS exploration	0-4	3.23	0.65	3.27	0.66
19. EIS affirmation	0-4	3.76	0.48	3.76	0.46
20. EIS resolution	0-4	3.43	0.66	3.38	0.57
<i>Acculturation Attitudes</i>					
21. Assimilation	1-5	2.24	0.69	2.17	0.64
22. Integration	1-5	4.04	0.58	4.07	0.71
23. Separation	1-5	2.49 ^a	0.76	2.30 ^b	0.72
24. Marginalization	1-5	1.81	0.65	1.76	0.62
<i>Acculturation Stress</i>					
25. Language barriers	1-5	2.09 ^a	1.09	1.56 ^b	0.77
26. Discrimination/prejudice	1-5	2.98 ^a	1.05	3.23 ^b	1.11
27. Intercultural relations	1-5	2.44	0.97	2.52	1.04
28. Cultural isolation	1-5	2.43	0.87	2.51	0.96
29. Work challenges	1-5	3.25	0.86	3.18	0.99
<i>Personality</i>					
30. Extraversion	1-5	3.34	0.70	3.41	0.76
31. Agreeableness	1-5	3.80	0.60	3.84	0.58
32. Conscientiousness	1-5	3.37	0.63	3.42	0.65
33. Neuroticism	1-5	2.89	0.73	2.91	0.76
34. Openness	1-5	3.60 ^a	0.54	3.70 ^b	0.55
<i>Mental Health</i>					
35. General well-being	0-110	74.13	12.69	73.14	13.28

36. Anxiety	0-4	0.64	0.70	0.63	0.65
37. Depression	0-4	0.90	0.77	0.92	0.79
38. Hostility	0-4	0.57	0.72	0.62	0.80
<i>Physical Health</i>					
39. Physical health	7-31	26.43	3.61	25.98	4.33
40. Healthy behaviors	0-74	42.89 ^a	6.11	40.26 ^b	7.75

Note. Difference tests compare the 2 largest generation groups to each other (first generation to second generation). ¹Coded as 1 (male) and 2 (female). ²Years in US is computed for first generation participants only. ³Coded as 1 (low) and 2 (high) bicultural competence. ^{ab}Superscript letters indicate significant differences ($p < .05$).

Table 11
Correlations of main study variables for entire sample

	1	2	3	4	5	6	7	8	9	10
<i>Demographics/Acculturation</i>										
1. Sex ¹										
2. Age	-.11									
3. Income	-.11	.04								
4. Years in US	.01	.19	-.06							
5. English proficiency/use	.12	-.10	-.001	.42						
6. Other language proficiency/use	.13	.03	<u>-.09</u>	-.28	-.44					
7. US identification	.03	-.12	.03	.32	.53	-.34				
8. Other identification	.11	-.02	-.06	-.26	-.22	.48	-.22			
9. Bicultural competence ²	.13	-.03	-.03	.21	.33	.35	.21	.20		
10. VIA heritage orientation	.08	-.03	-.06	-.03	-.06	.36	-.12	.42	.17	
11. VIA mainstream orientation	.04	<u>-.08</u>	-.002	.26	.33	-.10	.37	-.03	.14	.35
<i>Bicultural Identity Integration</i>										
12. Harmony vs. conflict	-.08	-.11	.01	<u>.11</u>	.19	-.09	.17	-.0004	.11	.09
13. Blendedness vs. compartmentalization	.09	-.03	-.03	.20	.28	<u>-.08</u>	.30	.04	.16	.19
<i>Ethnic Identity</i>										
14. MEIM total ethnic identity	.11	-.02	-.06	-.01	-.001	.29	-.10	.41	.18	.70
15. MEIM exploration	.11	.01	-.05	-.01	.01	.22	-.10	.33	.14	.55
16. MEIM affirmation/belonging	<u>.08</u>	-.04	-.06	-.01	-.01	.29	<u>-.08</u>	.40	.18	.69
17. EIS total ethnic identity	.21	-.01	<u>-.10</u>	-.05	.02	.30	-.03	.33	.15	.65
18. EIS exploration	.19	.02	-.09	-.06	.03	.26	-.03	.28	.14	.58
19. EIS affirmation	.18	-.04	-.03	.07	-.02	.15	.01	.18	.07	.41
20. EIS resolution	<u>.09</u>	-.02	<u>-.12</u>	-.11	-.02	.29	-.04	.31	.12	.46
<i>Acculturation Attitudes</i>										
21. Assimilation	-.15	-.02	-.002	-.03	-.03	-.21	.12	-.24	-.14	-.40
22. Integration	.13	-.01	-.03	.08	.03	.09	.05	<u>.07</u>	.08	.24
23. Separation	-.13	.03	-.02	-.10	-.32	.23	-.27	.19	-.09	.25
24. Marginalization	-.12	.03	-.06	.03	<u>-.08</u>	-.05	-.01	-.12	-.06	-.25
<i>Acculturation Stress</i>										
25. Language barriers	<u>-.08</u>	.11	-.03	-.28	-.57	.25	-.36	.10	-.18	-.04
26. Discrimination/prejudice	.01	.04	.01	-.07	-.04	.13	-.06	.12	<u>.07</u>	.12
27. Intercultural relations	.01	.04	.05	-.12	-.10	<u>.06</u>	-.09	.08	-.03	-.03
28. Cultural isolation	-.01	<u>.07</u>	-.02	.01	<u>-.06</u>	.05	-.15	<u>.07</u>	-.0005	<u>.07</u>
29. Work challenges	<u>.07</u>	.04	-.04	-.15	-.19	.24	-.16	.22	.06	.17
<i>Personality</i>										
30. Extraversion	.12	-.02	.02	.02	.11	.04	.14	<u>.08</u>	.10	.17
31. Agreeableness	.18	-.04	-.10	.06	.14	.02	.06	.09	<u>.07</u>	.17
32. Conscientiousness	.22	.04	-.10	-.004	.15	.08	.09	.08	.13	.16
33. Neuroticism	.22	-.02	-.04	-.09	-.05	.03	-.04	-.01	.02	<u>-.07</u>
34. Openness	.01	.04	-.004	.04	.21	<u>-.06</u>	.10	.03	.13	.15
<i>Mental Health</i>										
35. General well-being	.02	-.02	.005	.02	<u>.08</u>	.06	<u>.08</u>	.05	<u>.08</u>	.13
36. Anxiety	-.001	-.001	-.04	-.07	-.10	.04	-.11	.01	<u>-.06</u>	<u>-.06</u>
37. Depression	.05	.03	-.01	-.06	<u>-.07</u>	-.01	-.10	-.02	-.05	-.08
38. Hostility	-.04	-.01	.01	.02	-.02	.003	-.06	.002	-.02	<u>-.08</u>
<i>Physical Health</i>										
39. Physical health	-.10	.05	.08	-.13	-.01	.09	-.04	.05	.03	.06
40. Healthy behaviors	.08	-.12	-.06	-.31	-.09	<u>.15</u>	-.06	<u>.15</u>	.01	.04

Note. Correlations significant at the .05 level (2-tailed) are underlined; those significant at the .01 level (2-tailed) are **bolded**. ¹Coded as 1 (male) and 2 (female). ²Years in US is computed for first generation participants only. ³Coded as 1 (low) and 2 (high) bicultural competence.

	11	12	13	14	15	16	17	18	19	20
<i>Demographics/Acculturation</i>										
1. Sex ¹										
2. Age										
3. Income										
4. Years in US										
5. English proficiency/use										
6. Other language proficiency/use										
7. US identification										
8. Other identification										
9. Bicultural competence ²										
10. VIA heritage orientation										
11. VIA mainstream orientation										
<i>Bicultural Identity Integration</i>										
12. Harmony vs. conflict	.21									
13. Blendedness vs. compartmentalization	.41	.36								
<i>Ethnic Identity</i>										
14. MEIM total ethnic identity	.18	<u>.07</u>	.16							
15. MEIM exploration	.09	-.10	.09	.87						
16. MEIM affirmation/belonging	.22	.20	.19	.92	.61					
17. EIS total ethnic identity	.24	.12	.26	.75	.63	.72				
18. EIS exploration	.20	-.01	.19	.69	.69	.56	.88			
19. EIS affirmation	.16	.20	.30	.41	.23	.50	.63	.30		
20. EIS resolution	.19	.15	.11	.57	.38	.62	.73	.51	.27	
<i>Acculturation Attitudes</i>										
21. Assimilation	-.01	<u>-.07</u>	-.18	-.34	-.25	-.36	-.40	-.31	-.42	-.20
22. Integration	.33	.05	.26	.15	.09	.16	.25	.19	.21	.19
23. Separation	-.29	-.16	-.25	.25	.27	.19	<u>.10</u>	.11	.01	.11
24. Marginalization	-.16	-.10	-.13	-.21	-.14	-.24	-.25	-.17	-.28	-.14
<i>Acculturation Stress</i>										
25. Language barriers	-.29	-.24	-.24	-.03	.03	<u>-.07</u>	-.11	-.05	-.16	-.07
26. Discrimination/prejudice	-.05	-.27	.01	.12	.19	.04	<u>.10</u>	.15	<u>-.09</u>	.12
27. Intercultural relations	-.13	-.41	-.12	.02	.15	-.09	-.03	.07	-.15	-.06
28. Cultural isolation	-.16	-.27	-.16	.11	.17	.03	.05	<u>.09</u>	-.02	.01
29. Work challenges	-.09	-.33	<u>-.06</u>	.20	.29	.09	.11	.18	-.07	<u>.10</u>
<i>Personality</i>										
30. Extraversion	.15	.11	.12	.21	.15	.23	.24	.18	.23	.18
31. Agreeableness	.20	.13	.14	.16	.09	.18	.23	.18	.23	.13
32. Conscientiousness	.14	<u>.08</u>	.05	.12	.04	.16	.21	.14	.19	.19
33. Neuroticism	-.10	-.22	-.05	<u>-.07</u>	.01	-.11	-.12	-.07	-.15	-.08
34. Openness	.17	.04	.13	.20	.18	.18	.19	.17	<u>.10</u>	.18
<i>Mental Health</i>										
35. General well-being	.14	.21	.11	.12	.04	.16	.19	<u>.09</u>	.25	.14
36. Anxiety	-.10	-.16	<u>-.06</u>	-.05	.01	-.10	<u>-.10</u>	-.02	-.18	<u>-.10</u>
37. Depression	-.09	-.23	<u>-.07</u>	-.09	-.01	-.14	-.15	-.04	-.25	-.13
38. Hostility	-.08	-.14	-.04	-.06	-.03	<u>-.08</u>	-.05	.003	-.14	-.01
<i>Physical Health</i>										
39. Physical health	.02	.10	-.03	.08	.01	<u>.13</u>	<u>.14</u>	.09	.09	<u>.14</u>
40. Healthy behaviors	-.12	-.01	-.11	.07	.03	.10	.08	.02	.03	<u>.17</u>

Note. Correlations significant at the .05 level (2-tailed) are underlined; those significant at the .01 level (2-tailed) are **bolded**. ¹Coded as 1 (male) and 2 (female). ²Years in US is computed for first generation participants only. ³Coded as 1 (low) and 2 (high) bicultural competence.

	21	22	23	24	25	26	27	28	29	30
<i>Demographics/Acculturation</i>										
1. Sex ¹										
2. Age										
3. Income										
4. Years in US ²										
5. English proficiency/use										
6. Other language proficiency/use										
7. US identification										
8. Other identification										
9. Bicultural competence ³										
10. VIA heritage orientation										
11. VIA mainstream orientation										
<i>Bicultural Identity Integration</i>										
12. Harmony vs. conflict										
13. Blendedness vs. compartmentalization										
<i>Ethnic Identity</i>										
14. MEIM total ethnic identity										
15. MEIM exploration										
16. MEIM affirmation/belonging										
17. EIS total ethnic identity										
18. EIS exploration										
19. EIS affirmation										
20. EIS resolution										
<i>Acculturation Attitudes</i>										
21. Assimilation										
22. Integration	-.13									
23. Separation	.13	-.22								
24. Marginalization	.41	-.21	.28							
<i>Acculturation Stress</i>										
25. Language barriers	.15	-.02	.27	.25						
26. Discrimination/prejudice	-.10	.04	.04	-.04	<u>.07</u>					
27. Intercultural relations	<u>.07</u>	.01	.10	.08	.21	.33				
28. Cultural isolation	-.001	-.10	.25	.14	.18	.31	.22			
29. Work challenges	-.01	.06	.20	.01	.25	.50	.27	.29		
<i>Personality</i>										
30. Extraversion	<u>-.08</u>	.10	<u>-.08</u>	<u>-.08</u>	-.18	-.02	-.04	-.14	-.02	
31. Agreeableness	-.16	.12	-.06	-.17	-.22	-.15	-.18	<u>-.08</u>	-.09	.12
32. Conscientiousness	-.11	.04	<u>-.07</u>	-.11	-.18	-.05	-.13	-.003	-.01	.20
33. Neuroticism	.06	-.01	.01	.02	.16	.19	.18	.14	.18	-.22
34. Openness	-.09	.12	-.13	-.10	-.17	.06	.04	-.09	.01	.29
<i>Mental Health</i>										
35. General well-being	-.14	.09	-.05	-.10	-.18	-.14	-.15	-.20	-.14	.28
36. Anxiety	.13	-.05	<u>.07</u>	.10	.22	.16	.17	.11	.18	-.10
37. Depression	.13	-.02	.03	<u>.08</u>	.17	.20	.20	.18	.19	-.16
38. Hostility	<u>.08</u>	-.04	.03	.11	<u>.06</u>	.19	.13	.11	.13	-.05
<i>Physical Health</i>										
39. Physical health	-.20	.05	.01	-.22	-.08	-.13	<u>-.17</u>	-.07	<u>-.13</u>	-.01
40. Healthy behaviors	-.06	.004	.09	-.02	.03	.02	.01	.09	<u>.15</u>	.03

Note. Correlations significant at the .05 level (2-tailed) are underlined; those significant at the .01 level (2-tailed) are **bolded**. ¹Coded as 1 (male) and 2 (female). ²Years in US is computed for first generation participants only. ³Coded as 1 (low) and 2 (high) bicultural competence.

	31	32	33	34	35	36	37	38	39	40
<i>Demographics/Acculturation</i>										
1. Sex ¹										
2. Age										
3. Income										
4. Years in US ²										
5. English proficiency/use										
6. Other language proficiency/use										
7. US identification										
8. Other identification										
9. Bicultural competence ³										
10. VIA heritage orientation										
11. VIA mainstream orientation										
<i>Bicultural Identity Integration</i>										
12. Harmony vs. conflict										
13. Blendedness vs. compartmentalization										
<i>Ethnic Identity</i>										
14. MEIM total ethnic identity										
15. MEIM exploration										
16. MEIM affirmation/belonging										
17. EIS total ethnic identity										
18. EIS exploration										
19. EIS affirmation										
20. EIS resolution										
<i>Acculturation Attitudes</i>										
21. Assimilation										
22. Integration										
23. Separation										
24. Marginalization										
<i>Acculturation Stress</i>										
25. Language barriers										
26. Discrimination/prejudice										
27. Intercultural relations										
28. Cultural isolation										
29. Work challenges										
<i>Personality</i>										
30. Extraversion										
31. Agreeableness										
32. Conscientiousness	.36									
33. Neuroticism	-.35	-.21								
34. Openness	.10	.19	-.08							
<i>Mental Health</i>										
35. General well-being	.28	.25	-.56	.09						
36. Anxiety	-.20	-.18	.46	-.02	-.53					
37. Depression	-.21	-.17	.54	-.02	-.74	.68				
38. Hostility	-.39	-.18	.40	-.03	-.47	.54	.60			
<i>Physical Health</i>										
39. Physical health	.22	.11	-.38	-.09	.47	-.45	-.52	-.32		
40. Healthy behaviors	<u>.13</u>	<u>.17</u>	-.12	-.07	.18	<u>-.15</u>	-.20	<u>-.15</u>	.26	

Note. Correlations significant at the .05 level (2-tailed) are underlined; those significant at the .01 level (2-tailed) are **bolded**. ¹Coded as 1 (male) and 2 (female). ²Years in US is computed for first generation participants only. ³Coded as 1 (low) and 2 (high) bicultural competence.

Table 12
Correlations by generation status

	1	2	3	4	5	6	7	8	9	10
<i>Demographics/Acculturation</i>										
1. Sex ¹	-	-.14	<u>-.16</u>	.001	<u>.11</u>	.10	-.04	.10	.04	.08
2. Age	-.07	-	.07	.22	-.03	-.01	-.05	-.02	.04	-.06
3. Income	<u>-.11</u>	-.01	-	-.06	-.06	-.06	-.0006	-.11	.02	-.12
4. Years in US	<u>.49</u>	-.18	.26	-	.40	-.26	.32	-.26	.20	-.03
5. English proficiency/use	.11	-.05	.16	.62	-	-.44	.55	-.19	.40	.004
6. Other language proficiency/use	.19	-.01	-.19	<u>-.49</u>	-.38	-	-.28	.48	.19	.36
7. US identification	.06	-.12	.07	.18	.34	-.24	-	-.25	.32	-.11
8. Other identification	<u>.10</u>	-.03	-.05	-.20	-.16	.47	<u>-.11</u>	-	<u>.14</u>	.45
9. Bicultural competence ²	.18	-.06	-.06	.32	.30	.42	.16	.26	-	.14
10. VIA heritage orientation	.08	-.04	-.06	-.08	-.03	.39	-.07	.41	.22	-
11. VIA mainstream orientation	.02	-.02	.05	<u>.48</u>	.22	-.01	.30	-.02	.15	.38
<i>Bicultural Identity Integration</i>										
12. Harmony vs. conflict	-.08	-.14	.001	.30	.17	-.03	.14	.03	.13	.11
13. Blendedness vs. compartmentalization	.08	-.03	-.004	.26	.20	.02	.26	.07	.18	.28
<i>Ethnic Identity</i>										
14. MEIM total ethnic identity	<u>.10</u>	-.02	-.02	.32	.04	.30	<u>-.10</u>	.45	.22	.70
15. MEIM exploration	<u>.09</u>	.03	.01	.26	.06	.22	<u>-.11</u>	.36	.18	.53
16. MEIM affirmation/belonging	<u>.09</u>	-.06	-.04	.29	.02	.31	-.07	.44	.22	.71
17. EIS total ethnic identity	.19	-.05	-.06	.36	.02	.34	.03	.41	.15	.65
18. EIS exploration	.17	-.05	-.03	-.18	-.01	.32	.02	.36	<u>.13</u>	.58
19. EIS affirmation	.15	-.04	-.08	.59	.07	<u>.13</u>	.05	.18	.10	.42
20. EIS resolution	.09	-.03	-.05	-.02	-.01	.32	-.01	.39	<u>.13</u>	.44
<i>Acculturation Attitudes</i>										
21. Assimilation	-.18	.01	.02	-.41	-.03	-.27	<u>.09</u>	-.21	-.19	-.42
22. Integration	.13	-.05	-.08	.40	-.02	.08	.02	.01	.07	.23
23. Separation	-.15	.01	-.03	-.15	-.21	.15	-.22	.13	-.06	.24
24. Marginalization	-.14	.02	-.06	<u>-.51</u>	<u>-.09</u>	<u>-.09</u>	-.003	-.07	<u>-.08</u>	-.28
<i>Acculturation Stress</i>										
25. Language barriers	<u>-.10</u>	.06	-.09	-.81	-.50	.18	-.18	.08	-.13	<u>-.08</u>
26. Discrimination/prejudice	.02	<u>.09</u>	-.04	-.17	-.07	.13	-.15	.12	.06	.13
27. Intercultural relations	-.02	.08	.07	-.34	-.03	-.02	-.06	.05	-.05	-.07
28. Cultural isolation	-.02	.11	-.01	.12	<u>-.09</u>	.06	-.18	<u>.10</u>	-.01	.08
29. Work challenges	<u>.08</u>	.04	-.04	.04	-.13	.19	<u>-.11</u>	.20	.06	.18
<i>Personality</i>										
30. Extraversion	.11	.0003	.06	-.06	.06	.06	<u>.10</u>	<u>.10</u>	.08	.18
31. Agreeableness	.14	-.04	-.14	.18	<u>.10</u>	.07	.05	.08	<u>.09</u>	.16
32. Conscientiousness	.26	.04	<u>-.12</u>	.23	<u>.08</u>	.14	.05	.07	.12	.14
33. Neuroticism	.21	-.02	-.02	-.43	-.04	.06	-.05	-.04	.04	-.03
34. Openness	.02	.05	.001	.11	.17	-.02	.07	.05	.13	.16
<i>Mental Health</i>										
35. General well-being	<u>.09</u>	-.01	-.003	.31	.12	.03	.05	.07	<u>.10</u>	<u>.10</u>
36. Anxiety	-.02	.004	-.05	-.73	-.11	.03	<u>-.09</u>	.02	-.05	-.03
37. Depression	.04	-.01	-.08	<u>-.55</u>	-.08	-.01	-.06	-.06	-.06	-.06
38. Hostility	-.08	.01	-.01	-.35	-.03	.004	-.07	.04	-.03	-.02
<i>Physical Health</i>										
39. Physical health	-.12	-.04	-.15	-.84	.03	.12	-.07	-.03	.02	.02
40. Healthy behaviors	.16	-.11	-.18	-.46	.02	.15	.06	.12	.09	.10

Note. Correlations for generation 1 are above the diagonal, while those for generation 2 are below the diagonal. Correlations significant at the .05 level (2-tailed) are underlined; those significant at the .01 level (2-tailed) are **bolded**. ¹Coded as 1 (male) and 2 (female). ²Coded as 1 (low) and 2 (high) bicultural competence.

	11	12	13	14	15	16	17	18	19	20
<i>Demographics/Acculturation</i>										
1. Sex ¹	.04	-.08	.06	.10	<u>.11</u>	.07	.24	.20	.20	.12
2. Age	-.09	-.06	.02	-.03	-.01	-.04	-.02	.04	-.06	-.06
3. Income	-.06	.02	-.06	-.11	-.12	-.09	-.16	-.17	-.03	<u>-.20</u>
4. Years in US	.25	.11	.20	-.02	-.03	-.02	-.05	-.04	.04	-.11
5. English proficiency/use	.45	.22	.31	.04	.02	.05	.04	.13	-.13	.003
6. Other language proficiency/use	-.14	-.07	-.15	.31	.24	.31	.29	.21	.22	.32
7. US identification	.45	.18	.34	-.06	-.09	-.03	-.10	-.11	-.05	-.06
8. Other identification	.005	.02	-.02	.38	.28	.40	.36	.24	.27	.40
9. Bicultural competence ²	.22	.17	.15	.16	<u>.11</u>	.17	<u>.14</u>	<u>.16</u>	-.002	<u>.15</u>
10. VIA heritage orientation	.37	<u>.13</u>	.04	.65	.51	.65	.62	.54	.39	.50
11. VIA mainstream orientation	-	.19	.44	.18	.09	.21	.26	.22	.08	.27
<i>Bicultural Identity Integration</i>										
12. Harmony vs. conflict	.21	-	.31	.14	.01	.23	.14	.04	<u>.15</u>	.13
13. Blendedness vs. compartmentalization	.35	.39	-	.09	.08	.08	.21	.13	.25	.13
<i>Ethnic Identity</i>										
14. MEIM total ethnic identity	.20	.08	.22	-	.88	.92	.71	.64	.38	.59
15. MEIM exploration	<u>.10</u>	-.12	.11	.87	-	.63	.58	.66	<u>.16</u>	.39
16. MEIM affirmation/belonging	.25	.23	.27	.91	.59	-	.69	.51	.50	.66
17. EIS total ethnic identity	.28	.15	.32	.77	.64	.72	-	.87	.67	.76
18. EIS exploration	.25	.01	.25	.70	.69	.57	.89	-	.31	.53
19. EIS affirmation	.19	.24	.34	.45	.28	.51	.62	.30	-	.38
20. EIS resolution	.17	.17	<u>.12</u>	.53	.35	.58	.70	.51	.22	-
<i>Acculturation Attitudes</i>										
21. Assimilation	-.03	<u>-.10</u>	-.22	-.35	-.26	-.36	-.38	-.29	-.40	-.18
22. Integration	.32	.06	.24	.14	<u>.09</u>	.15	.23	.19	.21	<u>.13</u>
23. Separation	-.23	-.14	-.21	.26	.28	.19	<u>.11</u>	<u>.12</u>	.003	<u>.11</u>
24. Marginalization	-.18	-.12	-.14	-.22	-.15	-.24	-.22	-.16	-.24	<u>-.11</u>
<i>Acculturation Stress</i>										
25. Language barriers	-.21	-.21	-.17	-.06	.02	-.12	-.17	-.08	-.24	-.10
26. Discrimination/prejudice	-.05	-.30	-.04	.13	.19	.05	.03	.08	<u>-.11</u>	.08
27. Intercultural relations	-.17	-.43	-.22	.003	.17	-.13	<u>-.12</u>	.01	-.22	-.15
28. Cultural isolation	-.15	-.29	-.16	.12	.17	.05	.04	.03	.03	.02
29. Work challenges	-.04	-.34	-.08	.21	.31	<u>.08</u>	.09	.14	-.05	.07
<i>Personality</i>										
30. Extraversion	.14	.07	.11	.24	.16	.26	.27	.20	.26	.16
31. Agreeableness	.17	<u>.09</u>	.13	.11	.03	.15	.18	<u>.14</u>	.21	.06
32. Conscientiousness	<u>.10</u>	<u>.08</u>	.08	<u>.09</u>	-.003	.15	.16	.09	.20	.09
33. Neuroticism	<u>-.10</u>	-.19	-.04	-.04	.05	<u>-.11</u>	-.06	-.02	-.10	-.04
34. Openness	.14	-.02	<u>.09</u>	.22	.19	.20	.20	.20	.09	.14
<i>Mental Health</i>										
35. General well-being	.13	.22	.11	.08	-.01	.13	.14	.04	.27	.05
36. Anxiety	-.06	-.18	<u>-.10</u>	-.03	.04	-.07	-.06	-.01	<u>-.13</u>	-.05
37. Depression	-.05	-.26	-.07	-.04	.05	<u>-.11</u>	-.09	.01	-.24	-.04
38. Hostility	-.07	-.12	-.07	-.01	.03	-.05	-.02	.02	-.15	.06
<i>Physical Health</i>										
39. Physical health	.04	.14	-.05	-.02	-.11	.07	.09	.02	.12	.11
40. Healthy behaviors	-.07	.02	-.11	.03	-.01	.06	.02	-.02	-.02	.11

Note. Correlations for generation 1 are above the diagonal, while those for generation 2 are below the diagonal. Correlations significant at the .05 level (2-tailed) are underlined; those significant at the .01 level (2-tailed) are **bolded**. ¹Coded as 1 (male) and 2 (female). ²Coded as 1 (low) and 2 (high) bicultural competence.

	21	22	23	24	25	26	27	28	29	30
<i>Demographics/Acculturation</i>										
1. Sex ¹	<u>-.11</u>	.14	<u>-.12</u>	-.07	-.03	-.02	.04	.02	.01	.07
2. Age	-.06	.07	.02	.04	.09	.02	-.02	.07	.09	.01
3. Income	-.03	-.02	-.04	-.06	-.02	.04	.05	-.01	-.05	.003
4. Years in US	-.01	.07	-.10	.03	-.24	-.06	<u>-.11</u>	.01	-.17	.03
5. English proficiency/use	-.02	<u>.12</u>	-.34	-.05	-.54	<u>-.11</u>	-.18	-.07	-.26	.14
6. Other language proficiency/use	-.15	.07	.29	-.04	.25	.10	.06	-.03	.23	.03
7. US identification	.15	<u>.13</u>	-.25	-.01	-.38	-.03	<u>-.13</u>	-.18	-.17	.17
8. Other identification	-.27	.20	.16	-.17	.06	.06	.02	-.07	.15	.09
9. Bicultural competence ²	-.02	.10	<u>-.12</u>	-.02	-.22	-.04	-.08	-.07	-.04	<u>.12</u>
10. VIA heritage orientation	-.36	.30	.22	-.20	-.08	.01	-.08	-.01	.08	.15
11. VIA mainstream orientation	.01	.38	-.33	<u>-.11</u>	-.33	-.05	<u>-.12</u>	-.14	<u>-.11</u>	.14
<i>Bicultural Identity Integration</i>										
12. Harmony vs. conflict	-.06	.05	<u>-.13</u>	-.03	-.27	-.18	-.36	-.24	-.26	.19
13. Blendedness vs. compartmentalization	-.07	.27	-.27	-.09	-.25	.04	-.05	-.21	-.03	.14
<i>Ethnic Identity</i>										
14. MEIM total ethnic identity	-.32	.19	.21	-.20	-.06	.01	-.003	.04	.10	.19
15. MEIM exploration	-.22	<u>.12</u>	.23	<u>-.12</u>	.01	.10	.10	<u>.12</u>	.20	.14
16. MEIM affirmation/belonging	-.35	.22	.15	-.23	-.10	-.06	-.09	-.03	.004	.20
17. EIS total ethnic identity	-.44	.35	.07	-.29	-.09	.11	.10	.02	.09	.19
18. EIS exploration	-.31	.26	.07	-.19	-.06	<u>.14</u>	<u>.17</u>	.14	<u>.16</u>	.12
19. EIS affirmation	-.47	.24	.02	-.33	-.11	-.05	-.05	<u>-.15</u>	-.11	<u>.16</u>
20. EIS resolution	-.26	.37	.09	-.20	-.06	.13	.04	-.05	.11	.21
<i>Acculturation Attitudes</i>										
21. Assimilation	-	-.20	.16	.48	.15	-.07	.05	<u>.12</u>	.05	-.03
22. Integration	-.08	-	-.26	-.21	-.06	-.01	-.04	-.08	-.04	<u>.13</u>
23. Separation	.13	-.22	-	.29	.27	.05	.08	.23	.18	-.04
24. Marginalization	.35	-.20	.27	-	.22	-.01	.08	.22	.05	-.06
<i>Acculturation Stress</i>										
25. Language barriers	.18	-.02	.21	.28	-	.17	.30	.26	.35	-.24
26. Discrimination/prejudice	-.08	.06	.03	-.06	.04	-	.34	.22	.42	-.07
27. Intercultural relations	<u>.10</u>	-.01	<u>.10</u>	.08	.17	.28	-	.18	.26	<u>-.13</u>
28. Cultural isolation	-.03	-.11	.27	<u>.09</u>	.14	.30	.21	-	.19	-.20
29. Work challenges	-.01	<u>.09</u>	.20	-.02	.19	.50	.25	.30	-	-.09
<i>Personality</i>										
30. Extraversion	-.13	<u>.09</u>	<u>-.10</u>	<u>-.09</u>	<u>-.11</u>	.01	.02	-.14	.01	-
31. Agreeableness	-.15	<u>.09</u>	-.05	-.17	-.18	-.11	-.13	-.07	-.08	.08
32. Conscientiousness	-.14	.04	<u>-.10</u>	-.13	-.17	.01	<u>-.09</u>	-.0004	.03	.17
33. Neuroticism	.01	.02	.04	.004	.13	.17	.12	.14	.16	-.24
34. Openness	-.13	<u>.11</u>	-.12	-.12	-.12	.08	.08	-.04	.03	.28
<i>Mental Health</i>										
35. General well-being	-.13	.07	-.05	<u>-.10</u>	-.17	-.13	-.14	-.18	-.15	.26
36. Anxiety	.11	.002	<u>.10</u>	<u>.09</u>	.21	.15	.13	.12	.14	<u>-.09</u>
37. Depression	.12	.01	.02	.06	.14	.19	.18	.17	.17	-.14
38. Hostility	.06	.02	.05	<u>.09</u>	.02	.18	.11	<u>.10</u>	.12	-.03
<i>Physical Health</i>										
39. Physical health	<u>-.20</u>	.0007	-.05	<u>-.18</u>	-.05	-.23	<u>-.20</u>	-.13	<u>-.18</u>	-.03
40. Healthy behaviors	-.07	.06	.05	-.13	-.07	.03	.01	.13	.12	.02

Note. Correlations for generation 1 are above the diagonal, while those for generation 2 are below the diagonal. Correlations significant at the .05 level (2-tailed) are underlined; those significant at the .01 level (2-tailed) are **bolded**. ¹Coded as 1 (male) and 2 (female). ²Coded as 1 (low) and 2 (high) bicultural competence.

	31	32	33	34	35	36	37	38	39	40
<i>Demographics/Acculturation</i>										
1. Sex ¹	.23	.14	.23	-.01	-.10	.04	.06	-.02	-.14	-.06
2. Age	-.04	.07	-.03	.07	-.01	-.03	.04	-.04	.17	-.17
3. Income	-.12	-.10	-.05	-.02	-.02	-.03	.05	.05	.20	-.13
4. Years in US	.06	.01	-.07	.03	.01	-.02	-.02	.04	-.15	-.31
5. English proficiency/use	.22	.20	-.08	.20	.06	-.05	-.05	-.02	-.09	-.12
6. Other language proficiency/use	-.05	.05	.01	-.05	<u>.12</u>	.03	-.03	-.01	-.02	.08
7. US identification	.10	.10	-.05	.10	<u>.13</u>	<u>-.12</u>	-.16	-.07	-.003	-.20
8. Other identification	.09	.15	-.02	.09	<u>.11</u>	-.06	-.08	<u>-.11</u>	.07	.17
9. Bicultural competence ²	.05	.18	.02	.17	.07	-.07	-.05	-.01	-.01	-.08
10. VIA heritage orientation	.22	.19	-.15	.14	.18	<u>-.12</u>	<u>-.13</u>	-.18	.05	-.12
11. VIA mainstream orientation	.29	.14	<u>-.13</u>	.17	.16	-.16	-.17	<u>-.13</u>	.11	-.21
<i>Bicultural Identity Integration</i>										
12. Harmony vs. conflict	.16	.01	-.29	<u>.11</u>	.24	<u>-.14</u>	-.20	-.18	.10	-.11
13. Blendedness vs. compartmentalization	.14	-.01	-.08	.16	<u>.12</u>	-.02	-.08	-.01	.03	.01
<i>Ethnic Identity</i>										
14. MEIM total ethnic identity	.26	.14	<u>-.13</u>	.20	.18	-.08	-.17	-.16	.12	.13
15. MEIM exploration	.21	.07	-.06	.18	<u>.11</u>	-.01	<u>-.12</u>	-.14	.13	.12
16. MEIM affirmation/belonging	.26	.17	-.15	.19	.20	<u>-.12</u>	-.19	-.14	.08	.12
17. EIS total ethnic identity	.34	.26	<u>-.16</u>	.18	.24	-.14	-.20	-.10	.14	.22
18. EIS exploration	.28	.22	-.10	.13	<u>.15</u>	-.03	-.09	-.04	.18	.15
19. EIS affirmation	.27	<u>.16</u>	-.23	.12	.24	-.24	-.29	<u>-.16</u>	-.03	.19
20. EIS resolution	.26	.28	-.10	.22	.21	-.12	<u>-.17</u>	-.06	.10	.19
<i>Acculturation Attitudes</i>										
21. Assimilation	-.17	-.06	.15	-.10	-.16	<u>.13</u>	.15	.10	-.11	-.05
22. Integration	.19	<u>.11</u>	<u>-.11</u>	.17	<u>.11</u>	-.16	-.10	-.18	.19	.02
23. Separation	-.09	-.03	-.01	-.15	-.07	.02	.03	.01	.03	.13
24. Marginalization	-.17	-.09	.08	<u>-.12</u>	<u>-.11</u>	.06	.07	.14	-.20	.21
<i>Acculturation Stress</i>										
25. Language barriers	-.29	-.17	.23	-.18	-.23	.21	.21	.14	-.12	.16
26. Discrimination/prejudice	-.20	<u>-.13</u>	.25	.03	-.17	.19	.21	.19	-.03	.08
27. Intercultural relations	-.27	-.18	.28	.0002	-.17	.22	.20	.15	-.12	.15
28. Cultural isolation	-.09	.02	.14	-.20	-.25	.09	.17	<u>.13</u>	.01	.04
29. Work challenges	-.18	-.06	.20	-.01	-.19	.26	.22	.14	-.11	.16
<i>Personality</i>										
30. Extraversion	.20	.20	-.25	.26	.34	<u>-.12</u>	-.21	<u>-.12</u>	.02	.15
31. Agreeableness	-	.41	-.37	.09	.26	-.25	-.25	-.39	.14	-.05
32. Conscientiousness	.34	-	-.15	.21	.17	-.16	-.09	<u>-.13</u>	-.05	-.05
33. Neuroticism	-.37	-.24	-	-.07	-.56	.45	.54	.43	-.35	-.003
34. Openness	<u>.11</u>	.14	-.07	-	.03	.06	.05	.004	-.07	.02
<i>Mental Health</i>										
35. General well-being	.31	.29	-.58	<u>.09</u>	-	-.50	-.71	-.44	.33	-.05
36. Anxiety	-.19	-.17	.47	-.03	-.55	-	.69	.57	-.44	.08
37. Depression	-.22	-.19	.56	-.004	-.76	.67	-	.61	-.49	.05
38. Hostility	-.41	-.20	.39	-.03	-.48	.53	.60	-	-.33	-.004
<i>Physical Health</i>										
39. Physical health	.28	.14	-.41	-.07	.55	-.44	-.54	-.35	-	.01
40. Healthy behaviors	.16	<u>.21</u>	-.11	-.08	.23	<u>-.20</u>	-.27	-.16	.34	-

Note. Correlations for generation 1 are above the diagonal, while those for generation 2 are below the diagonal. Correlations significant at the .05 level (2-tailed) are underlined; those significant at the .01 level (2-tailed) are **bolded**. ¹Coded as 1 (male) and 2 (female). ²Coded as 1 (low) and 2 (high) bicultural competence.

Figure Captions

Figure 1. Scree plot from principal axis factoring with promax rotation ($N = 600$).

Figure 2. Theorized two-factor CFA model with standardized parameter estimates ($N = 449$).

Figure 3. Alternative one-factor CFA model with standardized parameter estimates ($N = 449$).

Figure 4. Original path model from Benet-Martínez and Haritatos (2005).

Figure 5. Path model with standardized (and unstandardized coefficients) ($N = 1049$).

Figure 6. Path model with standardized (and unstandardized coefficients) for only first-generation bicultural individuals ($N = 361$).

Figure 7. Path model with standardized (and unstandardized coefficients) for only second-generation bicultural individuals ($N = 583$).

Scree Plot













