Bicultural Identity, Bilingualism, and Psychological Adjustment in Multicultural Societies: Immigration-Based and Globalization-Based Acculturation

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ABSTRACT The present investigation examined the impact of bicultural identity, bilingualism, and social context on the psychological adjustment of multicultural individuals. Our studies targeted three distinct types of biculturals: Mainland Chinese immigrants in Hong Kong, Filipino domestic workers (i.e., sojourners) in Hong Kong, and Hong Kong and Mainland Chinese college students. Individual differences in Bicultural Identity Integration (BII; Benet-Martínez, Leu, Lee, & Morris, 2002) positively predicted psychological adjustment for all the samples except sojourners even after controlling for the personality traits of neuroticism and self-efficacy. Cultural identification and language abilities also predicted adjustment, although these associations varied across the samples in meaningful ways. We concluded that, in the process of managing multiple cultural environments and group loyalties, bilingual competence, and perceiving one’s two cultural identities as integrated are important antecedents of beneficial psychological outcomes.

I think of myself not as a unified cultural being but as a communion of different cultural beings. Due to the fact that I have spent

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time in different cultural environments, I have developed several cultural identities that diverge and converge according to the need of the moment. (Sparrow, 2000, p. 190)

Globalization has led people from more and more nations to become multilingual and multicultural. For the most part, the impact of globalization has been manifested and explored in economic development, changes in lifestyles, and communication patterns (Arnett, 2002; Berger & Huntington, 2002). Yet, increasing intercultural contact has brought many psychological changes to acculturating individuals. Consequently, theorizing and research on bilingualism and biculturalism have received increasing attention in the psychological literature (Benet-Martínez & Haritatos, 2005; Hermans & Kempen, 1998; Hong, Morris, Chiu, & Benet-Martínez, 2000; Ramirez-Esparza, Gosling, Benet-Martínez, Potter, & Pennebaker, 2006). In the past decades, the majority of research in this area was focused on assessing bicultural identities of immigrants and ethnic minorities, mostly in Western cultural contexts, and on evaluating their psychological adjustment and sociocultural adaptation (Schwartz, Montgomery, & Briones, 2006; van de Vijver & Phalet, 2004). Less is known about the identity issues of nonimmigrants, especially majority groups who come into contact with other cultures as a consequence of globalization and migration (i.e., individuals growing up in multicultural and multilingual societies such as Hong-Kong, Quebec, or Catalonia). The present research seeks to investigate not only immigration-based acculturation but also globalization-based acculturation with an emphasis on the distinct patterns of bicultural orientations and psychological outcomes arising from these two types of acculturation experiences.

Immigration-Based Acculturation

Past research on acculturation was initiated by sociologists and anthropologists to study the societal changes of migration at the group level (e.g., Redfield, Linton, & Herskovits, 1936), whereas psychologists have most often examined the impact of such social changes on psychological processes, social behaviors, and individual experiences (e.g., Berry, 1990). In the process of cultural adaptation, individuals can be classified into four possible categories based on
their acculturation attitudes, as depicted by Berry and colleagues’ seminal work (e.g., Berry, 1990): assimilation (identification mostly with the receiving culture), integration (high identification with both cultures), separation (identification mostly with the culture of origin), or marginalization (low identification with both cultures). This model addresses the two central issues acculturating individuals have to manage: the extent to which they are motivated or allowed to maintain their culture of origin and the extent to which they are motivated or allowed to engage in contact with the receiving culture, usually characterized as the cultural values and practices of the majority cultural group.

Individuals who adopt the integration strategy incline toward biculturalism—that is, they endorse both their culture of origin and that of the receiving culture (e.g., Berry & Sam, 1997; van de Vijver & Phalet, 2004). Previous findings have been inconsistent regarding the subjective experiences involved in acquiring and negotiating two or more languages and cultures. Some of the early work on this issue considered bilingualism and biculturalism to be psychologically handicapping and stressful, provoking anxiety and depression (e.g., Adler, 1977; Park, 1928; Rudmin, 2003; Stonequist, 1935). This line of reasoning is reflected in the early beliefs that bilingualism hindered children’s cognitive development and academic achievement (e.g., Saer, 1922, 1923).

However, accumulated evidence also supports the opposite view that bilingualism and biculturalism have a positive impact on intellectual development and subjective well-being (e.g., Bialystok, 1999; Carringer, 1974; Peal & Lambert, 1962; Tran, 1994). Researchers argue that bicultural individuals do not necessarily experience linguistic confusion and identity conflict. Rather, involvement and contact with two cultures can be beneficial as long as bicultural persons do not internalize the (potential) conflict between the two intersecting cultures (e.g., Benet-Martínez & Haritatos, 2005; Padilla, 1994; Phinney & Devich-Navarro, 1997).

**Globalization-Based Acculturation**

Most research on bilingualism, however, has been conducted in Western cultures, especially North America (Benet-Martínez & Haritatos, 2005; Benet-Martínez et al., 2002; Downie, Koestner,
ElGeledi, & Cree, 2004; Haritatos & Benet-Martínez, 2002; Ryder, Alden, & Paulhus, 2000). These studies have focused exclusively on immigration-based acculturation. Because acculturation can occur as a result of globalization as well as acculturation (Arnett, 2002), and because the study of acculturation has broadened beyond North America (Berry, Phinney, Sam, & Vedder, 2006), it remains to be seen how constructs and models of biculturalism apply to globalization-based acculturation, and to other minority and nonminority acculturating groups outside North America.

Arnett (2002) described the influence of globalization on psychological functioning, emphasizing identity issues as the central psychological consequence of globalization, occurring as individuals develop a bicultural identity through the process of acculturating to a world of interacting cultural traditions. This bicultural identity refers to a local identity that is rooted in the culture of origin as well as a global identity that emerges as individuals adapt to the demands of an emerging culture of multiculturalism. For non-Western groups acculturating through globalization, the local identity is embedded in the ethnic traditions, norms, and practices with which they were raised, whereas the global identity is heavily influenced by values, beliefs, and institutions of Western cultural groups, especially in cases where they are adapting to one of these cultural systems in the course of their education, travel, or employment (Berger & Huntington, 2002). Thus, the central issue for globalization-based acculturation may not be traditional bicultural identities (i.e., adding a new identity of the receiving culture to the identity of the ethnic culture, as is typically seen with immigrants) but rather the selective incorporation of cultural elements from the various cultural worldviews and practices to which a person has been exposed during his or her life.

**Bicultural Identity Integration (BII)**

Benet-Martínez and her colleagues (Benet-Martínez & Haritatos, 2005; Benet-Martínez, Leu, Lee, & Morris, 2002; Benet-Martínez, Lee, & Leu, 2006) have proposed the construct of Bicultural Identity Integration (BII) to capture variations among bicultural individuals in the degree to which they “perceive their mainstream and ethnic cultural identities as compatible and integrated vs. oppositional and difficult to integrate” (p. 9). As an individual difference variable, BII
focuses on bicultural individuals’ subjective perceptions of managing dual cultural identities (i.e., how much their dual cultural identities intersect or overlap) and encompasses perceptions of distance (vs. overlap) and perceptions of conflict (vs. harmony) between one’s two cultural identities or orientations. BII has been found to be positively associated with dispositional factors such as openness to experience and (low) neuroticism and negatively with perceived contextual pressures such as stress in the linguistic domain and the experiences of cultural isolation and discrimination (Benet-Martínez & Haritatos, 2005).

Further, in a series of experimental studies, BII was found to moderate cultural frame-switching behavior (CFS; Hong et al., 2000): Chinese-American biculturals with high BII responded in culturally consistent ways to cultural cues by making more internal attributions (a characteristically Western attribution style) when exposed to American primes and more external attributions (a characteristically Eastern attribution style) in the face of Chinese primes. Conversely, those with low BII responded in ways inconsistent with the cultural primes (Benet-Martínez et al., 2002), a phenomenon known as “cultural reactance.” So bicultural individuals’ mode or style in integrating their cultural identities appears to affect their reaction to culturally specific stimuli, leading either to accommodation or to opposition in one’s cognitive processes.1

Bicultural Competence and Adjustment

It is important to note that, by definition, bicultural individuals—both those low on BII and those high on BII—endorse Berry’s acculturative strategy of integration (i.e., favor a bicultural orientation over assimilation, separation, or marginalization) and show a bicultural/bilingual pattern of cultural identification and language

1. Although no construct in the existing literature captures all the nuances of BII, a few theorists have proposed acculturation experiences and outcomes that seem to relate (if only partially) to the identity integration vs. opposition individual difference defined by BII. Examples of these constructs are “fusion” (Chuang, 1999), “blendedness” (Phinney & Devich-Navarro, 1997), “cultural hybridity” (Oyserman, Sakamoto, & Lauffer, 1998) versus “cultural homelessness” (Vivero & Jenkins, 1999), “alternating” biculturalism (LaFromboise et al., 1993; Phinney & Devich-Navarro, 1997), and “oppositional identities” (Cross, 1995; Ogbu, 1993).
proficiency (see Table 3 in Benet-Martínez et al., 2002; Table 3 in Benet-Martínez et al., 2006). Bicultural individuals high on BII, however, identify with both cultural systems without internalizing their intersection as conflictual or as requiring dissociation. Results from these studies also show that, compared to bicultural individuals low on BII, those high on BII display higher levels of identification with, and linguistic fluency in, the mainstream culture, even though competence in their ethnic culture of origin is often similar between these two types of bicultural individuals.

The above findings relate to the “alternation” model for second-culture acquisition (e.g., LaFromboise, Coleman, & Gerton, 1993). As Ogbu and Matute-Bianchi (1986) stated, “It is possible and acceptable to participate in two different cultures or to use two different languages, perhaps for different purposes, by alternating one’s behavior according to the situation” (p. 89). Enlarging on the alternation model, LaFromboise et al. (1993) theorized about a set of skills needed to develop and maintain bicultural competence: (a) knowledge of cultural beliefs and values in both cultural contexts (being aware and knowledgeable about cultural history and practices); (b) positive attitudes toward and attachment with both groups (feeling good about interacting with and being a member of both cultural groups) (see also Phinney, Cantu, & Kurtz, 1997); (c) bicultural self-efficacy (developing the belief that one can be competent in both cultures; (d) communication ability (acquiring the majority group’s language and nonverbal patterns when interacting with members of that group); (e) expanded role repertoire (enlarging the range of behaviors appropriate for different cultural groups or occasions); and (f) groundedness (establishing social networks to buffer acculturative stress). According to LaFromboise et al. (1993), bicultural individuals who develop these skills (which relate to identity, language, knowledge, and behavioral domains) should achieve better physical and mental health, while acquiring resources in a second cultural system and its associated benefits.

The Present Studies and Predictions

In order to bridge the gaps of immigration- and globalization-based acculturation in biculturalism research, the main goal of this investigation is to examine the interplay of individual differences in bicultural identity (i.e., BII, dual cultural identification) and bicul-
tural competencies (i.e., bilingual proficiency) in predicting psychological well-being among individuals exposed to and/or influenced by two cultures in a variety of acculturating contexts. To this end, we conducted three studies examining three distinct types of biculturals: first, immigrants who have permanently relocated themselves from one cultural context to another (Mainland Chinese immigrants to Hong Kong); second, sojourners who are working in a foreign culture for a limited (if sometimes undetermined) period of time (Filipinas working as domestic helpers in Hong Kong); and third, majority individuals who come into contact with a second cultural group and language in their home culture (college students in Hong Kong and in Mainland China). All of these studies keep the overarching cultural context constant, i.e., Chinese culture, but involve groups of bicultural individuals with different acculturation pressures, statuses, and sociocultural backgrounds.

In accordance with the logic of situated identity (Weinreich, Luk, & Bond, 1996), we suggest that each type of bilingual and bicultural person, whether immigration- or globalization-based, has his or her idiosyncratic adaptation patterns that should be studied in their own right (Berry & Sam, 1997; Schwartz et al., 2006). Thus, we believe that the relative importance of bicultural identity (e.g., cultural identifications, BII) and bicultural competence (e.g., linguistic proficiency) variables in predicting psychological adjustment would vary across the three types of bicultural individuals because of their different contextual pressures and affordances. Specifically, because of their long-term status, immigrants (vs. sojourners, for instance), have a greater need, as well as more opportunities, to internalize their receiving culture and integrate it with their ethnic culture of origin. Thus, we specifically predicted that identification with the receiving culture and differences in BII would play a more important role in the psychological adjustment of immigrants (Study 1) than would the more instrumental and competence-related language skill variables.

Previous studies on Filipino domestic workers in Hong Kong have assessed their working conditions, job satisfaction, and health practices (e.g., Cheung & Mok, 1998; French & Lam, 1988). French (1986) found that Filipino workers were generally satisfied with their work conditions. However, Lane (1992) argued that half of the participants in her sample encountered difficulties in communication, poor accommodation, and feelings of loneliness. In the second study,
we predicted that language skills in the receiving culture, which help sojourners attain better work performance and meet other pragmatic demands (Kim, 2001), would be more important in shaping the psychological well-being of Filipino domestic helpers (Study 2) than would bicultural identity variables.

In contrast to Studies 1 and 2, Study 3 examined the strength of bicultural identity and bicultural competency variables in predicting psychological adjustment with samples representing the majority culture, i.e., college students in Hong Kong and in Mainland China, who are living in a multicultural context. Hong Kong constitutes an enriched multicultural milieu, due to its geographical location connecting the West and East. Its colonial background has made English a widely used second language and aspects of British social institutions a part of everyday life (Bond & King, 1985; Hong et al., 2000). Mainland China, on the other hand, is less multicultural than Hong Kong, but its links with and absorption of Western, Anglo-Saxon cultural values and practices are growing very rapidly (Yang, 1998).

Research by van der Zee and van Oudenhoven (2000) suggests a positive link between multicultural attitudes and adjustment among majority culture individuals living in multicultural contexts. However, we are not aware of any empirical research specifically examining bicultural identity in globalization-based acculturating groups such as those in Study 3. Therefore, this study is more exploratory, and our predictions for these groups were more tentative. For instance, because participants in Study 3 were long-term acculturating individuals like those in Study 1, we predicted that bicultural identity variables (i.e., BII, identification with first and/or second culture) would likely emerge as more important predictors of adjustment than would the factor of language skills. However, it is unclear which dimension of cultural identity—majority cultural identification (i.e., with Hong Kong, Mainland China) or second-culture identification (with Western culture)—would best predict psychological well-being in these majority samples.

Because personality variables play a role in the acculturation experience (Benet-Martínez & Haritatos, 2005; Ryder et al., 2000) and predict psychological adjustment, the strength of the aforementioned relationships and predictions concerning BII, bicultural competence, and well-being were also examined in all three studies after controlling for two dispositional variables related to resilience: neuroticism
and self-efficacy (e.g., Riolli, Savicki, & Cepani, 2002; Maddux, 2002). Self-efficacy may also serve as a strong contributor to psychological well-being among acculturating individuals, as perceived personal competency and control have been found to explain mental health indicators in largely individualistic and largely collectivistic cultures (e.g., Chen, Chan, Bond, & Stewart, 2006; Stewart et al., 2003; Tafarodi & Smith, 2001). Further, neuroticism is also a strong predictor of adjustment, as neurotic individuals’ tendency to experience negative affect may make them less capable of coping with the challenges of managing intercultural contact. Lastly, based on the same rationale (i.e., demonstrating the incremental validity of BII and bicultural competence variables beyond adjustment-related contextual and dispositional factors), the ongoing, specific acculturative stresses experienced by our immigrant, sojourner, and college participants (e.g., discrimination, self-consciousness about accent, lack of cultural diversity) are also considered as predictors of psychological adjustment.

In sum, taking into account individual differences in personality (neuroticism, self-efficacy) and acculturative stress, we anticipated that there would be variations in the roles played by bilingualism and biculturalism in facilitating psychological adaptation across our three groups due to important differences in their cultural contexts and acculturation demands. By incorporating groups with varying degrees of language adaptation and acculturation status, we intend to take an integrative view of bilingualism and biculturalism to gain insights into the interplay of identity, language, personality, culture, and context.

**STUDY 1: MAINLAND CHINESE IMMIGRANTS IN HONG KONG**

Since the Hong Kong government increased the admission quota for new immigrants from Mainland China in 1995, there has been an influx of Mainland spouses and children of Hong Kong citizens living in China entering Hong Kong for family reunification. Statistics have shown that about half of these immigrants are adults. Of these, more than 80% are women in their thirties and forties, many of whom immigrate with school-age children (Wong, 2002). Though Hong Kong and Mainland China share the same written language, the majority of Hong Kong Chinese speak Cantonese. Thus, learning and using this new receiving language becomes an important com-
ponent of cultural adaptation for Mainland Chinese immigrants, who typically speak Mandarin. In addition to language skills, Mainland Chinese immigrants also need to acquire knowledge about the values, beliefs, and rules of Hong Kong culture and about the mindsets and behavioral style of local Hong Kong residents, which are heavily influenced by the Western, Anglo-Saxon elements incorporated during the British rule.

Method

Participants

Participants in this first study were 67 immigrants (12 males and 55 females) from Mainland China. Their ages ranged from 17 to 49 years old, with a mean of 28.51 (SD = 8.73). The gender ratio and age range are representative of the characteristics of recent Mainland Chinese immigrants to Hong Kong. Their length of residence in Hong Kong ranged from 1 month to 7 years and 4 months.

Procedure

We contacted several community centers that work with immigrants. Social workers at these community centers invited the participants to take part in the study. The questionnaire sets were administered in Chinese to small groups in a quiet room at the community centers when our research assistants were present. Participants also reported demographic information including their age, gender, country of birth, length of residence in Hong Kong, and education level. Instructions were given at the beginning of the sessions, and confidentiality was ensured to encourage honest responding.

Instruments

The following instruments were translated into Chinese and then back-translated into English by separate bilingual individuals. Equivalence of meanings for the English and Chinese versions was ensured through discussion and consultation with the translators, the authors, and a small number of Chinese-English bilinguals. Then, the questionnaire was pilot-tested to evaluate the accuracy of translation and clarity of the measures before the final version of questionnaire was distributed.

Language proficiency and usage (Benet-Martínez & Haritatos, 2005). Participants were asked to report on both their first and second languages
i.e., Mandarin and Cantonese) in the following domains: (a) language ability (e.g., “Rate your overall Cantonese language ability”), (b) past and present language usage (e.g., “How much do you use/have used Cantonese to speak with your parents?”) and (c) media exposure (e.g., “How often do you watch TV shows/Movies in Cantonese?”). The two scales consist of 14 items on a 6-point scale, with the language ability items ranging from 1 (very little ability) to 6 (very high ability) and the rest from 1 (almost never) to 6 (very often). Though this is a self-report measure, previous studies have found convergence of self-reported and observed language ability (e.g., Tran, 1994). In the present study, the alpha reliability coefficients for first and second language usage were .86 and .93, respectively.

Cultural identification (Benet-Martínez & Haritatos, 2005). Two items were used to assess the extent to which participants identified with their culture of origin and the receiving culture (i.e., “How much do you identify with mainland Chinese culture? How much do you identify with Hong Kong culture?”). Responses were anchored on a 6-point scale ranging from 1 (very weakly identified) to 6 (highly identified).

Bicultural Identity Integration Scale—Pilot Version (BIIS-P; Benet-Martínez et al., 2002). This scale is a short four-item measure of BII that assesses perceived compatibility versus opposition between one’s two cultural orientations and identities and read, “I don’t feel caught between Hong Kong and Mainland Chinese cultures” versus “I feel conflicted between the two cultures”; “I feel as part of a combined (Mainland and Hong Kong Chinese) culture” versus “I feel as someone moving between the two cultures”; “I feel Mainland-Hong Kong Chinese” versus “I am just a Chinese living in Hong Kong”; “I combine both cultures” versus “I keep both cultures separate.” Respondents were asked to select the choice that best described how they felt as biculturals. Participants scored 1 point when they selected the “integrated” choice and 2 points with the “unintegrated” choice. The points were recoded and averaged across the four items. The alpha reliability coefficient for this scale in the present study was .89.

Subsequent to the data collection for the present studies, Benet-Martínez and Haritatos expanded the BIIS-P scale and developed an 8-item measure of BII (BIIS-1; Benet-Martínez & Haritatos, 2005). This work revealed that variations in BII should be understood as emerging from (rather than leading to) variations in two dimensions: cultural blendedness versus distance and cultural harmony versus conflict (see Benet-Martínez & Haritatos, 2005, for full details on the psychometric properties and correlates of these two components). Nonetheless, previous studies have shown that BIIS-P shorter measure successfully (and yet roughly)
Riverside Acculturation Stress Inventory (RASI; Benet-Martínez & Haritatos, 2005). The RASI comprises 15 items tapping culture-related challenges in five life domains: language skills (e.g., being misunderstood because of one’s accent), work (e.g., having to work harder than nonimmigrant/majority peers), intercultural relations (e.g., having disagreements with others because of behaving in ways that are “too ethnic” or “too mainstream”), discrimination (e.g., being mistreated because of one’s ethnicity), and cultural/ethnic makeup of the community (e.g., living in an environment that is not culturally diverse). The responses were measured on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). The alpha reliability coefficient for this overall measure of acculturative stress was .87.

Symptom Checklist-90–Revised (SCL-90-R; Derogatis & Melisaratos, 1983). We employed items of the Depression and Anxiety scales of the SCL-90-R to assess levels of psychological distress. The depression scale consisted of two items measuring the frequency of participants’ depressive symptoms (e.g., feeling sad or depressed); the anxiety scale comprised two items assessing the frequency of participants’ anxious symptoms (e.g., feeling fearful or anxious). These items were rated on a 4-point scale ranging from 1 (rarely or never) to 4 (most of the time). The alpha reliability coefficients for the depression and anxiety scales were .72 and .74, respectively.

UCLA Loneliness Scale (Hays & DiMatteo, 1987). We selected two items from this scale denoting the feeling of being cut off or separated and deficient in social contact. The items were rated on a 4-point scale, with 1 indicating strongly disagree and 4 indicating strongly agree. The alpha reliability coefficient for this scale was .76.

Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985). Life satisfaction was assessed by three items adapted from the SWLS (e.g., “In most ways my life is close to my ideal”). Responses for all the items were anchored on a 4-point scale, with 1 indicating strongly disagree and 4 indicating strongly agree. The SWLS has been used among Hong Kong and Mainland Chinese with satisfactory reliability (e.g., Chen, Cheung, Bond, & Leung, 2005; Kwan, Bond, & Singelis, 1997). The alpha reliability coefficient in the present study was .76.

measures high versus low BII (Benet-Martínez, Lee, & Leu, 2006; Benet-Martínez, Leu, & Lee, 2002; Mok, Morris, Benet-Martínez, & Karakitapoglu-Aygun, in press); it should also be noted that BIIS-P scores correlate highly with both blendedness and harmony BIIS-1 scales (Benet-Martínez & Haritatos, 2005).
Subjective Happiness Scale (Lyubomirsky & Lepper, 1999). The scale comprises four items, rated on a 7-point scale, that assess global subjective happiness. It has been validated in 14 studies with a total of 2,732 participants and found to correlate with other published scales of happiness and well-being as well as other constructs associated with happiness, such as the Affect Balance Scale (Bradburn, 1969) and the Delighted-Terrible Scale (Andrews & Withey, 1976). A sample item is “Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you?” The alpha reliability coefficient for this scale was .69.

Rosenberg’s Self-Esteem Scale. Rosenberg’s (1965) 10-item self-esteem scale was used to assess one’s orientation toward the self (e.g., “On the whole, I am satisfied with myself”). Items are anchored with a 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree). This scale has been well validated and widely used among Chinese populations (e.g., Chen, Cheung, Bond, & Leung, 2006; Kwan et al., 1997). Its alpha reliability coefficient in the present study was .82.

The General Self-Efficacy Scale (Schwarzer, 1993). This 10-item scale taps one’s overall self-perceived competence. Responses were provided on a 4-point scale ranging from 1 (strongly disagree) to 4 (strongly agree). A sample item is “I can always manage to solve difficult problems if I try hard enough.” This scale has been used in Chinese samples with satisfactory reliability (e.g., Chen et al., 2006). The alpha reliability coefficient in this study was .62.

Neuroticism Subscale of the Big Five Inventory (BFI; Benet-Martinez & John, 1998). The BFI uses 44 short phrases to assess the most prototypical traits associated with the five basic personality dimensions (see John, 1990): Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience. Eight items assessing the Neuroticism factor were selected from the BFI and answered on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). The alpha reliability coefficient for this scale was .75.

Results

A composite score for psychological adjustment was derived by averaging the standardized scores for self-esteem, life satisfaction, subjective happiness, depression (reversed), anxiety (reversed), and
loneliness (reversed). This composite variable parallels the conception of psychological adjustment during cross-cultural transitions proposed by Ward and colleagues (e.g., Ward & Rana-Deuba, 1999), also resembling Diener’s (1984) conception of subjective well-being. An exploratory factor analysis on these scales and the associated scree plot clearly indicated a one-factor solution, with an eigenvalue of 8.09, explaining 36.78% of the total variance. The alpha for this composite score was .92.

Descriptive statistics, including means, standard deviations, reliability coefficients, and correlation coefficients for our study variables are presented in Table 1. Note that our sample is, overall, highly bicultural; participants report comparable levels of use and fluency in both Cantonese and Mandarin and identify with both cultures, although Mainland Chinese identification was higher.

A hierarchical multiple regression was conducted to predict psychological adjustment. In the first block, age, gender, education, and time since immigration were entered as demographic covariates, as is typically done in acculturation studies. Because of the established relation of neuroticism with BII (Benet-Martínez & Haritatos, 2005), and because both neuroticism and self-efficacy are important trait predictors of well-being, neuroticism and self-efficacy were entered into the second block as additional control variables so that the unique impact of measures relevant to the bicultural experience could be assessed in the final block. The third block contained our variables of interest in predicting psychological adjustment: the language measures (Cantonese and Mandarin), our biculturalism variables (Mainland Chinese and Hong Kong cultural identifications, BII), and acculturative stress.

The regression analysis produced a sample multiple correlation coefficient of .85, indicating that approximately 72% of the total variance in psychological adjustment could be explained by these

3. Cohen (1988) stated that the ratio of cases to independent variables (IVs) for regression is a function of alpha level, number of predictors, expected effect size, and desired power. Green (1991) specified \( N \geq 50 + 8P \) (where \( P \) is the number of IVs) for testing multiple correlation. Some researchers proposed a rule of thumb being a minimum sample size of 30 for testing correlation (Borg & Gall, 1989) and parameter estimates in regression analysis (McMillan & Schumacher, 1984; Raykov & Widaman, 1995). Though not large, the sample size in this study could still meet the minimum-level requirement. Still, to avoid a meaningless solution, we tried to minimize the number of predictors in the regression analysis.
### Table 1
Means, Standard Deviations, Reliability Coefficients, and Intercorrelations for Measures in Study 1 (N = 67 Mainland Chinese Immigrants)

<table>
<thead>
<tr>
<th>Measure (Scale Range)</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mandarin proficiency &amp; usage (1–6)</td>
<td>5.02</td>
<td>1.08</td>
<td>.86</td>
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<td></td>
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<tr>
<td>2. Cantonese proficiency &amp; usage (1–6)</td>
<td>4.21</td>
<td>1.53</td>
<td>.08</td>
<td>.93</td>
<td></td>
<td></td>
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<tr>
<td>3. Identif. with Mainland Chinese culture (1–6)</td>
<td>4.26</td>
<td>0.95</td>
<td>.35**</td>
<td>-.08</td>
<td></td>
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<tr>
<td>4. Identif. with Hong Kong culture (1–6)</td>
<td>3.84</td>
<td>1.25</td>
<td>.04</td>
<td>.49***</td>
<td>.11</td>
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<tr>
<td>5. Bicultural Identity Integration (1–2)</td>
<td>1.68</td>
<td>0.30</td>
<td>-.00</td>
<td></td>
<td>.30*</td>
<td>.04</td>
<td>.01</td>
<td>.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Acculturative stress (1–5)</td>
<td>2.82</td>
<td>0.75</td>
<td>.03</td>
<td>-.24*</td>
<td>.07</td>
<td>-.09</td>
<td>-.26*</td>
<td>.87</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Neuroticism (1–5)</td>
<td>2.83</td>
<td>0.73</td>
<td>-.13</td>
<td>-.11</td>
<td>-.05</td>
<td>.14</td>
<td>-.42***</td>
<td>.40**</td>
<td>.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Self-efficacy (1–4)</td>
<td>2.88</td>
<td>0.67</td>
<td>.14</td>
<td>.27*</td>
<td>.07</td>
<td>.15</td>
<td>.01</td>
<td>-.24*</td>
<td>-.26*</td>
<td>.62</td>
<td></td>
</tr>
<tr>
<td>9. Psychological adjustment (−)</td>
<td>.16</td>
<td>3.77</td>
<td>.03</td>
<td>.18</td>
<td>-.05</td>
<td>.09</td>
<td>.48***</td>
<td>-.56***</td>
<td>-.72***</td>
<td>.32**</td>
<td>.92</td>
</tr>
</tbody>
</table>

**Note:** *p < .05. **p < .01. ***p < .001.

*aThe reliability coefficients are found along the diagonal line; bAlpha not applicable.*
predictor variables, $F(12, 54) = 11.54, p < .001$ (see Table 2). In the first block, none of the demographic variable reached significance. In the second block, the effect of neuroticism was strongly significant as expected, $\beta = -.51, p < .001$. The effect of self-efficacy was not significant, $p > .05$, however. In Block 3, the language measures were not significant, as we earlier predicted for this type of acculturating group, $ps > .05$, whereas some of the bicultural identity predictors contributed additional variance above and beyond neuroticism and self-efficacy. In particular, psychological adjustment was positively predicted by identification with Hong Kong culture and by BII, $\beta$s = .25 and .24, respectively, $ps < .01$. Adjustment was also negatively predicted by acculturative stress, $\beta = -.30, p < .01$. The significance and direction of these latter effects were consistent with our hypotheses.

### Table 2

Hierarchical Regression Model for Psychological Adjustment in Study 1 ($N = 67$ Mainland Chinese Immigrants)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Block 1 $\beta$</th>
<th>Block 2 $\beta$</th>
<th>Block 3 $\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.05</td>
<td>-0.15</td>
<td>-0.04</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.14</td>
<td>0.08</td>
<td>0.05</td>
</tr>
<tr>
<td>Education</td>
<td>0.13</td>
<td>0.05</td>
<td>0.14</td>
</tr>
<tr>
<td>Length of immigration</td>
<td>0.05</td>
<td>0.11</td>
<td>-0.13</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>-0.69***</td>
<td>-0.51***</td>
<td></td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>0.20*</td>
<td></td>
<td>0.15</td>
</tr>
<tr>
<td>Mandarin proficiency and usage</td>
<td></td>
<td>-0.06</td>
<td></td>
</tr>
<tr>
<td>Cantonese proficiency and usage</td>
<td></td>
<td>-0.06</td>
<td></td>
</tr>
<tr>
<td>Identification with Mainland Chinese culture</td>
<td></td>
<td>-0.13</td>
<td></td>
</tr>
<tr>
<td>Identification with Hong Kong culture</td>
<td></td>
<td>0.25**</td>
<td></td>
</tr>
<tr>
<td>Bicultural Identity Integration</td>
<td></td>
<td>0.24**</td>
<td></td>
</tr>
<tr>
<td>Acculturative stress</td>
<td></td>
<td>-0.30**</td>
<td></td>
</tr>
</tbody>
</table>

$R^2$ | .04 | .57 | .72
$\Delta R^2$ | .04 | .54 | .15
$F_{\text{change}}$ | .56 | 37.57*** | 4.75**
$\Delta df$ | 4/62 | 2/60 | 6/54

*Note:* *$p < .05$. **$p < .01$. ***$p < .001$.**
**STUDY 2: FILIPINO DOMESTIC WORKERS IN HONG KONG**

Filipino domestic workers are a minority group in Hong Kong with low income and social status. They also have to accommodate to the norms, standards, and languages of the receiving culture and are often marginalized on account of their ethnic and national identity (Holroyd, Molassiotis, & Taylor-Pilliae, 2001). Unlike immigrants, however, Filipino domestic helpers work on temporary contracts, are the largest single national group among domestic workers in Hong Kong, and are primarily female (Bagley, Madrid, & Bolitho, 1997). Many of them have received full or partial university, professional, or college education, with adequate English-language skills, to be able to complete assessments in English.

**Method**

*Participants*

The sample consisted of 153 women from the Philippines working as domestic workers in Hong Kong. Their mean age was 33.84 (SD = 7.30), ranging from 22 to 51 years. Their total amount of time in Hong Kong prior to assessment ranged from 1 month to 21 years. As English is the official language of the Philippines, English proficiency or additional Chinese (Cantonese/Mandarin) language skills are often acquired before being recruited to work in Hong Kong families as domestic helpers. In addition, many Filipinos speak Tagalog, the first language of the Philippines, and most participants in this study were multilingual; thus, we also assessed their Tagalog proficiency and usage.

*Procedure*

Participants were recruited in several public parks where domestic workers gathered on weekends. Our research assistants invited them to participate in the present study and arranged them in small groups in a quiet place. The participants completed the above measures and received help from the research assistants if needed. Confidentiality was ensured to encourage honest responding.

*Instruments*

The measures used in Study 2 were identical to those used in Study 1, with the English versions being administered. Note that in this study, participants reported their proficiency levels of Tagalog (the Filipino native language) in addition to Chinese and English language skills. The
measure of Bicultural Identity Integration (BIIS-P) assessed the perceived degree of compatibility versus opposition between their Hong Kong and Filipino cultural orientations. The alpha reliability coefficient for the BIIS-P scale was .74 in the present study.

Results

As in Study 1, a composite of psychological adjustment was derived from averaging the standardized scores of the scales measuring self-esteem, life satisfaction, subjective happiness, depression (reversed), anxiety (reversed), and loneliness (reversed). The alpha for this composite score was .78. Descriptive statistics including means, standard deviations, reliability coefficients and correlation coefficients for the measures are presented in Table 3. The patterns for the variables assessing language and cultural identification indicate that this sojourner sample was less bicultural overall, at least when compared to our immigrant sample in Study 1. This finding is not surprising, given the temporary status of many of our participants and their very different culture of origin.

A hierarchical multiple regression analysis was conducted to predict psychological adjustment following the same steps as in Study 1. In the first block, age, education, and length of stay in Hong Kong were entered to account for their effects. Neuroticism and self-efficacy were entered in the second block as trait control predictors of psychological outcomes. Block three contained our variables of interest in predicting psychological adjustment: the language measures (Tagalog, Chinese, and English), our biculturalism variables (Hong Kong and Filipino cultural identifications, BII), and acculturative stress.

The sample multiple correlation coefficient was .56, indicating that the regression model accounted for approximately 31% of the total variance in psychological adjustment, $F(12, 140) = 5.35$, $p < .001$ (see Table 4). Similar to the results of Study 1, none of the demographic variables in the first block were significantly related to psychological adjustment. Also as in Study 1, neuroticism had a significant effect, $\beta = -.29$, $p < .001$, but self-efficacy did not, $p > .05$. In block three, as we predicted for this type of acculturating group (see pages 7–8), the bicultural identification measures (BII, strength of Hong Kong cultural identity) were not significant predictors of adjustment, but the receiving-language predictors (Chinese and English) contributed additional variance above and beyond
Table 3
Means, Standard Deviations, Reliability Coefficients, and Intercorrelations for Measures in Study 2 (N = 153 Filipino Domestic Workers)

<table>
<thead>
<tr>
<th>Measure (Scale Range)</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tagalog proficiency &amp; usage (1–6)</td>
<td>4.85</td>
<td>0.90</td>
</tr>
<tr>
<td>2. Chinese proficiency &amp; usage (1–6)</td>
<td>1.66</td>
<td>0.70</td>
</tr>
<tr>
<td>3. English proficiency &amp; usage (1–6)</td>
<td>4.02</td>
<td>0.93</td>
</tr>
<tr>
<td>4. Identif. with Filipino culture (1–6)</td>
<td>4.93</td>
<td>1.30</td>
</tr>
<tr>
<td>5. Identif. with Hong Kong culture (1–6)</td>
<td>2.61</td>
<td>1.35</td>
</tr>
<tr>
<td>6. Bicultural Identity (1–2)</td>
<td>1.50</td>
<td>0.34</td>
</tr>
<tr>
<td>7. Acculturative stress (1–5)</td>
<td>2.61</td>
<td>0.72</td>
</tr>
<tr>
<td>8. Neuroticism (1–5)</td>
<td>2.65</td>
<td>0.57</td>
</tr>
<tr>
<td>9. Self-efficacy (1–4)</td>
<td>3.26</td>
<td>0.52</td>
</tr>
<tr>
<td>10. Psychological adjustment</td>
<td>2.63</td>
<td>0.34</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Correlation (r)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0.79</td>
<td>-0.58</td>
<td>0.72</td>
<td>0.57</td>
<td>0.52</td>
<td>0.34</td>
<td>0.72</td>
<td>0.57</td>
<td>0.52</td>
<td>0.34</td>
</tr>
<tr>
<td>3</td>
<td>0.70</td>
<td>-0.58</td>
<td>0.57</td>
<td>0.52</td>
<td>0.34</td>
<td>0.52</td>
<td>0.72</td>
<td>0.57</td>
<td>0.52</td>
<td>0.34</td>
</tr>
<tr>
<td>4</td>
<td>0.93</td>
<td>0.72</td>
<td>0.57</td>
<td>0.52</td>
<td>0.34</td>
<td>0.52</td>
<td>0.72</td>
<td>0.57</td>
<td>0.52</td>
<td>0.34</td>
</tr>
<tr>
<td>5</td>
<td>1.30</td>
<td>-0.58</td>
<td>0.57</td>
<td>0.52</td>
<td>0.34</td>
<td>0.52</td>
<td>0.72</td>
<td>0.57</td>
<td>0.52</td>
<td>0.34</td>
</tr>
<tr>
<td>6</td>
<td>1.35</td>
<td>-0.72</td>
<td>-0.09</td>
<td>-0.11</td>
<td>-0.24</td>
<td>-0.14</td>
<td>-0.08</td>
<td>-0.01</td>
<td>-0.12</td>
<td>-0.24</td>
</tr>
<tr>
<td>7</td>
<td>1.50</td>
<td>0.34</td>
<td>0.72</td>
<td>0.57</td>
<td>0.52</td>
<td>0.34</td>
<td>0.72</td>
<td>0.57</td>
<td>0.52</td>
<td>0.34</td>
</tr>
<tr>
<td>8</td>
<td>2.61</td>
<td>0.72</td>
<td>0.57</td>
<td>0.52</td>
<td>0.34</td>
<td>0.52</td>
<td>0.72</td>
<td>0.57</td>
<td>0.52</td>
<td>0.34</td>
</tr>
<tr>
<td>9</td>
<td>2.65</td>
<td>0.57</td>
<td>0.52</td>
<td>0.34</td>
<td>0.52</td>
<td>0.72</td>
<td>0.57</td>
<td>0.52</td>
<td>0.34</td>
<td>0.52</td>
</tr>
<tr>
<td>10</td>
<td>3.26</td>
<td>0.52</td>
<td>0.34</td>
<td>0.52</td>
<td>0.34</td>
<td>0.72</td>
<td>0.57</td>
<td>0.52</td>
<td>0.34</td>
<td>0.52</td>
</tr>
</tbody>
</table>

Note: *p < .05, **p < .01, ***p < .001.

The reliability coefficients are found along the diagonal line; bAlpha not applicable.
### Table 4
Hierarchical Regression Model for Psychological Adjustment in Study 2 ($N = 153$ Filipino Domestic Workers)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Block 1 $\beta$</th>
<th>Block 2 $\beta$</th>
<th>Block 3 $\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.21</td>
<td>0.17</td>
<td>0.20</td>
</tr>
<tr>
<td>Education</td>
<td>0.15</td>
<td>0.11</td>
<td>0.07</td>
</tr>
<tr>
<td>Length of residence</td>
<td>$-0.18$</td>
<td>$-0.12$</td>
<td>$-0.06$</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>$-0.36^{***}$</td>
<td>$-0.29^{***}$</td>
<td></td>
</tr>
<tr>
<td>Self-efficacy</td>
<td></td>
<td>0.16*</td>
<td>0.11</td>
</tr>
<tr>
<td>Tagalog proficiency and usage</td>
<td></td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td>English proficiency and usage</td>
<td></td>
<td>0.20*</td>
<td></td>
</tr>
<tr>
<td>Chinese proficiency and usage</td>
<td></td>
<td>0.20*</td>
<td></td>
</tr>
<tr>
<td>Identification with Filipino culture</td>
<td></td>
<td></td>
<td>$-0.02$</td>
</tr>
<tr>
<td>Identification with Hong Kong culture</td>
<td></td>
<td>0.08</td>
<td></td>
</tr>
<tr>
<td>Bicultural Identity Integration</td>
<td></td>
<td>0.12</td>
<td></td>
</tr>
<tr>
<td>Acculturative stress</td>
<td></td>
<td></td>
<td>$-0.16^{*}$</td>
</tr>
</tbody>
</table>

$R^2$          | 0.04            | 0.22            | 0.31            |
$\Delta R^2$   | 0.04            | 0.18            | 0.10            |
$F_{\text{change}}$ | 1.79           | 17.19^{***}    | 2.82^{**}       |
$\Delta df$    | 3/149           | 2/147           | 7/140           |

Note: *$p < .05$. **$p < .01$. ***$p < .001$.  

Further, psychological adjustment was again negatively predicted by acculturative stress, $\beta = -0.16$, $p < .05$.

### STUDY 3: MULTICULTURAL COLLEGE STUDENTS IN HONG KONG

The minority participants (immigrants and sojourners) from our first two studies have undertaken a physical relocation from one culture to another and are faced with the task of adapting to a new culture. Study 3 seeks to explore the role of the linguistic and identity variables so far examined in groups who are acculturating because of globalization, namely, majority individuals who live in a multicultural and multilingual context (Hong Kong) and in a less multicultural and multilingual context (Beijing, China). As such,
we can examine how cultural contexts influence bicultural identity and psychological outcomes.

**Method**

*Participants*

The sample comprised a total of 452 Chinese college students. Of these, 213 (104 males and 109 females) were from The Chinese University of Hong Kong (CUHK), and 239 (107 males and 132 females) from Beijing Normal University, China. Their mean age was 20.58 (SD = 1.51) and 22.19 (SD = 2.73) for Hong Kong and Mainland Chinese, respectively. CUHK and Beijing Normal University are prestigious universities in Hong Kong and Mainland China that require a high level of proficiency in English for admission. Therefore, the participants in this study were all Chinese and English bilinguals. The two samples shared the same written language of Chinese, with traditional characters used in Hong Kong and simplified characters in Mainland China, but the two groups spoke different dialects: Cantonese in Hong Kong and Mandarin in Mainland China.

*Procedure*

Participation in the study was voluntary and anonymous, and confidentiality was assured. Questionnaires were completed in quiet classrooms. Within each cultural group, about half of participants completed the questionnaires in Chinese (with traditional Chinese characters in Hong Kong and simplified Chinese characters in Mainland China), and the other half completed them in English. As the language of the instrument did not affect the outcome variables significantly, we collapsed across this language variable in subsequent analyses.

*Instruments*

The measures used in this study were identical to those used in Studies 1 and 2, with some adjustments. Participants reported their proficiency

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4. Separate independent-samples t tests were conducted within each cultural group (Hong Kong and Mainland China) to evaluate any possible differences in language proficiency and usage between the participants who completed the English and Chinese versions of our instruments. We found no significant differences in their reported Chinese proficiency, Chinese usage, English proficiency, and English usage, all ps > .05. Separate regression analyses also revealed a non-significant effect of language version on the outcome variable; thus, we combined participants across the two language versions.
levels in Cantonese/Mandarin (their first language) and English, along with their levels of identification with Hong Kong/Mainland China and Western culture in general. In the present study, BIIS-P items tapped integration between Hong Kong (or Mainland Chinese) and Western cultural orientations. The alpha reliability coefficient for this scale was .59 in the present study, suggesting that results for this variable should be interpreted with caution. Lastly, items in the acculturation stress measure (RASI; Benet-Martínez & Haritatos, 2005) were slightly modified to capture culture-related challenges related to globalization-related challenges (vs. immigration related strains as in Studies 1–2; e.g., items were worded to describe the pressure of adjust to the globalizing culture in the domains of language skills, work, intercultural relations). A sample item is “It’s hard for me to perform well at work because of my lack of English skills.” The alpha for this scale in the present study was .79.

Results

The alpha for the composite variable measuring psychological adjustment was .92. Descriptive statistics including means, standard deviations, reliability coefficients, and correlation coefficients for the measures are presented in Table 5. Supporting the observations by Yang and colleagues (Yang, 1998; Yang, Yu, & Yeh, 1991), our sample is, overall, highly bicultural; participants reported use of and fluency in their first language and English and identified with both their native culture and Western cultures, although their identification with their native culture was higher.

A hierarchical multiple regression analysis was conducted to predict psychological adjustment, following similar steps as in Studies 1 and 2. To examine whether cultural group (Hong Kong vs. Mainland Chinese) moderated the effect of the bilingual and bicultural measures on psychological adjustment, we tested several cultural group × main predictor interactions. These interaction terms were entered on the fourth block. The regression results showed that the sample multiple correlation coefficient was .77, indicating that the regression model could explain approximately 59% of the total variance in psychological adjustment, $F(17, 434) = 37.26, p < .001$ (see Table 6). Among the demographic variables, the effect of gender was significant, indicating that female participants were psychologically better adjusted than their male counterparts, $\beta = .11, p < .01$. Both neuroticism and self-efficacy emerged as particularly strong predictors of adjustment, $\beta = -.55$ and .26, respectively, $ps < .001$. 


Table 5
Means, Standard Deviations, Reliability Coefficients, and Intercorrelations for Measures in Study 3 (N = 452 Hong Kong and Mainland Chinese Students)

<table>
<thead>
<tr>
<th>Measure (Scale Range)</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Chinese proficiency &amp; usage (1–6)</td>
<td>5.52</td>
<td>.51</td>
<td>.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. English proficiency &amp; usage (1–6)</td>
<td>2.66</td>
<td>.64</td>
<td>.05</td>
<td>.78</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Identification with Chinese culture (1–6)</td>
<td>4.85</td>
<td>.86</td>
<td>.32***</td>
<td>-.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Identification with Western culture (1–6)</td>
<td>3.21</td>
<td>1.08</td>
<td>.14**</td>
<td>.27***</td>
<td>.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Bicultural Identity Integration (1–2)</td>
<td>1.64</td>
<td>.28</td>
<td>.01</td>
<td>.09*</td>
<td>-.14**</td>
<td>.11**</td>
<td>.59</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Acculturative stress (1–5)</td>
<td>2.73</td>
<td>.57</td>
<td>.03</td>
<td>-.13**</td>
<td>.02</td>
<td>.05</td>
<td>-.31***</td>
<td>.79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Neuroticism (1–5)</td>
<td>3.01</td>
<td>.76</td>
<td>-.07</td>
<td>-.05</td>
<td>-.20***</td>
<td>-.12***</td>
<td>-.07</td>
<td>.19***</td>
<td>.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Self-efficacy (1–4)</td>
<td>2.83</td>
<td>.55</td>
<td>.11*</td>
<td>.12**</td>
<td>.17***</td>
<td>.23***</td>
<td>.07</td>
<td>-.04</td>
<td>-.52***</td>
<td>.89</td>
<td></td>
</tr>
<tr>
<td>9. Psychological adjustment (−)</td>
<td>-.11</td>
<td>3.73</td>
<td>.13**</td>
<td>.06</td>
<td>.09*</td>
<td>.09*</td>
<td>.22***</td>
<td>-.27***</td>
<td>-.69***</td>
<td>.53***</td>
<td>.92</td>
</tr>
</tbody>
</table>

Note: *p < .05. **p < .01. ***p < .001.

aThe reliability coefficients are found along the diagonal line; bAlpha not applicable.
Interestingly, identification with ethnic culture (Hong Kong/Mainland China) predicted adjustment negatively, $\beta = -.11, \ p < .05$. As we predicted for this type of acculturating group, BII predicted adjustment above and beyond self-efficacy and neuroticism, $\beta = .11, \ p < .01$, confirming this construct’s modest incremental validity in a nonimmigrating majority group. Lastly, the interaction of cultural
group x acculturative stress was significant, \( \beta = -0.31, p < .05 \), indicating that the effect of acculturative stress was stronger for Mainland Chinese than for Hong Kong Chinese.

**GENERAL DISCUSSION**

Three studies examined the impact of individual differences in bicultural identity and bilingualism on the psychological adjustment of multicultural individuals living in a variety of acculturating contexts. Because the bulk of past research on biculturalism has been conducted in the United States and Canada with minority-group college students, we focused on bicultural populations undergoing both immigration- and globalization-based acculturation: (a) community-based Chinese immigrants in Hong Kong (Study 1); (b) temporary domestic workers in Hong Kong (Study 2); and (c) majority culture individuals living in Hong Kong and in Mainland China (Study 3). Lastly, and unlike what has been done in previous studies, we examined the impact of bicultural identity and bilingualism on well-being while controlling for relevant demographic, dispositional, and contextual variables (i.e., neuroticism, self-efficacy, acculturation stress). This strategy enabled us to isolate the constructs of interest in this research and to evaluate their distinctive impacts on psychological adjustment.

Multiple regression analyses indicated that our selected predictors are significant predictors of psychological adjustment among our multicultural individuals across the three studies: \( R^2 \) ranged from .31 (Study 2) to .72 (Study 1) and averaged .54 across the four studies. The large \( R^2 \) found in Study 1 supports the view held by many acculturation researchers (e.g., Benet-Martínez & Haritatos, 2005; Berry & Sam, 1997; LaFromboise et al., 1993) that factors related to psychological acculturation, particularly, bicultural identity dynamics, play a key role in the adaptation and daily functioning of long-term migrant populations. On the other hand, the smaller \( R^2 \) obtained with our variables in Study 2 suggests that in predicting the well-being of short-term acculturating individuals, objective contextual and performance-related factors, such as salary, housing and job conditions, and language abilities, play a key role.\(^5\) Further, in

\(^5\) Although the correlational nature of our data does not allow us to draw causal inferences between our identity and language variables and psychological adjust-
accordance with our predictions, the relative importance of our constructs tapping bicultural identity (i.e., BII, strength of first- and second-culture identification) along with bilingualism in predicting psychological well-being varied across the three types of bicultural individuals in ways responsive to their different contextual pressures and affordances.

**Bicultural Identity Integration**

An important goal of the present investigation was to examine whether the construct of BII (Benet-Martínez et al., 2002) could be generalized to college and noncollege populations outside the North American context, and to different groups of acculturating individuals (i.e., long-term immigrants, sojourners, and majority-culture individuals living in a multicultural context). Results from our short measure of BII (BIIS-P; Benet-Martínez et al., 2002), which was slightly modified for each study to capture integration between corresponding first and second cultures (Study 1—Chinese and Hong Kong culture; Study 2—Filipino and Hong Kong culture; Study 3—Chinese and Western culture), indicated that this identity construct is psychometrically applicable to community samples of immigrants and sojourners (alphas = .89 and .74, respectively). Results with the Hong Kong and Chinese majority-culture college samples were less impressive but nonetheless noteworthy and encouraging when considering the brevity of the scale and the unique characteristics of this underexamined type of multicultural population. Overall, these results indicate that BII is relevant to individuals who are exposed to and internalize two cultural orientations, including those who have not undertaken a physical relocation to another culture but come into contact with a second cultural stream as a result of globalization.

ment, our regression models attempted to account for demographic and psychological variables that are often seen as antecedents of such cultural adjustment: education might be regarded as a proxy for socioeconomic status, self-efficacy reflects previous successful adaptations, and neuroticism can be conceptualized as a trait predictor of maladjustment. Controlling for these factors enabled us to examine the distinctive role played by our variables of interest: bicultural identity and bilingualism.
The psychological relevance of BII was demonstrated by the fact that variations in this construct predicted psychological adjustment (for all the samples except sojourners), even after controlling for relevant demographic characteristics, personality traits (neuroticism and self-efficacy), and measures of language and identification. As predicted, the role of BII in predicting adjustment was higher among immigrants ($\beta = .24$ vs. $.11$ for Study 3) who have a greater need, as well as more opportunities, to harmonize their new host culture with their original ethnic culture.

But why is it that individuals who perceive the cultural meaning systems that are intersecting in their multicultural contexts as compatible and integrated are better adjusted than those who perceive these contexts as opposing? The perception that one’s various cultural identities and orientations are not compatible may translate into feelings of ambivalence regarding one’s expected levels of cultural involvement, and such attitudinal and interpersonal ambivalence has been linked to rumination and psychological discomfort (Emmons & King, 1988; Newby-Clark, McGregor, & Zanna, 2002; Priester & Petty, 2001). Lastly, individuals low on BII, particularly if they have immigrated, may feel and believe that they lack an effective cultural base, as if they are “culturally homeless” (Vivero & Jenkins, 1999) or experiencing “cultural identity confusion” (Schwartz, Zamboanga, Rodriguez, & Wang, 2007). As one bicultural individual in Vivero and Jenkins’s (1999) qualitative study reports, “You start building a home in one place within one culture . . . but do not complete it. Then you continue to build your home within another culture . . . At the end, you have different pieces of home in different places. You can never put them together, because they may contradict or conflict with one another” (p. 7).

To conclude, BII taps into the general process of adapting to multiple cultural influences wherever and whenever one encounters them. Further, having high levels of BII is linked to better psychological adjustment when the acculturating process is long-term, through immigration or globalization. This association suggests that acculturation theory, with its traditional focus on acculturation attitudes, behavioral factors (e.g., competences, values), and demographics (e.g., generation status, years in the new culture), can benefit from incorporating constructs and measures tapping identity dynamics such as those captured by BII.
Cultural Identification

Identification with first and second cultures also emerged as significant predictors of psychological adjustment, although the pattern of associations varied across the samples. As predicted, among the Chinese immigrants in Study 1 identification with Hong Kong culture was associated with more favorable psychological adjustment, supporting the view that learning and internalizing the norms and standards of the new receiving culture is key for psychological adaptation. The lack of association between cultural identification variables and adjustment for the sojourners in Study 2 also supported our predictions; namely, that for short-term acculturating individuals, performance related-variables (e.g., language skills) are more important predictors of adaptation.

The negative link between heritage cultural identification and adjustment for the Chinese college sample was somewhat surprising, but it may be meaningful when interpreted in light of the unique past and current cultural, economic, and political situations characterizing these two regions. Given the long history of Hong Kong as a colony under Western, British rule, a certain amount of deidentification and deinvolvement with Chinese culture is not surprising (Bond & King, 1985). On the other hand, the contrast between China’s long history of communist, nationalistic, anti-Western ideology and its recent opening to and embracing of Western cultural and economic practices may translate into patterns of adjustment and psychological functioning where, at this moment, a certain amount of deidentification and deinvolvement with Mainstream Chinese culture is appropriate. These interpretations are of course post hoc, tentative, and contingent on future replications using these and other groups with similar acculturation statuses in other countries (e.g., Indians, with their strong Western colonial tradition, or some groups in Turkey, with their antinationalistic, pro-Western agendas).

Bilingual Competence and Acculturation Stress

Supporting our prediction, fluency and usage of second-culture languages (English and Chinese) emerged as important predictor of adjustment among the Filipino domestic helpers working in Hong Kong, supporting the notion that performance-related variables
(vs. identity constructs) are more important for adaptation when the acculturation goals are short-term.

Across the three studies, acculturative stress (i.e., experiences of discrimination, strains in the linguistic and intercultural-relations domains, feelings of cultural isolation) emerged as a negative predictor of well-being, even after controlling for dispositional neuroticism and self-efficacy. The negative association between acculturative stress and adjustment was particularly strong for the immigrant sample, suggesting that the long-term nature of the acculturation experience for this group magnifies the psychological impact of these kinds of stressors. Accordingly, immigrants with elevated levels of acculturative stress, regardless of their disposition towards neuroticism, may be at risk for experiencing clinical symptomatology related to depression and anxiety. For people acculturating through globalization, acculturative stress may arise when the norms and practices of their local culture clash with those of the new globalizing culture (e.g., Western ideology), or when the process of learning the globalizing culture and language feels taxing. Our results show that pressures associated with the globalization process in the domains of language skills, work, intercultural relations, etc. can exert a negative effect on the psychological adjustment of the majority group as well. For example, deficiency in useful second-language skills may affect individuals’ work performance; these individuals may also feel that their own living environment is not multicultural enough to represent the new cultural richness.

As indicated by the interaction result in Study 3, the effect of acculturative stress on the psychological adjustment among Mainland Chinese was greater than that among Hong Kong Chinese. Given that Hong Kong was a British colony for 150 years until 1997, Hong Kong residents have been strongly influenced by British values (e.g., political structure, educational system, exposure to English, entertainment industry, communication styles) in their everyday living. On the contrary, Mainland China had a closed-door policy until the late 1970s. People in Mainland China had very few contacts with Western cultures until the past three decades when products from the West were introduced to them through commerce, media, and travel. It is not surprising that Mainland China is less multilingual and multicultural than Hong Kong and thus shows a stronger effect of acculturative stress on its members’ psychological functioning.
Concluding Remarks

Given the novelty of some questions explored in this research, the present results need to be replicated and refined in future studies. We need to discover how our patterns of results reflect the important sociocultural, economic, political, and historical uniqueness of each of the present acculturating samples. Another limitation of the present work is the correlational nature of the data, which prevents us from making definitive conclusions about the directionality of the relationships between bicultural identity, bilingualism, and well-being. As suggested by Fuligni (2001), longitudinal studies would be illuminating. Further, given the multifaceted nature of acculturation and its domain-specific links to meaningful outcomes (Kang, 2006), future studies should examine our questions with measures of cultural orientation that go beyond the domains of language and identification. Lastly, future transnational studies are needed to examine how much our results with majority-culture groups and sojourners generalize to other multicultural and multilingual nations (e.g., United States and Canada, Catalonia, South Africa).

As cultural and cross-cultural psychology become increasingly interested in how culture is negotiated within individuals, in addition to documenting cultural differences between groups (Bond, in press), we need process-oriented studies that acknowledge the complex interplay among identity, language, personality, and contextual variables. Our aim was to apply this approach to understanding multicultural individuals and their adjustment and to go beyond static, descriptive models of biculturalism by acknowledging the role of individual differences in managing the multicultural experience. We hope the present work raises awareness of the issue that “biculturalism is a complex and multidimensional phenomenon; there is not just one way of being bicultural” (Phinney & Devich-Navarro, 1997, p. 19).

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