Research article

Ethnic identity and self-esteem among Asian and European Americans: When a minority is the majority and the majority is a minority

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Abstract

Three studies were conducted to examine the impact of being a numeric majority or minority in Hawai’i and U.S. mainland on the ethnic identity and self-esteem of Asian and European Americans. Results of Study 1 (N = 214, M age = 19.85 years) and Study 2 (N = 215, M age = 18.20 years) showed that Asian Americans who grew up on the U.S. mainland, where they are a numeric minority, reported higher ethnic identity than did Asian Americans who grew up in Hawai’i, where they are a numeric majority. In addition, ethnic identity was significantly associated with self-esteem for Asian Americans from the U.S. mainland and European Americans from Hawai’i (numeric minority), but not for Asian Americans from Hawai’i and European Americans from the U.S. mainland (numeric majority). Study 3 (N = 88, M age = 18.12) examined ethnic identity and self-esteem among Asian and European Americans who had moved from the U.S. mainland to attend a university in Hawai’i over a 1 year time period. The results showed significant relations between ethnic identity and self-esteem for Asian Americans when they initially moved to Hawai’i, but this relation decreased after they had lived in Hawai’i for 1 year. The findings highlight contextual variations in ethnic identity and self-esteem for members of both minority and majority groups in the U.S. Copyright © 2014 John Wiley & Sons, Ltd.

A shared sense of identity with others who belong to the same ethnic group is an important aspect of individuals’ social identity and is closely tied to their respective minority–majority status within a social context (Phinney, 1990; Tajfel & Turner, 1986). In multicultural settings like in the U.S., researchers have found that individuals from minority groups report a stronger sense of ethnic identity than do European Americans who represent the national majority (Martinez & Dukes, 1997; Phinney & Alipuria, 1990; Tsai & Fuligni, 2012). Although ethnic identity may be a more important aspect of social identity among minority groups than for the dominant majority (Sellers, Rowley, Chavous, Shelton, & Smith, 1997), the extent to which individuals define themselves by ethnicity may be influenced by their numeric minority–majority status.1 Within microcontexts ranging from schools and communities (Phinney, Cantu, & Kurtz, 1997) to wide geographical areas, such as cities or states (Juang, Nguyen, & Lin, 2006), a national minority can become the numeric majority and the national majority can become a numeric minority (Juang et al., 2006; Umana-Taylor & Shin, 2007).

Little is known, however, about the relation between individuals’ numeric minority–majority status and their ethnic identity and psychological functioning for both minority and majority group members, and how this relation may change as they adapt to new social settings. Therefore, our objective was to examine the impact of being a numeric minority or majority in two different contexts—Hawai’i and the U.S. mainland—on the ethnic identity and self-esteem of Asian and European Americans. Hawai’i provides a unique demographic context because Asian Americans represent the numeric majority (38%) and outnumber all other ethnicities despite their minority status in the overall U.S. population (5%). Furthermore, few studies have taken a longitudinal approach to examine the dynamic nature of ethnic identity and its relation to self-esteem in settings that should theoretically activate both majority and minority group members’ ethnic identity more when they are in the numeric minority versus less when they are in the numeric majority. To address these gaps in the literature, we examined multiple ethnic groups to ensure that any differences were attributable to numeric minority–majority status opposed to the specific history or status associated with a particular group in broader U.S. society, and we incorporated a longitudinal design to examine change over time within new contexts.

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1We used “minority” or “majority” to refer to the minority–majority status in the U.S. and “numeric minority” and “numeric majority” to refer to the minority–majority status within a particular micro context.

2According to the U.S. Census (2010), Hawai’i has the highest percentage of Asian Americans and lowest percentage of European Americans in the U.S.
ETHNIC IDENTITY IN CONTEXT

Developmental Theories of Ethnic Identity

Ethnic identity refers to how individuals interpret and understand their ethnicity and their degree of commitment to their ethnic group (Phinney, 1990). As a multidimensional construct (Ashmore, Deaux, & McLaughlin-Volpe, 2004), ethnic identity is not limited to how individuals refer to themselves in terms of their ethnic group membership (Rumbaut, 1994; Umana-Taylor et al., 2014). Phinney’s (Phinney, 1990; Roberts et al., 1999) work has highlighted two key elements of ethnic identity: exploration and affirmation/belonging. Ethnic exploration, which refers to how individuals come to understand and behave in accordance with their ethnic group membership, involves a process of learning and investigation, whereas affirmation/belonging refers to how individuals feel about their ethnic group and includes a sense of pride and commitment to their group (Phinney & Ong, 2007). Rooted in ego identity theory (Erikson, 1968), developmental theorists postulate that the transition from adolescence to young adulthood is a period when individuals attempt to learn more about their background and explore the implications of ethnic group affiliation (Cross, 1991; Phinney, 1993). Adolescents who can resolve uncertainties about their ethnicity via exploration generally develop an affirmation with their ethnic group, feel comfortable with who they are, and manifest high self-esteem, self-confidence, and a sense of purpose in life (Phinney, 1993; Roberts et al., 1999). Thus, exploration is a critical process that helps individuals understand and form a commitment to their ethnic group (Phinney & Ong, 2007).

Developmental theories also focus on how context shapes ethnic identity and, specifically, how changes in context can trigger changes in ethnic identity. Identity development is thought to happen through dynamic interactions between the individual and his or her context (Erikson, 1968). Exploration may be triggered and intensified by experiences of prejudice and discrimination and thus varies significantly for ethnic majority and minority adolescents (Rotheram & Phinney, 1987). Heightened exploration may in turn strengthen minority adolescents’ affirmation with their ethnic group (Phinney, 1990). Indeed, minority group members often attribute greater importance to their ethnicity than do European Americans (Phinney & Alipuria, 1990), and they typically score higher on measures of ethnic exploration and affirmation than do members of the majority group (e.g., Bracey, Bamaca, & Umana-Taylor, 2004; Martinez & Dukes, 1997).

Individuals’ ethnic identity may also vary with their numeric minority–majority status; being a numeric majority in a particular context may help mitigate experiences of discrimination and lessen the intensity of ethnic exploration, even for minority adolescents (Phinney & Kohatsu, 1997). Studies have found that Mexican-origin adolescents who attended schools where Latinos made up the numeric majority scored significantly lower on a measure of ethnic identity than their counterparts who attended schools where the Latinos made up the minority, possibly because adolescents who were the numeric majority experienced less discrimination which decreased their ethnic exploration (Umana-Taylor, 2004). Alternatively, experiencing being in the numeric minority in a context may intensify ethnic identity processes, even for European Americans. For example, adolescents’ transitions into more ethnically heterogeneous schools, where their numeric minority status may become more salient across situations, predicted increases in ethnic identity exploration (French, Seidman, Allen, & Aber, 2006). Similarly, in states like California, where various ethnic minority groups make up more than 50% of the population and European American adolescents are in the numeric minority, European American adolescents scored higher on two components of ethnic identity (i.e., exploration and resolution) than did those who were from the Midwest U.S. where European Americans represent the numeric majority (Umana-Taylor & Shin, 2007). Thus, numeric minority–majority status may trigger ethnic identity processes even among those in the U.S. majority group (i.e., European Americans), highlighting the importance of examining how context impacts ethnic identity.

Social Identity Theory and Self-categorization Theory

A social identity framework also predicts that ethnic identity should change based on the individual’s context. Similar to developmental theories, research in the social identity theory tradition defines ethnic identity as involving multiple components, including defining the self in terms of group membership, acquiring knowledge associated with that social identity, and maintaining a positive sense of belonging (Tajfel, 1982). Social identity and self-categorization theories consider ethnic identity as one of many possible available social identities and predict that the extent to which ethnic identity becomes salient depends on the wider context that defines minority–majority status (Tajfel & Turner, 1986; Turner, Oakes, Haslam, & McGarty, 1994). Specifically, social identity theory suggests that being a visible minority in a particular context can increase the situational salience of a particular social identity, such as ethnicity, gender, or social class (Mcguire, McGuire, Child, & Fujioka, 1978), and over time the centrality of a particular group identity (e.g., ethnic identity in the case of ethnic minorities; Abrams, Thomas, & Hogg, 1990; Tajfel & Turner, 1986). Similar to developmental theories, social identity theory emphasizes that prejudice and discrimination may strengthen ethnic identification in minority group individuals (Crocker & Major, 1989; Leach, Rodriguez Mosquera, Vliek, & Hirt, 2010).

Individuals’ numeric minority–majority status in a particular context may also influence the centrality of ethnic group membership and accordingly the strength of their ethnic identification. Social identity and self-categorization theories suggest that individuals identify themselves by comparing their similarity to others and seeking to maximize the difference between their own group and other groups in their context (Tajfel & Turner, 1986; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). A particular social identity becomes more prominent if it is a meaningful way of organizing the self in that context; thus, ethnic identification is contingent on the nature of the social groups present in an individual’s immediate context. Accordingly, if the intergroup nature of the current context changes, ethnic identification...
should also change (Turner et al., 1994). Moreover, individuals’ ethnic identification can be expected to change when the group comparisons that determine ethnic identification also shift, particularly when the context changes from numeric majority to minority or from minority to majority (Ethier & Deaux, 1994).

ETHNIC IDENTITY AND SELF-ESTEEM

Both developmental theories and social identity theory argue that individuals derive positive value from belonging to groups that are meaningful to them (Phinney, 1990; Tajfel & Turner, 1986). Consequently, feeling a strong sense of belonging with an ethnic group may contribute to aspects of individuals’ psychological well-being, such as self-esteem. As a primary component of the self-concept informed largely by group membership (Rosenberg, 1986), self-esteem should be elevated among individuals who feel positively about their ethnic groups. Indeed, a recent meta-analysis supports this relation between ethnic identity and increased self-esteem, when ethnic identity was assessed by composite (i.e., exploration and affirmation/belonging combined) and single dimension measures (Smith & Silva, 2011). Given that ethnic group membership is more central to minority than majority adolescents’ social identity, ethnic identity may play a stronger role in minority adolescents’ self-esteem (Umana-Taylor & Shin, 2007). According to social identity theory, there are at least two mechanisms by which ethnic identity may contribute to individuals’ self-esteem when they are a minority in a particular context. First, the importance of ethnicity to individuals’ social identity may increase the accessibility of cultural meaning embedded in common customs, a sense of common history, or group norms which in turn promote positive feelings about the group, self-appreciation as an in-group member, and overall positive self-evaluation and self-esteem (Yip & Fuligni, 2002). Second, the centrality of minority group membership may increase perceived threat to individuals’ self-efficacy due to differential attitudes and treatment associated with their minority status, thus intensifying the need for self-esteem (Greene, Way, & Pahl, 2006; Smith, Walker, Fields, Brookins, & Seay, 1999; Wong, Eccles, & Sameroff, 2003). In this case, ethnic identity may become a source of strength for minority adolescents and contribute to their self-esteem by helping them cope with discrimination (Greene et al., 2006; Leach et al., 2010; Phinney, 1990).

According to developmental theories, a strong sense of ethnic identity may be particularly important during the transition to adulthood because it helps minority youth develop positive self-esteem often in the face of negative information about their ethnic groups (Phinney & Kohatsu, 1997). Therefore, the relation between ethnic identity and self-esteem may be most apparent during adolescence and young adulthood when the significance of ethnicity seems to increase and especially for those who may experience discrimination (Phinney, 1990). In support of both social identity and developmental theories, prior studies have found that ethnic identity and self-esteem are more positively associated for ethnic minority, including Asian American, than majority adolescents (Carlson, Uppal, & Prosser, 2000; Juang et al., 2006; Lee, 2003, 2005; Martinez & Dukes, 1997; Smith et al., 1999).

Although the relation between ethnic identity and self-esteem is consistently weak in studies of European American adolescents, this relation may become significant when European Americans are in settings where they are the numeric minority (Phinney et al., 1997). Phinney and colleagues (1997) found that ethnic identity was positively associated with self-esteem among European American high school students who were the numeric minority in predominately nonwhite school settings. Being a numeric minority may not only increase the distinctiveness and centrality of European American’s ethnic group membership in this micro context but may also highlight a need to develop group solidarity with and psychologically bond to the small number of other European American group members (Leach et al., 2008). This bond and group commitment may become integrated into their European American identity, representing an investment of the self in their ethnic group membership and helping them to maintain positive self-views when they are a numeric minority (Phinney et al., 1997).

INTEGRATION OF THEORIES

Although each perspective emphasizes slightly different processes, both developmental and social identity theories predict that a numeric minority–majority context should impact individuals’ ethnic identity and its relation to self-esteem. While both perspectives argue that achieving ethnic identity/ethnic identification is a dynamic process, developmental models emphasize context and change over time with a focus on the process of this change through exploration, whereas social identity models emphasize shifts in the prominence of different social identities (which can include ethnic identity) in accordance with the intergroup context. However, both perspectives assert that individuals derive positive self-evaluation from belonging to meaningful groups and argue that ethnic identity is important to the psychological well-being of group members. The current research is grounded more squarely in developmental theory, largely because we used Phinney’s Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) to assess ethnic identity. However, the current work also sheds light on predictions made by social identity theory that have been rarely tested. Particularly, we examine the dynamic nature of ethnic identity in response to changes in a context that altered individuals’ numeric minority–majority status.

Studies examining the impact of changes in numeric minority–majority status on ethnic identity from a developmental perspective have produced mixed results. Saylor and Aries (1999) reported that ethnic minority adolescents, who attended a college that was predominantly European American, reported an increase in their ethnic affirmation and exploration across the first year of college. However, Syed, Azmitia, and Phinney (2007) found no significant changes in Latino adolescents’ ethnic identity during their first
year in two California universities—one enrolled primarily European American students and the other enrolled primarily ethnic minority students. It is difficult to interpret the findings of these studies because it is unclear whether the students chose to attend colleges that were similar to the contexts in which they grew up. Furthermore, no studies have examined ethnic identity among European Americans in response to changes in their numeric minority–majority status. Our study was designed to address these gaps by systematically examining how numeric minority–majority status relative to individuals’ current context, as well as changes in this status, may be related to their ethnic identity, by including both majority and minority group members.

To date, few studies have examined the influence of numeric minority–majority status on the ethnic identity and self-esteem of both ethnic minority and majority adolescents. Umana-Taylor and Shin (2007) explored the relation between three aspects of ethnic identity—exploration, resolution, and affirmation—and self-esteem among 1344 minority and majority adolescents in California where the total minority group population outnumbered the European Americans and in the Midwest U.S. where European Americans were the numeric majority. Their results showed that there was no effect for the students’ numeric minority–majority status, and the geographic context (California versus the Midwest) did not moderate the relation between the three aspects of ethnic identity and self-esteem, regardless of ethnicity. Similarly, in a comparative study of Asian American college students from the U.S. west coast where Asians often live in concentrated groups and in the Midwest where Asians represented a numeric minority, Juang and colleagues (2006) found that the relation between ethnic identity and self-esteem was not moderated by numeric minority–majority status associated with the geographic context. These studies, both conducted from a developmental perspective, had two limitations that may have masked the effect of numeric minority–majority status. First, the participants could have been raised in places other than the geographic areas where they were recruited. Second, Asians and other minorities, such as Latinos, despite living in concentrated groups in places like California, did not outnumber European Americans.

THE CURRENT STUDIES

Unlike prior studies conducted in the U.S. mainland, Asian Americans significantly outnumber European Americans in Hawai‘i, creating an ideal microcontext where the minority–majority status is reversed for Asian and European Americans. The U.S. mainland and Hawai‘i were conceptualized as two distinct socialization contexts, where individuals grew up interacting mostly with the same or different ethnic group members. Three studies were conducted to examine the impact of being a numeric majority or minority in Hawai‘i and the U.S. mainland on the ethnic identity and self-esteem of Asian and European Americans. Study 1 compared ethnic identity and its relation to self-esteem for Asian Americans living in Hawai‘i (numeric majority) and in the U.S. mainland (numeric minority). Study 2 extended Study 1 and examined ethnic identity and self-esteem in Asian and European Americans who either grew up in Hawai‘i (where Asian Americans are a majority and European Americans are a minority) or moved from the U.S. mainland (where Asian Americans are a minority and European Americans are a majority) to Hawai‘i (where numeric minority–majority status is flipped) to attend college. Study 3 used a 1 year longitudinal design to investigate how the ethnic identity and self-esteem in Asian (switching from a numeric minority to the majority) and European Americans (switching from the numeric majority to a minority) changed when moving from the U.S. mainland to Hawai‘i.

STUDY 1

Study 1 examined the relation between ethnic identity and self-esteem in Asian Americans who grew up and attended universities in Hawai‘i and California. We focused on young college students because this is a developmental period when individuals further explore, develop, and begin to solidify their self-concept and ethnic identity (Arnett, 2000; Phinney & Ong, 2007). Specifically, we predicted that ethnic identity would vary in accordance with individuals’ numeric minority–majority status within a social context (Umana-Taylor & Shin, 2007). We hypothesized that Asian Americans in California (CA Asian Americans) would report higher ethnic identity (affirmation and exploration) than would Asian Americans in Hawai‘i (HI Asian Americans) and that the relation between ethnic identity and self-esteem would be stronger for Asian Americans in a numeric minority context (California) than in a numeric majority context (Hawai‘i).

Method

Participants and Procedure

The participants were 214 Asian Americans (Chinese, Japanese, and Korean) who were recruited from two universities in Los Angeles, California (n = 116, 65 females) and Honolulu, Hawai‘i (n = 98, 54 females). We limited our Asian American samples to Chinese, Japanese, and Korean groups for two reasons. These three groups are overrepresented in Hawai‘i, and they share a similar cultural heritage and Confucian value system. In California and at the university where they were recruited, Asians represent a numeric minority (21.1% versus 38.2% for European Americans at the California University). However, in Hawai‘i and at the university where they were recruited, Asians represented the numeric majority (45.6% versus 26.1% for European Americans at the university in Hawai‘i). Participants were included in the study if (1) since being born in the U.S. or coming to the U.S. (i.e., in the case of immigrating to the U.S. as children), they had lived only in either California or Hawai‘i and (2) both the adolescents and their parents were of Chinese, Japanese, or Korean ancestry. International students (who held temporary student visas) or those of mixed ethnicity were not included in the study. Participants were recruited from psychology classes on their respective campuses. Research assistants explained the study
and distributed consent forms. Participants scheduled appointments to complete questionnaires individually in the laboratory. They received course credit for their participation.

**Measures**

**Demographic Information**

Adolescents completed a questionnaire about their age, gender, ethnicity, place of birth, years in California or Hawai‘i, year in college, and their parents’ birthplace, educational background, occupation, and immigration history. Family SES scores were calculated using the Hollingshead (1975) four-factor index. Participants were also asked to respond to an open-ended question about their ethnic self-labels: “In terms of ethnic group, I consider myself to be…” Their responses were categorized following Portes and Rumbaut (2001) and Juang and colleagues (2006): national origin (e.g., Chinese), hyphenated American (e.g., Chinese American), and panethnic (Asian or Asian American). Fuligni, Kiang, Witkow, and Baldeolomar (2008) argued that in comparison to the use of hyphenated or panethnic labels, which may reflect stronger affinity to ethnic group and culture and may be related to higher levels of ethnic exploration and affirmation.

Table 1 shows that there were no differences between the students from California and Hawai‘i in their ethnicity, gender, and place of birth (U.S. or foreign born), age, generation (1 = foreign born adolescent, 2 = U.S. born adolescent with at least one foreign born parent, 3 = U.S. born adolescent with both parents being U.S. born), family SES, years in California or Hawai‘i, and years in college.

**Ethnic Identity**

Participants rated their ethnic identity on a four-point scale (1 = strongly disagree; 4 = strongly agree) using the Multi-group Ethnic Identity Measure- Revised (MEIM-R) (Phinney, 1992; Roberts et al., 1999). The MEIM-R was based on developmental theories of ethnic identity and measures both ethnic affirmation with and commitment to one’s ethnic group, and ethnic exploration and involvement (Phinney, 1992). The MEIM-R has two subscales: ethnic affirmation/belonging (five items; e.g., “I have a clear sense of my ethnic background and what it means for me”) and exploration (seven items; e.g., “I have often talked to other people in order to learn more about my ethnic group”). To examine measurement equivalence across groups, we conducted a series of exploratory factor analyses (EFAs) with principal axis factoring and direct oblimin rotation. The EFAs revealed one eigenvalue higher than 1 for both groups (40.8% total variance explained for CA Asian Americans and 40.8% for HI Asian Americans). All 12 items loaded on this one factor with item loadings ranging from .55 to .70 for CA Asian Americans and from .58 to .71 for HI Asian Americans. In addition, the correlations between the two subscales were similar for both groups: .73 for CA Asian Americans and .79 for HI Asian Americans. This provided us with some evidence of measurement equivalence. Given the results of the EFAs, we derived one composite variable of *ethnicity identity* based on the average of all the ethnic affirmation and exploration items (Cronbach’s α = .89 for CA Asian Americans and .89 for HI Asian Americans).3,4

**Self-esteem**

Participants completed Rosenberg’s (1986) self-esteem inventory where they rated their agreement with 10 items such as “On the whole, I am satisfied with myself” on a four-point scale (1 = strongly disagree; 4 = strongly agree). The EFAs revealed one eigenvalue higher than 1 for both groups (43.9% total variance explained for CA Asian Americans and 46.4% for HI Asian Americans), with item loadings ranging from .61 to .75 for CA Asian Americans and from .59 to .76 for HI Asian Americans. A total self-esteem score was derived from the item average (α = .88 for CA Asian Americans and α = .89 for HI Asian Americans).

**Preliminary Analyses**

There were five participants with missing data on some items of the ethnic identity or self-esteem measures. To reduce bias in the results, we applied multiple imputations to compute the missing values (Schafer, 1997). We used LISREL 8.70, which uses the method of generating random draws from probability distributions via Markov chains (Du Toit & Du Toit, 2001).

The two groups did not significantly differ in their ethnic self-labels (see Table 1). However, some HI Asian Americans identified themselves as “Hawaiian.” No participants identified themselves as just “American.” For both ethnic identity and self-esteem, there were no significant correlations with the demographic variables for both groups. The correlations between ethnic identity and self-esteem were $r = .45 (p < .001)$ for CA Asian Americans and $r = .05 (p = .618)$ for HI Asian Americans. The self-esteem scores did not differ for the two groups: $t(212) = .90, p = .368, 95\% \text{ CI } [-.07, .19], d = .12$.

**Results**

**Mean Differences in Ethnic Identity for CA and HI Asian Americans**

We conducted $t$-tests to address our first hypothesis and found that CA Asian Americans reported higher ethnic identity than did HI Asian Americans: $t(212) = 3.36, p = .001, 95\% \text{ CI } [-.08, .32], d = .46$. 3

4 Although researchers have convincingly argued for using disaggregated measures (e.g., examining exploration and affirmation separately) to allow for more specificity in theorizing (e.g., Rivas-Drake et al., 2014; Umana-Taylor, Yazedjian, & Banaca-Gomez, 2004), we chose to use a composite measure in the current research because EFAs indicated one factor across all studies. Moreover, the results were identical for exploration and affirmation across all studies when examined separately.

4 We also conducted confirmatory factor analyses (CFAs), which, similar to the EFAs, found that the two factors: ethnic affirmation and ethnic exploration were highly correlated in all three studies.
To address our second hypothesis, hierarchical regression analyses were conducted with self-esteem treated as the criterion variable (see Table 2). Age, gender, generation, and family SES scores were entered in the first step, followed in the second step by the main effects of ethnic identity (mean centered; Aiken & West, 1991) and socialization context (California versus Hawai‘i, dummy coded). The interaction between ethnic identity and socialization context was entered in the final step.

As shown in Table 2, ethnic identity was positively related to self-esteem, but the relation was qualified by the significant ethnic identity × socialization context interaction. The interaction plotted in Figure 1 shows the relations between ethnic identity and self-esteem for CA and HI Asian Americans, with the interaction effect showing that the positive relationship between ethnic identity and self-esteem was stronger in HI than in CA context.

### Table 1. Descriptive sample information for Studies 1, 2, and 3

<table>
<thead>
<tr>
<th>Study 1 (N=214)</th>
<th>CA Asian American (n=116)</th>
<th>HI Asian American (n=98)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of males (females)</td>
<td>51 (65)</td>
<td>44 (54)</td>
</tr>
<tr>
<td>Number of Chinese, Japanese, and Korean</td>
<td>43, 36, 37</td>
<td>31, 39, 28</td>
</tr>
<tr>
<td>Number of foreign (U.S.) born adolescents</td>
<td>44 (72)</td>
<td>31 (67)</td>
</tr>
<tr>
<td>Age: M (SD)</td>
<td>19.72 (1.11)</td>
<td>20.00 (0.99)</td>
</tr>
<tr>
<td>Generation</td>
<td>1.69 (1.58)</td>
<td>1.86 (1.76)</td>
</tr>
<tr>
<td>Family SES scores: M (SD)</td>
<td>47.75 (14.07)</td>
<td>47.02 (13.60)</td>
</tr>
<tr>
<td>Years in CA or HI: M (SD)</td>
<td>17.32 (3.33)</td>
<td>18.07 (2.84)</td>
</tr>
<tr>
<td>Years in college: M (SD)</td>
<td>2.18 (.64)</td>
<td>2.31 (.87)</td>
</tr>
</tbody>
</table>

**Self-label**
- National origin | 73 (62.9%) | 61 (62.2%) |
- Hyphenated American | 35 (30.2%) | 26 (26.5%) |
- Panethnic | 8 (6.9%) | 8 (8.2%) |
- Hawaiian | 3 (3.1%) |
- Ethnic identity: M (SD) | 3.16 (.44) | 2.96 (.42) |
- Self-esteem: M (SD) | 3.05 (.45) | 2.99 (.52) |

<table>
<thead>
<tr>
<th>Study 2 (N=215)</th>
<th>European American (n=72)</th>
<th>Asian American (n=143)</th>
</tr>
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<tbody>
<tr>
<td>Mainland (n=36)</td>
<td>HI (n=36)</td>
<td>Mainland (n=36)</td>
</tr>
<tr>
<td>Number of males (females)</td>
<td>17 (19)</td>
<td>16 (20)</td>
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<tr>
<td>Number of foreign (U.S.) born adolescents</td>
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<td>—</td>
</tr>
<tr>
<td>Age: M (SD)</td>
<td>18.25 (1.30)</td>
<td>18.44 (1.16)</td>
</tr>
<tr>
<td>Family SES scores: M (SD)</td>
<td>47.47 (12.90)</td>
<td>47.69 (11.50)</td>
</tr>
<tr>
<td>Years in HI: M (SD)</td>
<td>.19 (.09)</td>
<td>18.44 (1.16)</td>
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<tr>
<td>Ethnic composition of high school</td>
<td>EA &gt; AA: 100%</td>
<td>AA &gt; EA: 94.4%</td>
</tr>
<tr>
<td>Self-label</td>
<td>National origin</td>
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<tr>
<td></td>
<td>Hyphenated American</td>
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<tr>
<td></td>
<td>Panethnic</td>
<td>36 (100%)</td>
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<tr>
<td></td>
<td>Hawaiian</td>
<td>—</td>
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<tr>
<td></td>
<td>Ethnic identity: M (SD)</td>
<td>2.70 (.58)</td>
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<td></td>
<td>Self-esteem: M (SD)</td>
<td>3.28 (.46)</td>
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<th>Study 3 (N=88)</th>
<th>Mainland European American (n=44)</th>
<th>Mainland Asian American (n=44)</th>
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<tbody>
<tr>
<td>Number of males (females)</td>
<td>19 (25)</td>
<td>20 (24)</td>
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<tr>
<td>Number of Chinese, Japanese, and Korean</td>
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<td>Number of foreign (U.S.) born adolescents</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Age: M (SD)</td>
<td>18.14 (.85)</td>
<td>18.09 (1.24)</td>
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<tr>
<td>Generation: M (SD)</td>
<td>1.52 (.51)</td>
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<tr>
<td>Family SES scores: M (SD)</td>
<td>49.58 (11.74)</td>
<td>48.59 (15.53)</td>
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<tr>
<td>Ethnic composition of high school</td>
<td>EA &gt; AA: 100%</td>
<td>EA &gt; AA: 95.5%</td>
</tr>
<tr>
<td>Self-label</td>
<td>National origin</td>
<td>—</td>
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<tr>
<td></td>
<td>Hyphenated American</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Panethnic</td>
<td>44 (100%)</td>
</tr>
</tbody>
</table>

**Note:** Ethnic identity and self-esteem are rated on four-point scales.

The Moderating Effect of Socialization Context (California versus Hawai‘i) on the Relation between Ethnic Identity and Self-esteem

To address our second hypothesis, hierarchical regression analyses were conducted with self-esteem treated as the criterion variable (see Table 2). Age, gender, generation, and family SES scores were entered in the first step, followed in the second step by the main effects of ethnic identity (mean centered; Aiken & West, 1991) and socialization context (California versus Hawai‘i, dummy coded). The interaction between ethnic identity and socialization context was entered in the final step.

As shown in Table 2, ethnic identity was positively related to self-esteem, but the relation was qualified by the significant ethnic identity × socialization context interaction. The interaction plotted in Figure 1 shows the relations between ethnic identity and self-esteem for CA and HI Asian Americans.
Ethnic identity and self-esteem

Table 2. The relation between ethnic identity and self-esteem for Asian Americans in California and Hawai’i in Study 1

<table>
<thead>
<tr>
<th>Criterion variable</th>
<th>Predictor</th>
<th>B [95% CI]</th>
<th>F</th>
<th>R² (ΔR²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-esteem</td>
<td>Step 1 Age</td>
<td>−.04 [−.10, .03]</td>
<td>2.14</td>
<td>.04</td>
</tr>
<tr>
<td></td>
<td>Gender (1 = boy, 0 = girl)</td>
<td>.17* [.04, .30]</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Generation</td>
<td>.04 [−.06, .14]</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Family SES</td>
<td>.00 [−.00, .01]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td>Ethnic identity</td>
<td>.28** [.14, .43]</td>
<td>4.05**</td>
<td>.11** (.07)**</td>
</tr>
<tr>
<td></td>
<td>Context (1 = HI, 0 = CA)</td>
<td>−.00 [−.14, .13]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td>Ethnic identity × Context</td>
<td>−.37* [−.66, −.07]</td>
<td>4.42**</td>
<td>.13** (.02)**</td>
</tr>
</tbody>
</table>

Note: B = unstandardized regression coefficient, 95% CI = 95% confidence interval, HI = Hawai’i, CA = California.
*p < .05; **p < .01.

Discussion

Consistent with the first hypothesis, CA Asian Americans scored higher on ethnic identity than did their counterparts in Hawai’i. Despite being a minority in the U.S., HI Asian Americans may have benefited from having Asian peers that make up 40% of the population in Hawai’i, including possibly having more same-ethnic friends and fewer negative experiences associated with their ethnicity than their counterparts in California. In addition, unlike their peers in California who may have more fully explored facets of their ethnic identity due to the dissonance between the East Asian and mainstream European American cultures, HI Asian Americans are members of the “mainstream” culture in Hawai’i, and therefore, the process of ethnic exploration may have been less intense for them. That is, ethnic identity formation may not be as relevant for HI Asian Americans as it is for CA Asian Americans.

Consistent with the second hypothesis, ethnic identity was more strongly related to self-esteem for CA Asian Americans than for HI Asian Americans. There was a positive relation between ethnic identity and self-esteem only for the CA Asian Americans. These findings suggest that identification with one’s ethnic group may be particularly advantageous for Asian Americans who live in California where they are a numeric minority. In settings like California, Asian Americans have less power and status and may encounter more negative information about their ethnic groups than HI Asian Americans. Developing a strong sense of belonging with their ethnic group through exploration may equip CA Asian American individuals with psychological resources to buffer prejudice and discrimination and accordingly may contribute to the development of a positive self-concept (Umana-Taylor & Shin, 2007). In contrast, as the numeric majority, identification with one’s ethnic group may not weigh in as much on HI Asian Americans’ self-evaluation as it may for CA Asian Americans.

Although these results are intriguing, it is unclear whether the impact of numeric minority–majority status is a more general process that would extend beyond Asian ethnic groups or national minorities in general. Particularly, would the impact of numeric minority–majority status work similarly for a national majority group (i.e., European Americans) when put in a context where they are a numerical minority? We designed Study 2 to address this question.

STUDY 2

In Study 2, the relation between ethnic identity and self-esteem was examined in Asian and European Americans who attended a university in Hawai’i but grew up in Hawai’i or on the U.S. mainland, respectively. First, we hypothesized that Asian Americans who grew up on the U.S. mainland would report higher ethnic identity than would European Americans who grew up on the U.S. mainland, whereas Asian Americans who grew up in Hawai’i would report lower ethnic identity than would European American who grew up in Hawai’i. Second, we hypothesized that within the Asian American samples, ethnic identity would be higher for individuals who grew up on the U.S. mainland than for those who grew up in Hawai’i and that within the European American samples, ethnic identity would be higher for individuals who grew up in Hawai’i than for those who grew up on the U.S. mainland. Third, we hypothesized that within the Asian American samples, the relation between ethnic identity and self-esteem would be stronger for those who grew up on the U.S. mainland than for individuals who grew up in Hawai’i, whereas within the European American samples, ethnic identity would be more strongly associated with self-esteem for individuals who grew up in Hawai’i than for those who grew up on the U.S. mainland.

Figure 1. The relation between ethnic identity and self-esteem among Asian Americans in California (CA) and Hawai’i (HI) in Study 1

Americans. Ethnic identity was significantly associated with self-esteem only for CA Asian Americans (B = .46, p < .001, 95% CI [.29, .63]) but not for HI Asian Americans (B = .06, p = .618, 95% CI [−.19, .31]).
Method

Participants and Procedure

Participants ($N=215$, 112 females) were 72 European Americans (36 U.S. mainland and 36 Hawai‘i residents) and 143 Asian Americans (63 U.S. mainland and 80 Hawai‘i residents) who were recruited in the same manner and from the same university in Hawai‘i as in Study 1. They completed several questionnaires in a laboratory and received course credit for their participation.

The mainland European and Asian Americans were included in Study 2 if (1) since being born in the U.S. or immigrating to the U.S., they had lived only on the U.S. mainland before attending the university in Hawai‘i; (2) they had attended the university in Hawai‘i for less than 3 months; (3) their parents traced their ancestry to either Europe or China, Japan, or Korea; and (4) European Americans and their parents were all U.S. born. These inclusion criteria ensured that the mainland participants differed significantly from the participants from Hawai‘i in the time that they lived in a setting where Asians represent the numeric majority and Europeans represent a numeric minority. Among the 36 mainland European Americans, 15 were from the West Coast, six from the East Coast, 13 from the Midwest U.S., and two from other regions of the U.S. mainland. Among the 63 mainland Asian Americans, 43 were from the West Coast, eight from the East Coast, 11 from the Midwest U.S., and one from another region of the U.S. mainland.

Measures

Demographic Information

Participants completed the same demographic questionnaire and were asked the same ethnic self-label question as in Study 1. They also responded to a question about the ethnic composition of their high schools: “My high school had: 1 = more European American than Asian American students, 2 = about equal number of European and Asian American students, 3 = more Asian American than European American students.”

As shown in Table 1, more than 90% of mainland participants graduated from high schools that had more European Americans than Asian Americans, while almost all the participants from Hawai‘i were from high schools that had more Asian Americans than European Americans, suggesting that before attending the university in Hawai‘i, the numeric minority–majority status in high schools—arguably the most important socialization context for precollege adolescents—differed for mainland and Hawai‘i participants. Table 1 also shows that there were no differences among the four groups in the distribution of gender, age, and family SES scores.

Ethnic Identity

Participants completed the same MEIM-R. Similar to Study 1, to examine the measurement equivalence of MEIM-R, we conducted a series of EFAs with principal axis factoring and direct oblimin rotation. The EFAs consistently revealed one eigenvalue higher than 1 (44.9% total variance explained for mainland European Americans, 42.4% for HI European Americans, 40.6% for mainland Asian Americans, and 40.9% for HI Asian Americans). All 12 items loaded on this one factor with item loadings ranging from .54 to .79 for mainland European Americans, from .58 to .70 for HI European Americans, from .55 to .70 for mainland Asian Americans, and from .53 to .70 for HI Asian Americans. In addition, the correlations between the two subscales were similar across groups: .79 for mainland European Americans, .80 for HI European Americans, .74 for mainland Asian Americans, and .77 for HI Asian Americans. Therefore, we derived composite ethnic identity scores based on the average of all the ethnic affirmation and exploration items ($\alpha = .90$ for mainland European Americans, .90 for HI European Americans, .89 for mainland Asian Americans, and .89 for HI Asian Americans).

Self-esteem

Participants completed the same 10-item self-esteem inventory ($\alpha = .88$ for mainland European Americans, .87 for HI European Americans, .88 for mainland Asian Americans, and .90 for HI Asian Americans). The results of EFAs were similar across groups. The EFAs revealed one eigenvalue higher than 1 (44.6% total variance explained for mainland European Americans, 40.7% for HI European Americans, 44.2% for mainland Asian Americans, and 46.6% for HI Asian Americans), with item loadings ranging from .58 to .74 for mainland European Americans, from .58 to .71 for HI European Americans, from .56 to .78 for mainland Asian Americans, from .61 to .75 for HI Asian Americans.

Preliminary Analyses

Ethnic Self-labels

Mainland and HI Asian Americans did not differ in their ethnic self-labels (see Table 1). Two HI Asian Americans labeled themselves “Hawaiian.” All the mainland European Americans used panethnic labels (European American or Caucasian). Three HI European Americans identified themselves “Hawaiian.” No participants labeled themselves “American.”

Correlational Analyses

Correlational analyses conducted separately for the four groups showed that for both ethnic identity and self-esteem, there were no significant correlations with the demographic variables. The correlations between ethnic identity and self-esteem were $r = .44$ ($p < .001$) for mainland Asian Americans, $r = .00$ ($p = .991$) for mainland European Americans, $r = -.04$ ($p = .706$) for HI Asian Americans, and $r = .42$ ($p = .011$) for HI European Americans.
### Results

**ANOVAs**

Results of a 2 × 2 ANOVA revealed significant main effects for ethnicity, $F(1, 211) = 29.94, p < .001$, and socialization context, $F(1, 211) = 4.88, p = .028$. Asian Americans had higher ethnic identity ($M = 3.04, SD = .48$) than European Americans ($M = 2.66, SD = .56$), $d = .73$. Additionally, individuals from the U.S. mainland also had higher ethnic identity ($M = 3.00, SD = .56$) than those from Hawai‘i ($M = 2.84, SD = .51$), $d = .30$. The interaction between ethnicity and socialization context for ethnic identity was not significant, $F(1, 211) = 1.19, p = .276$.

A 2 × 2 ANOVA revealed a main effect of ethnicity, $F(1, 211) = 8.99, p = .003$, but not socialization context, $F(1, 211) = .91, p = .342$. European Americans had higher ethnic identity ($M = 3.22, SD = .47$) than Asian Americans ($M = 3.00, SD = .52$), $d = .44$. No difference was found between individuals from U.S. mainland ($M = 3.11, SD = .50$) and those from Hawai‘i ($M = 3.04, SD = .53$), $d = .14$. The interaction between ethnicity and socialization context for ethnic identity was not significant, $F(1, 211) = .27, p = .602$.

**Planned Contrasts to Test Hypothesized Predictions for Differences in Ethnic Identity Across Ethnicity and Socialization Context**

Because our hypotheses outlined specific planned comparisons, we conducted contrasts to directly test our first and second hypotheses regarding mean differences in ethnic identity across ethnicity and socialization context.9 The results indicated that as predicted, mainland Asian Americans reported higher ethnic identity than did HI Asian Americans ($F(1, 211) = 8.06, p = .005, 95\% CI [.07, .41], d = .49$) and mainland European Americans ($F(1, 211) = 20.71, p < .001, 95\% CI [.27, .68], d = .89$). Contrary to predictions, HI Asian Americans reported higher ethnic identity than did HI European Americans ($F(1, 211) = 10.00, p = .002, 95\% CI [.12, .52], d = .63$). No differences were found between HI and mainland European Americans ($F(1, 211) = .47, p = .493, 95\% CI [−.15, .31], d = .14$).

**Ethnicity, Socialization Context, and Ethnic Identity in Relation to Self-esteem**

To address our third hypothesis, hierarchical regression analyses were conducted with self-esteem treated as the criterion variable. Age, gender, and family SES scores were entered in the first step, followed in the second step by the main effects of ethnic identity (mean centered), ethnicity (European versus Asian American, dummy coded), and socialization context (U.S. mainland versus Hawai‘i, dummy coded). The two-way and three-way interaction terms among the predictors were entered in the third step.

As shown in Table 3, although two main effects (ethnic identity and ethnicity) and one two-way interaction effect (ethnic identity × ethnicity) were identified, these effects were qualified by a significant three-way interaction (ethnic identity × ethnicity × context). The significant three-way interaction term indicated that the moderating effect of context (U.S. mainland versus Hawai‘i) on the relation between ethnic identity and self-esteem differed as a function of participants’ ethnicity (Asian or European American).

To explore the nature of this three-way interaction, we examined the moderating effects of context (U.S. mainland versus Hawai‘i) on the relation between ethnic identity and self-esteem, separately for Asian and European Americans. Ethnic identity was associated with self-esteem for HI European Americans ($B = .37, p = .011, 95\% CI [.09, .66]$) but not for mainland European Americans ($B = .00, p = .991, 95\% CI [−.28, .28]$) (see Figure 2A for simple slopes for each group). In contrast, ethnic identity was associated with self-esteem for mainland Asian Americans ($B = .47, p < .001, 95\% CI [.22, .72]$) but not for HI Asian Americans ($B = −.05, p = .706, 95\% CI [−.31, .21]) (see Figure 2B for simple slopes for each group).

### Table 3. The relation between ethnic identity and self-esteem for European and Asian Americans in Study 2

<table>
<thead>
<tr>
<th>Criterion variable</th>
<th>Predictor</th>
<th>$B$ [95% CI]</th>
<th>$F$</th>
<th>$R^2$ (AR$^2$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-esteem</td>
<td>Step 1</td>
<td>Age</td>
<td>.02 [−.02, .05]</td>
<td>.57</td>
</tr>
<tr>
<td>Gender (1 = boy, 0 = girl)</td>
<td></td>
<td>.04 [−.11, .19]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family SES</td>
<td></td>
<td>.00 [−.00, .01]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td>Ethnic identity</td>
<td>.18** [0.05, .32]</td>
<td>3.36**</td>
<td>.09** (0.08**</td>
</tr>
<tr>
<td>Ethnicity (1 = AA, 0 = EA)</td>
<td></td>
<td>−.32** [−.48, −.15]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Context (1 = HI, 0 = CA)</td>
<td></td>
<td>−.04 [−.18, .10]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td>Ethnic identity × Ethnicity</td>
<td>.50* [0.12, .89]</td>
<td>3.70**</td>
<td>.14** (0.05**</td>
</tr>
<tr>
<td>Ethnicity × Context</td>
<td></td>
<td>.46 [−.28, 1.19]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic identity × Context</td>
<td></td>
<td>−.05 [−.83, .72]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic identity × Ethnicity × Context</td>
<td></td>
<td>−.92** [−1.47, −.38]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: $B =$ unstandardized regression coefficient, 95% CI = 95% confidence interval, AA = Asian American, EA = European American. The effects of ethnicity were slightly different when ethnic identity was entered into the regression model.

*p < .05; **p < .01.

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9Rosenthal and Rosnow (1985) argue that a significant interaction (or any overall significant “F-tests”) in an ANOVA is not a necessary precursor to test focused planned comparisons predicted by hypotheses. In fact, focused contrasts derived from a researcher’s hypotheses (i.e., a priori comparisons) are considered more powerful and appropriate than the omnibus F test to test specific questions. Thus, we proceeded to test our planned comparisons based on our key hypotheses via contrasts (see Jaccard, 1998; Rosenthal & Rosnow, 1985).
Discussion

Our first and second hypotheses were partially supported. Consistent with social identity theory, mainland Asian Americans reported higher ethnic identity than did mainland European Americans (first hypothesis) and HI Asian Americans (second hypothesis). However, despite being a numeric minority, HI European Americans’ ethnic identity scores were lower than those of HI Asian Americans (first hypothesis) and were equivalent to those of mainland European Americans (second hypothesis). One possible interpretation is that being the numeric majority in the U.S. may override the effect of being a numeric minority in Hawai‘i. It is likely that HI European Americans, despite living in a place where they are outnumbered by Asians, continue to feel like a “majority” due to the positive portrayal and treatment of European Americans reflected in the media, and/or because they do not necessarily experience differential treatment or discrimination in Hawai‘i. Consequently, HI European Americans did not report higher ethnic identity than did HI Asian Americans and mainland European Americans.

Our third hypothesis, however, was supported. There was a significant three-way interaction among ethnic identity, ethnicity (Asian versus European American), and socialization context (Hawai‘i versus U.S. mainland) for self-esteem; the relation between ethnic identity and self-esteem was significant only for HI Asian and mainland European Americans. These findings provided further support for the notion that regardless of national minority–majority status, being a numeric minority in a particular context accentuates the importance of ethnic group membership in individuals’ evaluation of themselves; those who were members of a numeric minority and who strongly identified with their ethnic group tended to feel good about themselves.

It should be noted that because all the participants were college freshmen, their ethnic identity scores, regardless of ethnicity and numeric minority–majority status, may have been a function of their adjustment to a new college environment and perhaps this transition contributed to a spike in their ethnic awareness within this short period of time (i.e., less than 3 months). Transition to college presents new challenges and opportunities for individuals to explore and reexamine their ethnicity and may have increased their ethnic awareness (Saylor & Aries, 1999), especially for those transitioning from the U.S. mainland to Hawai‘i. However, the mainland Asian Americans’ ethnic identity scores resembled the Study 1 CA Asian Americans’ ethnic identity scores, and these individuals did not have the new experience of living in Hawai‘i. These results suggest that the impact of the transition to a university in Hawai‘i may not have strongly contributed to the mainland participants’ ethnic identity scores. Nevertheless, as pointed out by Phinney and Ong (2007), ethnic identity can shift as a result of changes in context and experience. Therefore, in Study 3, a short-term longitudinal design was used to examine Asian and European American participants’ ethnic identity and self-esteem in relation to changes in their numeric minority–majority status.

STUDY 3

Study 3 examined ethnic identity and self-esteem across a 1 year span among Asian and European Americans who moved from the U.S. mainland to attend a university in Hawai‘i. Because of the changes in numeric minority–majority status, ethnic identity was hypothesized to increase from Time 1 (T1: when they moved to Hawai‘i) to Time 2 (T2: after 1 year of residence in Hawai‘i) for European Americans but to decrease for Asian Americans. We also hypothesized that the relation between ethnic identity and self-esteem would be stronger at T2 than T1 for European Americans but would be stronger at T1 than at T2 for Asian Americans.

Method

Participants and Procedure

The participants were 67 mainland European Americans and 70 mainland Asian Americans recruited from the same university in Hawai‘i (N=137, 77 females) using the same participant criteria as Study 2. Among the 67 mainland European American students, 27 were from the West Coast, 15 from the East Coast, 20 from the Midwest U.S., and five were from other regions of the U.S. mainland. Among the 70 mainland Asian American students, 48 were from the West Coast, 10 from the East Coast,
10 from the Midwest U.S., and two were from other regions of the U.S. mainland.

Participants were recruited from psychology classes in the beginning of a fall semester (T1). They completed questionnaires individually in the laboratory. Participants were recontacted via email the following fall semester to complete the same questionnaires (T2). The attrition rate was 34.3% for the European students and 37.1% for Asian students. The final sample was 88 students (44 European and 44 Asian Americans). Those who dropped out did not differ from the participating students in age, gender, generation (for Asians), family SES, and T1 ethnic identity, and self-esteem scores. Participants received course credit for completing the questionnaires.

Measures

Demographic Information

Participants completed the same demographic questionnaire used in Studies 1 and 2 and responded to the same question about the ethnic composition of their high schools. As shown in Table 1, there were no group differences in the distribution of gender, age, and family SES scores. All the European American and more than 95% of Asian American participants graduated from high schools that had more European Americans than Asian Americans.

Ethnic Identity at T1 and T2

Participants completed the MEIM-R at T1 and T2. Similar to Studies 1 and 2, a series of EFAs were conducted to examine the measurement equivalence of MEIM-R and found similar results across groups. The EFAs with principal axis factoring and direct oblimin rotation consistently revealed one eigenvalue higher than 1 (total variance explained: 44.6% at T1 and 44.6% at T2 for European Americans, and 44.9% at T1 and 44.4% at T2 for Asian Americans). All 12 items loaded on this one factor with item loadings ranging from .55 to .72 at T1 and from .62 to .71 at T2 for European Americans, and from .59 to .78 at T1 and from .62 to .72 at T2 for Asian Americans. In addition, the correlations between the two subscales were .86 at T1 and .79 at T2 for European Americans, and .82 at T1 and .83 at T2 for Asian Americans. Therefore, composite ethnic identity scores were derived based on the average of all the MEIM-R items (α’s = .91, .90 at T1 and T2 for European Americans, and .91, .90 for Asian Americans).

Self-esteem at T1 and T2

Participants completed the same self-esteem inventory at T1 and T2 (European Americans: α’s = .88, .85; Asian Americans: α’s = .89, .89). The EFAs revealed one eigenvalue higher than 1 (total variance explained: 43.2% at T1 and 36.2% at T2 for European Americans, 45.3% at T1 and 44.5% for Asian Americans), with item loadings ranging from .64 to .73 at T1 and from .50 to .69 at T2 for European Americans, and from .59 to .77 at T1 and from .60 to .75 at T2 for Asian Americans.

Preliminary Analyses

Ethnic Self-labels

No participants labeled themselves “American” (see Table 1). All the mainland European Americans used panethnic labels, such as European or Caucasian American.

Correlational Analyses

Correlational analyses conducted separately for the two groups showed that for both ethnic identity and self-esteem, there were no significant associations at T1 and T2 with age, gender, generation, and family SES scores. The correlations between ethnic identity and self-esteem were r = .12, (p = .458) at T1 and r = .23 (p = .139) at T2 for European Americans, and r = .42 (p = .004) at T1 and r = .17 (p = .276) at T2 for Asian Americans. The stabilities of ethnic identity and self-esteem from T1 to T2 were .86 and .65 for European Americans, and .81 and .80 for Asian Americans.

Results

ANOVAs

Results of a 2 Time (T1 versus T2) × 2 Ethnicity (European American versus Asian American) mixed ANOVA for ethnic identity revealed main effects of time, F(1, 86) = 18.92, p < .001, and ethnicity, F(1, 86) = 8.76, p = .006. Overall, ethnic identity decreased over time in the new context (T1: M = 2.91, SD = .55; T2: M = 2.78, SD = .51; d = .43), and Asian Americans reported higher ethnic identity (M = 3.00, SD = .48) than European Americans (M = 2.69, SD = .54), d = .61. The interaction between time and ethnicity was also significant, p < .001, and ethnicity, F(1, 86) = 8.76, p = .006. Overall, F(1, 86) = 5.55, p = .021 (see planned comparisons below for clarification on this interaction).

A 2 Time (T1 versus T2) × 2 Ethnicity (European American versus Asian American) mixed ANOVA for self-esteem found no main effects, F’s(1, 86) = 3.42, 2.82; p’s = .068, .096, d’s = .20, .34. There was a significant interaction between time and ethnicity, F(1, 86) = 7.55, p = .007. European (simple main effect = .19, F(1, 86) = 10.57, p = .002, 95% CI [.07, .30], d = .49) but not Asian Americans (simple main effect = -.04, F(1, 86) = .40, p = .528, 95% CI [−.15, .08], d = −.11) reported higher self-esteem at T1 than at T2 (see Table 1).

Planned Contrasts to Test Hypothesized Predictions for Differences in Ethnic Identity Across Ethnicity and Over Time in Hawai’i

We conducted planned contrasts to directly test our hypotheses that ethnic identity should increase for European Americans and decrease for Asian Americans from T1 to T2. The analyses indicated that the change in ethnic identity for European Americans was not significant (F(1, 86) = 1.99, p = .162, 95% CI [−.03, .15], d = .21). However, as predicted, Asian Americans reported higher ethnic identity at T1 than T2 (i.e., their ethnic identity decreased; F(1, 86) = 22.48, p < .001, 95% CI [.12, .30], d = .73).
The Relation between Ethnic Identity and Self-esteem at T1 and T2 for European and Asian Americans

Given the time varying nature of ethnic identity and self-esteem, we adopted a Structural Equation Modeling (SEM) approach that can be used to test various effects that may differ by groups (Davi Kenny, personal communication). In particular, we specified three sets of relations (with sex, age, and SES treated as control variables) using Mplus 7.11: (1) the relations between ethnic identity at T1 and T2 for European and Asian Americans; (2) the relations between self-esteem at T1 and T2 for European and Asian Americans; (3) the relations between ethnic identity at T1 and self-esteem at T1 for European and Asian Americans; and (4) the relations between ethnic identity at T2 and self-esteem at T2 for European and Asian Americans. These four sets of relations can be illustrated in the following equations:

\[ EI1 = Sex + Age + SES + G1 + EI1^*G1 + EI1^*G2; \]
\[ SE2 = Sex + Age + SES + G1 + SE1^*G1 + SE1^*G2; \]
\[ EI1 = Sex + Age + SES + G1 + (a)EI1^*G1 + (b)EI1^*G2; \]
\[ SE2 = Sex + Age + SES + G1 + EI1^*G1 + EI1^*G2 + SE1^*G1 + SE1^*G2 + (c)EI2^*G1 + (d)EI2^*G2; \]

where EI1 and EI2 stand for ethnic identity at T1 and T2, SE1 and SE2 stand for self-esteem at T1 and T2, and G1 (1 = European Americans, 0 = Asian Americans) and G2 (0 = European Americans, 1 = Asian Americans) stand for European and Asian Americans, respectively. EI1, EI2, SE1, and SE2 were centered.

To address our hypotheses, Mplus 7.11 was used to test the significance of two contrasts: “a-c=0” and “b-d=0”, where “a” stands for the relation between EI1 (ethnic identity at T1) and SE1 (self-esteem at T1) for G1 (European Americans), “c” stands for the relation between EI2 (ethnic identity at T2) and SE2 (self-esteem at T2) for G1 (European Americans), “b” stands for the relation between EI1 (ethnic identity at T1) and SE1 (self-esteem at T1) for G2 (Asian Americans), and “d” stands for the relation between EI2 (ethnic identity at T2) and SE2 (self-esteem at T2) for G2 (Asian Americans).

The results indicated a reasonable model fit: \( \chi^2(24)=28.93, p=.22, TLI=.97, RMSEA=.05, SRMR=.03 \). As shown in Table 4, ethnic identity and self-esteem was relatively stable from T1 to T2. In addition, ethnic identity at T1 was significantly related to self-esteem at T2 for European Americans. The significance test of the contrast “a-c=0” was .94 (\( p=.347 \)), whereas the significance test of the contrast “b-d=0” was 4.35 (\( p<.001 \)). These results indicate that the relation between ethnic identity and self-esteem did not differ between T1 and T2 for European Americans but was stronger at T1 than T2 for Asian Americans.

Discussion

Results from the planned contrast analyses partially supported the first hypothesis. Asian Americans reported higher ethnic identity at T1 than at T2. This suggests that living in Hawai‘i may shield Asian Americans from negative experiences associated with their ethnic group and to some degree may have decreased the importance of their ethnic group membership. Despite the decrease in ethnic identity among Asian Americans, their ethnic identity remained higher than their European American counterparts at T2. Therefore, the impact of national minority status on ethnic identity among Asian Americans should not be overlooked even for those who have lived in Hawai‘i where Asian Americans are the numeric majority.

Inconsistent with the first hypothesis, the European Americans’ ethnic identity scores did not change from T1 to T2. These findings are consistent with the results from Study 2 where European Americans from Hawai‘i and European Americans from the U.S. mainland did not differ in ethnic identity scores, possibly due to the overriding effect of their national majority status. However, European Americans did report lower levels of self-esteem after 1 year of residence in Hawai‘i. One possible interpretation is that despite having a relatively stable sense of ethnic identity due to their national majority status, being a numeric minority for the first time in their lives challenged European Americans’ positive views about themselves, which in turn led to lower self-esteem after

Table 4. The relations between ethnic identity and self-esteem at T1 and T2 for European and Asian Americans in Study 3

<table>
<thead>
<tr>
<th>Criterion variable</th>
<th>Predictor</th>
<th>Standardized model coefficients [95% CI]</th>
<th>Model ( R^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>EA AA</td>
<td>EA AA</td>
</tr>
<tr>
<td>Ethnic identity at T2</td>
<td>Age</td>
<td>.04 [−.07, .14] −.02 [−.15, .10]</td>
<td>.78** .68**</td>
</tr>
<tr>
<td></td>
<td>Gender (1 = boy, 0 = girl)</td>
<td>−.20** [−.30, −.09] −.09 [−.21, .04]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Family SES</td>
<td>.01 [−.09, .11] .03 [−.09, .16]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ethnic identity at T1</td>
<td>.89** [.82, .95] .82** [.74, .90]</td>
<td></td>
</tr>
<tr>
<td>Self-esteem at T1</td>
<td>Age</td>
<td>−.12 [−.32, .09] −.13 [−.31, .06]</td>
<td>.07 .25**</td>
</tr>
<tr>
<td></td>
<td>Gender (1 = boy, 0 = girl)</td>
<td>.05 [−.16, .26] −.06 [−.25, .13]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Family SES</td>
<td>.04 [−.17, .25] −.13 [−.31, .06]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ethnic identity at T1</td>
<td>.10 [−.11, .31] .42** [.25, .60]</td>
<td></td>
</tr>
<tr>
<td>Self-esteem at T2</td>
<td>Age</td>
<td>−.01 [−.02, .00] .01 [−.00, .02]</td>
<td>.48** .63**</td>
</tr>
<tr>
<td></td>
<td>Gender (1 = boy, 0 = girl)</td>
<td>.00 [−.01, .00] .00 [−.00, .01]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Family SES</td>
<td>−.10 [−.25, .05] .08 [.04, .21]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ethnic identity at T1</td>
<td>.22** [.07, .37] .01 [−.12, .15]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Self-esteem at T1</td>
<td>.64** [.52, .76] .80** [.71, .89]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ethnic identity at T2</td>
<td>−.00 [−.01, .00] .00 [−.00, .01]</td>
<td></td>
</tr>
</tbody>
</table>

Note: 95% CI=95% confidence interval, EA = European American, AA = Asian American.

*p < .05; **p < .01.
living in Hawai‘i for a year. Alternatively, their lowered self-esteem may be a function of being “isolated” on an island thousands of miles away from their familiar, U.S. mainland cultural context.

Consistent with our second hypothesis, ethnic identity was related to self-esteem for Asian Americans at the time when they moved to Hawai‘i, but this relation was no longer significant after they had lived there for about a year. These findings are consistent with the argument that changes in Asian Americans’ numeric minority–majority status resulting from their move from the mainland to Hawai‘i, influenced the relation of ethnic identity to self-esteem. It is likely that moving to Hawai‘i where Asian Americans are the numeric majority decreased the centrality of ethnicity, which in turn minimized the relation between ethnic identity and self-esteem (Umana-Taylor & Shin, 2007). Inconsistent with the second hypothesis, ethnic identity was not related to self-esteem in European Americans at T2. Perhaps our sample size (n = 44) was not large enough to reveal a change in the relation of ethnic identity to self-esteem in European Americans. Despite of the nonsignificant concurrent relations at T1 and T2, there was a significant prospective relation between ethnic identity at T1 and self-esteem at T2 for European Americans. This finding suggests that European Americans who have explored and have made a stronger commitment to their ethnicity may be able to remain positive in their self-evaluations even after a year of residence in an unusual social environment where they became a numeric minority. It will be important to replicate these findings in a larger sample of European Americans who move from mainland U.S. to Hawai‘i.

We also found that for both European and Asian Americans, their self-esteem at T1 was strongly associated with their self-esteem at T2, possibly due to the short time span of the current study. The short-term nature of this longitudinal study may also be responsible for some of the nonsignificant findings mentioned above. For instance, the concurrent relation between ethnic identity and self-esteem at T2 may become stronger for European Americans after they have lived in Hawai‘i for more than a year. Nevertheless, Study 3 provided preliminary evidence for the effect of contextual change on ethnic identity and self-esteem, particularly for the Asian Americans.

**GENERAL DISCUSSION**

Three studies examined how numeric minority–majority status within the Hawaiian microcontext and how contextual change of moving from the U.S. mainland to Hawai‘i influenced the strength of ethnic identity and its relation to self-esteem among Asian and European American college students. Consistent with social identity theory and current developmental theories of ethnic identity, our findings highlight the importance of numeric minority–majority status within a particular context when examining ethnic identity in both minority and majority individuals.

The most consistent finding across the three studies was that being a numeric majority in Hawai‘i or moving to Hawai‘i where Asian Americans are the numeric majority decreased ethnic identity, as well as the strength of the relations between ethnic identity and self-esteem among Asian Americans. These results are consistent with contextual variations in ethnic identity and self-esteem among other ethnic minority groups (e.g., Umana-Taylor, 2004; Umana-Taylor & Shin, 2007) and correspond to other investigations that reveal the dynamic nature of ethnic identity across time (Pahl & Way, 2006; Syed et al., 2007) or daily situations (Yip, 2005).

We also found that the impact of numeric minority–majority status on ethnic identity was not as strong for European Americans as it was for Asian Americans. One possibility is that being a member of a numeric minority group may signify low status and power, differential treatment, or discrimination for national minority groups like Asians but may not necessarily imply disadvantage or inequity for European Americans who represent the national majority. In addition, being portrayed positively as the majority in the media and being reared in an environment that is supportive of the national majority may have stabilized European Americans’ ethnic identity to some degree and reduced the risk associated with numeric minority status. Alternatively, the weaker impact of numeric minority status on European compared to Asian Americans may reflect different cultural experiences. Unlike European Americans who are typically monocultural and do not need to switch their cultural framework, Asian Americans like other minority groups in the U.S. are exposed to two or more different cultural frameworks and have choices as to the extent to which they affiliate with their ethnic culture or the larger society (Phinney, 1990). Compared to European Americans, Asian Americans should have more experience of adjusting their ethnic identity in varying cultural contexts. It is thus possible that different experiences associated with monoculturalism versus biculturalism may partly explain the weaker findings in European Americans in the current studies. The contribution of monoculturalism versus biculturalism to how individuals negotiate contextual changes in numeric minority–majority status would be an interesting avenue to explore in future studies.

Despite the weaker relation between numeric minority status and self-esteem in European Americans, our results showed that the concurrent (Study 2) and prospective (Study 3) relations between ethnic identity and self-esteem were significant for European Americans who grew up in Hawai‘i (Study 2) and mainland European Americans who had moved to Hawai‘i to attend a university (Study 3), respectively. The relatively stable ethnic identity among European Americans may not necessarily negate the importance of ethnic identity in their self-evaluation when faced with a context where they were a numeric minority (i.e., Hawai‘i). These results support developmental theories of ethnic identity, which suggest that ethnic identity can also enable members of majority groups to develop a positive self-esteem particularly when they are the numeric minority in a particular context (Phinney et al., 1997).

**Limitations and Future Directions**

Our studies had several limitations. First, Hawai‘i and the U.S. mainland differ not only in the relative ratio of Asian and European Americans but also in their cultural values, practices, and communication styles. Hawai‘i is characterized
by a “local” culture that represents an amalgamation of Asian-Pacific immigrant cultures and native Hawaiian culture that emphasizes an “aloha” spirit consisting of affection, peace, and compassion (Rohrer, 2008). In this relatively collectivistic local Hawaiian culture, self-esteem may not be as strongly emphasized as on the U.S. mainland. Thus, the weak relations found between ethnic identity and self-esteem in Asian Americans from Hawai‘i may be partly due to the diminished role self-esteem plays in the development of their social identity.

Second, numeric minority–majority status serves as a proxy variable for varied social experiences that needs to be further unpacked in future studies. For instance, numeric minority status may be associated with heightened distinctiveness and positive feeling about one’s ethnic group that represents an important factor in establishing the relation between ethnic identity and self-esteem. Alternatively, numeric minority status may be related to perceived discrimination—a potential threat to self-efficacy—increasing the need for a strong and positive ethnic identity. In this case, salient ethnic identity in minority settings may reduce the threat of discrimination. Unfortunately, the current studies were correlational in nature and did not directly examine the causal pathways through which ethnic identity influences self-esteem across social contexts. Future studies should examine the mediating roles of positive feeling about one’s ethnic group and perceived discrimination to understand the interrelations among minority status, ethnic identity, and self-esteem.

Third, the MEIM-R does not address other aspects of ethnic identity, such as ethnic behaviors, ethnic knowledge, and ethnic/racial public and private regard. For instance, Yip (2005) proposed that ethnic/racial centrality of ethnic/racial identity should be differentiated from ethnic/racial private regard or individuals’ evaluation of their ethnicity/race. Research has indicated that college students who had stronger racial centrality scores were more likely to use race as an explanation for a professor’s ambiguous negative feedback than were students with lower racial centrality scores (Shelton & Sellers, 2000). This suggests that a strong sense of ethnic/racial centrality may contribute to the framing or construal of contextual cues in terms of ethnicity/race. In contrast, a strong and positive view about being a member of a particular ethnic group and one’s ethnic private regard might be associated with higher levels of ethnic salience across contexts. Thus, it is likely that being a numeric minority has a different impact on ethnic centrality and ethnic private regard. The results of the current study are consistent with research showing that the revised MEIM seems to tap a concept of global ethnic identity that may be better conceptualized as a single factor. However, there is considerable debate in this area (Worrell, Conyers, Mpofu, & Vandiver, 2006). Future research should integrate the varied concepts of ethnic identity discussed in both the developmental and social psychological literature.

Fourth, the samples in the current studies may limit the generalizability of our findings. All participants were recruited from universities. Unlike community settings, universities offer more opportunity to explore one’s ethnic identity within the context of Asian student clubs and organizations, ethnic studies classes, and everyday interactions with people from other ethnic groups. In addition, students may have chosen to attend the university in California with its high minority student enrollment or the university in Hawai‘i where Asian Americans are the numeric majority. Therefore, future studies should replicate these results with samples from community settings. The second sampling limitation is that most participants were recruited from Hawai‘i. While Hawai‘i is one of a few places in the U.S. where studies of this nature can be conducted for Asian Americans, it is also geographically isolated from the U.S. mainland; a situation that may have contributed to the strength of ethnic identity for the mainland participants who attended the university in Hawai‘i. Finally, we focused only on East Asian Americans. Asian American families, particularly those who are of East Asian background, generally have relatively higher socioeconomic status than that of other minority groups. The use of panethnic labels (Asian American) did not allow us to examine the potential variation that exists among individual Asian groups. Studies should investigate the effect of numeric minority–majority status on ethnic identity and self-esteem among other minority groups and to explore possible within-Asian differences.

Fifth, our emphasis on contextual variations in ethnic identity should not be construed as discounting the importance of individual differences in the need to belong to an ethnic group (Yip, 2005). Regardless of numeric minority–majority status, there are individuals who are highly involved in the customs and practices of their group as well as those for whom ethnicity has little importance in their lives. It is the interaction between individuals’ psychological need and the characteristics of the context (e.g., numeric minority–majority status) that determines the salience of ethnicity, its centrality, and the strength of the relation between ethnic identity and self-esteem.

In summary, the findings of these cross-sectional and longitudinal studies illustrate that ethnic identity is not static; rather, its importance and its relation to self-esteem vary with numeric minority–majority status in sociocultural contexts. Numeric minority–majority status may lead to distinctive social experiences, such as experience of prejudice and discrimination that may influence ethnic exploration and affirmation, as well as psychological functioning. By acknowledging and unpacking the factors that are associated with contextual variations, we can better understand ethnic identity and psychological well-being for both minority and majority individuals.

REFERENCES


Ethnic identity and self-esteem


