

**DOES CULTURE MATTER IN BODY IMAGE?
THE EFFECTS OF SUBJECTIVE AND CONTEXTUAL CULTURE
ON BODY IMAGE AMONG BICULTURAL WOMEN**

by

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DEDICATION

This dissertation is dedicated to my loving parents, Susan and Jeffrey Guan, who raised me to be the person I am today. I hope to only make you and the Guan family proud.

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ABSTRACT

Culture shapes the context in which body image is formed, and hence it is a critical component to consider when understanding how body image fluctuates. In this dissertation, I examine two ways culture is relevant to bicultural women. In particular I examine how culture can be experienced internally through identification and externally through cultural cues in the immediate context. With this conception of culture, I explored the relationship between culture and body image in two studies. Study 1a and Study 1b looked at the cognitive aspect of body image by examining body ideals among two types of bicultural groups, Asian American and Black American women respectively. Results from the two studies showed that cultural identity and cultural cues had opposite effects on body ideals. Cultural identification *assimilated* with culturally-normative body ideals. In contrast, the opposite was true for external cultural cues, exhibiting a *contrast* effect. Among Asian American women, identification with Asian culture was related to a thinner body ideal, but exposure to Asian cultural cues (relative to American cultural cues) was related to a thicker body ideal. Among Black American women, identification with Black culture was related to a thicker body ideal, but exposure to Black cultural cues (relative to American cultural cues) was related to a thinner body ideal. Study 2 used food as a cultural cue and examined effects of culture on an affective component of body image among Asian American women. Results showed that bicultural identity integration (BII), or perceived compatibility between two cultural identities, moderated the effects of cultural cues. Specifically, those with high BII exhibited contrasting effects, and those with low BII exhibited

assimilation effects. Findings showed that the influence of culture on body ideals and body image is complex. These results have important implications both for future research on biculturalism and body image, as well as for creating interventions to improve body image among ethnic minority women in the U.S.

Keywords: Body Image, Culture, Body Ideals, Body Satisfaction, Contrast Effect, Bicultural, Priming

CHAPTER I

Introduction

This dissertation examines how culture influences body image. Body image is generally defined as how one thinks and feels towards one's body (Cash & Smolak, 2011). Having a healthy body image is an important part of having a good life. For example, many studies show that a negative body image is related to destructive behaviors (Cash & Smolak, 2011). Other studies show that a positive body image is related to better outcomes, such as happiness and life satisfaction (Tylka, 2011). Body image can be broken down into an affective component—or how people *feel* about their own bodies—and an cognitive component—what people *think* their body should be or look like (Gendebien & Smith, 1992).

There are many factors that contribute to body image, including but not limited to the media, peer influence, and family socialization (Abraczinskas, Fisak, Barnes, 2012; Bell & Dittmar, 2011; Ferguson, Munoz, Conteras, & Velasquez, 2011; Grabe, Ward, & Hyde, 2008; Jones, 2011; Levine & Chapman, 2011; McCabe & McGreevy, 2011). These factors are culturally-determined. For example, culture influences the types of media that are created and the types of media to which people are exposed. Culture can also influence the type of people one bonds with and how parents raise their children (Scharf, Wiseman, & Farah, 2011; Nelson, Nelson, Hart, Yang, & Jin, 2006). In addition to the ways culture can influence different aspects of our behavior, culture is a main part of women's role in society as they are considered to be "bearers of culture" (Mahalingam & Haritatos, 2006). This means that women are pressured to

represent and embody their culture. As such, this dissertation focuses on culture as a key component that influences body image—another factor that society places emphasis for women in particular to withhold certain standards. More specifically, this dissertation will extend the current literature by conceptualizing culture in different ways to examine changes in body image among bicultural individuals.

Internal and External Conceptualizations of Culture

Culture is often conceptualized as identification or one's assessment of membership in a cultural group (Berry, 1997). As I describe in more detail in Chapter 2, I conceptualize culture as dynamic. In today's world, people are exposed to multiple cultures due to immigration, globalism, and ease of traveling, and as such people are likely to identify with more than one culture. Indeed, many people are biculturals or multiculturals. According to the 2010 Census, over 40 million in the U.S. are foreign born, making up about 13 percent of the total population. The number increases if we include people who have parents born in a country outside the U.S. As a result, individuals can belong to multiple cultural groups.

Studies on biculturals and multiculturals revealed that culture is dynamic, and people do not have a static, monolithic cultural identity. Specifically, research has found that different cultural cues in the environment can lead to changes in a myriad of psychological processes related to culture, such as self-construals—whether people see themselves in prototypically Western or Eastern ways—and cognitions, such as whether people exhibit prototypically Western or Eastern attribution styles (Cheng, Lee, & Benet-Martinez, 2006; Oyserman & Lee, 2007; Trommsdorff & Cole, 2011). However, there has yet to be a study using a dynamic approach of culture to study body image. This dissertation addresses this important gap.

Body Image

In this dissertation, I examine how external culture in our environment and culture that is internalized influence body image. Generally, body image is defined as one's perceptions of our own or others' bodies, and one's feelings towards those perceptions. It is a multidimensional construct that consists of both cognitive and affective components (Gendebien & Smith, 1992). The cognitive component consists of perceptions of the appearance of a body. These perceptions can pertain to one's own body or that of someone else. These perceptions can also pertain to perceptions of how one's body ought or should be (Barnett, Keel, & Conoscenti, 2001; Coetzee & Perrett, 2011; Mills, Jadd, & Key, 2012). The affective component consists of how one feels about those perceptions, and is most frequently operationalized in the literature as body satisfaction (Grabe & Hyde, 2006).

Although most of the studies on body image only consider one of these components, I focus on both the cognitive and affective components of body image. Study 1 focused on the cognitive component of body image, which is assessed by understanding people's perception of ideal bodies. Study 2 focused on the affective component, which is assessed by satisfaction or dissatisfaction one feels towards one's own body.

CHAPTER II

Cultural Psychology & Biculturalism

In this section, I first provide a brief review of the cultural psychology literature, focusing on how culture is operationalized. Next, I will review the biculturalism literature, and how biculturalism is operationalized in the present studies. Then, I integrate these streams of literature to review internal and external conceptions of culture among biculturals.

Cultural Psychology

Culture is generally defined as a set of values, ideologies, traditions, beliefs, and ways of engaging the world that can be transmitted through some type of communication over the course of time and place throughout generations (Matsumoto, 1994; Oyserman & Lee, 2007). Culture overlaps with, but is distinct from, ethnicity. For example, an organization may have a culture in a sense that organizational members share a set of values or beliefs, but this culture does not represent an ethnic group. However, there are also conditions when the culture and ethnicity intersect. Ethnicity is defined as “identity with a group of people who share the cultural traditions of a particular homeland or hearth” (Rubenstein, 2011, p. 208). Thus, people of the same ethnic group also share a common culture. In other words, ethnic identity is a kind of cultural identity, For the purposes of this dissertation, I will use cultural and ethnic identity interchangeably (Kelch-Oliver & Ancis, 2011; Kouli & Papaioannou, 2009; Ting-Toomey et al., 2000).

The study of culture started out with the fields of anthropology and ethnography. However, in the past 30 years, the quantity and quality of cultural research has increased within psychology. Early cultural research was dominated by cross-cultural studies, where culture is geographically defined, typically comparing differences in behavior, attitudes, and cognition between responses of people from various countries (Kityama, Duffy, & Uchida, 2006; Nisbett, Peng, Choi, & Norenzayan, 2001; Sternberg, 2007). For example, we know that the people in the East (such as those from China and Japan) tend to have more interdependent self-construals, and people in the West (such as those from the United States) tend to have more independent self-construals (for review, see Kityama et al., 2006). Recently, instead of understanding culture as geographically defined or fixed, culture is seen as a framework that can be acquired through exposure (Hong, Morris, Chiu, & Benet-Martínez, 2000). In this definition, people can have multiple cultural frameworks, or multiple sets of values, beliefs or ways of life, to which they can refer. Also, individuals can switch between these cultural frameworks, rendering their cultural identity malleable. This more multifaceted and dynamic conceptualization of culture has been most prominent in the biculturalism literature.

Biculturalism

Bicultural people have been defined in various ways in literature, including but not limited to “immigrants, refugees, sojourners (e.g., international students, expatriates), indigenous people, ethnic minorities, those in interethnic relationships, and mixed-ethnic individuals” (Nguyen & Benet-Martinez, 2007, p. 102). Early bicultural research focused on immigrants or people who might identify with and participate in activities related to their home/ethnic culture as well as their host/mainstream culture (Berry & Sam, 1997). This included ethnic minorities

such as Asian-, Latin-, and African-Americans (Benet-Martinez, Lee, & Leu, 2006; Miramontez, Benet-Martinez, & Nguyen, 2008; Phinney & Devich-Navarro, 1997), people in multicultural societies such as British-Hong Kong residents (Hong et al., 2000), expatriates or people living and working away from their home countries (Chen, Benet-Martinez, & Bond, 2008; Sanchez-Burks et al., 2003; Weeks, Weeks, & Willis-Muller, 2010), and sojourners or people who travel to different countries for a short time (Sussman, 2002). Even though these streams of biculturalism research examined different samples, they all focused on individuals who are exposed to and proficient in multiple cultures. Using this conceptualization of biculturals, I will focus my dissertation on ethnic minorities living in a mainstream or dominant culture: Asian Americans and African Americans.

Internal or Subjective Cultural Identification

There are several ways that the more dynamic, multifaceted conceptualizations of culture have been examined. One way is through the study of cultural identity. Cultural identity refers to the extent to which one's cultural group (Asian, Black, Latino, for example) contributes to one's identity or sense of self. When individuals strongly identify with a culture, they are likely to adopt and internalize the norms and the values of that specific culture. They are also more likely to participate in activities relevant to that culture, which includes the food they eat, the languages they speak, the types of media they consume, and their social networks (Allen et al., 2008; Berry, 1997).

Cultural identity is usually a multidimensional construct. For example, the Multigroup Ethnic Identity Measure or MEIM (Phinney, 1992) includes two dimensions, which includes a developmental/cognitive component (ethnic identity search and commitment) and an affective

component (affirmation and belonging). Ethnic identity also includes two dimensions; one focusing on the desire to find meaning and implications in one's ethnic group membership (a sample item is "I have spent time trying to find out more about my ethnic group.;"), and another focusing on one's feelings of belonging to the ethnic group and how one feels regarding the ethnic group (a sample item is "I have a strong sense of belonging to my own ethnic group.") This measure was developed and used across ethnic groups, even with White Americans. Another popular measure of ethnic identity is the Multidimensional Model of Racial Identity (MMRI, Sellers, Smith, Shelton, Rowley, & Chavous, 1998), which was originally developed for African Americans and since used to examine cultural identity in other ethnic groups such as Asian Americans. The MMRI contains four major dimensions and six sub-dimensions including salience, centrality, ideology (nationalist, oppressed minority, assimilation, and humanist), and regard (public and private). Other measures of cultural identity have been developed for specific ethnic or cultural groups. For instance, the Chinese Identity Index measures cultural identity in elderly Chinese using four dimensions, cultural identification, linkage with country of origin, community ties, and culture related activities (Lai, 2012).

Although all these conceptualizations of cultural identity vary, one common dimension among them is assessing one's belongingness or identification to the cultural or ethnic group. In the MMRI, this dimension is called centrality, and it assesses the extent to which race or culture is a core part of identity. Some of these items include "being Black is an important part of my self-image" and "I have a strong sense of belonging with Black people." In the MEIM, this dimension is reflected in the affective component that assesses belongingness and affirmation of one's ethnic group. In the Chinese Identity Index, this dimension is assessed by measuring the importance of Chinese culture to participants and the extent to which they identify as Chinese.

It is often assumed that individuals identify with a single cultural group, and cultural identity is a stable construct that does not change across time and situations. However, this is not necessarily accurate. As mentioned earlier, bicultural individuals can identify with and participate in *both* their home/ethnic culture and their host/mainstream culture (Berry & Sam, 1997; Phinney & Devich-Navarro, 1997). Similarly, there are a few longitudinal studies showing that cultural identities can change over time (Fuller-Rowell, Burrow, & Ong, 2011; Quintana, 2007). Moreover, research among bicultural Mexican-Americans shows that cultural identity can change depending on the situation, such that they identify more strongly with their Mexican culture in some situations, and identify more strongly with their American culture in other situations (Phinney & Devich-Navarro, 1997). In short, cultural identity can be influenced by external cultural cues in the environment.

Exposure to Cultural Cues in the External Environment

According to the “dynamic constructivist” model of culture, culture is a schema of related values, norms, attitudes, and knowledge that can be activated by external cultural cues or situational stimuli imbued with cultural meanings (Hong et al., 2000). In one of the earlier empirical demonstrations of this idea, Hong and colleagues (2000) exposed Chinese-American bicultural individuals to Chinese icons (including images of the Great Wall of China, the Chinese dragon, Chinese calligraphy, chopsticks, or a Chinese opera singer) or American icons (including images of the American flag, the White House, Abraham Lincoln, Superman, and a cowboy). The study showed that, when exposed to the Chinese cultural cues, bicultural individuals made more situational attributions, a prototypically Eastern way of explaining events and behaviors. However, when exposed to American cultural cues, bicultural individuals made more

dispositional attributions, a prototypically Western way of explaining events behaviors (Lee, Hallahan, & Herzog 1996). This process of cultural frame-switching supports the dynamic constructivist model of culture in that multiple cultural frameworks can exist within a person and can be brought to the fore using cultural primes.

In addition to images, other cultural cues have been shown to induce cultural frame switching. For example, Thai American bicultural individuals behaved in prototypically Eastern or Western ways depending on the language (Thai versus English) of the survey instructions (Sanchez-Burks et al., 2003; Yang & Bond, 1980). Cheng et al. (2006) found that cultural frame-switching can be induced by subtly exposing Chinese American bicultural individuals to positive and negative stereotypes of Asians (with words such as “parents,” “disciplined,” “superstition”, and “sheltered”) or positive and negative stereotypes of Americans (with words such as “sporty” “independent,” “lazy,” and “boastful”). This research on cultural priming and frame-switching suggests that culture is indeed dynamic; depending on the salience of cultural cues in the environment, different cultural values or schemas become a guide to the individual’s behaviors, thoughts, and feelings.

Although the studies described above show that cultural cues led to culturally-normative behaviors—that is Eastern cues elicit prototypically Eastern behaviors and vice versa—this is not always the case. For example, there is evidence that, among Asian Americans, exposure to American cues can lead to prototypically Asian behaviors and exposure to Asian cues can lead to prototypically American behaviors (Benet-Martinez, Leu, Lee, & Morris, 2002; Cheng et al., 2006). Here, cultural frame-switching is characterized by a “contrast effect,” where people activate the cultural schema that is *opposite to* or *contrasts with* the dominant cultural cues in the environment. Although it may be counterintuitive, contrast effects occur quite often in the

psychological literature. For example, one study (Dijksterhuis et al, 1998) found that priming intelligence (reading about Albert Einstein) led to poorer test performance on knowledge compared to priming stupidity (reading about the super model Claudia Schiffer). One study found that blatant product advertisement elicited contrast effects such that people disliked the product more (Vianello, Galliani, & de Carlo, 2009). Several mechanisms have been proposed explaining the contrast effect (Abele & Petzold, 1998; Appel, 2011; Martin, Seta, & Crelia, 1990; Schwarz, Strack, & Mai, 1991). One such mechanism suggests that contrast effects occur when situational cues are highly salient, obvious, or blatant (Lombardi, Higgins, & Bargh, 1987). Specifically, when individuals are highly aware of the biasing influence of external cues, they correct of these influence, often leading to overcorrection or behaviors that contrast away from the direction of the cues (Glaser & Banaji, 1999).

Similar mechanisms have been proposed to explain the contrast effect of cultural cues among biculturals. Zou, Morris, and Benet-Martinez (2008) suggested that contrast effects occur due to disidentification motives, or the desire to reject a cultural category that is blatantly imposed by others. Cheng and Lee (2009) proposed that contrast effects occur when cultural cues that seemed discrepant from one's own cultural experiences (for example, when bicultural individuals with negative acculturation experiences are exposed to positive cultural cues). These cues are seen as particularly salient and obvious, leading to disassociation with and reactance against those cues. Others have suggested that under conditions where external cultural cues are blatant, bicultural individuals may actively suppress cultural schemas that are inconsistent with these cues, and this process of active suppression can lead to over-activation of the unwanted cultural identity (Cheng et al., 2006). For example, Asian Americans may attempt to suppress their Asian cultural identity in a situation where American cultural cues are highly dominant, yet

such a deliberate attempt to suppress their Asian cultural identity ironically makes the identity more highly activated (Cheng et al., 2006; Mok, Cheng, & Morris, 2010).

CHAPTER III

Culture, Body Image, and Body Ideals

Ideal standards of body sizes are culturally specific. Since the 1960s, ideal body sizes for American women have emphasized thinness (Fallon, 1990; Wiseman, Gray, Mosimann, & Ahrens, 1992). For example, American models, exemplars of idealized bodies, are typically a size 2, much thinner than an average American woman at size 12-14 (Halliwell & Dittmar, 2004; Halliwell, Dittmar, & Howe, 2005). Women who identify highly with being American have been shown to endorse these values of thinness (Devos & Banaji, 2005).

However, these values vary across different cultural groups. Women who identify with being Black, for example, perceive bigger, thicker, and more voluptuous figures to be more attractive (Craig, 2006; de Casanova, 2004). Studies show that Black Americans are less likely to endorse the thin ideal compared to White Americans (Gluck & Geliebter, 2002). Within the last two decades, Black women models' figure sizes increased, while those of White women models decreased (Dawson-Andoh, Gray, Soto, & Parker, 2011; Sypeck, Gray, & Ahrens, 2004). Because they feel less pressure to be thin, Black women who identify with Black culture tend to have lower levels of body dissatisfaction (Turnage, 2004).

In contrast to Black Americans, Asians tend to endorse *extreme* thinness in their body ideals, even more so than White Americans (Evans & McConnell, 2003). Women in harems in ancient Chinese dynasties reported starving themselves to stay thin in order to win the emperor's favor (Xu, 1994). Leung, Lam, and Sze (2001) have argued that the Chinese body ideal is

frailness and thinness, rather than plumpness. They reviewed the weight and height of Miss Hong Kong beauty Pageant contestants from 1975-2000 and found that the weight of the winners have not changed throughout the years. However, there was a downward trend of BMI among the winners because of the increase in height and not weight, which is suggested to be valuable when they compete in the Miss Universe pageant. They also noticed that the contestants and winners of the pageant tended to have high hip-to-waist ratio, indicating a narrow waist and full hips, which did not change over time either. These findings suggest that the ideal Asian female body is one that is tall, thin, and hourglass shape. Consistent with this body ideal of extreme thinness, Asian women had poorer body image compared to their White counterparts even after controlling for weight (Jung & Forbes, 2007; Wildes, Emery & Simons, 2001).

Studies comparing the body images of Asians or Asian Americans with White Americans show equivocal results. Some studies found similar levels of body image among Asian women and White American or European women (Grabe & Hyde, 2006; Koff, Benavage, & Wong, 2001; Robinson et al., 1996; Walde, Bindra, Fairclough, & Westcombe, 1993); others found that Asian women have a more negative body image (Forbes & Frederick, 2008; Kennedy, Templeton, Gandhi, & Gorzalka, 2004); while others still found that Asian women have a more positive body image (Akan & Grilo, 1995; Altabe, 1996). The reason for this inconsistency may stem from a wide range of what is considered to be “Asian.” In these studies, Asian women included a variety of ethnicities, such as Chinese, Korean, Japanese, Indonesia, Indian, and Vietnamese. The locations of these studies also ranged from the United States, to Canada, to Britain.

The evidence showing cultural variances in body image primarily consists of studies that asked participants about their membership in cultural, ethnic, or racial groups, and then

compared body image between these groups (Altabe, 1998; Barnett et al., 2001; Chen & Swalm 1998; Frederick, Forbes, Grigorian, & Jarcho, 2007; Mintz & Kashubeck, 1999; Sussman, Troung, & Lim, 2007). Culture has also been assessed by measuring the degree of acculturation or identification with one's ethnic or cultural group (Lau, Lum, Chronister, & Forrest, 2006; Tsai, Curbow, & Heineberg, 2003). For example, one study examined eating disorders among Latinas and found that those who retained more traditional Latina values, or higher Latina cultural identification, were less likely to have negative body attitudes and disordered eating symptoms (Kamins, 2004). Black women who identified more with Black culture tended to have higher levels of body dissatisfaction (Turnage, 2004). Supporting this finding, Hesse-Biber, Livingstone, Ramirez, Barko, and Johnson (2010) found qualitative evidence that women with a strong sense of Black identity had the highest body esteem. Similarly, Harris (1995) conducted a study among African Americans and found that higher Black identity, how positive they felt about being Black using the Racial Identity Attitude Scale, was related to positive body attitudes. Among Asian-Americans, higher levels of identification with Asian identity, as assessed by their adherence to traditional Asian values, was related to increased pressure to be thin, greater body dissatisfaction, and poorer body image (Lau et al., 2006; Tsai et al., 2003). Conversely, Asian Americans with higher levels of identification with American culture had a less thin body ideal¹ and more positive body attitudes (Phan & Tylka, 2006; Sussman et al., 2007).

The present studies examine a third way to investigate how culture influences body image. Specifically, I propose that external cultural cues may affect body image among biculturals. Many studies have shown that body image is strongly influenced by external cues

¹ When I refer to body ideals as thin or thinner, I am not referring to a specific number (such as weight, or figure size). Rather, I am referring to thinness as a continuum. For example, in references to figure sizes in a Figure Rating Scale (see Figure 1), starting from the middle, the figures towards the left side resemble progressively *thinner* (or *more thin*) figures whereas the figures towards the right are progressively *less* thin.

such as media images of skinny (versus average-sized) models (Bissell & Zhou, 2004; Cash, Cash, & Butters, 1983; Goresz, Levine, & Murnen, 2002; Watts, Cranney, & Gleitzman, 2008). I propose that external cues related to culture will similarly affect body image and body ideals. As mentioned earlier, bicultural individuals have been found to engage in “cultural-frame switching” where they alternate between two cultural identities, endorsing separate sets of culturally-relevant beliefs, attitudes, and values in different contexts (Benet-Martinez et al., 2002; La Fromboise, Coleman, & Gerton 1993; Phinney & Devich-Navarro, 1997). Studies of cultural frame-switching often use cultural images such as pictures of Asian icons (e.g., the Great Wall of China and Chinese dragon) and pictures of American icons (e.g., the Statue of Liberty and Mickey Mouse). Given this research, I argue that biculturals would also switch back and forth between different body ideals depending on cultural images in the environment. For example, Black Americans may switch back and forth between a thin (American) body ideal and thick (Black) body ideal, while Asian Americans may switch back and forth between a thin (American) body ideal and an even thinner (Asian) body ideal. I further propose that the effects of internal and external culture on body image will be different. Given the body of literature showing that salient cultural cues induce a contrast effect in the cultural frame-switching process (Benet-Martinez et al., 2002; Mok & Morris, 2010; Hsu & Phillips, 2011), I propose that when cultural cues are salient, the direction of influence between culture and body image will exhibit a contrast effect.

CHAPTER IV

Study 1: Body Ideals and Culture

In this study, we draw from previous research showing that cultures differ in their perceptions of body ideals, with Black, American, and Asian cultures each having different body ideals. To examine the impact of culture on body ideals, we focused on bicultural Asian Americans and Black Americans, people exposed to two cultural groups with different body ideals. We suggest that *cultural identification*—one’s internal or subjective representation of the strength of culture in one’s sense of self—and *cultural context*—the exposure to salient cultural cues in the external environment—will have opposite effects on body image.

First, I suggest that the degree to which bicultural individuals identify with their respective cultural groups will be associated with their body ideals. Specifically, as Asian and Black Americans adopt a stronger mainstream/American cultural identity, they also adopt a more “mainstream/Americanized” body ideal. Given that the mainstream/American body ideal is thinner than the Black body ideal, but not as thin as the Asian body ideal, we predict that: 1) for Black Americans, a stronger American cultural identity (as opposed to a Black cultural identity) may be related to a thinner body ideal; 2) for Asian Americans, a stronger American cultural identity (as opposed to an Asian cultural identity) will be related to a thicker body ideal. Drawing on the research regarding cultural cues and contrast effects, I also predict that when bicultural individuals are exposed to salient and obvious cultural cues in the external

environment, they will exhibit contrast effects, adopting body ideals that are *opposite* to the culturally specific ideals. Given that the mainstream/American body ideal is thicker than the Asian body ideal, but thinner than the Black body ideal, I predict that Asian Americans will adopt a more American (or thicker) body ideal when exposed to Asian rather than American cultural cues, while Black Americans will adopt a more American (or thinner) body ideal when exposed to Black rather than American cultural cues.

Overall, I hypothesized that:

H1a: Asian American women more strongly identified with American culture will report a thicker body ideal.

H1b: Asian American women more strongly identified with Asian culture will exhibit a thinner body ideal.

H1c: Black American women more strongly identified with American culture will indicate a thinner body ideal.

H1d: Black American women more strongly identified with Black culture will report a thicker body ideal.

Second, we predict that exposure to salient cultural cues in the environment will elicit contrast effects on body ideals. Specifically, we hypothesized that:

H2a: Asian American women presented with a salient American cultural cue will indicate a thinner body ideal than those presented with salient Asian cultural cues.

H2b: Black American women presented with a salient American cultural cue will exhibit a thicker body ideal than those presented with salient Black cultural cues.

We conducted two studies to investigate how internal cultural identification and external cultural cues predict body ideals among bicultural individuals. Study 1a examines this question

among Asian American women, and Study 1b examines this question among Black American women. We examined Asian American and Black American women in two separate studies in part because we had to use different methods to recruit participants from each of these samples, and in part because we used different, culturally suitable methods to measure body ideals for each cultural sample. We only examined women in our studies because body dissatisfaction is more prevalent among women than men, and the majority of previous research on this topic has focused on women (Striegel-Moore & Franko, 2002).

Study 1a: Asian American Women & Body Ideals

Study 1 uses a quasi-experimental design where cultural identification and body ideals were measured using self-report, and cultural cues were experimentally manipulated. Participants responded to an online survey measuring cultural identification and body ideals. Participants were randomly assigned to view either Asian or American cues. The cultural cues were images or icons pre-tested to represent either Asian or American culture.

Methods

Participants. A total of 89 Asian American women participated in this study (mean age = 20.81 years, $SD = 2.88$). Forty-five were first-generation Asian Americans born outside the U.S. (Subsequent analyses showed that immigration status did not affect the results.) The average number of years lived in U.S. was 10.72 ($SD = 6.96$; median = 10). Participants' average body mass index [or BMI were self reported and calculated as (weight in pounds*703) / (height in inches squared)] was 21.28 ($SD = 3.08$). According to the department of Health and Human Services of the National Institute of Health, the range for “normal” BMI is 18.5-24.9.

Approximately half the participants were recruited through psychology courses and flyers posted at the campus of a large university in the Midwest and awarded partial course credit. The other half were recruited through personal and online networks and entered into a lottery for a chance to win a gift card. Comparisons of key variables between these two groups of participants yielded no significant differences (all p 's were greater than .05). As such, these two groups were combined in all subsequent analyses.

Participants were included only if they were age 18 or older, female, living in the U.S., and self-identified as East Asian (e.g., Chinese, Japanese, or Korean) or Southeast Asian (e.g., Vietnamese, Malaysian, or Cambodian). These criteria were similar to previous studies on bicultural individuals in the U.S. (Benet-Martinez & Haritatos, 2005). Analyses were run separately for East Asians and South East Asians, but direction of effects were found among both groups and thus we only report results of analyses combining both groups.

Procedure and Measures. Participants were directed to fill out an online survey. After providing informed consent, participants were asked to fill out the following measures, in the order presented.

Cultural Identification. Following previous studies on cultural priming among Asian American bicultural individuals in the U.S., we used two items to assess participants' identification with American and Asian cultures (Benet-Martinez et al., 2002; Cheng & Lee, 2009; Cheng et al., 2006). Using a 6-point Likert item scale ranging from 1 (*very weak*) to 6 (*very strong*), participants rated the following items: "Please rate the strength of your cultural identification with North-American culture" and "Please rate the strength of your cultural identification with Asian culture." While longer scales exist in measuring cultural identification, these two items correlate highly with longer measures predict culturally relevant behaviors

including attributional tendencies, cultural ingroup favoritism, self-construals, and relational patterns (Mok, Morris, Benet-Martínez, & Karakitapoglu-Aygun, 2007; Nguyen & Benet-Martinez, 2007).

Cultural cues. Participants were randomly assigned to view a series of either Asian or American cultural cues. To ensure adequate processing of the cultural cues, we asked each participant to indicate their liking of each cue. To generate the cultural cues, we first included images from past studies on cultural priming of Asian American bicultural individuals (Benet-Martinez et al., 2006; Benet-Martinez et al., 2002; Hong, Morris, Chiu, & Benet-Martinez, 2000). These images used in past research were supplemented with images that emerged from internet searches using the search terms “Asian culture” and “American culture.” (Pictures of food products were excluded). To pretest the cultural content of the images, we asked 40 college students to rate the extent to which each picture represented Asian and American cultures using a 5-point Likert item scale ranging from 1 (*not at all*) to 5 (*very much*). *not at all (1) to very much (5)* Pictures with a high score in the representation of one culture and a low score in the representation of the other were included in the study. For example, a picture of a cowboy was rated 4.74 as representing American culture and 1.3 as representing Asian culture, and thus included as an American cultural cue. Ten images for each condition were selected. Tables 1a and 1b provide a list of images used as cultural cues and their respective cultural ratings. American pictures were rated significantly more American compared to Asian pictures ($t(39) = 4.2, p < .01$). Asian pictures were rated significantly more Asian compared to American pictures ($t(39) = 8.4, p < 0.1$).

Table 1

Cultural Cues Pretesting Results: American Cues.

Mean (SD) Ratings of extent to which the image represents American or Asian culture			
	Am: 4.88 (.98) As: 1.33 (.90)		Am: 4.87 (.67) As: 2.14 (1.12)
	Am: 4.78 (.42) As: 1.24 (.60)		Am: 4.86 (.67) As: 2.22 (1.42)
	Am: 4.78 (.71) As: 1.41 (.83)		Am: 4.97 (.16) As: 1.51 (.96)
	Am: 4.89 (.31) As: 2.14 (1.21)		Am: 4.97 (.16) As: 1.70 (1.15)
	Am: 4.98 (.52) As: 2.34 (1.30)		Am: 4.95 (.23) As: 1.70 (1.15)

Note. Am is abbreviated for American culture. As is abbreviated for Asian culture. The scores ranged from 1 (*least representative of As/Am culture*) to 5 (*most representative of As/Am culture*)

Table 2

Cultural Primes Pretesting Result: Asian Cues.

Mean (SD) ratings of extent to which the image represents Asian or American culture		
	Am: 3.14 (1.38) As: 4.33 (.96)	 Am: 2.00 (1.31) As: 4.87 (.35)
	Am: 2.24 (1.09) As: 4.73 (.65)	 Am: 1.51 (1.12) As: 4.76 (.55)
	Am: 1.87 (1.16) As: 4.60 (.80)	 Am: 1.41 (.98) As: 4.73(.65)
	Am: 1.73 (1.30) As: 4.81 (.70)	 Am: 1.35 (.86) As: 4.68 (.71)
	Am: 1.65 (1.11) As: 4.78 (.71)	 Am: 1.58 (1.12) As: 4.81 (.40)

Note. Am is abbreviated for American culture. As is abbreviated for Asian culture. The scores ranged from 1 (*least representative of As/Am culture*) to 5 (*most representative of As/Am culture*)

Body Ideal. Body ideals were assessed using the figure rating scale (Stunkard, Sorenson & Schulsinger, 1983). Participants viewed nine sketches of women of different sizes, ranging from very thin to very heavy (see Figure 1). Each participant was asked to indicate the figure that best represented her ideal body. The thinnest figure had a score of 1 and the biggest/thickest figure had a score of 9.

Figure 1

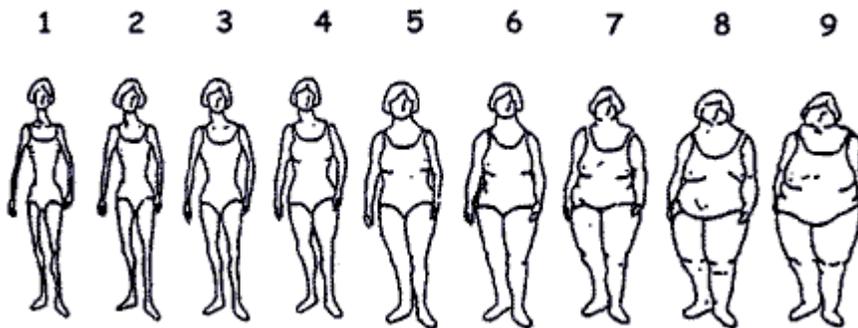


Figure Rating Scale (Stunkard, Sorenson & Schulsinger, 1983).

Demographics. Demographic items about age, gender, ethnicity, years living in the U.S., height, and weight were included.

Results

Summary of means, standard deviations, and correlations of key variables are provided in Table 2. Similar to previous studies of Asian-American bicultural individuals in the U.S., there were no significant differences between strength of identification with American and Asian cultures ($t = -1.2, ns$), but they were negatively correlated with each other ($r = -.25, p < .05$).

Table 3

Correlations, means, and standard deviations of continuous measures among Asian Americans (N=89).

Measures	1	2	3	4	5	6
1. Ideal Figure	--					
2. Age	.10	--				
3. BMI	.28**	.05	--			
4. American identification	.13	-.02	.27**	--		
5. Asian identification	-.16	-.21*	.03	-.25**	--	
6. Generation Status	.05	-.03	.24**	.40**	-.01	--
Mean	2.91	20.81	21.28	4.26	4.57	.53
Standard deviation	.83	2.88	3.08	1.26	1.04	.04

Note. * $p < .05$, ** $p < .01$. Generation Status is a dummy code, 1(2nd generation) and 0 (1st generation)

Hypothesis testing. We ran simultaneous multiple regressions with body ideal (or ideal figure size) as the dependent variable. Cultural cues (dummy coded), identification with Asian culture, and identification with American culture were entered as predictors with age and BMI as covariates. The overall model was significant ($F(5, 88) = 3.03, p < .05$) and explained 16% of the variance in body ideal. See Table 4 for regression results.

Table 4

Simultaneous Regression Analyses for Variables Predicting Ideal Body Figure Size for Asian American women (N=89).

$R^2 = .15$					
Variable	B	SEB	β	sr^2	p^a
Constant	1.57	1.01			
Age	.01	.03	.02	.00	.42
BMI	.09	.03	.32	.09	.001
American Identification	-.02	.07	-.02	.00	.42
Asian Identification	-.15	.09	-.19	.04	.04
American Cue ^b	-.37	.18	-.22	.03	.02

^a p value of standardized beta, one tail test

^b American cues are compared to Asian cues

Current BMI was positively associated with ideal body size. When controlling for age, cultural cues, and cultural identification, those with higher BMI endorsed a thicker body ideal. Hypothesis 1a was not supported; identification with American culture was not associated with ideal body size. However, supporting Hypothesis 1b, identification with Asian culture was negatively associated with ideal body size. For every unit increase in identification with Asian culture, there was a .15 unit decrease in ideal figure size. Supporting Hypothesis 2a, those who viewed Asian cultural cues had a .37 unit increase in ideal body size relative to those who were presented with American cues. In short, external cultural cues had the predicted contrast effect on ideal body size. Although we did not hypothesize any interactions between identification and

cultural cues, we tested all possible interactions in our models as post-hoc analyses, and found no significant effects.²

Discussion

Two key findings emerged from Study 1a. First, subjective, internal identification with Asian culture was related to thinner, or more normatively Asian, body ideal. This is consistent with previous research showing that higher identification with Asian culture relates to higher pressures to be thin, or the more general proposition that standards of body ideals are related to cultural identification (Devos & Banaji, 2005; Turnage, 2004). Second, we found that participants exposed to salient American cultural cues reported thinner body ideals than participants exposed to salient Asian cultural cues. This supports the predicted contrast effect, where exposure to American cultural cues led to thinner, more normatively Asian, body ideals. By using a quasi-experimental approach where participants were randomly assigned to view different cultural cues, we show that cultural cues in the environment have a causal effect on perceptions of body ideal. For bicultural individuals, changes in their cultural environment can bring about fluctuations in their body ideal, and possibly their body image and body satisfaction.

Not all hypotheses were supported, however. Subjective identification with American culture did not relate to body image (Hypothesis 1a). This may be due in part to more diversity of body sizes in America. Qualitative interviews with Asian American women have shown that while they perceive Asian body ideals to be uniformly thin, a larger range of acceptable body sizes may exist among mainstream Americans (Guan, Calloway, Lee, & Reddy, 2011). For example, one participant in Guan et al (2011) reported,

² A post-hoc analyses found no significant two-way interactions between American identification and Asian identification ($\beta = .11, t = .71, ns$); American identification and cultural cue ($\beta = .07, t = .41, ns$); and Asian identification and cultural cue ($\beta = -.16, t = -1.02, ns$). The three-way interaction between American identification, Asian identification, and cultural cue was also not significant ($\beta = -.03, t = -.17, ns$).

I think Korean and Americans have different standards about body shape. Because I feel really free here about my weight. But in Korea, the clothes sizes are really small. When I was in Korea I had pants, but it was hard to find the right size. Everything for a bigger size, I had to go to special shop for bigger size clothes, which I didn't like at all. And all shirts would be- I used to wear medium in Korea, but here it's small or x-small.

Hence, it is likely that there are weaker relationships between American cultural identification and ideal body size because acceptable norms are relatively less stringent in the U.S. than in Asia. Another possibility is that our single-item measure of identification with American culture was not reliable enough to detect significant relationships between identification and body ideal. Indeed, the interpretation of "North-American" culture may be understood differently among participants in this sample. For example, they can interpret this as their identification with White/European culture, or they can interpret this as their identification with a multicultural society that is accepting of multiple body sizes. Another explanation may be the variability of environmental and social settings while filling out the online survey. Due to the online format, we had little control over where and when participants completed the survey. Some might have completed it in a more mainstream American setting and others in a more Asian or ethnic setting. Although comparisons of East Asian and Southeast Asian samples, and of first- and second-generation samples, showed no significant differences, there may be more fine-grained differences in body ideals between different Asian ethnic and national groups and those of different generational status that are not captured in the survey (Akutsu, Snowden, & Organista, 1996; Tsai, Chentsova-Dutton, & Wong, 2002).

To address the central hypotheses further, a second study with Black Americans was conducted. Black Americans as a group also differ in their cultural origins and level of

identification with Black and mainstream American cultures, though a larger majority may be born and raised in the U.S. (Benson, 2006; Landrine & Klonoff, 1994). Further, examining hypotheses with Black Americans allows us to rule out alternative explanations to Study 1a. Subjective identification with a minority ethnic culture (e.g., Asian) rather than mainstream culture (e.g., American) may contribute to acculturation stress, which in turn may lead to adoption of unhealthy and extreme body ideals (Romero, Carvajal, Volle, & Orduña, 2007). To rule out this explanation, it is important to examine Black culture, a minority culture that endorses a thicker body ideal, and one where identification with one's ethnic or Black identity may be related to higher body image satisfaction (Craig, 2006; Evans & McConnell, 2003; Gluck & Geliebter, 2002; Grabe & Hyde, 2006).

Study 1b: Black American Women & Body Ideals

Black or African Americans are often considered as belonging to more than one culture. For example, Boykin's (1988) Triple Quandary Theory proposes that African Americans engage in three social realms: (1) mainstream (White American culture), (2) Afro-cultural (intergenerational transmission of African traditions), and (3) Minority (demands and burdens of oppression). Like cultures, each of these social realms has its own set of values, beliefs, and behavioral patterns, and as such African Americans operate in a state of "triple consciousness." William Edward Burghardt Du Bois (1953), the first African American to graduate with a graduate degree in Harvard University, similarly spoke about his biculturalism, or what he called a double consciousness of "being American and being a Negro," (p. 143). He reported, "one ever feels his two-ness, an American, a negro, two souls, two thoughts, two unreconciled strivings, two warring souls in one dark body, whose 'dogged strength' alone kept it from being

asunder” (DuBois, 1953, p. 143). More recent research studied African Americans as biculturals (Phinney & Devich-Navarro, 1997). However, it is important to note that the African American biculturalism experience is not the same as those of immigrants’ who typically move to America voluntarily (Utsey, Walker, Dessources, & Bartolomeo, 2005).

Like Asian Americans, Black Americans are bicultural in the sense that they identify with two sets of cultural norms and ideals, Black and mainstream American cultures. Unlike Asian American bicultural individuals, the body ideal of the minority ethnic (or Black) culture is thicker than the body ideal of the mainstream (or American) culture. As such, we expect the trends observed in Study 1a will be in the opposite direction for Study 1b. For Black American women, we expect higher levels of identification with Black culture to be related to thicker body ideals and higher levels of identification with American culture to be related to thinner body ideals. We further expect to find a contrast effect with external cultural cues; that is, exposure to Black cultural cues will lead to thinner body ideals than exposure to American culture cues.

Methods

Participants. Eighty-two women (mean age = 20.82 years, $SD = 4.47$) participated in this study. All participants were born in the U.S. Their average self-reported BMI was 25.04 ($SD = 6.64$), which is considered “above normal” or “overweight” according to the Department of Health and Human Services (normal ranges from 18.5-24.9). Participants were primarily recruited through personal networks, using similar criteria and compensation as Study 1.

Procedure. Procedures and measures used in this study are identical to those of Study 1 with two key modifications. Because few studies on cultural priming used Black Americans, all cultural cues were identified from internet searches. Ten Black cultural cues were selected using the same pretest process as in Study 1 and are listed in Table 5.

Table 5

Cultural Primes Pretesting Results: Black Cues.

Mean (SD) ratings of extent to which the image represents Black or American culture			
	Am: 3.49 (1.19) Bk: 4.76 (.43)		Am: 1.96 (1.13) Bk: 4.15 (1.17)
	Am: 3.11 (1.51) Bk: 4.51 (.96)		Am: 3.26 (1.32) Bk: 4.44 (.85)
	Am: 3.62 (1.30) Bk: 4.57 (.77)		Am: 1.89 (1.15) Bk: 4.41 (.84)
	Am: 3.16 (1.38) Bk: 4.49 (.80)		Am: 3.30 (1.49) Bk: 4.81 (.40)
	Am: 2.43 (1.44) Bk: 4.65 (.75)		Am: 3.11 (1.58) Bk: 4.44 (1.09)

Note. Am is abbreviated for American culture. Bk is abbreviated for Black culture. The scores ranged from 1 (*least representative of Bk/Am culture*) to 5 (*most representative of Bk/Am culture*)

Second, a different operationalization of the ideal body was used in Study 2. There is evidence that the figure rating scale used in Study 1 exemplifies White bodies, and Black American women do not find them relevant as indicators of their ideal or current body types (Pulvers et al., 2004; Stunkard et al., 1983). Hence, we asked participants to report which figure they believed to be most attractive to men. Previous research suggests that, for Black women, cultural standards of beauty stem more from men's perspective rather than their own. For example, Poran (2006) found that Black American women felt that men's opinions about their bodies were more important than their own opinions about their body (regardless of the men's ethnicities) and felt more pressure to adhere to these standards. We use this item as an alternative way to capture standards for ideal body sizes for Black women, even though the figures may not accurately represent Black women's perceptions of their own bodies.

Results

Summary of means, standard deviations, and correlations between key variables are presented in Table 6. Overall, participants identified more with Black culture than with mainstream American culture ($t = -4.15, p < .01$). Identification with Black and American cultures were positively correlated ($r = .23, p < .05$).

Table 6

Correlations, means, and standard deviations of continuous measures among African Americans (N=82).

Measures	1	2	3	4	5	6
1. Ideal Figure	--					
2. Figure Attractive to Men	.65**	--				
3. Age	.13	.06	--			
4. BMI	.53**	.24*	.40**	--		
5. American identification	-.16	-.16	.01	-.08	--	
6. Black identification	.12	.16	.01	.04	.23*	--
Mean	3.43	3.46	20.94	25.05	4.43	5.10
Standard deviation	.99	1.00	5.11	6.64	1.44	1.11

Note. * $p < .05$, ** $p < .01$

Hypothesis testing. A simultaneous regression was performed with attractive figure size (that is, the figure participants perceived to be most attractive to men) as the dependent variable. Cultural cues (dummy coded), identification with Black culture, and identification with American culture were entered as predictors and age and BMI were included as covariates. The results of this analysis are shown in Table 7. The overall model was significant ($F(5, 81) = 3.59$, $p < .01$) and explained 23% of the variance in attractive figure size. BMI was positively correlated with ideal figure when controlling for age, cultural cues, and cultural identification.

Table 7

Simultaneous Regression Analyses for Variables Predicting Figure Size Attractive to Men and Ideal Figures Size for African American women (N=82).

Figure Size Attractive to Men					
$R^2 = .19$					
Variable	B	SEB	β	sr^2	p^a
Constant	2.21	.75			
Age	-.02	.02	-.08	.00	.24
BMI	.05	.02	.30	.07	.003
American Identification	-.16	.22	-.23	.05	.02
Black Identification	.17	.08	.18	.03	.05
American Cue ^b	-.59	.10	-.29	.08	.004
Ideal Figure Size					
$R^2 = .37$					
Variable	B	SEB	β	sr^2	p^a
Constant	1.41	.64			
Age	-.02	.02	-.12	.01	.14
BMI	.09	.02	.61	.29	<.00001
American Identification	-.13	.07	-.18	.03	.05
Black Identification	.10	.09	.11	.01	.16
American Cue ^b	-.50	.19	-.25	.06	.01

^a p value of standardized beta, one tail test

^b American cues are compared to Black (African American) cues

When controlling for BMI, age, and cultural cues, identification with American culture was negatively associated with attractive figure size ($\beta = -.23, p < .05$) or a thinner, more mainstream/American body ideal. Specifically, for every unit increase in identification in American culture, there was a .16 decrease in the figure size chosen as attractive, supporting hypothesis 1c. Hypothesis 1d was also supported; identification with Black culture was positively associated with attractive figure size ($\beta = .18, p < .05$). Specifically, for every unit increase in identification with Black culture, there was a .17 increase in attractive figure size. The effects of identification with Black culture on attractive figure size are independent of those effects of identification with American culture.

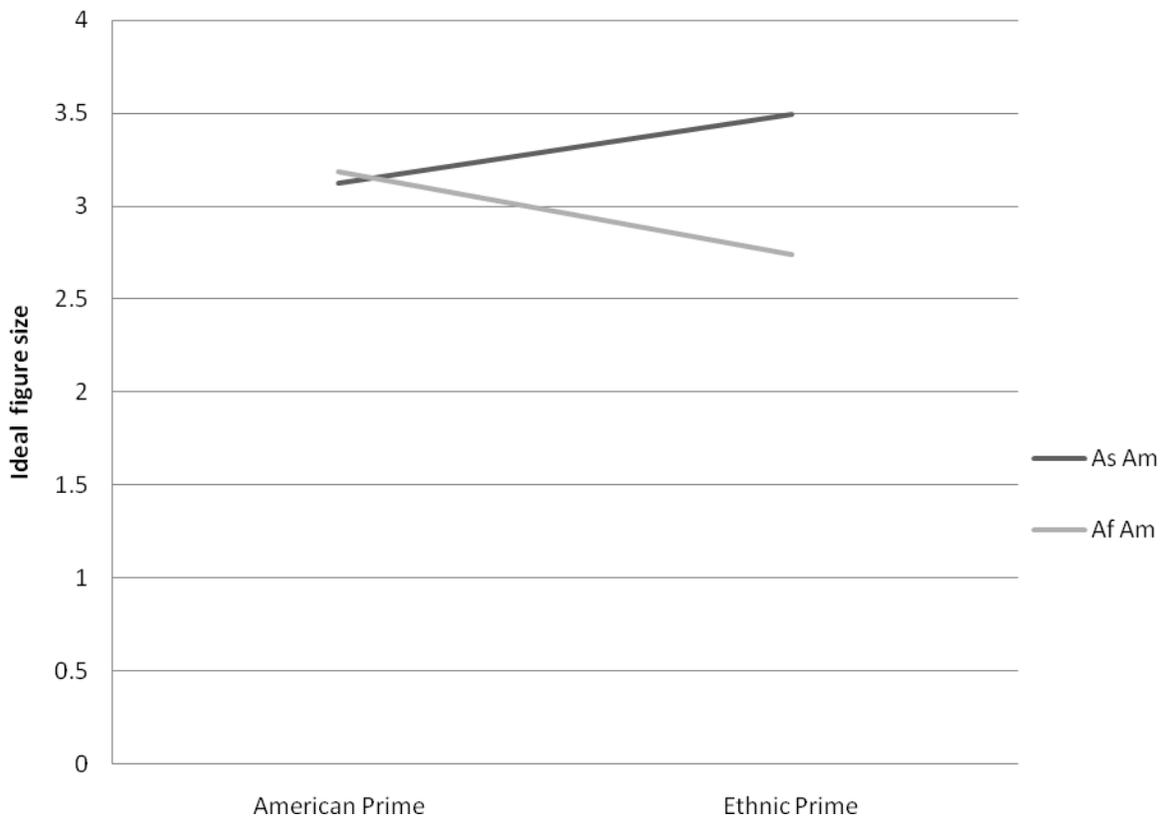
Compared to those in Black cultural cues conditions, participants in American cultural cues condition chose a thicker figure as attractive ($\beta = .29, p < .01$). Participants in the American cue condition selected attractive figures that were .59 figures larger than those in the Black cue condition. The direction of the results is consistent with a contrast effect, supporting hypothesis 2b. Although we did not hypothesize any interactions between identification and cultural cues, we tested all possible interactions in post-hoc analyses, and found no significant effects.³

To test whether the findings were comparable across two ethnic groups, I combined the data from Studies 1 and 2 to examine how ethnicity moderated the findings. The results support my hypotheses. First, ethnicity moderated the effects of ethnic identification on ideal figure size. Ethnic identification was negatively related to ideal figure sizes for Asian Americans, but positively related to ideal figure sizes for Black Americans. Ethnicity also moderated the effects

³ There were no significant three-way interactions between American identification, Black identification, and cultural cue ($\beta = -.02, t = -.17, ns$). For predicting ideal figure size, we found no significant two-way interactions between (1) American identification and Black identification ($\beta = .09, t = .71, ns$); (2) American identification and cultural cue ($\beta = .05, t = .36, ns$); and (3) Black identification and cultural cue ($\beta = .18, t = 1.55, ns$). We also found no significant three-way interactions between American identification, Black identification, and cultural cue ($\beta = -.04, t = -.33, ns$).

of cultural cues on ideal figure size. Presentation of ethnic cues was related to thicker body ideals for Asian Americans compared to presentation of American cues, while the reverse was true for African Americans (See Figure 2).

Figure 2



Ethnicity as a moderator of the relationship between cultural prime and ideal figure size.

Discussion

Among Black American women, subjective identification with American culture was related to selecting thinner (or more “American”) figures as attractive to men, while subjective identification with Black culture was related to choosing thicker figures, which are more

consistent with Black cultural appearance standards (Gluck & Geliebter, 2002; Perez & Joiner, 2003; Sabik, Cole, & Ward, 2010). This suggests that subjective cultural identification is consistent with endorsing culturally-normative body ideals. We also found that compared to Black cultural cues, exposure to American cultural cues led to choosing thicker attractive figure sizes. In short, there was a contrast effect of external cultural cues on ideal body types, where exposure to American cultural cues led to body image ideals that were thicker and exposure to Black cues led to body ideals that were thinner.

Interestingly, we found these effects were stronger for figure size preferred by men rather than African American women's own ideal figures. It is possible that these cultural standards of beauty stem more from men's perspective rather than their own. For example, African American women were aware of cultural differences in men's preferences for women's bodies (Poran, 2006). Consistent with these findings, African American men were perceived to want thicker bodies and White men were perceived to want thinner bodies (Jackson & McGill, 1996; Poran, 2006). More importantly, Poran (2006) found that African American women felt that men's opinions about their bodies were important to them, regardless of the men's ethnicities, and felt pressured to adhere to these standards even when they seemed conflicting. Study 1b complements these findings by showing that body ideals do vary depending on salience of culture. More so, this study demonstrates that men's opinions seem to be more related to culture and suggest they could influence women's own ideals for this ethnic group. Although some of the relationships for women's body ideals were not significant among African American women, the strength and direction of the relationships were similar to that of figure size perceived to be attractive to men, suggesting that these ideals, although from different perspectives, are both related to cultural identification and salience of cultural cues.

Study 1 General Discussion

The present studies support previous research showing that body ideals are culturally bound. Yet the results showed that the relationship between culture and body image is complex and can work in opposite ways depending on whether “culture” is conceptualized internally as subjective identification or externally as cues in the environment. Asian American women who internally identified with Asian culture had thinner body ideals, but external Asian cultural cues elicited thicker body ideals. Similarly, while Black American women who internally identified with Black culture had thicker body ideals, external Black cultural cues elicited thinner body ideals. Although culture has been conceptualized internally and externally across the literature, few studies have included *both* conceptualizations and systematically compared their effects.

Study 1 findings showed that internal and external conceptualizations of culture appear to trigger different psychological processes. Individuals who internally identify with a culture see their cultural group membership as an integral part of who they are. They are more likely to engage in events and behaviors that are related to that culture, and choose friends, media, and even marital partners from that culture (Yeh & Huang, 1996). In contrast, external culture cues stem from the situation and exist outside of one’s personal psychological state. For example, a McDonald’s restaurant is a situational cue that is imbued with American cultural meaning (Chiu, Wan, Cheng, Kim, & Yang, 2010). When “culture” is experienced through such external cues rather than personally meaningful activities, people resist the cues’ influence in conscious and unconscious ways (Cheng & Lee, 2009; Glaser & Banaji, 1999; Zou et al., 2008). They may be driven to disassociate from these cues to show their independence and autonomy from situational influences. For example, realizing the “American-ness” of a McDonald’s, Asian Americans may actively overcorrect for the biasing effects of these cues by adopting a less American and more

Asian body ideal. External cultural cues may further elicit stereotype confirmation concerns, leading to efforts to disconfirm a cultural stereotype by endorsing a body ideal that is opposite of the cultural norm (Steele & Aronson, 1995). These various processes in response to externally imposed cultural cues have been shown to operate even when people strongly identify with the culture (Benet-Martinez et al., 2002). It is important to note, however, that the current research does not examine which of these processes contribute to the contrast effects observed in the studies. Future research is needed to examine these processes more systematically.

The finding that internal cultural identification and external cultural cues have opposite effects on body ideals sheds light on some of the conflicting findings in the current research on body image and culture. Whereas some studies show differences in body image across cultural and ethnic groups, others do not (Grabe & Hyde, 2006). For instance, research on Black Americans seems to suggest that some women are “buffered” from body image issues because of less-thin cultural body ideals, while others have found no evidence of such buffering effects (Sabik et al., 2010). Likewise, some studies show that Asian culture endorses a thinner body ideal, but others find no difference between Asian and American standards of ideal body sizes (Leung, Lam, & Sze, 2001). Other findings even suggest that Asian women’s body ideal may value plumpness rather than thinness (as plumpness is associated with prosperity in Asian culture) and that Asian women have a more positive body image compared to White women (Altabe, 1996; Chen & Swalm, 1998). There are many possible explanations for these conflicting findings, though we propose that the opposing effects of internal and external culture may help in understanding these conflicting findings. For example, Black American women who have a strong internal identification with their Black cultural group may show more buffering effects,

but these buffering effects may be attenuated, or even reversed, in situations where culture influences stem only from salient Black cultural cues in the external environment.

This research draws from a literature on cultural priming that uses a variety of stimuli (images, icons, or words) to induce shifts in how participants to think, feel, or behave differently. The current conceptualization and operationalization of culture closely follow validated methods and frameworks from this research stream. For example, the American and Asian primes used are the same ones presented in a landmark paper on cultural priming (Hong et al., 2000). These primes have subsequently been used in dozens of studies on cultural priming (e.g., Benet-Martinez et al., 2002). Notably, many of these studies have been done using bicultural Asian Americans, with similar sample characteristics as our current studies (Benet-Martinez et al., 2002; Cheng et al., 2006). More specifically, there are several studies that have shown that the American primes used in Study 1 have elicited prototypically “American” behaviors among bicultural Asian Americans, while the Asian primes used in the current study elicited prototypically “Asian” behaviors among bicultural Asian-Americans; this includes a whole host of behaviors such as self-construals (Asian Americans exposed to American primes have more individualistic self-concepts than those exposed to Asian primes), attributional styles (Asian Americans exposed to American primes make more dispositional attributions than those exposed to Asian primes), or ingroup affiliation (Asian Americans exposed to American primes favor American teams than those exposed to Asian primes; Benet-Martinez et al., 2002; Mok, Cheng, & Morris, 2010).

Despite this evidence that cultural primes tend to elicit culturally-prototypical behaviors, one limitation to this literature is that it does not directly address the question of which schema(s) the primes elicit. For example, does the image of the Statue of Liberty prime Whiteness,

American culture, a melting pot, or a whole host of other, unrelated ideals or concepts (e.g., freedom, tourism, New York)? Researchers that use this theoretical framework and methodological paradigm *assume* that if participants behave in prototypically “American” ways (as shown by previous cross-cultural studies) after being exposed to a priming stimulus, then the prime must have elicited an “American” cultural schema. Lacking in this research tradition is any exploration of participants’ own conceptualizations of what it means to be American, and the participants’ beliefs, attitudes, or perceptions vis-à-vis the primes. This is an important shortcoming in this particular research stream and its related methodology, and should be addressed in future research.

Overall, we found that culture and subjective culture seem to influence body ideals in different ways for both Asian American and African American women. However, the studies only investigate one aspect of body image. An individual’s body ideal is the cognitive aspect of body image, it is an aspect that we expect cultural frame-switching to occur due to previous findings on cultural frame-switching among cognitive variables (Benet-Martinez et al., 2002; Cheng, Sanchez-Burks, & Lee, 2008; Ramirez-Esparz et al., 2006). Hence, Study 2 investigated whether cultural frame-switching applied to affective variables of body image as well. Specifically, Study 2 examined whether subjective and contextual culture influence body satisfaction, an affective aspect of body image.

CHAPTER V

Study 2: Body Satisfaction and Culture

Study 2 further explored the relationship between external cultural cues in the environment and body image. As mentioned, there is a large literature showing that cultural cues influence cognitive variables, such as attribution styles and self-perception (Cheng et al., 2006; Oyserman & Lee, 2007; Trommsdorff & Cole, 2011). Following this line of work, Study 1 examines cultural influences on a cognitive component of body image, perceived body ideals. Study 2 extends this work by examining an affective component of body image, body satisfaction, or the extent to which one feels satisfied or dissatisfied about his or her body's appearance (Ahrberg, Trojca, Nasrawi, & Vocks, 2011; Grabe & Hyde, 2006). Rather than cultural images or icons, I used culturally-normative food items as external cultural cues. Although these cues have not been previously used in cultural-priming research, food cues are arguably more related to the body, and may serve as cultural cues in otherwise culturally-neutral contexts. Study 2 also included Bicultural Identity Integration (BII, Benet-Martinez et al., 2002), or an individual difference measure of perceptions of compatibility between one's multiple cultural identities. Study 2 focuses only on Asian Americans.

Body Related Cultural Cues

Study 2 examined a cultural cue that is more related to one's body, namely culture-specific foods. The research on cultural frame-switching has primarily used images of cultural icons as

external cues (e.g., Hong et al., 2000). However, these cultural images typically represent a wide variety of objects, including food-related objects (e.g., chopsticks), sports, figures/people, and attire. It is unclear whether different types of cultural icons affect cultural frame-switching in distinct ways. In this study, we provide a more precise test of the effect of cultural cues by focusing on just one type of cue: culture-specific food.

Second, although food cues have never been used to examine cultural frame-switching, food and eating are closely related to body image (Etkin & Ross, 1982; Hastings, 1929; Huang & Williams, 1999; Farquhar, 2002; Roe, 1986). Poor body image has been associated with various eating behaviors, such as disordered eating, restricted eating, dieting, and overeating (Ahrberg et al., 2011; Berg, Frazier, & Sherr, 2009). Particularly, food has been used as an external cue to activate different body image processes. For example, Fett, Lattimore, Roefs, Geschwind, and Jansen (2009) used low and high caloric foods as cues to examine the effects of certain foods on body and weight satisfaction among restrained eaters. To the extent that food-related cultural cues are closely related to one's body image, I expect the food cues to have a strong effect on body image.

In addition, food-related cues are common and frequently encountered in daily activities. Most people eat and encounter a variety of food items every day. Further, many food items are culture-specific, and, as such, they are imbued with culture. Supporting this idea, research has suggested some food items and ingredients activate cultural schemas and make individuals reflect on their cultural and ethnic identities (D'Sylva & Beagan, 2011; van den Berghe, 1984). For example, Cheng et al. (2008) found that some food ingredients activate American culture (e.g., ketchup), while other food ingredients activate Asian culture (e.g., soy sauce). However, because food items are so common, it is possible that using it as a cultural cue may be more

subtle and less blatant than pictures of cultural icons. This subtleness may create effects different from those in study 1.

Body Satisfaction and Culture

Instead of focusing on body ideals or the cognitive aspect of body image, Study 2 examines body satisfaction, the affective component of body image (Grabe & Hyde, 2006; Groesz, Levine, & Murnen, 2002; Wildes et al., 2001). First, I examine how cultural identification relates to body satisfaction. Previous research has shown that Asian women have higher levels of dissatisfaction with their bodies when controlling for body size (Forbes & Frederick, 2008; Kennedy et al., 2004) and that Asian American women who highly identify with Asian culture have lower levels of body satisfaction (Lau et al., 2006; Sussman et al., 2007; Tsai et al., 2003). Compared to Asian culture, American culture is more likely to spread messages about loving and accepting one's body, as illustrated by Dove's campaign of "real beauty" which includes women who are curvy (Bissell & Rask, 2010; Millard, 2009). It is also possible that those who identify with American culture are more likely to compare their body to a diverse set of bodies, rather than to a typical thin body type—a finding supported by Study 1a. Based on this literature, I predict that biculturals who strongly identify with Asian cultures will be less satisfied with their bodies compared to those who less strongly identify with Asian cultures. I also predict those who strongly identify with American culture will be more satisfied with their bodies compared to those who less strongly identify with American culture.

In exploring this relationship, it is important to note that, beyond feelings about their bodies, there are "baseline" cultural differences in how Westerners and Easterners feel about themselves more globally. Research shows that self-esteem and self-enhancement is lower

among Asians or individuals in collective cultures compared to Americans or those in individualistic cultures (Brown, 2003; Heine, Lehman, Markus, & Kitayama, 1999; Schmitt & Allick, 2005). Compared to Americans, Asians tend to be more pessimistic (Chang, 1996), less likely to be unrealistically optimistic (Taylor & Brown, 1994; Zane, Sue, Hu, & Kwon, 1991), more negative in self-evaluations (Sedikides, Gaertner, & Toguchi, 2003; Sedikides, Gaertner, & Vevea, 2005), and more self-critical (Heine et al., 1999). Overall, I hypothesized that Asian American women who highly identified with Asian culture will express lower body satisfaction. Also, I hypothesized that Asian American women who highly identified with American culture will report higher body satisfaction.

External Cultural Cues and Bicultural Identity Integration

Previous research has shown that body satisfaction is sensitive to different situations and contexts. For example, body satisfaction changes based on experimental manipulation of external cues such as exposure to media images of models of different sizes; specifically, body satisfaction was lower after viewing thin models compared to average size models, plus size models, or inanimate objects (Bissell & Zhou, 2004; Groesz et al., 2002; Watts et al., 2008).

Like Study 1, I expected biculturals to exhibit different levels of body satisfaction based on external cultural cues. In addition, I also hypothesized that Bicultural Identity Integration (BII, Benet-Martinez et al., 2002) will moderate this relationship. BII is an important individual difference variable that moderates the way in which biculturals negotiate between the cultural groups to which they belong. BII refers to perceptions of compatibility or conflict between two cultural groups. Biculturals with high BII see their two cultures as compatible, but biculturals with low BII perceive the two cultures to be in conflict or separated from one another. Previous

studies show that BII moderated the cultural frame-switching process, such that people with high BII responded in culturally congruent ways, and people with low BII responded in culturally incongruent ways. For example, when presented with Asian or American cultural cues, high BII individuals are more likely to assimilate to these cues and behaved in culturally congruent ways; they made more external or prototypically Asian attributions when presented with Asian cues and more internal or prototypically American attributions when presented with American cues. However, those with low BII exhibited the opposite pattern, showing a contrast effect (Benet-Martinez et al., 2002; Cheng et al., 2006). Similar effects showing the moderating effect of BII have been observed in biculturals' social adjustment (Nguyen & Benet-Martinez, 2007), psychological well-being (Benet-Martinez & Haritatos, 2005), creative performance (Cheng et al., 2008), self-perceptions (Ramirez-Esparz et al., 2006), cognitive complexity (Benet-Martinez et al., 2004) and decision-making (Mok et al., 2010). Drawing from this literature, Study 2 examined whether BII interacts with cultural cues to predict body satisfaction. I expect high BII participants to act in culturally congruent ways and low BII participants to act in culturally incongruent ways.

Overall, I tested the following predictions in Study 2:

(H1a) Those with high American identification will have higher body satisfaction than those with low American identification.

(H1b) Those with high Asian identification will have lower body satisfaction than those with low Asian identification.

Since the food cues are somewhat more common and may be more subtle, it is predicted that there is an overall assimilation effect, rather than a contrast effect that was found in study 1.

(H2a) Those who are presented with American cues will have higher body satisfaction than those presented with Asian cues

(H3) There will be a two way interaction between cultural cue and BII on body satisfaction, in that high BIIs will assimilate and low BIIs will contrast to the cultural cues. Specifically, those with high BII will have higher body satisfaction when presented with an American cultural cue than with an Asian cultural cue. Those with lower BII will have a lower body satisfaction when presented with an American cultural cue compared with an Asian cultural cue.

Methods

Extending Study 1, Study 2 examined the effect of cultural food cues on body satisfaction. This study also considered the role of BII as a moderator of the relationship between cultural cues and body satisfaction. Study 2 used a quasi-experimental design, where cultural identity was measured, and participants were randomly assigned to be exposed to either Asian, American, or neutral (not culturally-specific) food items. Body satisfaction was measured both before and after the experimental manipulation.

Participants

Participants were women recruited through a psychology course for partial credit. In order to participate in the experiment, participants had to be at least 18 or older and self-identified as either East Asian, South-East Asian, or Pacific Islander.

Pretest

This experiment used a between-subjects design with three conditions (Asian, American, and Neutral). Participants were randomly assigned to one of three conditions, a neutral condition, an Asian cultural cue condition, or an American cultural cue condition. These conditions differed

by the type of snacks offered to participants. A total of 22 snacks were selected to be pretested among 17 Asian American students. They were selected based on initial evaluation of whether the snack was uniquely particular to a certain culture, either Asian or American. The American snacks included in the pretest were: Strawberry twizzlers, jelly beans, chocolate chip cookies, popcorn with butter, Rice Krispie Treats, Hershey's milk chocolate kisses, Oreo cookies, cheese doodles, Gold fish cheddar crackers, Lay's potato chips in original flavor, onion ring chips, and M&M milk chocolate candy. The Asian snacks included in the pretest were: Shrimp chips, panda crackers with strawberry filling, roasted peas in wasabi flavor, seaweed cracker, Pocky strawberry covered pretzel sticks, dried squid, chocolate covered gummy beans, Japanese peach gummies, and mini pancake/biscuits. During the pretest, participants were asked to eat one piece and rate the taste, appearance, nutritional value, aroma, sweetness, sourness, saltiness, bitterness, fattiness, greasiness, likeability, and the extent to which the snack reminded them of Asian culture and American culture. Three snacks were selected to be in each condition. The ratings of the snacks were averaged within condition, and they did not differ significantly on taste ($t = 2.5$, ns), appearance ($t = 1.9$, ns), nutritional value ($t = 1.95$, ns), and likeability ($t = 2.26$, ns), but they did differ in their resemblance to American culture ($t = 131.27$, $p < .001$) and Asian culture ($t = 96.79$, $p < .001$) across conditions. The final snacks included in the American condition were Lays potato chips, Oreo cookies, and M&M's candied chocolate. Final snacks included in the Asian condition were seaweed crackers, shrimp fries, and panda crackers with strawberry cream filling.

Procedure

The experiment was held in two adjacent rooms. One included a computer, desk, and chairs. The smaller second room, with a table and laptop, was labeled as "psychology office" by

the door in order to ensure that participants believe that this room is meant to be the experimenter's office. We conducted this study in both rooms to give the illusion that the availability of snacks is part of the norm in the "psychology office". This way, it would reduce participants' suspicions when food is offered during the experiment.

Prior to the arrival of the participant, the experimenter prepared the two rooms. In the experimental lab room, the computer was turned on with the online survey set up and ready to go. In the office-like room, the experimenter randomly assigned the participant to one of the three conditions (American, Asian, or Neutral). After determining the condition, the experimenter counted and weighed a fixed number of snacks assigned to that condition. These snacks were then placed in a round snack tray off to the side on the participant's table. Paper bowls were also intentionally put right next to the snack tray. Excess snacks for the experiment were then put away in a box away from sight from the participant.

The participant was directed to arrive at the experimental room upon signing up for the experiment. The experimenter greeted the participant and asked them to come into the room where the participant was introduced to the study and given the informed consent. The researcher explained that the experiment involved some computer tasks and some writing tasks, beginning with a computer task set up on the computer. The researcher told the participant that she had to leave the room for the sake of privacy, and that the participant should slide a card underneath the door to indicate that she was done with the computer task. This was done so that participants could respond to the measures in the survey in privacy and allowed the experimenter to prepare snacks in the next room. The experimenter left the room and returned when the card was slid underneath the door.

Afterwards, the participant was told that the experimenter needed to set up the next computer task while participants work on something else in the office. The experimenter then led the participant to the office and provided a sheet of paper with the writing task instructions. The writing task was a filler task and required them to describe either a social or non-social event in their lives. The participant was informed that they have 5 minutes to write as much as they would like after reading the instructions. The experimenter said the following to the participant before leaving the room: *“Oh by the way, these are leftovers from a department party. Please have some, I’ve been trying to get rid of them.”* While saying this, the experimenter opened the lid to the snack tray and took 3-4 pieces of snack and announced that she would return in 5 minutes.

The experimenter set the timer for 5 minutes in the first room, emptied the snacks into a container within a box that was away from sight, and set up the next survey. The experimenter walked back to the office room with an emptied snack bowl and placed it on the table after she told the participant to stop writing. They both walked back to the computer room, where the participant was informed that the next task was very much like the first task: completion of a computer survey and sliding the card under the door when finished. During this survey, the experimenter returned to the office room to weigh the food left on the tray and returned the food to where it was left. The experimenter returned to the computer room when the participant was done with the survey and led them again to the office room to do another writing task. The experimenter also took 3-4 pieces of snacks in her snack bowl and said the following before leaving: *“Let me just take some of this to go. K, be back in 5 minutes.”* The process is repeated again. The experimenter and participants returned to the computer room to do the last survey. During this survey, the experimenter also returned to the office room to weigh and count snacks.

After the participant finished the final survey, the experimenter returned and asked the participant if there was anything awkward or that stood out about the experiment. The participant was also asked how they felt about moving between the two rooms, how they felt about the snacks, and if they thought it was a part of the experimental design. After writing their responses down, they were debriefed.

In sum, there were three surveys that were done on the computer in the experimental room and two opportunities to eat during filler tasks. The presentation of cultural cues occurred after the first and the second survey. Cultural identification and BII were assessed in the first survey. Body satisfaction was assessed in the first and third survey. Control variables were assessed at different points which I indicate in detail below.

Measures

Cultural Identification. This measure is the same measure mentioned in Studies 1a and 1b. Using a 6-point Likert item scale ranging from 1 (*very weak*) to 6 (*very strong*), participants rated the following items: “Please rate the strength of your cultural identification with North-American culture” and “Please rate the strength of your cultural identification with Asian culture.” This measure was assessed in the first survey.

Bicultural Identity Integration. This Bicultural Identity Integration scale (Benet-Martinez et al., 2002) consists of 8 items assessing the extent to which participants’ Asian and American identities are compatible or similar. A sample item is, “I feel conflicted between my identity as an Asian and my identity as an American.” These items were rated on a 5-point Likert item scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Reliability was good ($\alpha = .68$). This measure was assessed in the first survey.

State Body Satisfaction. Body Image State Satisfaction (Cash et al., 2002) consists of 6 items that assessed participants' satisfaction with their bodies at that very moment. Participants were asked to rate which statement (or scale point) best described how they felt "right now, at this very moment." Each statement started out with "right now, I feel..." Items were rated on a 9-point Likert item scale. The first item reads:

Right now, I feel (1) extremely dissatisfied with my physical appearance, (2) mostly dissatisfied with my physical appearance, (3) moderately dissatisfied with my physical appearance, (4) slightly dissatisfied with my physical appearance, (5) neither dissatisfied nor satisfied with my physical appearance, (6) slightly satisfied with my physical appearance, (7) moderately satisfied with my physical appearance, (8) mostly satisfied with my physical appearance, and (9) extremely satisfied with my physical appearance.

The second item measured satisfaction with body size and shape, and the third item assessed satisfaction with weight. The fourth item assessed feelings of attractiveness. The fifth item assessed how participant felt about their looks compared to how they usually look, rating from "a great deal worse about my looks than I usually feel" to "a great deal better about my looks than I usually feel." The last item assessed how participant felt about how they look compared to the average person, ranging from "I feel I look a great deal better than the average person looks" to "I feel that I look great deal worse than the average person looks." State body satisfaction was computed by averaging the values of these items, where higher values represent more body satisfaction. The reliability for this scale was good ($\alpha = .73$). State body satisfaction before cultural cue was assessed in the first survey, and state body satisfaction after cultural cue was assessed in the third survey.

Controls

Age. Age of the participant was assessed by asking them how old they were currently. This data was collected during the second survey.

BMI. Body Mass Index was calculated based on participants' reported height and weight using the following formula $(\text{weight (lb)} / [\text{height (in)}]^2 \times 703)$. These data were collected during the first survey.

Food eaten. According to the findings from Vocks, Legenbauer, and Heil (2007), state body satisfaction can be lowered after food intake. In their experiment, the people that were manipulated to drink a milkshake while watching television decreased in state body satisfaction compared to those who did not receive a milkshake. Another study found that merely exposing thin restrained eaters to high caloric food predicted lower body satisfaction compared to those exposed to low caloric food (Fett et al., 2009). Thus, it is important to control for the amount of food eaten when examining state body satisfaction. The amount of food eaten was calculated by subtracting the weight of the food in grams at the end of the experiment from the weight of the food at the beginning. The number represents grams of food eaten during the experiment.

Income level. Body image concerns were previously thought to be relevant only to people belonging to a middle and upper socioeconomic status (SES) groups. However, there is more and more evidence that body image concerns are equally prevalent among all socioeconomic groups (DeLeel, Huges, Miller, Hipwell, & Theodore, 2009; Gard & Freeman, 1996; Streigel-Moore & Bulik, 2007; Walcott, Pratt, & Patel, 2003). For example, Story, French, Resnick, and Blum (1995) found that individuals in lower SES groups were less likely to view themselves as overweight but more likely to diet. They also found that people with higher SES had higher body satisfaction and were less likely to use unhealthy ways to lose weight. However, ethnicity and BMI are often confounded with SES. Most of the high SES participants were low

in BMI and were mostly White and Asian. As such, I controlled for SES by assessing participant's income level. Specifically I asked participants to specify their household income. The categories were: Under \$20,000; \$20,000 - \$50,000; \$50,000 - \$100,000; \$100,000 - \$200,000; Over \$200,000. These data were collected during the second survey.

Results

Descriptives

The sample consisted of 70 first and second generation Asian American female undergraduates (mean age = 18.73, $SD = .99$) from a large Midwest University in the United States. About half of the participants were not born in the U.S. ($n = 34$) and spent an average of 7.85 years ($SD = 6.11$) in the US. However, since years spent in the US was not correlated with body state satisfaction ($r = .17, p = .34$), and due to the small sample size and lack of power, this variable was not included in final analyses. Participants were recruited through the Psychology Subject Pool for partial course credit. Their average BMI was 20.8 ($SD = 2.9$), which was within the normal range (according to the department of Health and Human Services of the National Institute of Health, normal ranges from 18.5-24.9). Most participants were within middle-class income levels from \$20,000 to \$100,000 ($n = 43$) and upper-class income levels of above 100,000 ($n = 24$). Only 3 were reported to be working-class, or income level with \$20,000 or lower.

Hypotheses Testing

Means, standard deviations, and correlations of all variables included in the analyses are reported in Table 8. It was predicted a positive relationship between American cultural identity and body state satisfaction (H1a) and a negative relationship between Asian cultural identity and

body state satisfaction (H1b). Controlling for BMI, I found support for hypothesis 1a; there was a positive relationship between American identity and body state satisfaction in Time 1 ($\beta = .30$, $p = .03$). However, results did not support hypothesis 1b; there was no relationship between Asian identity and body state satisfaction ($\beta = .19$, $p = .14$).

Table 8

Means, standard deviations, and intercorrelations among all variables (independent, dependent and controls) in study 2

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Cue (1 = American 0 = Asian)	.49	.50	--	--	--	--	--	--	--	--
2. Bicultural Identity Integration	3.34	3.34	-.14	--	--	--	--	--	--	--
3. American cultural identity	4.13	1.38	.06	.16	--	--	--	--	--	--
4. Asian cultural identity	4.77	1.07	-.06	.06	-.43*	--	--	--	--	--
5. Body State Satisfaction Time 1	5.17	1.10	-.14	.30*	.22	.08	--	--	--	--
6. Body State Satisfaction Time 2	5.08	1.13	-.12	.20	.21	.05	.82**	--	--	--
7. Amount of food eaten in grams	6.97	9.92	-.09	-.16	-.03	.06	-.12	-.19	--	--
8. Body Mass Index	20.80	2.91	.09	.04	-.04	-.08	-.08	-.16	-.02	--
9. Age	18.73	.99	-.08	-.10	-.22	.09	-.04	-.04	.11	-.15

Note. * $p < .05$, ** $p < .01$

It was predicted that BII interacts with cultural cues to predict body state satisfaction, controlling for BMI, grams of snacks eaten, age, income level and body state satisfaction. A hierarchical regression was run, where BMI, grams of snacks eaten, age, income level, body satisfaction in time 1, cultural cue, BII, and the interaction term cue by BII was regressed on body satisfaction from time 2. BII was centered and cultural cue was not because it was a dummy variable. The interaction was created by multiplying centered BII and cultural cue. Results supported the overall model ($F(7, 69) = 24.28, p < .01$), explaining 73.5% of the variance (see Table 9). There was a main effect of cultural cue ($\beta = .67, p = .05$), showing that those who were presented with the American cue had 1.5 units higher in body satisfaction compared to those presented with an Asian cue—this is pattern suggests that American cues affect body satisfaction in a similar pattern compared to American identification and body satisfaction—showing an assimilation effect, which is consistent with hypotheses 2. The results supported the predicted interaction between BII and cultural cues ($\beta = -.69, p = .05$). The interaction is plotted in Figure 3. Interestingly, the results showed the opposite pattern of what was hypothesized. Those with high BII who were exposed to American cues had lower body state satisfaction compared to those exposed to Asian cues, displaying a cue-inconsistent pattern or a contrast effect. Those with low BII who were exposed to American cues had higher body state satisfaction compared to those exposed to Asian cues, displaying a cue-consistent pattern or an assimilation effect.

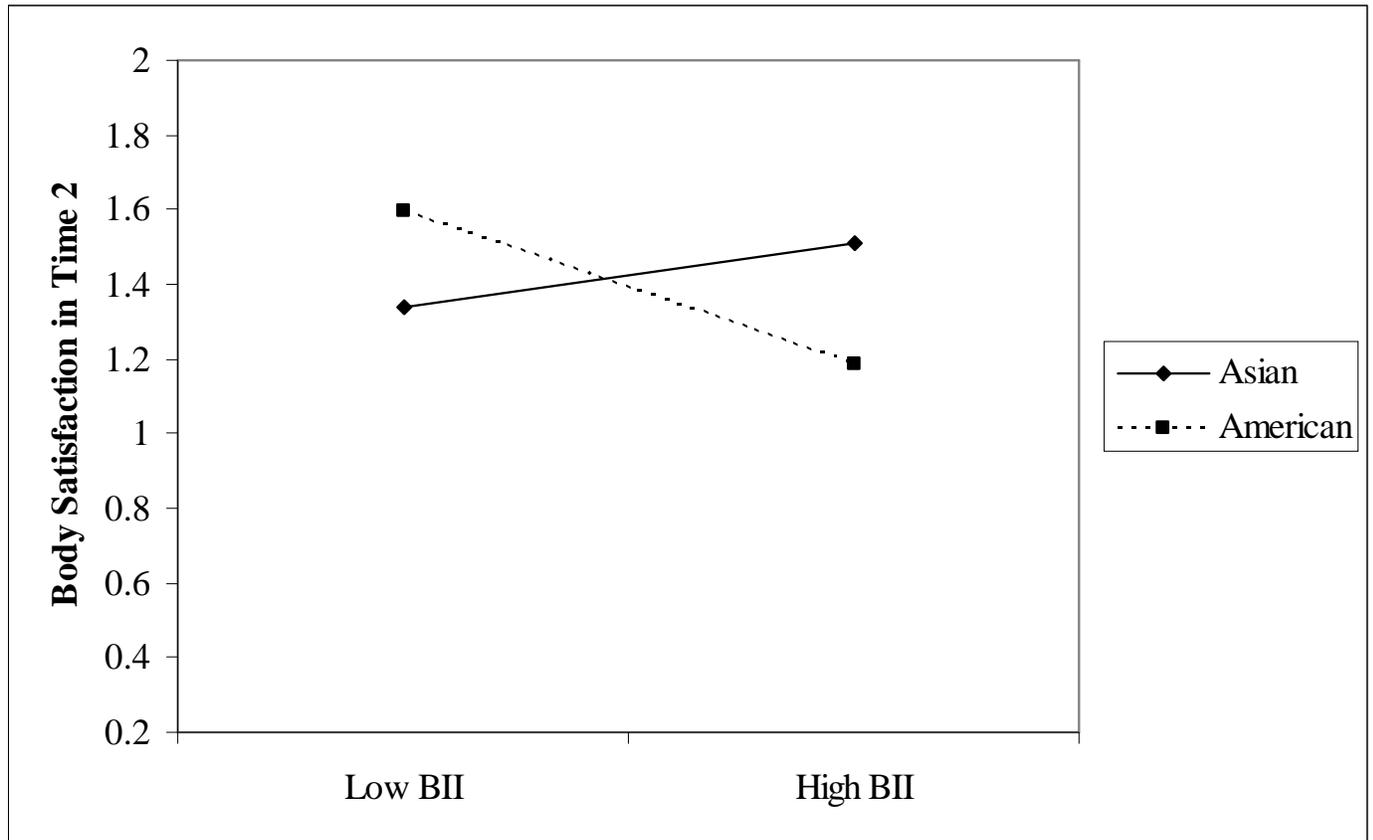
Table 9

Simultaneous Regression Analysis for Variables Predicting State Body Satisfaction in Time 2 for Asian American women (N=70)

Variable	<i>B</i>	<i>SEB</i>	β
Controls			
Body State Satisfaction in Time 1	.80	.08	.78**
Body Mass Index	-.03	.03	-.08
Age	.06	.08	.05
Income level	.12	.08	.11
Amount of food eaten	-.01	.01	-.11
Variables of Interest			
Cultural Cue (1 = American, 0 = Asian)	1.50	.76	.67*
Bicultural Identity Integration	.14	.16	.09
Cultural Cue X Bicultural Identity Integration	-.46	.22	-.69*

Note. $R^2 = .74$. * $p < .05$; ** $p < .01$.

Figure 3



Bicultural Identity as a moderator of the relationship between cultural cue and state body satisfaction

Eating Behavior. Although it is not initially included in main hypotheses, I also examined the amount of food eaten as a behavioral aspect of body image. Past research has examined eating behavior as a behavioral form of body image. For example, Anschutz, Van Striend, and Engels (2008) studied how advertisements in movies affected amount of snacks people ate, and found that advertisements with slim models were related to restrained eating. Krahe and Krause (2010) also found that individuals who saw thin models were more likely to choose a diet snack.

The results showed no difference in amount of food eaten as a function of identification with Asian culture ($\beta = -.06, p = .69$), or identification with American culture ($\beta = -.01, p = .96$). The overall model, while controlling for BMI, was also insignificant ($F(3, 69) = .08, p = .97$). When examining cultural cue and bicultural identity integration as the independent variables while controlling for income, age, BMI, and hunger level, I also found that the overall model was not significant, ($F(7, 69) = .90, p = .51$). Neither cultural cue ($\beta = .07, p = .91$) nor bicultural identity integration ($\beta = -.09, p = .96$) was predictive of food eaten during the experiment. There was also no significant two-way interaction ($\beta = -.16, p = .26$).

Discussion

Several important findings emerged from Study 2. First, I found that American identification was positively related to body state satisfaction. This outcome is consistent with previous findings that Asian Americans who identified with American culture were more likely to be satisfied with their body (Sussman, Troung, & Lim, 2007). As mentioned, several mechanisms might account for this finding: identification with American culture might be related to less self-criticism, and higher levels of self-enhancement, self-esteem, and self-acceptance. Additionally, Americans may have more diverse beliefs about what constitutes an ideal body, and as such find body satisfaction from a wide range of body types. Future studies should further investigate which of these mechanisms best explains the relationship between American cultural identification and body satisfaction. Particularly, understanding the underlying mechanism is important for developing concrete interventions to increase body satisfaction among Asian Americans. For example, interventions might involve improving general self perceptions beyond body satisfaction, exposing women to more positive media images, or changing perceptions of

body ideals to include more diverse, less thin body models. Clearly, these interventions are highly varied in nature, and a deep understanding of the mechanisms underlying this relationship will help the development of impactful and focused interventions.

Interestingly, findings did not support the prediction that identification with Asian culture was negatively related to body satisfaction. It is possible that this null result occurred because the Asian sample of Study 2 included many different ethnic subgroups. My studies grouped all “Asian-Americans” together, even though this group represents many Asian subgroups, and the social, cultural, historical, and economic contexts of these subgroups vary greatly (Akutsu et al., 1996). Importantly, there is reason to believe that ideal body images may vary between these subgroups. For example, compared to other Asian women, Korean women might be more likely to emphasize facial beauty rather than body type, which is reflected in higher incidences of facial plastic surgeries in Korea (International Society of Aesthetic Plastic Surgery, 2011). I was not able to compare ethnic subgroups because of the small sample size of specific subgroups. Future studies are needed that provide detailed analyses between Asian subgroups.

Secondly, using culturally specific foods as a more subtle cultural cue, it is found that generally the participants assimilated or responded consistent to the cues unlike study 1, which used cultural icons as cultural cues. Specifically those who were presented with American cues responded similar to those who highly identified with being American, resulting in an increase in body satisfaction. It is also found that Bicultural Identity Integration or BII moderated the effects of cultural cues on body satisfaction, but in the direction that is opposite of previous studies (e.g., Benet-Martinez et al., 2002). Contrary to expectations, high BIIs responded in a cue-resistant manner, reporting *lower* levels of satisfaction with their body when presented with an American cue compared to an Asian cue. Low BIIs responded in a cue-consistent manner,

reporting *higher* levels of satisfaction with their body when presented with an American cue compared to an Asian cue.

There may be several reasons for the present findings. One study (Cheng et al., 2006) found that when cultural cues were negatively valenced, such as using negative Asian stereotypes and negative American stereotypes as cues, those with low BII were likely to react in a cue-congruent manner and those with high BII were likely to resist the external cue, a similar pattern found in the current study. The authors argued that low BIIs tend to have more negative accultural experiences, and thus negative cultural cues appear less salient as they conform to their expectations. High BIIs, on the other hand, tend to have more positive accultural experiences, and thus negative cultural cues appear more salient as they are discrepant from their own expectations. It is possible that our participants perceive the food cultural cues in this study as negatively valenced, especially when presented along with questions regarding body satisfaction. Also, the food cues used represent relatively unhealthy snacks such as cookies and chips. Future studies should include some positive valenced food cues to better understand these findings.

Although this study did not include Black American women, I expect findings to reflect those similar to Study 1b. Based on the review of literature among Black American women, I would predict that women who are highly identified with Black culture will have higher body satisfaction and those highly identified with American culture to have lower body satisfaction. I would also expect Bicultural Identity Integration to moderate the cultural frame-switching process, although the direction of the interaction is unclear. As mentioned, although Study 2 found that high BIIs contrast and low BIIs assimilate to cultural cues, this might be an artifact of the negative valence attached to food cues.

CHAPTER VI

General Discussion

The studies presented here found consistent evidence showing that culture is strongly linked to body image. First, consistent with previous literature, cultural identification was related to body image. Study 1 found that identification with Asian culture was related to thinner body ideals, and identification with Black culture is related to thicker body ideals. Among Asian Americans, Study 2 found identification with American culture was related to higher body satisfaction.

Second, the results supported the idea that culture is dynamic and socially-constructed. In contrast to early cross-cultural research where culture was considered monolithic (individuals are located in one culture only), stable (unchanging across time and situation), and geographically determined (determined by where one lives), the findings showed culture can be multifaceted such that people activate the values and norms of different cultural groups depending on situational cues (Hong, 2009). Interestingly, these two conceptualizations of culture, internally based on one's level of identification or externally based on situational cues, have different relationships with body image. This finding fills important gaps in the literature; previous studies examining the relationship between culture and body image have not considered the effects of external cultural cues, while research on the dynamic properties of culture have not considered the effects of external cultural cues on body image.

Third, the findings have important practical implications for improving body image among biculturals. To the extent that cognitive and affective components of body image are malleable depending on the cultural context, therapeutic treatments for people with body image issues and eating disorders should take into account both internal and external manifestations of culture (O’Dea, 2004; Park, McSweeney, & Yun, 2009; Schmidt & Treasure, 2006). For example, the relationship between cultural identification and body image observed in this study suggests that biculturals should be aware of how their cultural identification might play a part in their body image. Therapeutic interventions to treat Asian American women, for instance, can be made more effective by heightening their awareness of how their identification with Asian culture may contribute to their body image problems. Similarly, making individuals aware of the influence of external cultural cues on their body image can also be helpful. To the extent that American cues elicit more negative perceptions of body ideals, Asian Americans in situations with salient American cues (such as an Independence Day parade or a baseball game) might be cognizant that these situations can exacerbate body image problems, and thus be more vigilant in actively managing these negative cognitions or affect. These recommendations should be taken with caution, and more research need to be conducted to test any therapeutic interventions to examine long term effects of real-life cultural cues in the everyday lives of bicultural people.

There are several limitations to my studies. First, I only used women biculturals in my studies, and hence, my conclusions may not necessarily apply beyond this demographic. Although recent evidence suggests body image problems are becoming increasingly prevalent for men (Morgan & Arcelus, 2009), body image issues for men are distinct and unique compared to those for women, and they may be differentially influenced by cultural standards of body ideals (Ricciardelli, McCabe, Williams, & Thompson, 2007). For example, Asian American men

who highly identify with American culture are more likely to be dissatisfied with their own bodies because they do not match the typical ideal of the American male body that is bigger and more muscular (Pompper, 2010). As a result, Asian men may encounter the higher levels of stigma in terms of their physical appearance (Wong, Owen, Tran, Collins, & Higgins, 2011). Future studies examine the relationship between culture and body image among bicultural men as well.

It is also important to note that the Asian and Black American samples included in this study is not representative of all ethnic minorities in those groups. For example, I only recruited East and South-East Asian women in my studies, and the results should not be generalized to other Asian women. For example, South Asian cultural values, appearances, and body ideals are vastly different from those of East and South-East Asians. Particularly, the drive for thinness is lower among South Asians such as Indians compared to East Asians such as Japanese (Kayano et al., 2008). Similarly, South Asians such as Pakistani women are more satisfied with their body compared to White women (Mahmud & Crittenden, 2007). As mentioned earlier, a more nuanced approach that takes into account differences between Asian and Black American subgroups should be used in future research.

Another direction for future research is to go beyond Asian and Black Americans to examine other types of bicultural and multi-racial individuals who also have conflicting body image associated with their cultural identities. For example, studies of Latinos/Latinas in the U.S. found that like Black Americans, more acculturated (or more American) Latinas reported higher body dissatisfaction (Gowen, Hayward, Killen, Robinson, & Taylor, 1999; Pepper & Ruiz, 2007). Given theory and research suggesting that Latino cultures prefer a more curvaceous and thicker body ideal (de Casanova, 2004; Goodman, 2002; Pompper & Koenig, 2004), the

results I observed with Black Americans might be replicated with Latina Americans. For example, future research can test the hypothesis that identification with Latino culture may predict thicker ideal figure sizes and higher body satisfaction, and identification with American culture may predict thinner ideal figure sizes and lower body satisfaction.

Another limitation of my studies is the one-item measure that taps into cultural identity. While longer scales exist in measuring cultural identification, these one item has been shown to correlate highly with these longer measures, and also shown to predict culturally relevant behaviors including attributional tendencies, cultural ingroup favoritism, self-construals, and relational patterns (Mok, Morris, Benet-Martínez, & Karakitapoglu-Aygun, 2007; Nguyen & Benet-Martinez, 2007). Given precedence in the literature for operationalizing identification as such, I decided to use the same measure. Based on that, it will be more ideal to use a multi-item measure that taps into different aspects of cultural identification.

Future Directions

I will now review several future studies that will complement the two studies of this dissertation. First, a replication of study 2 with some additions is proposed. In order to evaluate if valence or awareness of cues are the reasons for the directions of our interaction, awareness and valence of food cues can be assessed at the very end (after the assessment of body satisfaction). This can be done by simply asking participants to rate how obvious the food cues were in representing its intended culture, and to rate the extent the food cues were positive or negative. In addition to this simple change to the design of the study, the sample will not only increase at least by two folds, but the sample should only be limited to East Asians. The sample will contain at least 65 participants from each ethnic group (Chinese, Korean, and Japanese). By

doing so, we can test whether Asian identification is related to body satisfaction between different ethnic groups of just East Asian bicultural females.

A second study is proposed to match study 2, similar to the way study 1b did so for study 1a by studying Black Americans and body satisfaction. This study will pretest food cues that represent Black culture first. Then these food cues will be included in the study, similar to study 2, except the Black food cues will replace the Asian food cues. This study will also ask questions regarding how obvious the food cues were in represented the intended culture and the extent the food cues were positive or negative towards the end of the experiment. This study will have to double in size in comparison to study 2 and will be limited to only African American female or Black American females whose family has been in the U.S. for more than 2 generation. By doing so, I am ensuring that the food cultural cues are only tapping into one type of Black culture and not so Carribean or African culture, for example. Lastly, this study will also conclude with a qualitative aspect that inquire participants more regarding the food cues, such as whether they had good or bad memories, whether they felt more Asian or American after seeing or eating the snacks, and whether they felt a change in how they feel about their bodies.

A third and fourth study are proposed to replicate study 2 among different bicultural samples—specifically for South Asian American bicultural females and Latina American bicultural females respectively. Of course, the food cues have to be pretested among each respective group. In addition, a second aspect of proposed study 3 and 4 will replicate study 1a and study 1b by studying images of cultural icons and assessing body ideals. Before doing so, it will be necessary to find and pretest cultural icons for South Asian and Latina culture.

A fifth study is proposed to be conducted among an older generation of Asian American and Black American females. Using a similar design as study 1a and 1b and the second

proposed study, this study will look at women who are 40 and older. For the Asian American middle age women, generation status may confound the results. It is necessary for this study to assess details of generation status and also to recruit enough participants who are both first and second generations in case there are generational differences. More literature review is necessary before making predictions about how this intersection of culture, age, and gender group will response to cultural cues and identification. However, we expect that this group of middle age women may respond different compared to results of the young women in the current studies.

Lastly, a sixth study is proposed to replicate the findings from study 1 and study 2 among bicultural men. The study can start out with Asian American and Black American men—a similar demographic to the current studies. However, a male version of the figure rating scale is needed to assess body ideals among bicultural men. In particular, this study will have figure rating scales that reflect the respective ethnic/cultural group (Asian American male bodies and African American male bodies). There will also be two sets of figure rating scales—one in which ranges from very thin to very fat and one that ranges from very boney to very muscular. Although often missing in most male body image studies, the latter set of the figure rating scale is crucial due to muscularity being a factor to men's body image (for review, see McCreary, 2011).

Conclusion

Overall, the findings have important implications for cultural research and theory. The results showed that cultural psychologists should consider *both* internal and external conceptualizations of culture. This implication is especially true in research on body image, where culture and ethnicity are typically operationalized as subjective, intrapsychic beliefs and

attitudes. As mentioned, culture is frequently measured by asking participants to identify their membership in an ethnic group or by assessing degrees of cultural acculturation (Altabe, 1996; Barnett et al., 2001; Lau et al., 2006). Although these studies might have captured internal culture, the effects of external culture on body image have been largely ignored in the literature. A handful of studies examined how external cues in the media affect body image, but these studies did not focus on cues that have cultural meaning or relevance (Aubrey & Taylor, 2009; Bell, Lawton, & Dittmar, 2007; Ginis, Prapavessis, & Haase, 2008). The current results showed that this is an important omission. Because environments are inundated with cultural cues that prime and activate culturally-bound values and behaviors, understanding the impact of these cues on body image is critical.

More generally, the findings supported the idea that culture is dynamic and socially-constructed. In particular, culture can be: (a) internally represented as a schema of attitudes, values, and belief systems; (b) multifaceted such that people can adopt the values and norms of multiple cultural groups; and (c) malleable depending on situational cues and stimuli. This supports more current psychological frameworks showing that culture is a complex interplay of internal states and environmental influences (Hong, 2009).

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