Culture and Implicit Self-Esteem

Chinese Are "Good" and "Bad" at the Same Time

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One explanation for the lower self-esteem of East Asians is that they have dialectical, or inconsistent, self-esteem in that they endorse both the positively and the negatively keyed items of the Rosenberg Self-Esteem Scale, relative to Euro-Americans. The following research extended this effect to implicit self-esteem. In two studies, Chinese, Euro-Americans (Studies 1 and 2), and Chinese Americans (Study 2) completed explicit and implicit measures of self-esteem. On both types of measures, Chinese scored most highly on various indices of dialectical self-esteem. In Study 2, the explicit self-esteem of Chinese Americans was similar to that of Chinese, but their implicit self-esteem was identical to that of Euro-Americans. In the discussion, we focus on how East Asians come to possess inconsistent self-esteem and pose questions for future research.

Keywords: cross-cultural differences; East Asians; self-esteem; Implicit Association Test; Go/No-Go Association Task

An enduring debate in the field of cultural psychology concerns the universality versus culture-specificity of the need for positive self-regard. In an influential article, Heine and colleagues (1999) reviewed evidence suggesting that, when compared to North Americans, Japanese do not construct or maintain a positive self-view, nor do they

enhance the individual self. For example, Japanese rated various positive traits as less true of themselves than of other Japanese, and rated them as less self-descriptive than Euro-Canadians (Heine & Lehman, 1999). However, Sedikides, Gaertner, and Toguchi (2003) argued that members of individualistic and collectivistic cultures self-enhance but do so tactically—namely, on important attributes. In support of this finding, Japanese and those with a strong interdependent self-construal rated attributes connoting communion (e.g., cooperative) as being more characteristic of themselves than others, while Americans and those with a strong independent self-construal showed this tendency with attributes connoting agency (e.g., self-reliant; see also, Brown & Kobayashi, 2002). Competing meta-analyses of the relevant data have yielded divergent conclusions, depending on which studies are included (Heine & Hamamura, 2007; Sedikides, Gaertner, & Vevea, 2005).

A robust but much less contested cross-cultural finding is that East Asians and Asian Americans show lower self-esteem than Euro-Americans and Euro-Canadians (Heine et al., 1999; Schmitt & Allik, 2005; Twenge & Crocker, 2002). In trying to understand this phenomenon, Spencer-Rodgers, Peng, Wang, and Hou (2004) argued that culturally shaped lay beliefs (or folk theories) about the world play a role. Specifically, East Asian folk theories (i.e., *naïve dialecticism*) are heavily based in Taoism and so include the notion of *contradiction*—that reality is not cut-and-dried but full of contradictions. According to this view, both sides of a contradiction exist in active harmony with each other. When confronted with an apparent contradiction, a compromise approach is encouraged whereby elements of both sides are retained. Western folk beliefs, however, derive in part from Aristotelian rules of formal logic and thus include the law of noncontradiction (i.e., no statement can be both true and false). This view encourages discounting one side of a contradiction and polarizing one's view in favor of the other side (Peng & Nisbett, 1999).

Spencer-Rodgers et al. (2004) reasoned that because members of East Asian cultures are more tolerant of contradiction, they should more comfortably acknowledge both positive and negative aspects of themselves, relative to Westerners. The researchers found that the lower self-esteem of Chinese and Asian Americans, as measured with the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965), was due to greater self-evaluative ambivalence, relative to that of Euro-Americans. Specifically, Chinese and Asian Americans endorsed both the positively- and negatively-keyed items of the scale (i.e., they showed more balance in their ratings), while Euro-Americans endorsed the positively-keyed items and rejected the negatively-keyed items (i.e., they responded consistently).

There is now a growing corpus of research demonstrating that the need for consistency may be specific to Western culture. Consistency is the bedrock for a number of theories in personality and social psychology, and it is assumed to be an important mechanism through which people achieve a sense of coherence and predictability in their lives (Swann, Rentfrow, & Guinn, 2003). However, many basic consistency findings have failed to replicate in East Asian cultural groups. Choi and Choi (2002) found that Koreans expressed more inconsistency in their personality traits and values than did Euro-Americans. Positive and negative affective states are less negatively correlated among East Asian groups, suggesting that they report feeling positive and negative affect simultaneously (Schimmack, Oishi, & Diener, 2002). Finally, standard cognitive dissonance effects often fail to replicate among East Asians (Heine & Lehman, 1997).

Moreover, East Asians do not seem to be troubled by acknowledging inconsistency within themselves. Suh (2002) found that cross-role consistency was a stronger predictor of subjective well-being in the U.S. than in Korea. Campbell et al. (1996) found that self-concept clarity—or the extent to which self-beliefs are clearly defined, stable, and internally consistent—was less strongly related to self-esteem among Japanese than Euro-Canadians. Although Japanese reported a greater difference between their actual and ideal selves, this discrepancy was less strongly related to depression than it was among Euro-Canadians (Heine & Lehman, 1999). Spencer-Rodgers, Boucher, Mori, Wang, and Peng (in press) have suggested that coherence may indeed be a fundamental human motivation but that Westerners achieve this through consistency, whereas East Asians achieve it through equilibrium or balance between competing self-images.

However, an important criticism of these effects stems from their demonstration via explicit measures. In these studies, participants answered self-relevant questions while they were aware of the questions being asked, could reflect on the content of the questions, and could consciously control or monitor their responses. When researchers give their participants self-report measures about their personality traits, emotional experiences, self-esteem, and so on, they assume that people are both able and willing to report accurately about themselves. These assumptions have been called into question (Greenwald & Farnham, 2000), and they may be especially problematic when examining cultural differences in self-beliefs. East Asians' responses to self-report measures may be affected by modesty bias, in which respondents avoid extreme responses (even when these are seen as correct) and prefer moderate ones instead (Chen, Lee, & Stevenson, 1995), or acquiescence bias, in which respondents simply agree with stimulus questions without regard to content (Choi & Choi, 2002). These response biases provide alternate explanations for the extant inconsistency findings among East Asians. For example, Spencer-Rodgers and colleagues' (2004) dialectical self-esteem may simply be due to the fact that East Asians either prefer modest responses or acquiesce to the positively and negatively keyed items of the RSES.

Dialectical Implicit Self-Esteem

The present research seeks to demonstrate that Chinese have dialectical self-esteem (i.e., acknowledging both positive and negative self-aspects), using a methodology that is relatively impervious to self-report biases associated with explicit measures. Implicit attitude measures reflect the growing appreciation that people process social information in a relatively automatic mode (Pelham & Hetts, 1999). Implicit belief systems are outside conscious awareness, control, or intention, or otherwise require few cognitive resources to guide behavior (Bargh, 1994). Greenwald and Banaji (1995) assume that these belief systems are represented as networks of associations that vary in strength among concepts (e.g., self, groups) and attributes (including valenced ones). Thus, self-esteem can be thought of as an association between the concept of self and valence (Greenwald & Farnham, 2000). Importantly, explicit and implicit attitudes are dissociable from one another; that is, someone may express one attitude explicitly but an unrelated attitude when an implicit measure is used. Greenwald and Farnham (2000) found an average correlation of +.17 between implicit and explicit measures of self-esteem.

Cross-cultural psychologists investigating self-evaluation became interested in the idea that people may evaluate themselves differently, depending on the type of measurement used. Perhaps East Asians and Asian Americans show lower self-esteem than Westerners only on explicit measures, because of response biases or cultural norms prescribing the inhibition of assertive self-expression. By this reasoning, East Asians may feel quite positively about themselves, a sentiment that will become apparent only when implicit measures are used. For example, Kitayama and Karasawa (1997) reasoned that the explicit self-criticism that Japanese levy at themselves is matched by implicit self-sympathy. They found that Japanese had positive automatic associations for stimuli associated with the self (e.g., they liked the syllables of their names better than the other letters of the Japanese syllabary). However, this was not a cross-cultural study, so it is unclear how the implicit self-esteem of Japanese compares to that of other groups.

Since the advent of the Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998), research on culture and implicit self-evaluation has flourished. In the self-esteem IAT, one associates the concept of *self* with positive words (i.e., they share a response key) and the concept of *other* with negative words (i.e., they share a different response key); then, the categorization task is reversed (i.e., self is associated with negative words, and other, with positive). The difference in speed while performing these tasks is computed, and the extent to which the former task takes less time is indicative of relatively positive implicit self-esteem (Greenwald & Farnham, 2000). Using the IAT, East Asian groups show positive implicit self-esteem, sometimes at a level comparable to U.S. samples (Kitayama & Uchida, 2003, Study 2; Kobayashi & Greenwald, 2003) and sometimes at a level even greater than U.S. samples (Kitayama & Uchida, 2003, Study 1). Most recently, Yamaguchi and colleagues (2007) argued for the universality of positive implicit self-esteem, possibly arising from internalization of the culturally invariant love, protection, and support that children receive from their caregivers. The researchers found that the implicit self-esteem of American, Chinese, and Japanese participants was uniformly positive.

In the present research, we used a slightly different measure of implicit self-esteem because of two conceptual difficulties associated with the IAT. Nosek and Banaji (2001) point out that the IAT requires two contrasting categories (e.g., self versus other) to which attributes or valences are paired. Because both contrasting categories are present in the judgment task simultaneously, attitudes toward each category cannot be analyzed separately. For the self-esteem IAT, this means that researchers cannot discern whether positive implicit self-esteem is due to the association of self with positive valence, the association of other with negative valence, or some combination of both (Karpinski, 2004). This may be especially problematic when the IAT is used with East Asians, because members of relatively collectivistic cultures draw sharper distinctions in what kinds of feelings are appropriate toward ingroup and outgroup members (Triandis, McCusker, & Hui, 1990). Thus, although Pinter and Greenwald (2005) concluded that the generic concept of other is neutral in valence in the U.S., it could be the case that the generalized other does not have an equivalent meaning in China or Japan, given that it may signal an outgroup and thus generate relatively more negative feelings. Because of this, Yamaguchi et al. (2007) used IATs in which the contrasting category was not *other* but *best friend* and *ingroup*, and they still found evidence for positive implicit self-esteem in their groups (of course, in this case, it is not

clear whether their effects were due to self-enhancement or friend and ingroup derogation). To circumvent this problem, Nosek and Banaji (2001) developed the Go/No-Go Association Task (GNAT), which requires only one category to which attributes or valences are associated. Thus, the self-esteem GNAT consists of separate blocks of trials in which the associations of self with positive and self with negative are measured, without a simultaneous association of those valences with the category of *other*.

Another issue not addressed by IAT research is that the self-esteem IAT is a measure of relative strength of associations, in that a difference score is taken between performance on the two critical IAT blocks (i.e., when self is paired with positive valence minus when self is paired with negative valence). Since the purpose of our research is to show that Chinese have relatively dialectical self-esteem, we wanted to examine both associations separately. Specifically, we hypothesized that Chinese would show greater balance in associating self with positive valence and self with negative valence than Euro-Americans, due to the nature of implicit belief systems. According to Pelham and Hetts (1999), they are naïve, highly experiential systems that develop from the unquestioning internalization of social information (including self-relevant information) over long periods, whether the information is positive, negative, or neutral in valence. Thus, in cultures where negativity about the self is elaborated over the course of socialization, one would expect to find an increased ability to associate the self with negative valence. If this self-negativity is then matched by self-sympathy (Kitayama & Karasawa, 1997), by parental love and adoration (Yamaguchi et al., 2007), or by the Taoist idea of contradiction (Peng & Nisbett, 1999), then one would expect to find an increased ability to associate the self with positive valence.[1] We expected to find this pattern among Chinese relative to Euro-Americans.

Study 1

In an initial test of our hypothesis, Chinese and Euro-American participants completed implicit and explicit measures of self-esteem. For both, we computed self-positivity and self-negativity separately, by taking the implicit association of self + positive and self + negative on the GNAT and scores on the positively and negatively keyed items of the RSES, respectively. Next, we inserted self-positivity and self-negativity into three standard indices of self-evaluative ambivalence, which is the tendency to endorse contradictory self-beliefs simultaneously (i.e., dialectical self-esteem). Higher scores indicate higher levels of self-evaluative ambivalence. We expected Chinese to score more highly than Euro-Americans on each index for both the implicit measure and the explicit measure.

Method

Participants

The 30 Chinese (23 female, *M* age = 21.1) were students at Peking University, and they participated for 8 yuan (about $1). The 34 Euro-Americans (24 female, *M* age = 19.6) were students at Bates College, and they participated for $4.

Materials and Measures

Materials in China were translated into Chinese and back-translated into English by the third author and another bilingual research assistant, and disagreements were resolved through discussion. All tasks were programmed with Inquisit 1.33 (Millisecond Software, Seattle, WA).

Implicit self-esteem. Implicit self-esteem was assessed with a GNAT (Nosek & Banaji, 2001), in which participants associated the category of self (comprising the words *self*, *me*, *my*, *myself*) to positive words (e.g., *smart*, *beautiful*, *success*) or negative words (e.g., *stupid*, *ugly*, *failure*), in separate blocks of trials (words were taken from Greenwald & Farnham, 2000). The target category (e.g., self) and target valence (e.g., positive) was presented on the screen (in the upper-left and upper-right corners), and then a series of stimulus words were displayed beneath. If a particular stimulus word matched either the target category or valence (e.g., the word was a self or positive word), the participant was instructed to hit the space bar as quickly as possible. If the stimulus did not match (e.g., the word was a negative word or some other kind of word), the participant was instructed to ignore the word and not do anything. Participants were given a response window to make each judgment (the window is typically set to be very fast; in the present study, it was 700 ms),[2] and performance over the entire block was aggregated. Because there is a response window, the dependent variable for the GNAT is sensitivity, not response latency. The data are analyzed with the logic underlying signal detection theory (see Results section). In this study, the sensitivity of self + positive was compared with the sensitivity of self + negative.

Explicit self-esteem. Explicit self-esteem was assessed with the RSES, with items rated on a 7-point scale (1 = *not at all*, 7 = *very much*). We also computed positive and negative self-esteem scores with the positively keyed items (e.g., "I take a positive attitude toward myself") and negatively keyed items (e.g., "At times I think I am no good at all"), respectively (see Spencer-Rodgers et al., 2004). Cronbach's alphas were as follows: U.S., overall = .93, positive = .91, negative = .85; China, overall = .84, positive = .67, negative = .79.

Demographics. Demographics included sex and age (and ethnicity in the case of U.S. participants).

Procedure

Participants were run in groups of one to four. Upon arriving to the lab, they were greeted by an experimenter and seated at a table with a computer. Although participants could see each other, they did not interact during the study. All measures were completed on the computer. Participants first completed the RSES,[3] then the GNAT, which consisted of four blocks of trials: one practice block in which participants were instructed to press the space bar for positive words (20 trials); another practice block for negative words (20 trials); a critical block in which participants were instructed to press the space bar for either a self word or a positive word (40 trials); and another critical block for self and negative words (40 trials). The order was counterbalanced (i.e., whether self + positive or self + negative was first). Finally, participants completed the demographics items; after which, they were debriefed, paid, and thanked for their participation.

Results

Implicit Self-Esteem

As mentioned above, GNAT data are analyzed with the logic underlying signal detection theory (Nosek & Banaji, 2001). If the participant (correctly) hit the space bar when either the target category or valence was presented, the response was counted as a hit. For example, in a self + positive block, if the word *me* or *beautiful* was presented and the participant hit the space bar within the response window, the response was counted as a hit (because *me* is in the self category and *beautiful* is in the positive category). However, if the participant (incorrectly) hit the space bar when a nontarget word was presented (e.g., *ugly*), the response was counted as a false alarm.

For each block, the proportion of hits and false alarms was calculated, the proportions were converted to *z* scores, and a measure of sensitivity (i.e., *d'*) for each block was calculated by subtracting false alarms from hits. Thus, higher numbers indicate greater sensitivity in making the specified discriminations (and, thus, better performance). In addition, *d'* values of 0 or less indicate that participants were either unable to discriminate at all or did not follow instructions; thus, they were dropped from further analyses (this happened to one Euro-American and one Chinese).

See Table 1 for sensitivity score means and standard deviations computed for self + positive and self + negative by culture and by *F*, *p*, and partial eta squared (η_p^2) values. The sensitivity scores were analyzed in a $2 \times 2 \times 2 \times 2$ mixed model analysis of variance (ANOVA)—namely, Culture (U.S., China) × Sex (male, female) × Order (self + positive first, self + negative first) × Association Type (self + positive, self + negative)—with the first three as between-subjects factors and the last as a within-subjects factor.

This revealed a main effect of culture, $F(1, 54) = 5.97$, $p < .05$, $\eta_p^2 = .10$, in that Chinese ($M = 2.97$) were more sensitive overall than Euro-Americans ($M = 2.49$). There was an effect of association type, $F(1, 54) = 33.29$, $p < .001$, $\eta_p^2 = .38$, such that participants were more sensitive with self + positive ($M = 3.14$) than with self + negative ($M = 2.33$).[4] Although there was no significant interaction with culture, $F(1, 54) = 1.20$, $p = .28$, Chinese performed better with self + positive and self + negative than Euro-Americans did. Finally, both groups were more sensitive at self + positive than at self + negative: Euro-Americans, $F(1, 29) = 28.09$, $p < .001$, $\eta_p^2 = .41$; Chinese, $F(1, 25) = 9.71$, $p < .01$, $\eta_p^2 = .33$.

We also calculated indices of implicit self-evaluative ambivalence (i.e., the extent to which participants were sensitive at self + positive and self + negative at the same time). A large number of computational formulae have been developed to assess ambivalent attitudes, which can be adapted to measure other kinds of self-beliefs. Although these indices differ somewhat in how they weight the different responses, they are all designed to measure conflict between contradictory beliefs (Priester & Petty, 1996). For example, the indices would indicate that someone who rated himself 7 on *beautiful* and 7 on *ugly* holds highly ambivalent or inconsistent self-beliefs, relative to someone who rates herself as 7 on *beautiful* and 1 on *ugly*. Also, someone who rates himself 7 on *beautiful* and 7 on *ugly* possesses more inconsistent self-beliefs than someone who rates herself 5 and 5.

We used three ambivalence indices (for discussion of each, see Priester & Petty, 1996; Spencer-Rodgers et al., 2004; Thompson, Zanna, & Griffin, 1995): the Similarity Intensity

Table 1
Study 1: Implicit Self-Esteem Results by Culture

Dependent Measure	Chinese M (SD)	Euro-Americans M (SD)	F	p	η_p^2
Self + positive	3.28 (0.73)	2.90 (0.71)	4.26	.05	.07
Self + negative	2.67 (0.77)	2.10 (0.85)	7.76	.01	.12
SIM SEA	4.31 (1.83)	2.89 (1.93)	9.34	.01	.13
CRM SEA	5.13 (1.40)	3.94 (1.47)	9.09	.01	.15
GTM SEA	6.28 (1.32)	4.97 (1.84)	9.78	.01	.14

Note: Error df = 54. SIM = similarity intensity model, SEA = self-evaluative ambivalence, CRM = conflicting reactions model, GTM = gradual threshold model.

Model (SIM), the Conflicting Reactions Model (CRM), and the Gradual Threshold Model (GTM). We computed these indices by taking the sensitivities at self + positive and self + negative and inserting them into the appropriate formula. The SIM formula was $3S - L$, where S is the smaller value and L is the larger value.[5] The CRM was computed as $2 \times S$ and the GTM as $5S^{0.50} - L^{1/S}$. As expected, Chinese scored more highly on each index (see Table 1).

Explicit Self-Esteem

For explicit self-esteem, means were analyzed in a 2×2 (Culture × Sex) between-subjects ANOVA. See Table 2 for means and standard deviations by culture and for F, p, and η_p^2 values. Euro-Americans scored higher on overall explicit self-esteem. Although there was no difference for positive self-esteem, Chinese scored higher on negative self-esteem. We also examined positive and negative self-esteem as the within-subjects factor in a $2 \times 2 \times 2$ (Culture × Sex × Self-Esteem Type) mixed-model ANOVA. This revealed a main effect of self-esteem type, $F(1, 60) = 82.55$, $p < .001$, $\eta_p^2 = .58$, in that participants reported more positive ($M = 5.77$) than negative ($M = 3.07$) self-esteem; a main effect of culture, $F(1, 60) = 7.69$, $p < .01$, $\eta_p^2 = .11$, such that Chinese ($M = 4.59$) scored more highly than the U.S. sample did ($M = 4.25$); and a Culture × Self-Esteem Type interaction, $F(1, 60) = 4.97$, $p < .05$, $\eta_p^2 = .08$. Both Euro-Americans and Chinese scored higher on positive self-esteem than on negative self-esteem, $F(1, 33) = 59.30$, $p < .001$, $\eta_p^2 = .64$, and $F(1, 29) = 32.37$, $p < .001$, $\eta_p^2 = .53$, respectively. Finally, we ran one-sample t tests for each group separately, comparing positive and negative self-esteem against the midpoint of the RSES (i.e., 4). For Chinese, positive self-esteem was significantly over the midpoint, $t(29) = 11.53$, $p < .001$, but negative self-esteem was not, $t(29) = -1.54$, $p = .13$. For Euro-Americans, positive self-esteem was over the midpoint and negative self-esteem was under, $t(33) = 9.94$ and -5.36, respectively, $p < .001$.

We also computed indices of explicit self-evaluative ambivalence, with the means for positive and negative self-esteem inserted into the above formulae. Chinese scored more highly on these indices.

Table 2
Study 1: Explicit Self-Esteem Results by Culture

Dependent Measure	Chinese M (SD)	Euro-Americans M (SD)	F	p	η_p^2
Self-esteem (overall)	5.02 (0.91)	5.68 (1.17)	4.97	.05	.08
Positive self-esteem	5.61 (0.71)	5.94 (1.07)	1.57	.22	.03
Negative self-esteem	3.57 (1.23)	2.57 (1.36)	7.28	.01	.11
SIM SEA	4.46 (2.28)	1.44 (4.26)	8.37	.01	.12
CRM SEA	6.82 (1.80)	4.97 (2.34)	9.51	.01	.14
GTM SEA	7.41 (1.51)	4.70 (3.41)	12.89	.01	.18

Note: Error $df = 60$. SIM = similarity intensity model, SEA = self-evaluative ambivalence, CRM = conflicting reactions model, GTM = gradual threshold model.

Relations Between Explicit and Implicit Measures

Finally, we computed correlations between explicit self-esteem (overall, positive, negative) and implicit self-esteem (self + positive, self + negative) for each cultural group. These tended to be uncorrelated for Euro-Americans (average $r = -.06$) and slightly correlated for Chinese (average $r = .14$). One significant correlation was found among Chinese for self + negative and positive explicit self-esteem, $r(29) = .39$, $p < .05$.[6]

Discussion

Replicating findings from previous research, Chinese scored lower on overall self-esteem and demonstrated evidence of dialectical self-esteem when explicit measures were used (i.e., they scored higher on various indices of self-evaluative ambivalence). More important, this effect was extended to implicit measures. Chinese showed greater sensitivity in associating self with positive words and negative words than Euro-Americans, and they scored higher on self-evaluative ambivalence when measured on an implicit level. Thus, Chinese are more apt to acknowledge positive and negative aspects of themselves on an explicit level, and to show the internalization of positive and negative self-relevant information on the implicit level.

Examining positive and negative implicit self-esteem scores separately helps to resolve a discrepancy in previous research examining culture and implicit self-evaluation. Specifically, Kitayama and Uchida (2003, Study 1) found that implicit self-esteem was higher for Japanese than for Euro-Americans, and Yamaguchi et al. (2007) found that on a self-ingroup IAT Japanese scored more highly than Chinese and Americans did; however, Kobayashi and Greenwald (2003) found no difference, and Hetts, Sakuma, and Pelham (1999, Studies 1 and 2) found that recent Asian immigrants had marginally lower implicit self-esteem than Euro-Americans. It is important to note that part of the explanation for these discrepancies may be that different measures of implicit self-esteem were used: Kobayashi and Greenwald (2003) used a standard computer-administered IAT; Kitayama and Uchida (2003) used one in which participants tapped their left or right knees while a research assistant timed them with a stopwatch; and Hetts et al. (1999) used a lexical decision task, examining whether participants were faster to recognize positively valenced

words as words after presentation with a self-related prime, and a word completion task, examining whether participants completed word fragments with positively valenced words after their personal identity had been primed. But another part of the explanation may be that standard measures of implicit self-evaluation use difference scores as their primary dependent variable. That is, one takes the difference between self + positive and self + negative instead of examining these effects separately. Doing so in the present study revealed that while Chinese had higher positive implicit self-esteem than Euro-Americans (conceptually replicating Kitayama & Uchida, 2003, Study 1; Yamaguchi et al., 2007 [albeit with a different East Asian group]), they also had higher negative implicit self-esteem than did Euro-Americans (conceptually replicating Hetts et al., 1999). Interestingly, had we simply taken a difference score, we would have found no difference (replicating Kobayashi & Greenwald, 2003).

Study 2

Recall that we measured implicit self-esteem with a GNAT, assessing associations between self words and positive and negative trait adjectives (e.g., *smart*, *stupid*). Greenwald and Farnham (2000) made a distinction between affective and evaluative implicit self-esteem, using words with universally pleasant and unpleasant meanings (e.g., *sunshine* and *joy* versus *death* and *vomit*) to measure the former and using highly valenced trait terms (e.g., *smart* and *beautiful* versus *stupid* and *ugly*) to measure the latter. They found that participants had an easier time associating self with positive valence than with negative, irrespective of how implicit self-esteem was assessed. Nevertheless, to establish the robustness of the effects found in Study 1, in Study 2 we used words from the affective version of the IAT.

An additional purpose of Study 2 was to examine the explicit and implicit self-evaluations of not only Chinese and Euro-Americans but also Chinese Americans. This group was selected because of evidence that it is bicultural; that is, it has internalized both prototypical Chinese and U.S. cultural frames (Hong, Morris, Chiu, & Benet-Martínez, 2000). We took care to recruit a group that would be as homogeneous as possible, selecting only those who had been born in the U.S. This study is thus similar to research reported by Hetts et al. (1999), who examined the implicit self-evaluations among Euro-Americans, acculturated Asian Americans, and recent Asian immigrants. The researchers found that the implicit self-esteem of the recent Asian immigrants was lower than that of acculturated Asian Americans and marginally lower than that of Euro-Americans and that these latter groups did not differ from each other. We expected to replicate the findings of this study and find that Chinese Americans who have lived their whole lives in the U.S. would evaluate themselves more similarly on the implicit level to Euro-Americans than to Chinese living in China. Importantly, however, given the findings of Study 1 and previous research indicating the positivity of East Asians' implicit self-beliefs (Kitayama & Karasawa, 1997; Kitayama & Uchida, 2003; Kobayashi & Greenwald, 2003; Yamaguchi et al., 2007), we expected differences between Chinese and the other groups to be more apparent in self + negative. That is, we expected that Chinese living in China would be better at self + negative than Euro-Americans and Chinese Americans, while there would be no group differences in self + positive. We also expected Chinese to score highest on measures of implicit self-evaluative ambivalence, followed by Euro-Americans and Chinese Americans.

We also included an explicit measure of self-esteem and expected to replicate Study 1 showing that Chinese have higher explicit self-evaluative ambivalence than Euro-Americans, and to replicate previous research showing that the self-evaluative ambivalence of Chinese Americans tends to fall in between that of Euro-Americans and Chinese (Spencer-Rodgers et al., 2004). Finally, we included a measure of individual differences in naïve dialecticism, the Dialectical Self Scale (DSS; Spencer-Rodgers et al., 2004; 2007) to examine whether it was associated with cultural differences in explicit and implicit self-evaluation.

Method

Participants

The 85 Chinese (46 female, *M* age = 21.0) were students at Peking University, and they were paid 8 yuan ($1) for their participation. The 75 Euro-Americans (48 female, *M* age = 20.2) and 59 Chinese Americans (42 female, *M* age = 19.6) were students at the University of California, Berkeley, and they participated in partial fulfillment of course requirements. The Chinese Americans indicated that they were born in the U.S. They also cited how long they had been in the U.S., a period that was identical to that reported by the Euro-Americans (*M* = 19.1 years). Eighty-nine percent of the Euro-Americans and 70% of the Chinese Americans indicated that English was their primary language; those who said that English was not their primary language noted the age at which they began to speak English, which was comparable between the two groups (*M* = 6.9 years old for the Euro-Americans, range = 4 -10; *M* = 4.0 for the Chinese Americans, range = 1-6). Ninety-three percent of the Chinese Americans indicated that they were "second generation," in that their parents were not born in the U.S; specifically, the primary home countries were Taiwan (42%), mainland China (24%), and Hong Kong (14%). All U.S. participants indicated that they were fluent in English, an important criterion given that the GNAT is based heavily on language processing.

Materials and Measures

Materials in China were translated and back-translated (as in Study 1), and all tasks were programmed with the Inquisit software program.

Implicit self-esteem. Implicit self-esteem was measured as it was in Study 1, with the exception that instead of trait terms, the words were ones with universal positive and negative meanings (e.g., *rainbow*, *joy*; *vomit*, *death*).

Filler task. For a filler task, participants listed 20 famous people and wrote what they are famous for.

Explicit self-esteem. Explicit self-esteem was measured as it was in Study 1. Positive, negative, and overall self-esteem scores were computed. Cronbach's alphas were as follows: Euro-Americans, overall = .91, positive = .88, negative = .85; Chinese Americans, overall = .90, positive = .83, negative = .86; Chinese, overall = .86, positive = .81, negative = .77.

Naïve dialecticism. Naïve dialecticism was assessed with the DSS, with the 32 items rated on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*). Sample items include "When I hear two sides of an argument, I often agree with both," "I often find that my beliefs and attitudes will change under different contexts," and "I often change the way I am, depending on who I am with." The scale consists of three factors, representing tolerance of contradiction and changing one's cognitions and behavior over time and context. However, we were more interested in examining the relations of the whole scale with our various dependent variables. The DSS has been shown to possess adequate reliability in a variety of samples (alphas from .71 to .86; Spencer-Rodgers et al., 2007). Cronbach's alphas were as follows: Euro-Americans = .90, Chinese Americans = .85, Chinese = .45.

Demographics. Demographic questions included sex, age, and a suspicion probe (no one expressed any) for all participants; in the case of U.S. participants, these questions included ethnicity, primary language, age at which English was learned, whether one was born in the U.S., the amount of time spent in the U.S., and the place of parents' birth.

Procedure

The procedure was identical to that of Study 1, with one exception: After completing the explicit measures (i.e., the DSS and the RSES), participants completed a filler task for 5 min so that the cognitive activation associated with these measures would decay (Bargh & Tota, 1988). They then completed the GNAT (formatted exactly as in Study 1). Finally, they completed the demographic items; after which, they were debriefed, thanked, and paid (in the case of Chinese).

Results

Implicit Self-Esteem

Sensitivity scores for self + positive and self + negative were computed, and participants with d' values less than 0 were removed from analyses (1 Euro-American, 3 Chinese). See Table 3 for sensitivity scores for self + positive and self + negative by culture; for omnibus F, p, and η_p^2 values; and for results of pairwise comparisons. Sensitivity scores were analyzed in a $3 \times 2 \times 2 \times 2$ mixed-model ANOVA—namely, Culture (Chinese, Chinese American, Euro-American) × Sex × Order (self + positive first, self + negative first) × Association Type (self + positive, self + negative) with the first three as between-subjects factors and the last as a within-subjects factor.

This revealed a main effect of association type, $F(1, 203) = 37.20$, $p < .001$, $\eta_p^2 = .16$, such that participants showed greater sensitivity at self + positive ($M = 2.85$) than at self + negative ($M = 2.44$), and a Culture × Association Type interaction, $F(2, 203) = 3.37$, $p < .05$, $\eta_p^2 = .03$.[7] Sensitivity at self + positive and self + negative were examined for each cultural group. This revealed that although there were no differences in self + positive, Chinese were more sensitive at self + negative than were Euro-Americans, $F(1, 155) = 6.49$, $p < .05$, $\eta_p^2 = .04$, and Chinese Americans, $F(1, 140) = 5.61$, $p < .05$, $\eta_p^2 = .04$, who did not differ from each other, $F < 1$. Also, all three groups were more sensitive at

Table 3
Study 2: Implicit Self-Esteem Results by Culture

Dependent Measure	Chinese M (SD)	Chinese Americans M (SD)	Euro-Americans M (SD)	F	p	η_p^2
Self + positive	2.89$_a$ (0.91)	2.76$_a$ (0.68)	2.99$_a$ (0.78)	1.33	.27	.01
Self + negative	2.72$_a$ (0.90)	2.39$_b$ (0.73)	2.35$_b$ (0.93)	4.33	.05	.04
SIM SEA	4.23$_a$ (2.00)	3.62$_b$ (1.54)	3.28$_b$ (1.90)	5.29	.01	.05
CRM SEA	4.94$_a$ (1.66)	4.38$_b$ (1.20)	4.31$_b$ (1.56)	4.02	.05	.04
GTM SEA	6.01$_a$ (2.01)	5.64$_{a,b}$ (1.28)	5.33$_b$ (1.95)	2.70	.07	.03

Note: Error df = 217. For each row, means that do not share a subscript differ at p = .05 (two-tailed). SIM = similarity intensity model, SEA = self-evaluative ambivalence, CRM = conflicting reactions model, GTM = gradual threshold model.

self + positive than at self + negative: Euro-Americans, $F(1, 73) = 30.63$, $p < .001$, $\eta_p^2 = .30$; Chinese Americans, $F(1, 58) = 10.63$, $p < .01$, $\eta_p^2 = .16$; Chinese, $F(1, 81) = 4.35$, $p < .05$, $\eta_p^2 = .05$.

We computed indices of implicit self-evaluative ambivalence as we did in Study 1. Chinese scored more highly than Euro-Americans on all indices—respectively, $F = 9.21$, 5.97, 4.51, all $ps < .05$, $\eta_p^2 = .06$, .04, .03, for SIM, CRM, and GTM—and higher than Chinese Americans in the case of the SIM, $F(1, 140) = 3.82$, $p = .05$, $\eta_p^2 = .03$, and the CRM, $F(1, 140) = 4.83$, $p < .001$, $\eta_p^2 = .03$. The Euro-American and Chinese American SIM and CRM scores did not differ, both $Fs < 1.26$. The GTM scores of Chinese Americans fell nonsignificantly between that of Chinese, $F(1, 140) = 1.52$, $p = .22$, and that of Euro-Americans, $F(1, 132) = 1.10$, ns.

Explicit Self-Esteem

Means were analyzed in a 3 × 2 (Culture × Sex) between-subjects ANOVA. See Table 4 for means and standard deviations by culture; for omnibus F, p, and η_p^2 values; and for results of pairwise comparisons. Euro-Americans scored significantly more highly on over-all explicit self-esteem than Chinese, $F(1, 145) = 21.09$, $p < .001$, $\eta_p^2 = .13$, and Chinese Americans, $F(1, 131) = 8.99$, $p < .01$, $\eta_p^2 = .07$, who did not differ from each other, $F(1, 127) = 1.48$, $p = .23$. This basic pattern held for positive self-esteem, in that Euro-Americans scored higher than Chinese, $F(1, 145) = 9.04$, $p < .01$, $\eta_p^2 = .06$, and Chinese Americans, $F(1, 131) = 9.63$, $p < .01$, $\eta_p^2 = .07$, who did not differ from each other, $F < 1$. Regarding negative self-esteem, Chinese scored more highly than Chinese Americans, $F(1, 127) = 4.02$, $p < .05$, $\eta_p^2 = .03$, and Euro-Americans, $F(1, 145) = 26.49$, $p < .001$, $\eta_p^2 = .16$, while Chinese Americans scored more highly than Euro-Americans, $F(1, 131) = 6.83$, $p < .05$, $\eta_p^2 = .05$. As in Study 1, we examined positive and negative self-esteem as the within-subjects factor in a 3 × 2 × 2 mixed-model ANOVA (Culture × Sex × Self-Esteem Type). This revealed a main effect of self-esteem type, $F(1, 197) = 273.39$, $p < .001$, $\eta_p^2 = .58$, such that participants reported more positive ($M = 5.67$) than negative ($M = 3.14$) self-esteem; a main effect of culture, $F(2, 197) = 8.63$, $p < .001$, $\eta_p^2 = .08$, in that Chinese

Table 4
Study 2: Explicit Self-Esteem Results by Culture

Dependent Measure	Chinese M (SD)	Chinese Americans M (SD)	Euro-Americans M (SD)	F	p	η_p^2
Self-esteem (overall)	4.92$_a$ (0.99)	5.14$_a$ (1.05)	5.69$_b$ (1.02)	11.31	.001	.10
Positive self-esteem	5.52$_a$ (0.97)	5.50$_a$ (0.86)	5.98$_b$ (0.89)	6.96	.01	.07
Negative self-esteem	3.68$_a$ (1.22)	3.22$_b$ (1.38)	2.61$_c$ (1.29)	12.92	.001	.12
SIM SEA	4.53$_a$ (3.12)	3.52$_a$ (3.97)	1.63$_b$ (4.16)	11.15	.001	.10
CRM SEA	6.86$_a$ (1.90)	6.12$_b$ (2.35)	5.11$_c$ (2.37)	11.50	.001	.11
GTM SEA	7.40$_a$ (1.63)	6.40 (2.76)	4.71$_c$ (3.85)	15.09	.001	.13

Note: Error df = 197. For each row, means that do not share a subscript differ at p = .05 (two-tailed). SIM = similarity intensity model, SEA = self-evaluative ambivalence, CRM = conflicting reactions model, GTM = gradual threshold model.

(M = 4.60) scored more highly than Euro-Americans (M = 4.30) and Chinese Americans (M = 4.31); and a Culture × Self-Esteem Type interaction, $F(2, 197)$ = 11.43, $p < .001$, η_p^2 = .10. All groups scored more highly on positive self-esteem than on negative self-esteem: Euro-Americans, $F(1, 73)$ = 197.91, $p < .001$, η_p^2 = .73; Chinese Americans, $F(1, 55)$ = 57.45, $p < .001$, η_p^2 = .55; Chinese, $F(1, 69)$ = 56.67, $p < .001$, η_p^2 = .47. Finally, as in Study 1, we ran one-sample t tests for each group, comparing positive and negative self-esteem against the midpoint of the RSES. For all groups, positive self-esteem was over the midpoint and negative self-esteem was under: respectively, Chinese, $t(70)$ = 13.19 and –2.18, $p < .001$ and .05; Chinese Americans, $t(56)$ = 13.12 and –4.26, both $ps < .001$; Euro-Americans, $t(74)$ = 19.26 and –9.33, both $ps < .001$.

We also calculated indices of explicit self-evaluative ambivalence and found that Chinese scored higher than Euro-Americans no matter what index was used, each $F > 20$, $p < .001$, and $\eta_p^2 > .13$. All scores for Chinese Americans were higher than those of Euro-Americans—respectively, F = 6.93, 5.91, 7.88, all $ps < .05$, η_p^2 = .05, .04, .06, for SIM, CRM, and GTM. Chinese Americans' CRM and GTM scores were lower than those of Chinese, F = 3.94 and 6.51, both $ps < .05$, η_p^2 = .03 and .05, while the SIM score was marginally lower, $F(1, 126)$ = 2.61, p = .11.

Role of Naïve Dialecticism

Means for the DSS were analyzed in a 3 × 2 (Culture × Sex) between-subjects ANOVA, which revealed only a significant effect of culture, $F(2, 200)$ = 8.34, $p < .001$, η_p^2 = .07. Pairwise comparisons revealed that Chinese (M = 4.06) scored significantly higher on the DSS than Euro-Americans (M = 3.65), $F(1, 144)$ = 17.09, $p < .001$, η_p^2 = .10, and Chinese Americans (M = 3.81), $F(1, 126)$ = 7.85, $p < .01$, η_p^2 = .06. Euro-Americans and Chinese Americans did not differ from each other, $F(1, 144)$ = 1.62, p = .21.

We conducted mediational analyses according to the guidelines of Baron and Kenny (1986): First, the independent variable must have a significant effect on the dependent variable. Second, the independent variable must have a significant effect on the mediator.

Table 5
Study 2: Summary of Mediational Analyses for Dialectical Self Scale (DSS)

| | Predictor | | | | | | | |
| | Culture | | DSS | | Culture/DSS[a] | | Sobel's Test | |
Dependent Measure	b	p	b	p	b	p	Δb	p
Explicit self-evaluation								
Self-esteem (overall)	−.31	.001	−.40	.001	−.21	.01	.10	.01
Positive self-esteem	−.21	.01	−.33	.001	−.13	.06	.09	.01
Negative self-esteem	.33	.001	.40	.001	.24	.001	.09	.01
SIM SEA	.31	.001	.44	.001	.21	.01	.10	.001
CRM SEA	.32	.001	.43	.001	.22	.01	.10	.001
GTM SEA	.37	.001	.46	.001	.26	.001	.11	.001
Implicit self-evaluation								
Self + positive	−.05	.44	—	—	—	—	—	—
Self + negative	.18	.01	.16	.05	.20	.01	−.02	.17
SIM SEA	.22	.01	.10	.15	—	—	—	—
CRM SEA	.18	.01	.11	.12	—	—	—	—
GTM SEA	.16	.05	.11	.14	—	—	—	—

Note: DSS = Dialectical Self Scale; SIM = similarity intensity model, SEA = self-evaluative ambivalence, CRM = conflicting reactions model, GTM = gradual threshold model. Dashes (—) indicate where the mediational analysis was terminated because of a failure to fulfill a criterion per Baron and Kenny (1986).
a. Effect of culture after controlling for DSS scores.

Third, the mediator must have a significant effect on the dependent variable, and fourth, the effect of the independent variable must become nonsignificant when controlling for the effect of the mediator. Note that the second criterion has already been met from the analyses with DSS: Culture was significantly related to DSS scores, $b = .28$, $p < .001$. Table 5 presents a summary of the mediational analyses.

Scores on the DSS fully mediated the relationship between culture and positive explicit self-esteem; that is, the direct link between these variables was reduced to nonsignificance when controlling for DSS, and Sobel's test indicated that the drop in beta was significant. DSS scores also partially mediated the relationship between culture and both overall self-esteem and negative self-esteem, as well as each self-evaluative ambivalence index; that is, while the direct link between these variables was still significant when accounting for DSS, Sobel's test indicated a significant drop in beta. Scores on the DSS, though significantly related to self + negative, did not mediate the relationship between this variable and culture. Scores on the DSS were not significantly related to the other implicit variables.

Relations Between Explicit and Implicit Measures

We computed correlations between explicit self-esteem (overall, positive, negative) and implicit self-esteem (self + positive, self + negative) for each cultural group. These tended to be uncorrelated, with an average r of −.02 for Euro-Americans, −.04 for Chinese Americans, and .01 for Chinese.[8]

Discussion

In general, there was support for many of the hypotheses of Study 2. As expected, Chinese scored lower on explicit self-esteem than Euro-Americans and Chinese Americans, and they showed greater explicit self-evaluative ambivalence than these latter groups. The explicit self-esteem of Chinese Americans was similar to that of Chinese, at least with regard to their over-all self-esteem and positive self-esteem. Their negative self-esteem fell in between that of the other groups, and it is most likely because of this that their self-evaluative ambivalence fell in between as well.

Especially interesting were the cultural differences found for implicit self-esteem. Although there were no cultural differences in self + positive, there were striking differences found in self + negative between the cultural groups, with Chinese showing greater sensitivity than Euro-Americans. Chinese Americans demonstrated a pattern more like Euro-Americans (i.e., less negativity than Chinese). As in Study 1, Chinese scored more highly on implicit self-evaluative ambivalence; that is, they showed a greater tendency to associate themselves with positive and negative valence at the same time, as compared to both Euro-Americans and Chinese Americans.

As expected, Chinese scored higher on the DSS than Euro-Americans and Chinese Americans. Also, scores on the DSS either mediated or partially mediated all the explicit dependent variables and predicted sensitivity at self + negative. However, naïve dialecticism did not mediate this latter effect; instead, naïve dialecticism exerted its effects in tandem with nationality differences. It is unclear why this would be the case, although one strong possibility is the low alpha found for the DSS among Chinese. Also, the DSS is an explicit measure and the GNAT is an implicit one, and thus this could simply be another example of the robust finding that explicit and implicit measures generally are not strongly related to each other. Future research should pay attention to the possibility of developing implicit measures of naïve dialecticism (as well as other dimensions of cultural variability) and testing for their effect on implicit outcomes of interest.

General Discussion

This research extends previous work on how culture shapes self-evaluation, by showing that it occurs on the implicit level in addition to the explicit one. Specifically, the two studies reported here provide initial evidence that just as the explicit self-beliefs of members of dialectical cultures contain more inconsistency or contradiction than do those of members of prototypical Western cultures, so too do their implicit self-beliefs. Relative to Euro-Americans (Studies 1 and 2) and Chinese Americans (Study 2), Chinese showed balance in associating themselves with positive and negative valence both on the explicit and implicit level.

The present research has two advantages over previous research that examined the relationship between culture and implicit self-evaluation. First, the GNAT measures a relatively pure form of implicit self-esteem that is uncontaminated by comparisons of the concept of self with other concepts. Because the IAT requires that contrasting categories be present in the judgment task at the same time, it is impossible to tell whether positive implicit self-esteem is due to positive feelings about the self category, to negative feelings toward the other category, or to both—no matter what the other category is. Furthermore, existing IAT

research suggests that the content of the other category matters. Specifically, Yamaguchi et al. (2007) found that Japanese had the highest implicit self-esteem when ingroup was the contrasting category, while Chinese had the lowest. This difference disappeared when friend was the contrasting category. Just as the concept of ingroup may have different meanings in different cultures, so too may the generic concept of other.

Second, examining positive and negative self-esteem separately allows for a more nuanced understanding of implicit self-esteem than that when a difference score is taken between positive and negative self-esteem. Had we used difference scores in Study 1, we would have found no difference between Chinese and Euro-Americans; had we done so in Study 2, the implicit self-esteem of Chinese Americans would have fallen nonsignificantly between that of Euro-Americans and Chinese. Instead, we found that it depended on the kind of self-esteem in question: While Chinese had quite high positive self-esteem their negative self-esteem was quite high too, higher than both Euro-Americans and Chinese Americans. Similarly, while Chinese Americans' positive self-esteem was as high as the other groups, their negative self-esteem was lower than that of Chinese.

This research serves as an important caveat for scholars who are interested in the relationship between culture and self-evaluation. Although the field is not in complete consensus on this issue, many have sought to understand what is perceived to be the low self-esteem of East Asian groups. Whether it be from a self-critical orientation (Heine et al., 1999), modesty or acquiescence (Chen et al., 1995), dialectical folk beliefs (Spencer-Rodgers et al., 2004), and so on, the field has been puzzled by why cultural groups would perceive themselves so negatively. Indeed, much of the research on culture and implicit self-esteem was motivated by the desire to show that these groups have some kind of positive self-esteem, albeit a "secret" one (e.g., Kitayama & Karasawa, 1997).

However, looking at positive and negative self-esteem separately, on both the explicit and implicit level, signals that perhaps the true state of affairs is not as dire as it appears. Specifically, in both studies, on both the explicit and implicit levels, all groups scored more highly on positive self-esteem than on negative self-esteem. For explicit self-esteem, all groups' positive self-esteem was higher than the scale midpoint, and all groups' negative self-esteem was lower (with the exception of Chinese negative self-esteem in Study 1). On the implicit level, the positive self-esteem of Chinese was either greater than (Study 1) or at a comparable level to (Study 2) the other study groups. Thus, what seems to differentiate these groups is not the positivity of self-esteem but the negativity of self-esteem; that is, while Chinese seem to feel as positive about themselves as Euro-Americans, they feel relatively more negative about themselves. Saying this latter point another way, Chinese seem to be less likely than Euro-Americans to deny negative aspects of themselves.[9] To put it simply, relative especially to Euro-Americans, Chinese feel good and bad about themselves at the same time. What can explain this state of affairs?

It makes sense that positive implicit self-esteem would be high for most people, if it is internalized as the result of positive interactions with primary caregivers from the beginning of life (Pelham & Hetts, 1999; Rudman, 2004; Yamaguchi et al., 2007). This could especially be so in the case of China because of its relatively strict family limits, implemented to curb population growth. Since the adoption of the single-child policy in 1979, there has been great concern about the consequences in terms of family spoiling. This has been referred to as the "little emperors" problem or the "4-2-1 syndrome"—that is, the problem

when there are four grandparents, two parents, and just one child (Tobin, Wu, & Davidson, 1989). Indeed, many parents see school as the place where children first learn about self-discipline, responsibility, and structure. In addition, Confucianism emphasizes modesty and devotion to elders (i.e., filial piety; Cai, Brown, Deng, & Oakes, 2007) and could thus be another source of early socialization experiences.

Another explanation can be found in patterns of explicit self-enhancement. Some research suggests that East Asians enhance the individual self, but tactically (Sedikides et al., 2003, 2005). This finding coincides with a growing literature on indirect self-enhancement. For example, although Japanese made external attributions for success, they believed that close others would be more likely to make internal rather than external attributions for their success. Moreover, the expectation of close others' internal attributions was positively correlated with feelings of being understood by them (Muramoto, 2003). An important source of self-worth for Japanese is the trading of compliments with others that are included in the self (Dalsky, Gohm, Noguchi, & Shiomura, 2008). Finally, although Chinese scored lower than Americans on a cognitive measure of self-evaluations (i.e., attributes such as competence), they scored similarly on a measure of affective self-regard (i.e., self-relevant emotions such as pride; Cai et al., 2007). To our knowledge, no research has examined the relationship between implicit self-esteem (which theoretically measures love or affection for the self; Pelham & Hetts, 1999) and either tactical or indirect self-enhancement, or explicit affective self-regard. This promises to be a fruitful area for future research.

Naïve dialecticism also provides an explanation for the relative balance in self-evaluation found in our Chinese samples. Dialectical folk beliefs are based in Taoist spiritual systems and include the notion of contradiction—that both sides of an inconsistency may hold an element of the truth (Peng & Nisbett, 1999). This idea is expressed elegantly by the yin-yang symbol, which embodies the coexistence of the negative, passive, and feminine with the positive, active, and masculine, or the unity between extreme opposites (Peng, Spencer-Rodgers, & Zhong, 2006). When faced with a contradiction, members of dialectical cultures may accept the contradiction as it is, with no need for resolution, or favor a compromise approach whereby elements of both are retained. Thus, Chinese may believe that to balance the scale, positive self-beliefs must be matched by some degree of negativity for the self. Over the course of socialization, this may gain an element of automaticity such that it can be demonstrated implicitly. On the other hand, if one lives in a culture where the individual self is viewed favorably and contradiction is avoided, then implicit and explicit self-evaluations should be overwhelmingly positive. Although we included an individual differences measure of naïve dialecticism and found that it predicted many of our dependent variables, we think it important to assert that it is doubtful that a complex phenomenon such as self-evaluation could ever be explained by a single mediator, and that it is likely that all the factors that we have reviewed in this article (early positive caregiver interactions, self-criticism and self-sympathy, tactical or indirect self-enhancement, belief systems) could interact to produce the cultural differences we have reported.

An important direction for future research is to examine the inconsistency of self-evaluation of Asian Americans. In Study 2, we found that Chinese Americans, though explicitly evaluating themselves like Chinese living in China, implicitly evaluated themselves like Euro-Americans. Although we assumed that our Chinese American sample was relatively homogeneous—due to their being born in the U.S., their being primarily "second generation"

(in that their parents were not born in the U.S.), and the fact that the primary language of the majority was English—we did not include other measures of acculturation or more subjective indices, such as identification as an American. We instead based our assumption of homogeneity on Hong et al. (2000), who argue that extensive exposure to two cultures produces multiple cultural frames, one or the other of which may then be primed or activated depending on the context. The majority of our Chinese Americans had spent their whole lives in the U.S. but were being raised by parents who had been born in places with heavy Chinese influence. This most likely represents the kind of intensive exposure that would result in biculturalism. However, Benet-Martínez, Leu, Lee, and Morris (2002) showed that priming cultural frames is most effective for biculturals who perceive their dual cultural identities to be compatible, instead of opposed to each other. In addition, internalization of both Asian and American culture among Asian Americans has been recently demonstrated on the implicit level (Devos, 2006). Future work should examine the explicit and implicit self-esteem among Asian Americans whose cultural identification has been measured on both the explicit and implicit levels.

Self-consistency has been touted as a human imperative, as a manifestation of a fundamental striving for coherence and meaning in life. Self-consistency is the foundation of many early theories of personality (e.g., Rogers, 1951) and social psychology (e.g., Festinger, 1957), and it has been found to be a strong predictor of self-esteem and well-being in Western culture (Campbell et al., 1996; Suh, 2002). This work is among a growing body of research showing that the striving for self-consistency is not a fundamental motivation but is instead culturally relative (Choi & Choi, 2001; Spencer-Rodgers et al., 2004; Spencer-Rodgers, Boucher, et al., in press; Suh, 2002). Future work needs to be done to uncover whether other properties of explicit and implicit belief systems are universal or culture specific.

Notes

1. From this point on, we refer to the implicit association of self with positive valence as *self + positive* and the association of self with negative valence as *self + negative*.

2. The response windows for the GNAT must be selected carefully, and will differ depending on the nature of the task (Nosek & Banaji, 2001). The 700 ms time window was selected because pilot testing indicated that this particular window was not so fast as to make the task impossible, but not so slow as to create a ceiling effect on performance.

3. Having explicit measures precede implicit ones is a standard practice in the laboratories of implicit social cognition researchers and reflects the suspicion that implicit measures may have more impact on explicit measures than vice versa (see Greenwald & Farnham, 2000). This would be the likely state of affairs if Pelham and Hetts (1999) are correct in their assertion that explicit attitudes change more quickly than do implicit ones.

4. There was an Association Type × Order interaction, $F(1, 54) = 6.05$, $p < .05$, such that performance was better when self + positive was done second and when self + negative was done first. However, there was no three-way interaction with culture, $F < 1$.

5. Thus, in the case of implicit self-esteem, for some participants self + positive could be the S value, and for other participants it could be the L value.

6. As one would expect, explicit positive self-esteem and negative self-esteem were highly negatively correlated: $r = -.83$ and $-.68$, for Euro-Americans and Chinese, respectively, $p < .001$. Self + positive and self + negative were not significantly related for either Euro-Americans, $r = .23$, $p = .19$, or Chinese, $r = .31$, $p = .11$.

7. There was an Association Type × Order interaction, $F(1, 203) = 12.02$, $p < .01$, such that performance on self + positive was better when done first and not different when done second. However, there was no three-way interaction with culture, $F < 1$. There was a main effect of sex, $F(1, 203) = 12.15$, $p < .01$, such that women

($M = 2.82$) were more sensitive than men ($M = 2.48$), as well as a Sex × Order interaction, $F(1, 203) = 4.65$, $p < .05$, such that men performed better when self + positive was done first, although women showed no difference per association type. Because these effects were unanticipated, did not appear in Study 1, and are largely uninterpretable, they are not discussed further.

8. As in Study 1, explicit positive self-esteem and negative self-esteem were highly negatively correlated: $r = -.75$, $-.74$, and $-.61$ for Euro-Americans, Chinese Americans, and Chinese, respectively, $p < .001$. Self + positive and self + negative were significantly related for Euro-Americans, $r = .33$, $p < .01$, and Chinese, $r = .46$, $p < .001$, but not for Chinese Americans, $r = .21$, $p = .11$. However, a moderated regression revealed that these correlations were not significantly different from each other, $b = .17$, $p > .50$.

9. We thank an anonymous reviewer for this phrasing.

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