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In Search of East Asian Self-Enhancement

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A meta-analysis of published cross-cultural studies of self-enhancement reveals pervasive and pronounced differences between East Asians and Westerners. Across 91 comparisons, the average cross-cultural effect was $d = .84$. The effect emerged in all 30 methods, except for comparisons of implicit self-esteem. Within cultures, Westerners showed a clear self-serving bias ($d = .87$), whereas East Asians did not ($d = -.01$), with Asian Americans falling in between ($d = .52$). East Asians did self-enhance in the methods that involved comparing themselves to average but were self-critical in other methods. It was hypothesized that this inconsistency could be explained in that these methods are compromised by the “everyone is better than their group’s average effect” (EBTA). Supporting this rationale, studies that were implicated by the EBTA reported significantly larger self-enhancement effect for all cultures compared to other studies. Overall, the evidence converges to show that East Asians do not self-enhance.

Keywords: *culture/ethnicity; self-presentation; self-identity*

The notion that people are motivated to view themselves positively, that is, to self-enhance, is one of the most widely embraced assumptions regarding the self-concept (e.g., James, 1890/1950; Maslow, 1943; Rogers, 1951; Taylor & Brown, 1988). Decades of research with Western participants document that this is a deeply rooted and pervasive motivation. Evidence for self-enhancement, operationalized as tendencies to dwell on and elaborate positive information about the self relative to negative information, has emerged in a variety of diverse methods, such as tendencies to recall information about successes better than failures (Crary, 1966), tendencies to think of oneself as better than average (Alicke, Klotz, Breitenbecher, Yurak, & Vredenburg, 1995), and tendencies to have stronger implicit associations between

oneself and positive words than between oneself and negative words (Greenwald & Farnham, 2000). The importance of self-enhancement motivations to the field is evident in that these motivations have been integral to theories regarding a wide array of human behavior, for example, prejudice (e.g., Noel, Wann, & Branscombe, 1995), aggression (Baumeister, Smart, & Boden, 1996), relationships (e.g., Murray, Holmes, & Griffin, 1996), mental health (e.g., Taylor & Brown, 1988), self-efficacy (DiPaula & Campbell, 2002), and cognitive dissonance (Steele, Spencer, & Lynch, 1993), to name a few.

The apparent ubiquity of the self-enhancement motive has led to various discussions and theories regarding its adaptive significance. For example, Barkow (1989) submitted that self-esteem was selected to serve as a gauge of subtle changes of the individual’s status within dominance hierarchies. Terror management theory (Pyszczynski, Greenberg, & Solomon, 2004) posits that the self-enhancement motive emerged as an adaptation that serves to stave off the debilitating existential anxieties that come from our fears of our own mortality. Leary and colleagues (e.g., Leary & Baumeister, 2000) proposed that self-esteem is an adaptation that functions as an indicator to detect when our social relationships with others are vulnerable. These divergent theories share a common theme: The pervasive tendencies for people to view themselves positively must serve to increase our fitness, especially

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given the potential costs that individuals must sometimes bear for holding these motivations (e.g., Baumeister et al., 1996; Paulhus, 1998).

However, discerning the adaptive significance of any psychological process is rendered more difficult if the process shows evidence for systematic cross-cultural variability. Cross-cultural variation in the manifestation of a psychological process suggests that theories regarding that process's universality or adaptive significance need to be targeted at a different level of analysis (Norenzayan & Heine, 2005). There recently has been much research suggesting that self-enhancing motivations might be weaker, if not largely absent, among people of East Asian descent (specifically, those that participate in Confucian cultures, such as Chinese, Koreans, and Japanese) compared with Westerners (e.g., Heine, Lehman, Markus, & Kitayama, 1999; Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997; Markus & Kitayama, 1991). This research has emerged from a research tradition in cultural psychology that maintains culture is implicated in psychological processes at a far more fundamental level than what was previously considered (e.g., Markus & Kitayama, 1991; Nisbett, Peng, Choi, & Norenzayan, 2001). The most common pattern of results identified by this research is that Westerners self-enhance significantly more than East Asians and that Westerners show a clear tendency for self-enhancement, whereas East Asians do not. For example, the false uniqueness effect, where people view themselves as uniquely talented, finds clear support with Americans but not with Japanese (e.g., Markus & Kitayama, 1991). Likewise, whereas American students tend to evaluate themselves more positively than they are evaluated by others, Japanese students view themselves significantly less positively than they are viewed by others (Heine & Renshaw, 2002).

Findings such as these have led some researchers to pose theories that self-enhancement motivations might not be psychological universals at the level that they are typically conceptualized. Rather, Heine and colleagues (Heine, 2005a, 2005b; Heine et al., 1999; Norenzayan & Heine, 2005) have suggested that the search for universals needs to be directed at a different level; that is, perhaps people universally have a desire to be viewed as appropriate, good, and significant in their own culture. However, this common underlying motivation may be expressed in Western contexts as a desire for self-esteem and in East Asian cultural contexts as a desire for maintaining face.

A clear challenge to this notion that the self-enhancement motive manifests differently across cultures comes from studies that do not find this general pattern of an absence of self-enhancement among East Asians. For example, Heine and Lehman (1995) identified a highly pronounced unrealistic optimism bias among Japanese in

two studies when they made estimates of the relative likelihood that they would experience a list of future negative life events (although an optimism bias was not evident among Japanese with the other measures in those studies). Kurman (2001) found a clear tendency for Singaporeans to rate themselves as better than the average student from their school with respect to a list of traits. Brown and Kobayashi (2002) and Sedikides, Gaertner, and Toguchi (2003) have also found evidence for a strong self-enhancing bias among Japanese using a similar method. Hence, although much research with East Asians fails to identify self-enhancing motivations, or find pronounced self-critical tendencies, some studies do find striking evidence for East Asian self-enhancement. These findings for East Asian self-enhancement have been interpreted by some as providing evidence that the self-enhancement motive is a universal concern (e.g., Brown & Kobayashi, 2002) and have been used as a springboard for discussions of the evidence for the heritability of self-enhancement or for theories regarding the adaptive significance of this motivation (see Sedikides et al., 2003).

The inconsistent pattern of results that these different studies reveal warrants further consideration. The notion that the self-enhancement motive is not as strong in East Asia is important given the centrality of this motive to Western social psychology. To the extent that this cultural variability is robust and reliable, it suggests that an understanding of self-enhancing motivations must also hinge on cultural variables that are more pronounced in the West than in East Asia (for a review, see Heine, 2003). The existence of a contradictory pattern of results, however, should give us pause in evaluating the question of cultural diversity in motivations.

One alternative account that has emerged in the literature is that the cultural differences in self-enhancement are artifacts because of Western biases in the selection of domains that have been studied (e.g., Brown & Kobayashi, 2002; Heine et al., 1999; Heine & Lehman, 1999; Kobayashi & Brown, 2003; Sedikides et al., 2003; Sedikides, Gaertner, & Vevea, 2005). Specifically, this explanation suggests that East Asians have strong self-enhancing motivations; however, it is evident only in domains that are of sufficient importance to them. One reason why studies rarely find evidence of East Asian self-enhancement, therefore, could be that researchers have tended to fail to ask East Asians about what really matters to them. Although much other research contradicts this alternative explanation (i.e., East Asians show less evidence of self-enhancement in domains that are more important to them; e.g., Heine, Kitayama, Lehman, Takata, et al., 2001; Heine & Lehman, 1999; Heine & Renshaw, 2002; Kitayama et al., 1997), some studies find that East Asians self-enhance more in domains that are of especial importance to them (e.g., Brown & Kobayashi,

2002; Ito, 1999; Kobayashi & Brown, 2003; see Sedikides et al., 2003, for parallel results with Americans). The apparently incompatible results of these studies have led to a conflicting series of articles with bold titles such as “Is There a Universal Need for Positive Self-Regard?” (Heine et al., 1999), “The Self-Enhancement Motive in Collectivistic Cultures: The Rumors of My Death Have Been Greatly Exaggerated” (Brown, 2003), “Pancultural Self-Enhancement” (Sedikides et al., 2003), “Where Is the Evidence for Pancultural Self-Enhancement?” (Heine, 2005b), and “Pancultural Self-Enhancement Reloaded” (Sedikides et al., 2005). A controversy, thus, has arisen in the literature.

At present, therefore, when considering the question of whether East Asians self-enhance, we are left with a puzzling picture of some studies that find evidence in support of this and some studies that do not. Thus far, there has been no explanation offered for why East Asians self-enhance in some designs and not in others or for evaluating the validity of the different experimental designs.

We reasoned that in investigating the question of whether East Asians self-enhance, it is necessary to review the entire published database on this topic. Such a review would provide the potential of identifying patterns of East Asians’ self-enhancement that might emerge with the different methods that have been explored in past research.

META-ANALYSIS OF CROSS-CULTURAL STUDIES OF SELF-ENHANCEMENT

Inclusion Criteria

We conducted a meta-analysis of the published cross-cultural studies that have been conducted on self-enhancement between Westerners and East Asians. We entered the terms *Asian*, *Chinese*, *Korean*, *Japanese*, or *Asian-American* and *self-esteem*, *optimism*, *self-serving biases*, *self-discrepancies*, or *self-enhancement* into PsycINFO and retrieved all of the articles that made it clear in the abstract that they were contrasting Westerners and East Asians on a measure of self-enhancement. The literature search was conducted in July of 2005. Studies that are not included in this review are those that were conducted within a single culture as they do not allow us to investigate effect sizes regarding cultural differences.

A number of the studies include samples of East Asians who were living in the West at the time. There are good theoretical reasons to examine this group separately from the other cultural groups of East Asians living in East Asia and Westerners living in the West, as this sample would seem to have exposure to both East Asian and Western cultural influences. Indeed, much acculturation research demonstrates that with time

spent in a new culture, people come to adopt the ways of thinking of the host culture (e.g., Heine & Lehman, 2004; Kitayama, Duffy, & Kawamura, 2003). Moreover, recent research reveals that when people are primed with ideas from Western culture, they are more likely to think in Western ways (e.g., Hong, Morris, Chiu, & Benet-Martinez, 2000; A. Y. Lee, Aaker, & Gardner, 2000). It would seem that living in a Western culture at the time of the study would expose individuals to an abundant source of Western primes. For the sake of expositional clarity, we refer to the East Asians living in East Asia as *East Asians*, the East Asians living in the West as *Asian Americans*, and the Westerners living in the West as *Westerners*, although we recognize that each of these labels has its own shortcomings.

Calculations of Effects

The effect size calculated was d , which represents the standardized mean difference between two samples. In most of the studies, we were able to obtain sufficient information from the original articles to calculate d . In those that did not, we contacted the authors of the articles to request it, and if they were unable to provide it, we estimated the standard deviations either from reported t or F values with degrees of freedom or from other studies that use comparable methods. Mean differences between two cultural groups were standardized by pooled within-culture standard deviations (Morris & DeShon, 2002). Each of the calculations for d was checked by both authors. In all studies, a positive value for d for the between-culture analyses indicates that the “more Western” group self-enhanced more than the “more East Asian” group, and a negative value for d indicates that the more East Asian group self-enhanced more than the more Western group.

In studies that allowed us to calculate an effect size for self-enhancement within cultures, a positive value for d indicates self-enhancement and a negative value indicates self-criticism. Some of the within-culture effects for self-enhancement were derived from between-subject comparisons (e.g., experiment and control groups) and some were derived from within-subject comparisons (e.g., rating of self and average student). Mean differences were standardized by pooled standard deviations both for the between-subject and within-subject designs (Morris & DeShon, 2002).

Effect sizes were weighted and aggregated by a random effect model, with the software program Comprehensive Meta-Analysis (Borenstein & Rothstein, 1999). With a random effect model, each study in the meta-analysis is seen as a random observation of a population of studies; in this case, cross-cultural studies of self-enhancement. Hence, a random effect model allows us to generalize the findings of the meta-analysis not just to

those studies that are included in the meta-analysis but also to any studies that are drawn from the same population of studies (Rosenthal, 1995).

Aggregated effect sizes were followed up by test for moderator variables. This analysis was carried out by categorizing effect sizes and then comparing their effect sizes. The analysis was conducted by computing heterogeneity statistics (Q_b) that have a chi-square distribution with $p - 1$ degree of freedom, where p is the number of groups being compared (Hedges & Becker, 1986). This analysis indicates the extent to which categories differ from one another, a procedure analogous to that of a t test or ANOVA.

RESULTS

A total of 131 cross-cultural effect sizes and 101 within-culture effect sizes involving more than 33,000 participants and using 31 different methods met these criteria and were included in the meta-analysis. The appendix provides a brief description of the different kinds of methods employed in those studies.

Cross-Cultural Effect Sizes

The effect sizes for the individual studies and the different methods are summarized in Table 1. Cohen (1988) offered the conventions that effect sizes less than .4 are considered small, .4 to .7 are moderate, and those greater than .7 are large. Large effects, he noted, are relatively rare in psychological studies.

First, we considered the effect sizes for the individual studies for the two cultural groups that are most represented in the literature: East Asians versus Westerners. These effects are presented in a funnel plot in Figure 1. The weighted average effect across all 91 comparisons was $d = .84$ (see Table 2). Of the 91 cross-cultural comparisons, 88 were in the direction of Westerners' self-enhancing more than East Asians. Of these 88 effects, 53 were large in size, 28 were moderate, and 7 were small. Eighty-five of these 88 effect sizes were statistically significant, or the corresponding Z value exceeded 1.96. Three effect sizes were in the negative direction, and 1 of them was statistically significant.¹ Looking across methods, the effects were positive for 29 of the 30 different methods. The 1 method that yielded a negative effect size (although nonsignificant) was comparisons of implicit self-esteem using the Implicit Associations Test (Greenwald & Farnham, 2000). The shape of the funnel plot in Figure 1 does not suggest a publication bias for studies that find cultural differences (i.e., a publication bias would be indicated by an asymmetrical funnel and by a trend of the average effect size dropping as

sample size increased). Furthermore, we conducted a file drawer analysis to determine how many studies that were not included in the current meta-analysis would need to be included for the overall effect size to become statistically insignificant, known as the fail-safe N (Rosenthal, 1991). In the present meta-analysis, the fail-safe N was 89,879, which is highly unlikely. In sum, cultural differences in self-enhancement between East Asians living in Asia and Westerners living in the West tend to be large and consistently observed.

Examining the cross-cultural comparisons between the Asian Americans and the other two cultural groups revealed substantial evidence that this sample does occupy an intermediate position. In 14 of the 16 comparisons that included all three cultural groups, the degree of self-enhancement among Asian Americans fell in between that of the other two samples. Of the 22 contrasts between Asian Americans and Westerners, 18 revealed evidence for greater self-enhancement among the Westerners (of which 12 were statistically significant). The average effect size between these two groups was $d = .33$. Of the 18 contrasts between Asian Americans and East Asians, all revealed greater self-enhancement among Asian Americans (average $d = .45$). Among the 18 effect sizes, 11 were statistically significant. Asian Americans, thus, appear to fall intermediate to East Asians and Westerners in terms of their self-enhancing motivations and are slightly closer to the Western mean than to the East Asian one.

Within-Culture Effect Sizes

Table 1 also provides the effect sizes from within each cultural group. We cannot calculate effect sizes within each cultural group for the measures that do not have a clear benchmark with which to compare (e.g., dispositional measures). The within-culture effects demonstrate the strength of self-enhancing and self-critical motivations within each culture. These effects are presented in funnel plots in Figure 2.

First, we can consider the question of whether Westerners self-enhance. The evidence for Western self-enhancement is quite clear, as 45 of the 48 studies yielded a positive effect, of which 44 were statistically significant. In 1 of the studies, there was no effect, and in 2, there were nonsignificantly negative effects (both $d_s = -.10$). The weighted average self-enhancement effect across all 48 comparisons yielded a strong effect of $d = .87$. In sum, we can claim with confidence that Westerners tend to self-enhance, and they do so rather consistently across methods. Such a conclusion is, of course, in line with what much of the Western literature on self-enhancement has been maintaining for some time (e.g., Dunning, 1995; Taylor & Brown, 1988).

(text continues on p. 15)

<i>Studies That Contrast Measures of Self-Enhancing Biases</i>									
<i>Article</i>	<i>East Asian Sample and n</i>	<i>East Asian in North America Sample and n</i>	<i>Western Sample and n</i>	<i>Cross-Cultural Effect (Westerners–East Asians)</i>	<i>Cross-Cultural Effect (Westerners–Asian Americans)</i>	<i>Cross-cultural effect (Asian Americans–East Asians)</i>	<i>East Asian Bias</i>	<i>Asian American Bias</i>	<i>Western Bias</i>
Better-than-average effect (BAE) studies									
Brown & Kobayashi, 2002 (Study 1)	23 Japanese college students	28 Asian American college students	35 Euro-American college students	.63	.47	.19	.75	1.16	1.94
Crystal, 1999	166 Japanese elementary school students	169 American elementary school students	169 American elementary school students	.74			.23		.98
Endo, Heine, & Lehman, 2000 (Study 2)	222 Japanese college students	111 Asian Canadian college students	98 Euro-Canadian college students	1.25	.14	1.08	-.94	.22	.35
Heine & Lehman, 1999	161 Japanese college students	151 Asian Canadian college students	90 Euro-Canadian college students	.81	.60	.23	-.31	-.09	.52
Kobayashi & Brown, 2003	54 Japanese college students	59 American college students	59 American college students	.49 ^a			.80		1.86
Kurman, 2001 (Study 1)	143 Singaporean college students	129 Israeli Jewish college students	129 Israeli Jewish college students	.20			1.20		1.74
Kurman, 2001 (Study 2)	115 Singaporean high school students	144 Israeli Jewish high school students	144 Israeli Jewish high school students	.31			.75		1.22
Kurman, 2003 (Study 1a)	243 Singaporean high school students	227 Secular Israeli high school students	227 Secular Israeli high school students	.70			.54		1.60
Kurman, 2003 (Study 1b)	155 Singaporean college students	144 Israeli college students	144 Israeli college students	1.13			.46		1.94
Kurman & Sriram, 2002	130 Singaporean high school students	144 Urban Israeli high school students	144 Urban Israeli high school students	.80			.38		1.18
Sedikides, Gaertner, & Toghuchi, 2003 (Study 1)	40 Japanese college students in United States	40 Japanese college students in United States	40 American college students in United States		-.08			.82	1.07
Weighted average BAE				.71	.29	.52	.38	.50	1.31
False uniqueness effects									
Heine, Kitayama, & Lehman, 2001	76 Japanese college students	58 Euro-Canadian college students	58 Euro-Canadian college students	.97 ^b			-.47		.52
Heine & Lehman, 1997 (Study 1)	82 Japanese college students	44 Asian Canadian college students	75 Euro-Canadian college students	1.43	.46	.92	.30	1.22	1.89
Markus & Kitayama, 1991	Japanese college students (estimated at 100)	American college students (estimated at 100)	American college students (estimated at 100)	1.08 ^c			.04		1.21
Norasakkunkit & Kalick, 2002	Weighted average false uniqueness	150 Asian American college students	135 Euro-American college students		.55	.92		.63	1.36
Weighted average false uniqueness				1.16	.53	.92	-.04	.91	1.25
Relative likelihood optimism bias for positive events									
Chang, Asakawa, & Sanna, 2001 (Study 1)	241 Japanese college students	236 Euro-American college students	236 Euro-American college students	.44			-.44		.00

Chang, Asakawa, & Sanna, 2001 (Study 2)	249 Japanese college students	220 Euro-American college students	.39	-.49	-.10
Chang & Asakawa, 2003 (Study 1)	160 Japanese college students	140 Euro-American college students	.50	.03	.65
Chang & Asakawa, 2003 (Study 2)	133 Japanese college students	181 Euro-American college students	.51	-.08	.44
Heine & Lehman, 1995 (Study 1)	196 Japanese college students	90 Euro-Canadian college students	1.34	.02	1.12
Weighted average relative likelihood optimism for positive events			.63	-.20	.42
Relative likelihood optimism bias for negative events					
Chang, Asakawa, & Sanna, 2001 (Study 1)	241 Japanese college students	236 Euro-American college students	.57	.42	.95
Chang, Asakawa, & Sanna, 2001 (Study 2)	249 Japanese college students	220 Euro-American college students	.88	.22	1.10
Chang & Asakawa, 2003 (Study 1)	160 Japanese college students	140 Euro-American college students	.99	-.63	.36
Chang & Asakawa, 2003 (Study 2)	133 Japanese college students	181 Euro-American college students	.67	-.43	.24
Heine & Lehman, 1995 (Study 1)	196 Japanese college students	90 Euro-Canadian college students	.65	1.15	1.81
Heine & Lehman, 1995 (Study 2)	105 Japanese college students	110 Euro-Canadian college students	1.18	.78	1.78
Ji, Zhang, Usborne, & Guan, 2004	104 Chinese college students	35 Euro-Canadian college students	-.49	1.22	.61
Weighted average relative likelihood optimism for negative events			.66	.39	.98
Absolute likelihood optimism bias for positive events					
Heine & Lehman, 1995 (Study 1)	196 Japanese college students	90 Euro-Canadian college students	.91	.15	.63
Absolute likelihood optimism bias for negative events					
Heine & Lehman, 1995 (Study 1)	196 Japanese college students	90 Euro-Canadian college students	.52	-.01	.34
Heine & Lehman, 1995 (Study 2)	105 Japanese college students	110 Euro-Canadian college students	2.21	-1.20	.45
Ji, Zhang, Usborne, & Guan, 2004	104 Chinese college students	35 Euro-Canadian college students	.20	.27	.18
Weighted average absolute likelihood optimism for negative events			.98	-.31	.37
Internal (ability) attributions for successes and failures					
Anderson, 1999	198 Chinese college students	193 American college students	.60	-.18	.42
Endo & Meijer, 2004 (Study 2)	35 Japanese college students	37 American college students	.65	.50	1.45
Weighted average internal attributions for successes and failures			.61	.14	.93

(continued)

TABLE 1: (continued)

<i>Studies That Contrast Measures of Self-Enhancing Biases</i>									
<i>Article</i>	<i>East Asian Sample and n</i>	<i>East Asian in North America Sample and n</i>	<i>Western Sample and n</i>	<i>Cross-Cultural Effect (Westerners–East Asians)</i>	<i>Cross-Cultural Effect (Westerners–Asian Americans)</i>	<i>Cross-cultural effect (Asian Americans–East Asians)</i>	<i>East Asian Bias</i>	<i>Asian American Bias</i>	<i>Western Bias</i>
Influence of success and failure on self-esteem									
Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997 (Study 1)	63 Japanese college students	88 Japanese exchange students	102 American college students	.86	.60	.23	-.41	-.18	.44
Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997 (Study 2)	143 Japanese college students		124 American college students	.49			-.30		.19
Kurman, 2003 (Study 1c)	104 Japanese college students		105 Israeli college students	1.70			-.49		1.23
Kurman, Yoshihara-Tanaka, & Elkoshi, 2003	106 Japanese college students		104 Israeli college students	1.94			-.58		1.37
Weighted average influence of success and failure on self-esteem									
				1.24	.60	.23	-.44	-.18	.81
Academic self-enhancement									
Kurman, 2001 (Study 1)	143 Singaporean college students		129 Israeli Jewish college students	.82			-.54		.29
Kurman, 2001 (Study 2)	115 Singaporean high school students		144 Israeli Jewish high school students	.94			-.65		.27
Kurman, 2003 (Study 1a)	243 Singaporean high school students		227 Secular Israeli high school students	.48			.42		.96
Kurman, 2003 (Study 1b)	155 Singaporean college students		144 Israeli college students	.51			.68		1.28
Kurman, 2003 (Study 1c)	104 Japanese college students		105 Israeli college students	1.02			-.04		1.16
Weighted average academic self-enhancement									
				.74			-.02		.79
Persistence following success or failure									
Heine, Kitayama, Lehman, Takata, et al., 2001 (Study 1)	76 Japanese college students		58 Euro-Canadian college students	1.48			-.80		.70
Heine, Kitayama, Lehman, Takata, et al., 2001 (Study 2)	84 Japanese college students		64 Euro-American college students	1.29			-.82		.47
Weighted average persistence following success or failure									
				1.38			-.81		.59
Self-peer evaluations									
Heine & Renshaw, 2002	50 Japanese college students		58 American college students	1.06			-.70		.33

Amount of information necessary to evaluate performance

Heine, Takata, & Lehman, 2000	80 Japanese college students	95 Euro-Canadian college students	.82	-.46	.34
Endo & Meijer, 2004 (Study 1)	77 Japanese college students	100 American college students	1.09	-.17	.92
Heine, Kitayama, & Lehman, 2001	76 Japanese college students	58 Euro-Canadian college students	.54	-.59	-.10

Studies That Compare Dispositional Measures

Article	East Asian Sample and n		Western Sample and n	Cross-Cultural Effect (Westerners–East Asians)	Cross-Cultural Effect (Westerners–Asian Americans)	Cross-Cultural Effect (Asian Americans–East Asians)
	East Asian Sample and n	West Asian in North America Sample and n				
Rosenberg Self-Esteem						
Abe, 2004	161 Japanese college students		165 American college students	.63		
Bush, 2000	480 Chinese high school students		419 American high school students	.45		
Campbell et al., 1996	365 Japanese college students		283 Euro-Canadian college students	.77 ^d		
Chung & Mallory, 1999-2000	157 Chinese college students		78 American college students	1.38		
Endo, Heine, & Lehman, 2000 (Study 1)	173 Japanese college students	124 Asian Canadian college students	76 Euro-Canadian college students	1.10	-.02	1.20
Endo, Heine, & Lehman, 2000 (Study 2)	222 Japanese college students	111 Asian Canadian college students	98 Euro-Canadian college students	1.21	.47	.69
Feather & McKee, 1993	112 Japanese college students		127 Australian college students	1.32		
Heine & Lehman, 1997	82 Japanese college students	44 Asian Canadian college students	75 Euro-Canadian college students	.84	.50	.37
Heine & Renshaw, 2002	50 Japanese college students		58 American college students	1.14		
Heine, Takata, & Lehman, 2000	80 Japanese college students		95 Euro-Canadian college students	1.69		
Jackson, Flaherty, & Kosuth, 2000	35 Japanese college students		47 American college students	1.93		
Kang, Shaver, Sue, Min, & Jing, 2003	141 Japanese college students	150 Asian American college students	170 Euro-American college students	.82	.65	.07
Kang, Shaver, Sue, Min, & Jing, 2003	179 Korean college students	150 Asian American college students	170 Euro-American college students	.74		.14
Kobayashi & Brown, 2003	54 Japanese college students		59 American college students	1.53 ^e		
Kwan, Bond, & Singelis, 1997	194 Hong Kong college students		183 American college students	.53		
Lennon, Rudd, Sloan, & Kim, 1999	202 Korean college students		286 American college students	.80		
Lennon, Rudd, Sloan, & Kim, 1999	99 Singaporean college students		286 American college students	.94		

(continued)

TABLE 1: (continued)

<i>Studies That Compare Dispositional Measures</i>						
<i>Article</i>	<i>East Asian Sample and n</i>	<i>East Asian in North America Sample and n</i>	<i>Western Sample and n</i>	<i>Cross-Cultural Effect (Westerners–East Asians)</i>	<i>Cross-Cultural Effect (Westerners–Asian Americans)</i>	<i>Cross-Cultural Effect (Asian Americans–East Asians)</i>
Ross, Xun, & Wilson, 2002		79 Chinese college students living in Canada ^a	32 Euro-Canadian college students	.19		
Singelis, Bond, Sharkey, & Lai, 1999	271 Hong Kong college students	146 Hawaiian Asian American college students	232 Mainland U.S. college students	.64	.23	.45
Spencer-Rodgers, Peng, Wang, & Hou, 2004 (Study 1)	153 Chinese college students	195 Asian American college students	166 European American college students	.67	.50	.14
Spencer-Rodgers, Peng, Wang, & Hou, 2004 (Study 3)	153 Chinese college students	299 Asian American college students	115 European American college students	.47	.18	.30
Zhang & Norvilitis, 2002	273 Chinese college students		302 American college students	.82	.32	.43
Weighted average Rosenberg Self-Esteem				.94		
Bond & Cheung, 1983	137 Hong Kong college students		Twenty Statements Test			
Ip & Bond, 1995	327 Japanese College Students		169 American college students	.77 ^s		
Kanagawa, Cross, & Markus, 2001	89 Hong Kong college students		169 American college students	1.36 ^s		
Spencer-Rodgers, Peng, Wang, & Hou, 2004 (Study 2)	128 Japanese college students		93 American college students	.48		
Weighted average Twenty Statements Test			133 American college students	1.08		
Arnault, Sakamoto, & Moriawaki, 2005	95 Chinese college students	100 Asian American college students	110 European American college students	.57	.48	.13
Ross, Xun, & Wilson, 2002				.86	.48	.13
			Self-description task			
	79 Japanese college students		50 American college students	1.41		
Davis & Katzman, 1998	309 Hong Kong college students	192 Asian American college students	32 Euro-Canadian college students		.95	
			Index of Self-Esteem			
			Coopersmith Self-Esteem			
Chan, 2000	360 Hong Kong elementary school students	362 U.K. Chinese elementary school students	381 U.K. White elementary school students	.62	-.19	.80
Chiu, 1987	438 Taiwanese 4th to 6th graders		258 U.S. 4th to 6th graders	.40		
Chiu, 1992-1993	432 Taiwanese elementary school students		446 American elementary school students	.41		
Weighted average Coopersmith Self-Esteem				.48	-.19	.80

		Satisfaction with self	
Diener & Diener, 1995	1,200 Japanese college students	1,234 North American college students	.90
Diener & Diener, 1995	241 Korean College Students	1,234 North American college students	.84
Weighted average satisfaction with self			.88
		Actual-ideal self-discrepancies	
Heine & Lehman, 1999	161 Japanese college students	90 Euro-Canadian college students	.53
		Self-placement evaluations	
Hymes & Akiyama, 1991	116 Japanese college students	125 American college students	.84
		Explicit self-evaluations	
Kitayama & Uchida, 2003 (Study 1)	46 Japanese college students	40 American college students	1.01
		Self-Criticism Questionnaire	
Kurman & Sriram, 2002	130 Singaporean high school students	144 Urban Israeli high school students	.45
		Explanatory style optimism	
Lee & Seligman, 1997	312 Chinese college students	257 White American college students	.75
		Tennessee Self-Concept Scale	
Mahler, 1976	490 Japanese college students	75 American college students	1.92
		Marsh Self-Esteem Scale	
Rogers, 1998	390 Chinese high school students	64 U.K. high school students	1.42
		General Self-Worth	
Stigler, Smith, & Mao, 1985	714 Chinese elementary school students	400 American elementary school students	1.43
		Self-Competence Scale	
Lockwood, Marshall, & Sadler, 2005 (Study 2)		47 Asian Canadian college students	.37
Tafarodi & Swann, 1996	302 Chinese college students	343 American college students	1.16

(continued)

TABLE 1: (continued)

<i>Studies That Compare Dispositional Measures</i>			
<i>Article</i>	<i>East Asian Sample and n</i>	<i>East Asian in North America Sample and n</i>	<i>Western Sample and n</i>
		Self-Liking Scale	
Lockwood, Marshall, & Sadler, 2005 (Study 2)		47 Asian Canadian college students	45 European Canadian college students
Tafarodi & Swann, 1996	302 Chinese college students		343 American college students
		Studies that compare implicit self-esteem	
Kitayama & Uchida, 2003 (Study 1)	46 Japanese college students		40 American college students
Kitayama & Uchida, 2003 (Study 2)	121 Japanese college students		40 American college students
Kobayashi & Greenwald, 2003	56 Japanese college students		45 American college students
Weighted average implicit self-esteem			

NOTE: Positive values for cross-cultural effects indicate that the Western sample was more self-enhancing than the East Asian one, whereas negative values indicate that the East Asian sample was more self-enhancing than the Western one. Positive values for enhancement bias indicate overall self-enhancement, whereas negative values indicate overall self-criticism.

a. The samples include only participants who scored in the top or bottom third on self-esteem in their culture.

b. The two conditions were collapsed together.

c. The standard deviations for this analysis were estimated from the comparable analyses from Heine and Lehman (1997).

d. The standard deviations for this analysis were estimated from the comparable analyses from Heine and Lehman (2004).

e. In studies where the same Western sample was compared against multiple East Asian samples (e.g., Diener & Diener, 1995), the size of the Western sample was divided among the individual comparisons in calculating the weighted average.

f. Chinese Canadians born in Canada, Chinese Canadians born in China assigned to English, and Chinese language conditions are all combined together.

g. The standard deviations for this analysis were estimated from the comparable analyses from Ip and Bond (1995).

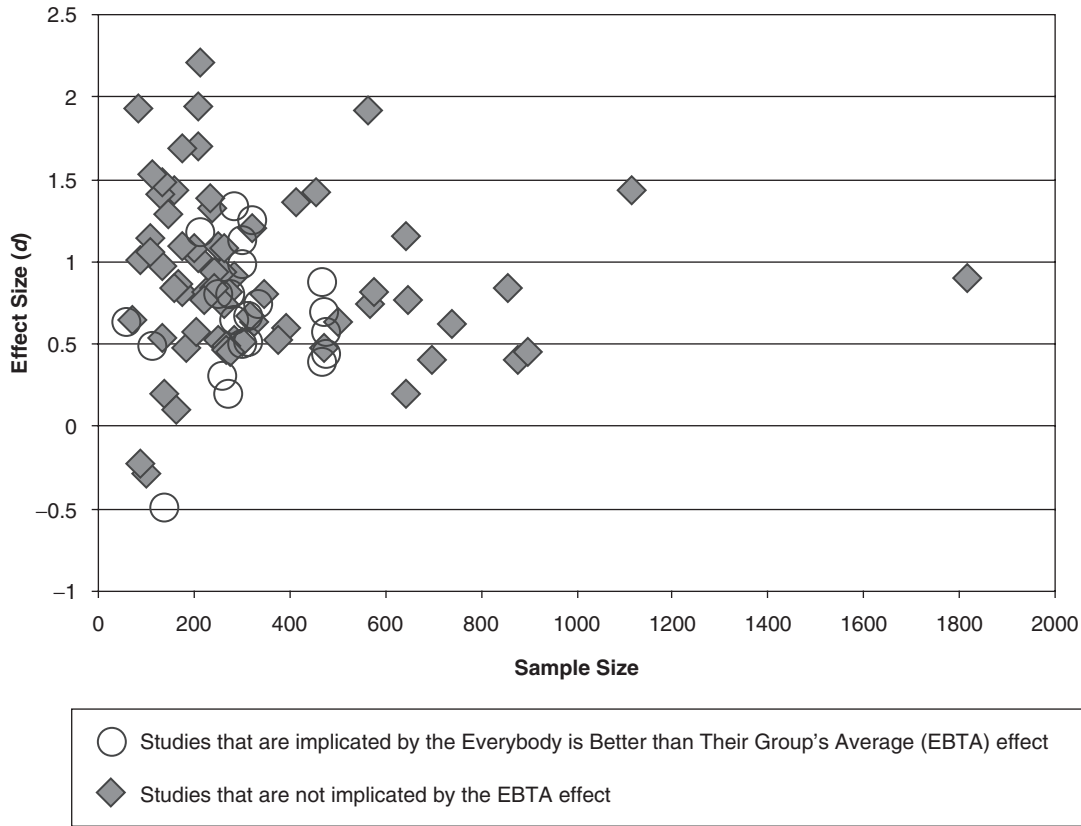


Figure 1 Funnel plots of within-culture effect sizes for measures of self-enhancement biases.

TABLE 2: Summary of the Meta-Analysis

	<i>k</i>	<i>N</i> ^a	<i>SE_d</i>	95% CI		<i>d</i> ^a
Magnitude enhancement bias among East Asians	46	6,290	.09	-.18	.16	-.01
Magnitude of enhancement bias among Asian Americans	7	612	.19	.15	.90	.52
Magnitude enhancement bias among Westerners	48	5,698	.08	.70	1.03	.87
Magnitude of cultural differences between East Asians and Westerners for						
All measures	91	30,075	.04	.76	.92	.84
Enhancement bias	46	11,813	.06	.71	.95	.83
Dispositional measures	42	17,914	.06	.79	1.02	.91
Implicit self-esteem	3	348	.13	-.37	.13	-.12
Magnitude of cultural differences between Asian Americans and Westerners for						
All measures	22	4,930	.07	.20	.46	.33
Enhancement bias	7	1,188	.09	.23	.60	.41
Dispositional measures	15	3,742	.08	.14	.46	.30
Magnitude of cultural differences between Asian Americans and East Asians for						
All measures	18	5,402	.08	.30	.61	.45
Enhancement bias	5	973	.21	.13	.96	.54
Dispositional measures	13	4,529	.09	.25	.59	.42

NOTE: CI = confidence interval.

a. In studies where the same Western sample was compared against multiple East Asian samples (e.g., Diener & Diener, 1995), the size of the Western sample was divided among the individual comparisons in calculating the weighted average.

Second, we can consider the question of whether Asian Americans self-enhance. In five of the seven studies, there was evidence for significant self-enhancement,

whereas in two of the studies, there was nonsignificant evidence for self-criticism. The weighted average effect size was $d = .52$, and this was marginally significantly

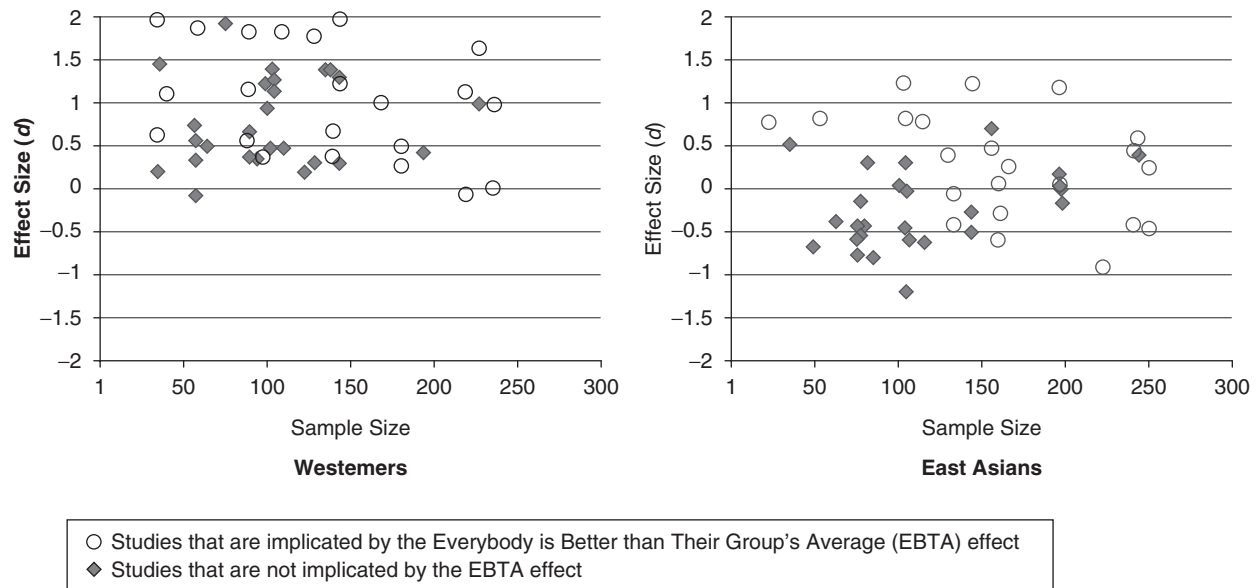


Figure 2 Funnel plot of cross-cultural effect sizes of comparisons of measures of self-enhancement between Westerners and East Asians.

smaller than that of Westerners ($Q_b = 2.65, p = .10$). In sum, Asian Americans appear to self-enhance somewhat, although they do so less consistently, and considerably less in magnitude, than do Westerners.

Next, we can question whether East Asians self-enhance. The answer to this question appears more complicated than it was for the Westerners. Overall, the weighted average of the effect sizes from the 46 studies with East Asians was $d = -.01$, suggesting that they do not self-enhance. Moreover, this effect size was significantly smaller compared to the effect sizes for Westerners ($Q_b = 53.76, p < .001$) or Asian Americans ($Q_b = 6.38, p < .01$). However, this weighted average obscures the great deal of variability in East Asian self-enhancement that existed across methods. Of the 46 comparisons with East Asians, 24 yielded a self-critical effect (of which 20 were statistically significant), whereas 22 yielded a self-enhancing effect (of which 19 were statistically significant). Sometimes East Asians demonstrated very strong effects for self-criticism (the strongest effect being $d = -1.20$), and sometimes they demonstrated very strong effects for self-enhancement (the strongest effect being $d = 1.22$).

Although the East Asian pattern is more variable than the Western one in terms of the percentage of studies in which the effect is positive or negative, East Asian self-enhancement is not more variable than it is for Westerners when considering the variability of the effects (the standard error for East Asians was .09, and for Westerners it was .08), suggesting that there was as much variability in the magnitude of the Western self-enhancement effect across studies as there was for the

East Asian effect. The reason, therefore, why the East Asian effect appears more variable is that it is close enough to 0 that in methods that relatively amplify the magnitude of the effect, it is positive; in those methods that relatively reduce the magnitude of the effect, it is negative—this point is evident in Figure 2. In contrast, the Western effect is so pronounced that it tended to emerge as positive even in the methods that yielded the weakest effects.

The two cultures tended to respond quite similarly in each study; the correlation of the two cultures' effect sizes was $r = .70$ across the different studies. This suggests that the magnitude of the cross-cultural effect remains quite constant, regardless of method. It is important to note that although the different methods that were used across the different studies had relatively little impact on the magnitude of the cross-cultural effects, the different methods had a pronounced impact on the magnitude of the within-culture effects. This suggests that the choice of method has an enormous impact on whether a researcher will detect evidence of self-enhancement in his or her study. In short, the pattern of data warrants a search for moderator variables.

In What Measures Do East Asians Self-Enhance?

There appears to be a pattern for which methods yield the greatest amount of self-enhancement for both cultures. A close inspection of Figure 2 reveals that there were seven instances in which East Asians showed a strong self-enhancement effect (i.e., $d > .70$). All of these

were restricted to 2 specific methods: the “better-than-average effect” (BAE; also known as the self–other bias; e.g., Brown & Kobayashi, 2002) and relative likelihood estimate measures of the “future-is-better-than-average effect” (FBAEN) for negative future life events. Moreover, the weighted average effect size for East Asian self-enhancement was positive for each of these methods ($d = .38$ and $.39$ for the BAE and the FBAEN, respectively²). The only other instance of a method yielding a nominally positive effect size for East Asian self-enhancement was in the single study of absolute likelihood estimates of positive future life events ($d = .15$; Heine & Lehman, 1995). All of the other methods yielded a null effect or an overall self-critical tendency for East Asians. The weighted average effect for East Asian self-criticism for the 12 methods ($k = 29$) other than the BAE and the FBAEN was $d = -.24$, which was significantly smaller compared to the effect size obtained from studies that use either the BAE or FBAEN method ($k = 17$), $Q_b = 12.75$, $p < .001$. In sum, East Asians tend to self-enhance in the BAE and FBAEN but not in other designs. Figure 2 does not reveal the typical funnel-shaped pattern of findings for any of the cultural groups, unlike the between-cultural effects summarized in Figure 1. This is likely because of the large variety of the different methods that were used to study self-enhancement that are summarized in Table 1. The different shapes of the patterns of findings in Figures 1 and 2 are further evidence that the choice of method dramatically affects the amount of self-enhancement that is detected but has less impact on the magnitude of the cross-cultural difference in self-enhancement. Moreover, the shape of the plots in Figure 2 does not suggest a publication bias for findings of self-enhancement or self-criticism in any of the cultural groups (i.e., the effects did not vary systematically by sample size; nor are either of the two plots asymmetrical).

Given the high correlation between the two cultures' effect sizes, it is not surprising that Westerners also self-enhance more in the BAE and the FBAEN methods (see Figure 2). These 2 methods yielded some of the strongest effects for Westerners ($d = 1.31$ and $.98$, for the BAE and FBAEN, respectively). The weighted average self-enhancement effect for Westerners for the other 12 methods ($k = 30$) was significantly smaller ($d = .68$, $Q_b = 9.83$, $p < .01$). The BAE and the FBAEN yield stronger self-enhancement effects than the other methods, for both cultures.

Considering the BAE and the FBAEN Methods

In evaluating the question of whether East Asians self-enhance, the particular method, thus, is an important variable for consideration. Why do East Asians show clear evidence for self-enhancement in the BAE

and FBAEN paradigms but not in other ones? One possibility is that the BAE and the FBAEN are reasonably accurate methods to determine the strength of self-enhancement, whereas the other methods are artificially suppressing the full extent of individuals' self-enhancing motivations. This possibility would suggest that East Asians genuinely possess self-enhancing motivations, albeit weaker than those of Westerners, and the BAE and the FBAEN are the only methods that are sensitive enough to reliably detect them. Although we submit that none of the self-enhancement measures are problem free (e.g., one could challenge the validity of the benchmark of peer evaluations used in Heine & Renshaw, 2002, or one could question whether persistence on tasks that lead to success, as used in Heine, Kitayama, Lehman, Takata, et al., 2001, is a strong test of self-enhancement), it seems unlikely to us that the divergent set of methods that have been applied to the question are systematically underestimating the degree of self-enhancement. An alternative possibility is that the BAE and the FBAEN are artificially inflating people's self-enhancement, whereas the other methods are providing reasonably accurate assessments of people's motivations (despite these methods' idiosyncratic shortcomings). To the extent this possibility is true, it suggests that East Asians do not possess self-enhancing motivations, and they appear to possess them only in the BAE and the FBAEN methods because of the artifacts inherent in these designs.

Everyone is better than their group's average (EBTA). Some research maintains that the BAE and the FBAEN designs do not measure self-enhancing motivations per se but instead reveal cognitive biases regarding how people process singular versus distributional information (cf., Kahneman & Tversky, 1973). Klar, Giladi, and colleagues (Giladi & Klar, 2002; Klar & Giladi, 1997, 1999; Klar, Medding, & Sarel, 1996) have proposed one cognitive mechanism that plays an important role in the BAE and the FBAEN designs. This is the tendency for people to believe that EBTA. That is, it is not just the case that people view themselves to be better than average; they also view randomly chosen specific others as better than average (e.g., Klar & Giladi, 1997, 1999). Klar and Giladi (1997) argued that in making a comparative judgment between a singular target and a generalized target, people fail to adequately consider the qualities of the more abstract, generalized target. As such, people's comparative evaluations reflect their absolute evaluations of the singular target, which is themselves in the BAE and FBAEN designs. This means that people will tend to view desirable objects as better than average, whereas they view undesirable objects as worse than their group's average (Giladi & Klar, 2002; Klar & Giladi, 1997). Their

evaluations largely ignore the distributional target to which they are supposed to compare themselves.

The potential cognitive biases associated with the BAE have been known for some time. Sears (1983) identified a “person positivity bias” in which any randomly chosen individual was seen to be better than average. Alicke et al. (1995) found that the BAE was attenuated dramatically if instead of comparing themselves to a generalized target, people instead compared themselves to a randomly chosen singular target. Giladi and Klar (2002) demonstrated that this EBTA effect is not restricted to social judgments. For example, people view a randomly selected soap fragrance to be more desirable than its group average. It would be absurd to conclude that people are viewing randomly selected objects and others to be better than average because of self-enhancing motivations. Although the EBTA effect is implicated in BAE studies, it is not the sole cause of significant effects in those studies. In addition to this cognitive component, there is a motivational, self-enhancing component that is involved in judgments that the self is better than average. For example, although the BAE is reduced when individuals compare themselves with specific others, Americans still tend to view themselves more positively than they view specific others (Alicke et al., 1995). Judgments of how the self is better than average, thus, can be seen as being composed of the cognitive bias involved in comparing a singular target to a distributed one and a motivational bias to view the self positively (Giladi & Klar, 2002).

Similar to the BAE method, the FBAEN method requires participants to evaluate themselves (this time in terms of their likelihood of experiencing future negative life events) in contrast to a generalized target, usually the average person from their school. As such, the same cognitive difficulties in comparing a singular target to the generalized target should contaminate people’s relative likelihood estimates of future life events. That is, people should view unlikely events to be unlikely to happen to them, leading them to indicate that their likelihood is “less than average.” For example, Klar et al. (1996) found that people viewed a randomly chosen specific target to be less likely to experience a future negative event than the generalized target of the average peer. Furthermore, because the optimism bias in relative likelihood estimates of future life events is negatively correlated with event frequency (this is because people base their relative likelihood estimates on their own perceived likelihood and largely ignore the likelihood of others; Klar et al., 1996; Price, Pentecost, & Voth, 2002), the EBTA effect is much weaker for estimates of positive future life events (which tend to be much more common kinds of events; the average likelihood estimates are greater than 50%; e.g., Heine & Lehman, 1995; Price et al., 2002; Weinstein, 1980).

Consistent with the reasoning that the FBAEN method contains an important cognitive component (the EBTA effect) that is not implicated in other methods of unrealistic optimism (for a discussion, see Heine & Lehman, 1995; Price et al., 2002), other research on unrealistic optimism reveals a much weaker bias for members of both cultures. Although Table 1 reveals that the weighted average effects in the FBAEN design were $d = .39$ and $.98$ for East Asians and North Americans, respectively, the effects were smaller for the other measures of unrealistic optimism (the weighted average effects across the other unrealistic optimism studies were $d = -.19$ and $.41$ for East Asians and North Americans, respectively). These differences were significant, $Q_b = 4.26$, $p < .05$ for East Asians and $Q_b = 4.78$, $p < .05$ for Westerners. East Asians have demonstrated significant unrealistic optimism biases using FBAEN methods only. They have not been found to show significant unrealistic optimism for positive events (E. C. Chang & Asakawa, 2003; E. C. Chang, Asakawa, & Sanna, 2001; Heine & Lehman, 1995) or for absolute likelihood estimates of future life events (Heine & Lehman, 1995). In contrast, Westerners have been found to show unrealistic optimism for not only negative events but also positive ones (E. C. Chang & Asakawa, 2003; Heine & Lehman, 1995; Weinstein, 1980; but see E. C. Chang et al., 2001, for a curious exception), as well as for both relative likelihood and absolute likelihood estimates (Heine & Lehman, 1995; Weinstein, 1980).

Some evidence that the EBTA effect is behind the significant self-enhancing tendency among East Asians for the FBAEN design can be seen in two studies in the meta-analysis. Unlike the other cross-cultural studies of the FBAEN, E. C. Chang and Asakawa (2003) had participants evaluate their relative likelihood of experiencing future events compared with a sibling, rather than the average student from their school. Although a sibling is not a random target, as has been explored in other studies of the EBTA effect, it is a specific target. Consistent with the predictions that East Asian self-enhancement in the FBAEN is driven by the EBTA effect, and not a motivation for self-enhancement, East Asians demonstrated evidence for unrealistic pessimism when comparing themselves to a sibling (average $d = -.53$), although they were unrealistically optimistic in the studies that had them compare themselves to the average student (average $d = .76$), and the difference was significant, $Q_b = 32.37$, $p < .001$. The Westerners showed a similar pattern in that their self-enhancement was much weaker when comparing themselves to a sibling (average $d = .29$) than when comparing themselves to the average student (average $d = 1.26$), and the difference was significant, $Q_b = 21.42$, $p < .001$. These findings are consistent with the notion that the EBTA effect amplifies the FBAEN bias, and it raises the

possibility that East Asians do not show self-enhancement in the FBAEN when they compare themselves with a concrete target. It remains to be seen, however, whether East Asians would show a significant optimism bias in the FBAEN when they compare themselves to a concrete target with whom they do not have a relationship.

In sum, significant East Asian self-enhancement has thus far been observed only in studies that use the BAE and FBAEN methods. Although the possibility exists that the BAE and the FBAEN are especially sensitive measures of self-enhancement motivations, this conclusion loses plausibility given that the BAE and the FBAEN are the only two methods shown to be influenced by the EBTA effect. We submit that the magnitude of East Asian self-enhancement using these methods would be more accurately estimated if we adjusted these methods so that they no longer implicated the EBTA effect.

Is the EBTA Effect Driving the Self-Enhancement of East Asians in the BAE and FBAEN?

In a preliminary effort to address this question, Hamamura, Heine, and Takemoto (2006) sought to test whether self-enhancement effects in studies employing the BAE and FBAEN methods are artificially inflated by the EBTA effect. In two studies, Japanese and Canadians were asked to evaluate themselves and the average other with respect to a list of positively valenced traits (using the identical list of traits that were employed by Brown & Kobayashi, 2002), as well as to estimate their likelihood of experiencing a number of negative life events (using the same events from Heine & Lehman, 1995). Replicating the findings of the meta-analyses, in both studies, all cultural groups showed significant self-enhancement in both methods. However, Hamamura et al. also asked participants to make comparable evaluations for a random stranger. Participants here showed evidence for the EBTA effect, as they viewed the random other in more positive terms than the average other. When the EBTA effect was circumvented, however, Japanese were no longer self-enhancing but were significantly self-critical. That is, they evaluated themselves less positively than the random other. The European Canadians were also less self-enhancing when the EBTA effect was circumvented than when it was not; however, they remained significantly self-enhancing.

In a related manner, research reveals conflicting results on whether East Asians tend to self-enhance more for important compared with unimportant traits. Those studies that employ the BAE methodology (e.g., Brown & Kobayashi, 2002; Kurman, 2001; Sedikides et al., 2003; Sedikides et al., 2005) find evidence that there is a positive correlation between the importance of a trait and the degree to which East Asians self-enhanced,

whereas studies that employ other methodologies tend to show significant negative correlations (for a meta-analysis of all relevant studies, see Heine, Kitayama, & Hamamura, in press). Hamamura et al. (2006) also tested whether the positive correlations between importance and self-enhancement found in BAE studies were driven by the EBTA effect. Their reasoning was that to the extent people view specific others as better than average because of the EBTA effect, they should rate specific others as better than average especially for those traits that are most positive. Positive evaluations of people and objects are most afforded by traits that are especially valenced, and this suggests that the EBTA effect should be especially pronounced for the most positive traits. In support of this reasoning, Hamamura et al. found that although there was a positive correlation between trait importance and self-enhancement in BAE studies, it was significantly reduced when the EBTA effect was controlled for. It is notable that the positive correlation remained significant for European Canadians after the EBTA effect was controlled, but the Japanese correlation was no longer significant.

GENERAL DISCUSSION

The question of whether people self-enhance to a similar extent across cultures is an important one for any theory regarding why people are motivated to view themselves positively. The extent of this cultural variation is striking: 88 of 91 studies in the present meta-analysis reveal that East Asians self-enhanced less than Westerners, and the effect sizes were large ($d > .70$) for 58% of those comparisons. The cultural differences emerged across all of the 30 different methods except for an implicit measure of self-esteem using the Implicit Associations Test. Although the magnitude of the within-culture effects varied enormously across method, the magnitude of the effect for East Asians was strongly correlated ($r = .70$) with the magnitude of the effect for Westerners. This correlation demonstrates that the divergent methods are tapping into similar processes in both cultural groups and that the cultural differences remain robust despite method variance. That Asian Americans tended to display self-enhancing tendencies in between the other cultural groups is further evidence that culture shapes these motivations.

Although the meta-analysis revealed that Westerners self-enhance more than East Asians, it is possible that East Asians show a significant and reliable motivation to self-enhance as well, albeit in attenuated form. Such a pattern would suggest that the self-enhancement motive is indeed universal but that its magnitude is influenced by cultural factors (cf. Brown & Kobayashi, 2002; Sedikides

et al., 2003). Clear evidence for East Asian self-enhancement emerged in only two of the methods that have been explored in past research: the BAE and the FBAEN. The other methods that have been employed have revealed either null effects or significant self-criticism among East Asians. That East Asian self-enhancement emerged only in the BAE and the FBAEN methods, and not in other designs, suggests that the effects might not be because of self-enhancing motivations, as both of these methods have been shown to be confounded by a significant cognitive component, namely, the EBTA effect (Giladi & Klar, 2002; Klar & Giladi, 1997, 1999; cf. Sears, 1983). Indeed, when the EBTA effect was circumvented in two studies by Hamamura et al. (2006), East Asians no longer showed significant self-enhancement in either the BAE or the FBAEN designs, although we acknowledge that it is certainly possible that there is more to the East Asian self-enhancement effect in these designs than the EBTA effect. We welcome further research on the topic of the specific methods in which East Asians show significant self-enhancement.

Alternative Accounts for East Asian Self-Enhancement

The studies presented in the meta-analysis converge on the finding that East Asians self-enhance significantly less than Westerners and that East Asian self-enhancement appears in a limited number of methods. However, the challenges inherent in operationalizing self-enhancement, and in conducting meaningful cross-cultural comparisons, behooves us to be cautious before accepting the conclusion that self-enhancing motivations are weaker, or largely nonexistent, among East Asians. Below we discuss three alternative accounts for why East Asians self-enhance so much less than Westerners.

Self-enhancement of individuals or groups? One account not addressed in any of the analyses included in the meta-analysis was whether East Asians might enhance a different kind of self than Westerners. For example, the relatively more collectivistic nature of East Asians raises the possibility that East Asians focus their self-enhancing motivations toward their groups rather than toward their individual selves. This reasoning suggests that East Asians should show more group enhancement than their more individualistic North American counterparts. This alternative account suggests that the magnitude of the motivation to self-enhance might not vary much across cultures; rather, the target of the motivations might be what differs.

A number of studies have been conducted to investigate this question. Two cross-cultural studies reveal evidence of no cultural differences in levels of group

enhancement between East Asians and Westerners. Brown and Kobayashi (2002) found no cultural difference in the extent to which Japanese and Americans evaluated their best friends relative to other students, and Endo, Heine, and Lehman (2000) found that Japanese and Canadians view the quality of their relationships with their families and friends in equally positive terms. These findings are somewhat consistent with this alternative account (i.e., in contrast to most other cross-cultural studies of self-enhancement, these two analyses do not reveal that the Westerners were more self-enhancing than the East Asians). However, a number of other studies find that Westerners enhance their groups significantly more than do East Asians. Heine and Lehman (1997) found that Canadians viewed their family members, universities, and social groups more positively than did Japanese. Snibbe, Kitayama, Markus, and Suzuki (2003) found that Americans showed in-group favoritism toward their school's football teams, whereas Japanese did not. Endo et al. found that Canadians viewed the quality of their romantic relationships more positively than did Japanese and evaluated their family members, friends, and romantic partners more positively than did Japanese as well. Crocker, Luhtanen, Blaine, and Broadnax (1994) found that Americans of European descent had higher collective self-esteem than Asian Americans. Bond, Hewstone, Wan, and Chiu (1985) found that American students displayed a more pronounced group-serving bias for sex-typed behaviors than did Chinese. Kitayama, Palm, Masuda, Karasawa, and Carroll (1996) found that Japanese viewed their own cities to be more vulnerable to earthquakes than a neighboring city, whereas the opposite pattern was found for Americans. Stevenson and Stigler (1992) found that East Asian parents were more critical of their children's school performance than were American parents. And cross-national studies of national pride find that Americans have more positive views of their country than do East Asians (Rose, 1985). We do not know of any studies that find evidence that East Asians enhance their groups significantly more than Westerners.

In sum, East Asians sometimes show evidence for significant group enhancement in some studies (e.g., Brown & Kobayashi, 2002; Endo et al., 2000), and in some contexts, East Asians enhance their group selves more than their individual selves (see Muramoto & Yamaguchi, 1997). However, in some studies, East Asians show evidence for critical views of their groups (e.g., Bond et al., 1985; Stevenson & Stigler, 1992) in contrast to the consistent group-enhancing pattern seen among Westerners. Furthermore, the most common pattern to emerge from cross-cultural studies is that East Asian group-enhancing tendencies appear to be

weaker than those of Westerners. We suggest that the evidence for group enhancement among East Asians is, at best, mixed, and does not provide much evidence in support of this alternative hypothesis.

Do East Asians self-enhance in domains that are especially important to them? A second alternative account that warrants consideration is the possibility that East Asian self-enhancement might appear to be weaker than that of Westerners because the studies do not focus on the domains in which East Asians self-enhance. That is, it is possible that East Asians self-enhance in domains that are especially important to them, for example, with respect to interdependent or collectivistic traits.

A number of articles raise this as an alternative explanation of the identified cultural differences in self-enhancement (Brown & Kobayashi, 2002; Heine et al., 1999; Kurman, 2001; Sedikides et al., 2003). In particular, Sedikides et al. (2005) recently conducted a meta-analysis of studies that investigated this hypothesis and concluded that East Asians do self-enhance in interdependent domains and for traits that they view to be especially important. Meta-analyses often allow for clear conclusions to be drawn, and theirs is a compelling claim. However, the inclusion criteria of the Sedikides et al. meta-analysis apparently omits a number of relevant studies and, thus, we have doubts about the conclusions they drew regarding “pancultural self-enhancement.” As Sedikides et al. stated in a footnote,

These criteria identify a subset of studies that are relevant to our framing of the research question. There are other studies on this general topic that are not included, such as Heine and Lehman (1995), Heine, Kitayama, Lehman, et al. (2001), and Kitayama, Markus, Matsumoto, and Norasakkunkit (1997). (p. 540)

The conclusions from this meta-analysis that included only a subset of the relevant studies might change if the other studies (which obtained opposite effects) were also included. To test this idea, Heine et al. (in press) also conducted a meta-analysis on this same topic with broader inclusion criteria. Their inclusion criteria captured the same eight articles included by Sedikides et al. plus six additional articles that also investigate this alternative account. The results of that meta-analysis are strikingly at odds with the one conducted by Sedikides et al. The meta-analysis of Heine et al. revealed that East Asians (and Westerners) do not self-enhance more in interdependent domains than independent ones and that East Asians do not self-enhance more for important traits than for unimportant ones, whereas Westerners do—the precise opposite conclusions drawn by Sedikides et al. Heine et al. submitted that the evidence for East Asians’ self-enhancing more

in domains that are important to them is largely confined to studies of the BAE (see also Hamamura et al., 2006) and that studies using alternative methods largely yield the opposite pattern of results. We suggest that the evidence that East Asians self-enhance more in domains that are especially important to them is dependent on the method that is used and, overall, does not provide clear support for this alternative hypothesis. We invite readers to compare the meta-analyses by Sedikides et al. and Heine et al. and draw their own conclusions regarding the evidence for pancultural self-enhancement.

Do the cultural differences in self-enhancement reflect participants’ true feelings? A third alternative account to consider is the possibility that the obtained cultural differences in self-enhancement might reflect different motivations for self-presentation. Although East Asians and Westerners evaluate themselves quite differently in questionnaires, perhaps their private thoughts are more similar. That is, we can question whether the methods used in the various studies in the meta-analysis tap into people’s genuine motivations for self-enhancement.

To us, this is the most challenging of the alternative accounts to consider. It challenges what our measures are really measuring, and it raises the intriguing question of what the “true self” is that is being enhanced. There is little dispute that modest self-presentations are valued in much of East Asia and that often people will publicly describe themselves more modestly than they truly feel (e.g., Barnlund, 1975). However, the germane question is whether East Asians feign modesty when evaluating themselves privately on psychological measures, as this is how the self-evaluations were obtained in the studies in Table 1. It is plausible that the tendency to feign modesty is so firmly entrenched among East Asians that it shapes their responses to anonymous questionnaires. Of course, a possibility that is less discussed is equally plausible: The cultural differences in self-enhancement are because of Westerners’ feigning self-confidence when completing anonymous surveys (e.g., Shedler, Mayman, & Manis, 1993). Either way, an important challenge to the argument that there are cultural differences in self-enhancement is that the questionnaire evidence does not capture people’s true feelings. We draw on a number of sources of evidence from the meta-analysis that can address this difficult and provocative alternative account.

Two of the articles in the meta-analysis measure self-enhancement in ways that are protected from self-presentational concerns. Heine, Takata, and Lehman (2000) found that participants’ performance on a mathematical task was affected by whether the data they were calculating indicated that their own performance was strong or weak. Specifically, Japanese needed to view more data before being able to reach a conclusion

when the data suggested that they were doing better than the comparison target (indicating that they were reluctant to accept these data) than when the data suggested they were doing worse than the target (also see Takata, 1987), whereas Canadians needed to view more data when the data suggested they were doing poorly than when the data indicated they were doing well. Likewise, Heine, Kitayama, Lehman, Takata, et al. (2001) investigated people's reactions to private success and failure feedback when they were alone in a room. The studies reveal that Japanese responded to the feedback in a self-improving way (they devoted their time to tasks that would increase the likelihood that they would identify their weaknesses), whereas North Americans responded to the feedback in a self-enhancing way (they devoted their time to tasks that would be more likely to identify their strengths). It is difficult to mount a self-presentational account for these findings. Yet Japanese showed less evidence for self-enhancement in the studies in these two articles (average $d = -.69$) than they did in studies that were conducted with questionnaires (average $d = .04$). These studies challenge the notion that the cultural differences in self-enhancement are because of differences in self-presentation.

However, an important finding that the meta-analysis revealed is that there was one method that did not reveal evidence for less self-enhancement among East Asians compared with Westerners. This method assesses implicit self-esteem as measured by the Implicit Associations Test (also note that Kitayama & Karasawa, 1997, found that Japanese showed evidence for implicit self-enhancement in that they liked the characters in their names more than those characters not in their names and had preferences for numbers that were in their birthdays). What does it mean to say that East Asians are similar to Westerners in measures of implicit self-enhancement but not in measures of explicit self-enhancement?

To us, the most compelling interpretation of the divergent findings from the explicit and implicit measures is that they are importantly tapping into different constructs. Indeed, the measures do not correlate highly with each other (average $r = .13$; Hofmann, Gawronski, Gschwendner, Le, & Schmitt, 2005; see also Bosson, Swann, & Pennebaker, 2000). We suggest that the implicit measures of self-esteem are assessing the extent to which people have warm feelings about themselves, such as feelings of self-liking or sympathy (see Kitayama & Uchida, 2003), in contrast to assessments of their competence, which we submit that the explicit measures are more directly targeting. In this regard, it is noteworthy that the explicit measure that yielded the smallest between-culture effect size in our meta-analysis came from a measure of self-liking (Tafarodi & Swann, 1996). To the extent this interpretation is correct, it would

suggest that the relatively self-critical attitudes that East Asians maintain toward their assessments of their competence are not particularly associated with feelings of dislike for themselves. In support of this reasoning, Heine and Lehman (1999) found that depression did not correlate as strongly with actual-ideal discrepancies among Japanese as it did among Canadians.

People from East Asian and Western cultures diverge quite strongly with regard to their evaluations of their competence, with East Asians maintaining a self-improving orientation by which they strive to correct their identified weaknesses (e.g., Kitayama et al., 1997). These pronounced cultural differences highlight the role that cultural experiences play in shaping people's assessments of their own competence. However, perhaps because East Asians tend to view shortcomings as ultimately correctable, a recognition of weaknesses is not as problematic for them, and is not as associated with a negative affective state, as it is for Westerners (see Heine, Kitayama, Lehman, Takata, et al., 2001). At present, the cross-cultural findings of implicit self-enhancement suggest that there are negligible cultural differences in the extent to which people have warm feelings toward themselves (i.e., these effects may prove to meet the criteria of accessibility universals; see Norenzayan & Heine, 2005), indicating that such kinds of warm self-feelings might unfold largely independently of cultural experiences. We suggest that findings with implicit self-enhancement stand to greatly elucidate the nature of East Asian self-enhancement when it becomes clearer what these measures are actually assessing.

Why Do Westerners Self-Enhance but Not East Asians?

Given the results of the meta-analysis, we need to consider why a motivation that is so clearly present in Western samples is simultaneously so strikingly elusive in East Asian samples. Our reasoning for the cultural difference is that both self-enhancing and self-improving motivations reflect a similar underlying motivation, that is, a desire to be a good person. By *being a good person* we mean that individuals desire to be viewed as appropriate, good, and significant in their own culture. The strategies for how to go about being a good person depend on the kind of self that one prioritizes. In a highly individualistic environment such as North America, becoming a good person is importantly tied to the pursuit of self-esteem. People participating in individualistic cultures will stand to fare well by viewing themselves as competent and talented, capable of taking care of themselves, and able to compete successfully in the meritocratic worldview that is largely embraced (Crocker & Park, 2004; Heine, 2003; Heine et al., 1999).

Elsewhere we reasoned, and provided empirical evidence in support, that the pursuit of self-esteem is facilitated by self-enhancing motivations, an internal frame of reference, entity theories of abilities, a promotion focus, and independent views of self (see Heine, 2003, 2005a; Heine et al., 1999; Heine, Kitayama, Lehman, Takata, et al., 2001). The relations between these constructs and self-enhancement appear to be largely similar across cultures. For example, those East Asians who are especially independent are most likely to show clear evidence for self-enhancement (e.g., Heine et al., 1999). Motivations for self-enhancement are, thus, in principle available to people from all cultures (i.e., they are existential universals; see Norenzayan & Heine, 2005), and they emerge with the presence of other facilitating constructs (viz., internal frames of reference, entity theories of abilities, a promotion focus, and independent views of self). Because cultures tend to vary in the extent to which these facilitating constructs are present, however, cultures vary in the extent to which they prioritize self-enhancing motivations.

In contrast, in hierarchical interdependent societies such as East Asia, becoming a good person is importantly tied to the maintenance of face (e.g., H. C. Chang & Holt, 1994; Ho, 1976). Success in such cultures comes not so much from individuals' beliefs that they are good but by having significant others believe that

they are meeting the consensual standards associated with their roles. The pursuit of face is facilitated by self-improving motivations, an external frame of awareness, incremental theories of abilities, a prevention focus, and an interdependent view of self; characteristics that are all more associated with views of self common in East Asia (for in-depth discussions of theoretical arguments and empirical evidence, see Hamamura & Heine, in press; Heine, 2003, 2005a). The relations between these constructs appear to be similar across cultures, such that, for example, Americans who adopt an incremental view of abilities become more similar to East Asians in their demonstrated motivations for self-improvement (Heine, Kitayama, Lehman, Takata, et al., 2001). In sum, when concerns with face are prioritized, as they are in Confucian cultures, individuals will fare better by being vigilant of any weaknesses that would jeopardize their ability to maintain face and work toward correcting them. Similar to self-enhancing motivations in cultures that valorize self-esteem, these self-improving motivations serve the important goal of becoming a good person. The different psychological processes associated with self-enhancing and self-improving motivations conceal the common underlying motivations for people to view themselves in ways consistent with their respective cultural ideals for becoming good people.

APPENDIX DESCRIPTORS OF DIFFERENT METHODS USED IN THE META-ANALYSIS

Better-than-average effect	Participants evaluated themselves and the average person on Likert-type scales and these evaluations were compared.
False uniqueness effects	Participants estimated the percentage of people who were more talented than them on a variety of dimensions.
Relative likelihood optimism bias for positive events	Participants evaluated whether they were more or less likely than the average person to experience a list of positive future life events.
Relative likelihood optimism bias for negative events	Participants evaluated whether they were more or less likely than the average person to experience a list of negative future life events.
Absolute likelihood optimism bias for positive events	Participants estimated the percentage chance that they would experience a list of positive future life events, and they estimated the percentage of their peers who would also experience those events.
Absolute likelihood optimism bias for negative events	Participants estimated the percentage chance that they would experience a list of negative future life events, and they estimated the percentage of their peers who would also experience those events.
Internal (ability) attributions for successes and failures	Participants indicated how much their successes and failures were because of their own abilities on Likert-type scales and these scores were compared.
Influence of success and failure on self-esteem	Participants rated how much a situation would enhance or decrease their self-esteem on Likert-type scales.
Academic self-enhancement	The residual from regressing participants' self-report of their academic performance (relative to average) onto their actual grades.
Persistence following success or failure	The amount that participants persist on a task following success or failure.
Self-peer evaluations	Participants' self-evaluations compared to how a group of peers evaluates them.
Amount of information necessary to evaluate performance	The amount of information that participants needed to see before being able to decide whether their performance was better or worse than that of a target.
Memories for successes and failures	The number of memories that participants listed for their successes and failures.
Compensatory self-enhancement	Participants' self-evaluations in other domains after receiving either success or failure feedback on a creativity measure.
Rosenberg Self-Esteem Scale (Rosenberg, 1965)	Total score.

(continued)

APPENDIX (continued)

Twenty Statements Test (Kuhn & McPartland, 1954)	Ratio of positive to negative statements about the self that participants spontaneously listed.
Self-description task	Ratio of positive to negative statements about the self that participants spontaneously listed.
Index of Self-Esteem (Hudson, 1982)	Total score.
Coopersmith Self-Esteem Scale (Coopersmith, 1967)	Total score.
Satisfaction with self	Response to item regarding satisfaction with self.
Actual-ideal self-discrepancies	Total discrepancy between evaluations of actual and ideal self-statements on Likert-type scales.
Self-placement evaluations	Participants' estimates of the degree to which they possess several socially desirable traits.
Explicit self-evaluations	Total score regarding how applicable a series of positive self-statements were.
Self-Criticism Questionnaire (Ishiyama & Munson, 1993)	Total score.
Explanatory style optimism	Participants' mean composite score on the Attribution Styles Questionnaire (Peterson & Seligman, 1984).
Tennessee Self-Concept Scale (Fitts, 1965)	Total positive score.
Marsh Self-Esteem Scale	Total general Self-Esteem subscale from the Marsh Self-Description Questionnaire II (Marsh, 1990).
General Self-Worth	Total score on the General Self-Worth subscale of the Perceived Competence Scale for Children (Harter, 1982).
Self-Competence Scale (Tafarodi & Swann, 1995)	Total score.
Self-Liking Scale (Tafarodi & Swann, 1995)	Total score.
Implicit self-esteem	Measure of the Implicit Association Test adapted for self-evaluations (Greenwald & Farnham, 2000).

NOTES

1. The single study that yielded a significant negative effect was a study of unrealistic optimism comparing Chinese and Canadians during the SARS epidemic (Ji, Zhang, Osborne, & Guan, 2004). In that study, Chinese showed more unrealistic optimism than Canadians regarding their estimates of their own relative likelihood of catching SARS.

2. We note that two studies using the Better-Than-Average Effect (BAE) yielded dramatically reduced self-enhancement effects for members of all cultural groups (Endo, Heine, & Lehman, 2000; Heine & Lehman, 1999). Unlike the other studies of the BAE, these studies had people evaluate statements that included the word *extremely* (e.g., "I am extremely intelligent").

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Erratum

In the February 2007 issue, volume 11, number 1, in the article “In Search of East Asian Self-Enhancement” by Steven J. Heine and Takeshi Hamamura, the figure captions were reversed. Here, they appear as they should.

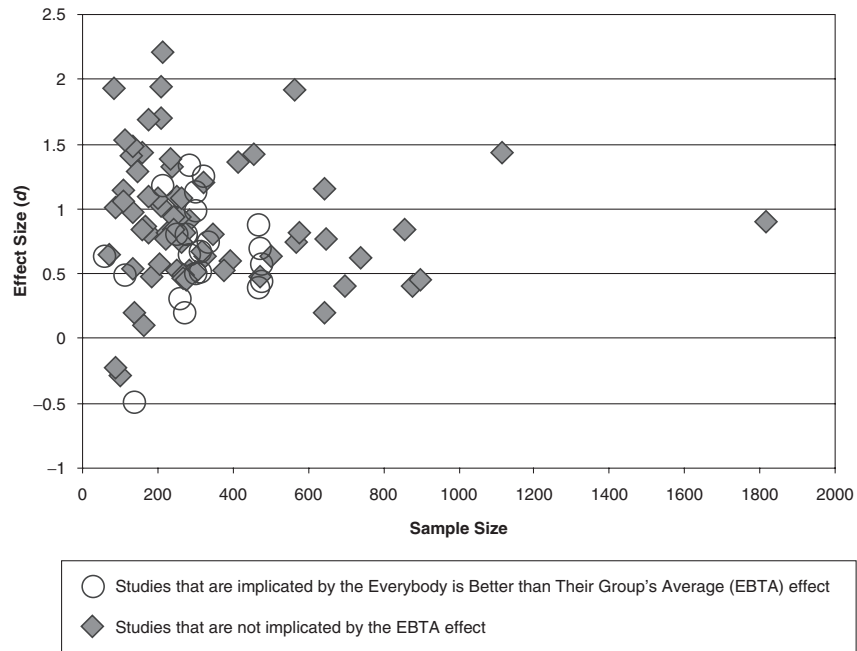


Figure 1 Funnel plot of cross-cultural effect sizes of comparisons of measures of self-enhancement between Westerners and East Asians.

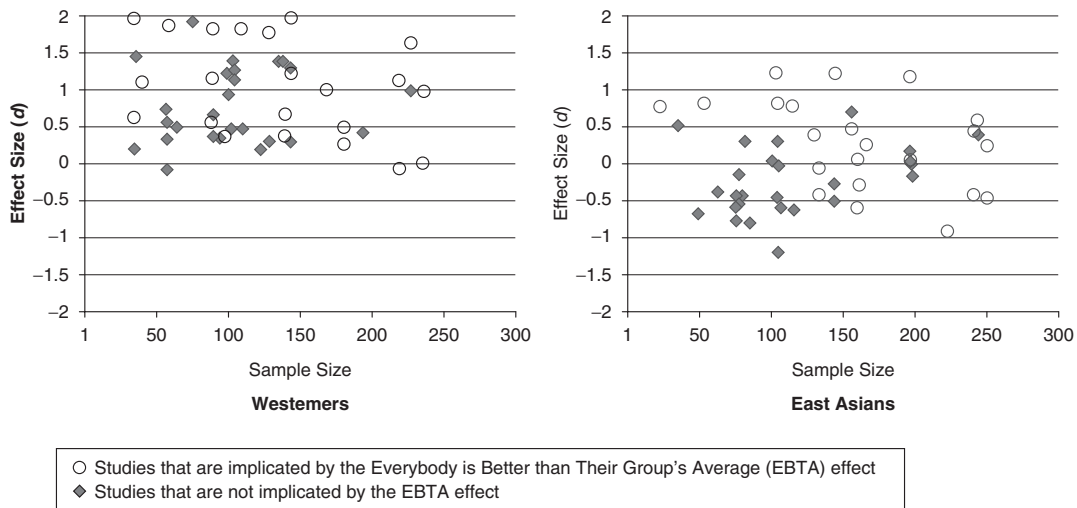


Figure 2 Funnel plots of within-culture effect sizes for measures of self-enhancement biases.