

What Is Implicit Self-Esteem, and Does it Vary Across Cultures?

Carl F. Falk¹ and Steven J. Heine²

Personality and Social Psychology Review
2015, Vol. 19(2) 177–198
© 2014 by the Society for Personality
and Social Psychology, Inc.
Reprints and permissions:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/1088868314544693
pspr.sagepub.com



Abstract

Implicit self-esteem (ISE), which is often defined as automatic self-evaluations, fuses research on unconscious processes with that on self-esteem. As ISE is viewed as immune to explicit control, it affords the testing of theoretical questions such as whether cultures vary in self-enhancement motivations. We provide a critical review and integration of the work on (a) the operationalization of ISE and (b) possible cultural variation in self-enhancement motivations. Although ISE measures do not often vary across cultures, recent meta-analyses and empirical studies question the validity of the most common way of defining ISE. We revive an alternative conceptualization that defines ISE in terms of how positively people evaluate objects that reflect upon themselves. This conceptualization suggests that ISE research should target alternative phenomena (e.g., minimal group effect, similarity-attraction effect, endowment effect) and it allows for a host of previous cross-cultural findings to bear on the question of cultural variability in ISE.

Keywords

culture/ethnicity, self/identity, self-presentation

From at least the time of William James and Sigmund Freud, both self-enhancement and the unconscious have intrigued Western psychologists. The assumption that humans have *self-enhancement motivations*—the need for high self-esteem and to pursue a positive self-image—underlies a wide variety of Western social psychological phenomena and theories (e.g., Alicke & Sedikides, 2009; Epstein, 2003; Pyszczynski, Greenberg, Solomon, Arndt, & Schimel, 2004; Tice, 1991; Wills, 1981), and many Western psychologists have assumed that self-enhancement is a universal motivational process (e.g., Sedikides & Gregg, 2008; Tesser, 1988). Indeed, one manifestation of this underlying motivation, self-esteem, is perhaps the most researched topic across all subdisciplines of psychology (Scheff & Fearon, 2004).

Building upon evidence of unconscious and automatic information processing, Greenwald and Banaji (1995) introduced *implicit attitudes* as those that exist or operate unconsciously, and can be activated automatically to affect our thoughts and behavior—potentially explaining a broad array of psychological phenomena. This ushered in the concept of implicit self-esteem (ISE)—a form of the popular construct that operates at least partly outside of conscious awareness. Greenwald and Banaji issued a call for indirect ways of measuring implicit attitudes. With the introduction of measures such as the Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998), psychologists have witnessed exponential growth in the study of implicit attitudes and now hundreds of research studies have been conducted with

implicit attitude measures (Greenwald, Poehlman, Uhlmann, & Banaji, 2009).

On one hand, the possible existence of ISE brings great potential for answering intriguing questions. For example, as it is typically defined and measured, ISE research could allow psychologists to explore whether people have at least some unconscious feelings toward the self that are not in line with their conscious thoughts and whether a discrepancy between unconscious and conscious feelings toward the self could be maladaptive (e.g., Epstein, 2006; Jordan, Spencer, Zanna, Hoshino-Browne, & Correll, 2003).

Our interest is the potential that ISE measures could address whether self-enhancement is a fundamental human motivation or exhibits substantial cross-cultural variability—the latter case being at odds with the foundations of many Western psychological theories. Although some research has attempted to distinguish self-enhancement from self-esteem (e.g., Taylor & Brown, 1988), we regard high self-esteem as one manifestation of an underlying self-enhancement motive. Thus, it is difficult to separate underlying motivation from one's cognitive evaluation of self-worth (Dunning, 1999). These constructs are often highly related and empirically

¹University of California, Los Angeles, USA

²University of British Columbia, Vancouver, Canada

Corresponding Author:

Steven J. Heine, University of British Columbia, 2136 West Mall,
Vancouver, British Columbia, Canada V6T 1Z4.
Email: heine@psych.ubc.ca

indistinguishable, and those with high self-esteem tend to show more pronounced self-enhancing biases (Hamamura, Heine, & Takemoto, 2007; Heine, Lehman, Markus, & Kitayama, 1999; vanDellen, Campbell, Hoyle, & Bradfield, 2011). For example, research on self-verification finds that those with high self-esteem will typically seek self-enhancing feedback, whereas those with low self-esteem show weak desires for self-enhancing feedback, and instead prefer to seek information that verifies their critical self-views; the strength of people's preference for self-enhancing feedback parallels the positivity of their own self-views (although self-verification theory proposes alternative motivations to account for this relation between self-esteem and self-enhancing motivations; Swann, 1983; Swann, Griffin, Predmore, & Gaines, 1987). However, the positivity of one's self-esteem is certainly not solely dependent on the extent of their self-enhancing motivations. People are not completely biased in their self-assessments, and they are largely in line with social reality. In general, there are substantial positive correlations between people's self-evaluations and objective indicators of their performance (Funder & Dobroth, 1987; Hayes & Dunning, 1997), although the strength of these correlations varies depending on how desirable the traits under question are (Heine & Renshaw, 2002; John & Robins, 1993). Nonetheless, we note there is much overlap between the degree to which one possesses a positive self-view and the degree to which one is biased in interpreting information about the self in a self-enhancing manner. As ISE measures are thought to be largely immune to explicit attempts at covering up one's feelings about the self, measures of ISE promise to be good candidates at tapping automatic self-enhancement (cf. Gawronski, LeBel, & Peters, 2007; Nosek, 2007).

Despite the considerable attention that ISE has received, we argue that it remains the least understood of all implicit attitudes and has neither sufficiently answered the above questions nor explained psychological phenomena as originally conceived (Greenwald & Banaji, 1995), and it is the implicit attitude that is most plagued by measurement problems as shown in recent meta-analyses and empirical studies (Bosson et al., 2008; Buhrmester, Blanton, & Swann, 2011; Falk, Heine, Takemura, Zhang, & Hsu, 2013). We view the current state of the field at a critical turning point for ISE research. We recognize that a plethora of viewpoints currently exist in the field, ranging from those who likely see no problem and view ISE as a viable theoretical construct (e.g., Jordan et al., 2013; Rudolph, Schröder-Abé, Schütz, Gregg, & Sedikides, 2008), to those who question whether ISE even exists (Tafarodi & Ho, 2006).

To motivate our discussion, in the first section of this article, we present why the conceptualization and measurement of ISE is such an important issue for judging the cultural variability of self-enhancement motivations. Next, in our second section, we present a commonly used definition of ISE and argue that the validity evidence for measures that

rely on this definition is particularly weak, and instead we resurrect an older definition of ISE that suggests implicit processes result in the projection of individuals' self-feelings onto self-associated objects. In the third and final section, we integrate culture and ISE and argue that this redefinition of ISE suggests a new potential direction for ISE research and sheds light on a series of previously unconsidered empirical findings providing evidence for cultural variability in self-enhancement.

Culture and Self-Enhancement

Much research has identified pronounced cultural variation in self-enhancement motivations across many cultural contexts, with the most extreme differences being found in contrasts of East Asians and North Americans. In a recent meta-analysis, Heine and Hamamura (2007) found that across 31 methods, the weighted average effect size indicated that the difference in self-enhancement between East Asians and Westerners was large ($d = .84$). Among the 31 self-enhancement measures that were used, 30 found evidence for a significant cross-cultural difference. Although cultural differences in self-enhancement have been found with hidden behavioral measures (Heine et al., 2001; Heine, Takata, & Lehman, 2000; Oishi & Diener, 2003) and with peer reports (Falk et al., 2013; Su & Oishi, 2011), the majority of such methods used self-reports. For example, in measures of self-enhancing biases, East Asians (as compared with North Americans) evaluate themselves in a lower percentile relative to other students within the same culture on a number of positive traits (Heine & Lehman, 1997a), attribute less positive attributes to themselves relative to other peers within the same culture (Heine & Renshaw, 2002), show less evidence to take credit for their successes while externalizing blame for their failures (Mezulis, Abramson, Hyde, & Hankin, 2004), and are less likely to think that positive events will happen to them than others from their culture (Heine & Lehman, 1995).

Why Are There Cultural Differences in Self-Enhancement?

Why should a motivation that is so clearly present in Western samples be so elusive in East Asian samples? Although in previous articles we have elaborated at length on numerous reasons why cultures vary in the positivity of their self-views (see Falk, Heine, Yuki, & Takemura, 2009; Heine, 2005; Heine & Buchtel, 2009; Heine et al., 1999), we briefly revisit this discussion here. We do think that there is an underlying motivation that is fundamentally similar between the two cultural groups, but that it tends to be instantiated in strikingly different ways. We maintain that people from different cultures share a similar motivation to be a good person. By "being a good person" we mean that individuals desire to be viewed as living up to the standards of what is perceived to

be appropriate, good, and significant in their own culture. However, the ways that one best goes about being a good person depend on the kind of positive self-views that are prioritized in one's culture. In a highly individualistic environment such as North America, the most valuable currency in terms of becoming a good person is importantly tied to the motivation to self-enhance, which entails the pursuit of high self-esteem. In such contexts, people will stand to fare best by believing themselves to be especially competent and talented, capable of taking care of themselves, and willing to take chances to compete successfully (Heine et al., 1999; cf. Johnson & Fowler, 2011; von Hippel & Trivers, 2011).

A number of psychological variables that predict self-enhancement have been identified that cluster together in Western societies. Self-enhancement has been found to be fostered by independent self-concepts (e.g., Heine et al., 1999), an approach orientation (e.g., Hamamura, Meijer, Heine, Kamayo, & Izumi, 2009), an internal frame of reference (e.g., Y. Kim, Cohen, & Au, 2010), high relational mobility (e.g., Falk et al., 2009), entity theories of abilities (e.g., Heine et al., 2001), and nondialectical views of self (e.g., Spencer-Rodgers, Peng, Wang, & Hou, 2004), and each of these has been shown to help account for cultural differences in measures of self-enhancement (for a review, see Heine & Buchtel, 2009). Given the sheer number of different variables involved, we do not think it is productive to think of these as independent mechanisms underlying motivations for self-enhancement. Rather, we view the existence of cultural variation in each of these phenomena as indicating a stable equilibrium point in a dynamical system (Cohen, 2001; Kitayama, 2002). Such a system allows small fluctuations across time in the cultural norms to which individuals obey, but the existence of equilibrium points ensures that the system will also tend to maintain stability across various cultural norms over time. Thus, the elements of a culture are not independent from each other, and this results in a relatively small number of stable equilibria. If an individual deviates from an equilibrium point, the interdependence among the various parts of the system will constrain his or her options, and thereby contribute to the stability of cultural norms (Boyd, Borgerhoff-Mulder, Durham, & Richerson, 1997).

In contrast to how self-esteem is prioritized in Western cultures, in hierarchical Confucian societies such as East Asia, the currency for becoming a good person is "face" (e.g., H.-C. Chang & Holt, 1994; Hamamura & Heine, 2008; Ho, 1976). In such a context, succeeding is not so much the product of individuals' beliefs that they are good (cf. Johnson & Fowler, 2011), but by having significant others believe that they are meeting the consensual standards associated with their roles. The amount of face that one has is largely determined by the role that one occupies, and whether one's face is maintained is ultimately a matter for others to decide (it is much more easily lost than gained). The pursuit of face is facilitated by self-improving motivations in which individuals aspire to identify where others might think they are

falling short of expectations, in order to work at correcting them (for discussion, see Hamamura & Heine, 2008). Self-improving motivations are sustained by the opposite poles of the six variables identified as sustaining self-enhancement, namely, interdependent self-concepts, an avoidant orientation, an external frame of reference, low relational mobility, incremental theories of abilities, and dialectical views of self (for a review, see Heine & Buchtel, 2009).

In sum, we propose that it is likely a human universal for people to desire to be good people, yet there are at least two distinct ways that people strive to do this across cultures. In Western individualistic societies, people strive to build self-esteem, and achieving this goal is afforded by the engagement of a variety of self-deceptive tactics that the study of self-enhancement has largely focused on. However, in hierarchical Confucian societies, people strive to be good people by ensuring that they are maintaining face, and this is afforded by a variety of strategies involving self-criticism and self-improvement. These cultural differences in self-enhancement and self-improvement motivations are evident in a large variety of different measures (see Heine & Hamamura, 2007, for a review).

What Is the Evidence for Alternative Explanations?

The challenge to the universality of self-enhancement motivations and the assertion that fundamental human motivations can be shaped by culture has not come without controversy (e.g., Brown, 2003; Heine, 2003, 2005; Heine, Kitayama, & Hamamura, 2007a, 2007b; Heine et al., 1999; Sedikides, Gaertner, & Toguchi, 2003; Sedikides, Gaertner, & Vevea, 2005, 2007a, 2007b). If it could be shown that East Asians self-enhance to a comparable degree as Westerners in some way, this would lend support to the position that self-enhancement motivations are universal, but may simply manifest differently across cultures. Along this line of reasoning, there are two prominent alternative explanations that have been debated in the literature: (a) East Asians self-enhance tactically (e.g., Sedikides et al., 2003), that is, self-enhancement occurs for domains or traits that East Asians view as especially important, and (b) differences in self-enhancement are due primarily to cultural differences in self-presentational norms, with Westerners feigning bravado and East Asians feigning modesty (e.g., Kurman, 2003; Yamaguchi et al., 2007).

The first alternative explanation—that East Asians tactically self-enhance by showing self-enhancement especially in domains that they find to be particularly important—has already received much attention and is not the focus of the present article (for competing arguments and meta-analyses, see Heine, 2005; Heine et al., 2007a, 2007b; Sedikides et al., 2003; Sedikides et al., 2005, 2007a, 2007b). We comment here only to say that although we find the reasoning that people would self-enhance more in domains that are especially

valued in their cultures to be plausible, and have investigated this possibility in nearly all of our studies on self-enhancement, the vast majority of the evidence relevant to this hypothesis stands in direct contradiction to it.¹

The second alternative explanation is that the weaker self-enhancement for East Asians is illusory because cultural differences in self-presentation distort our ability to accurately assess people's private self-enhancing feelings. In particular, it has been argued that East Asians have strong modesty norms that prevent them from reporting highly positive self-evaluations (Cai, Brown, Deng, & Oakes, 2007; Kurman, 2003; Tafarodi, Shaughnessy, Yamaguchi, & Murakoshi, 2011; Yamagishi et al., 2012). This alternative explanation proposes that if self-enhancement could be measured unobtrusively or with methods that avoid self-presentation, the cultural difference would vanish. But, is there definitive evidence for this position? Data in favor of the self-presentational explanation come from two sources: (a) studies that use self-report measures of self-enhancement under experimental manipulations or while statistically controlling for modesty and (b) studies that make use of ISE measures.

Self-report measures. Although we agree that substantial cultural differences in modesty norms exist regarding how people should speak about themselves in public, the relevant question is whether these norms influence how one evaluates oneself on an anonymous self-report measure as this method comprises much of the evidence for cultural variability in self-enhancement. Essentially this claim suggests that the observed cultural variability in self-enhancement measures is due to a methodological deficiency—explicit self-report measures of self-evaluations are really assessing people's comfort with making immodest statements about themselves. Hence, self-presentational norms need to be peeled away to reveal people's underlying "true" motivations and self-feelings. Some evidence in support of this perspective comes from the findings of correlational studies that self-report trait measures of modesty mediate cultural differences in self-esteem (Cai et al., 2007; Kurman, 2003). In addition, modifying instructions of a self-report scale of self-esteem to induce less modesty (or less bravado) resulted in a reduction (but not elimination) of cultural variability in self-enhancement (Tafarodi et al., 2011). Finally, financial incentives for accuracy reduced cultural variability in how individuals rated their performance on several tasks (Muthukrishna et al., 2014; Yamagishi et al., 2012).

We note that the above studies themselves rely on self-report methodologies which may still be partly influenced by self-presentational norms. For example, both self-reported modesty and self-enhancement measures may be influenced by such norms, and it is also questionable whether a modest response style should be partialled out from related constructs such as self-esteem (Hamamura, Heine, & Paulhus, 2008; Smith, 2004) as the purported response style (e.g., avoiding making positive statements about oneself) is at the core of

the construct being investigated (e.g., self-esteem).² Furthermore, Tafarodi and colleagues (2011) specifically instructed participants to either avoid being modest or avoid displaying bravado—a manipulation that may be prone to demand characteristics. The studies by Yamagishi et al. (2012) and Muthukrishna et al. (2014) reveal more self-enhancement among East Asians when they are incentivized to be accurate in their self-assessments; however, the latter study also showed that East Asians had far less certainty in their estimates than Canadians, and in the absence of incentives, East Asians may still prefer thinking of themselves in self-critical ways as it motivates them to try harder (see Heine et al., 2001; Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997). Moreover, given that studies with behavioral measures (see Heine et al., 2001; Heine et al., 2000; Oishi & Diener, 2003) and peer reports (Falk et al., 2013; Su & Oishi, 2011) have found cultural variability in self-enhancement that is comparable in magnitude with that found with self-report measures, we should be at least cautious about embracing a position that rests on so few studies.

ISE measures. Ideally, for us to target people's "true" feelings toward themselves, we should use methodologies that have the ability to completely circumvent self-presentational biases that are not also vulnerable to demand characteristics or other confounds. Measures of ISE have been championed toward this cause (cf. Gawronski, LeBel, et al., 2007). In brief, ISE is commonly defined as a self-evaluation that operates unconsciously and is manifested by automatic associations between the self-concept and positive/negative concepts that exist somewhere in memory. It is thought that various implicit attitude measures are able to directly assess associations among concepts, usually through the use of word categorization or priming tasks. For example, in the IAT, participants categorize words presented on the screen by hitting one of two buttons. In separate blocks, items pertaining to the "self" may share the same response key as either "pleasant" or "unpleasant" items. Conceptually, individuals with higher ISE should be able to respond faster when "self" words share the same response key as "pleasant" words than when the "self" is paired with "unpleasant" words. As another example, in the affective priming task (Hetts, Sakuma, & Pelham, 1999), participants with high ISE are thought to be faster to categorize the word *good* than the word *bad* when immediately preceded by a subliminal self-prime (e.g., the subject's name or birthday).

A variety of different measures have been used to compare the ISE of East Asians and North Americans and these yield a mixed pattern of results. Overall, the IAT does not typically yield cultural differences in ISE (null effects were found by Falk et al., 2013; Falk et al., 2009; Kitayama & Uchida, 2003; Kobayashi & Greenwald, 2003; but see Szeto et al., 2009; Yamaguchi et al., 2007, which identified cultural differences in opposite directions). In contrast, studies in

which participants evaluate themselves while under cognitive load indicate that East Asians have lower ISE than North Americans (Falk et al., 2013; Falk et al., 2009) as does the affective priming task (Hetts et al., 1999) and the Name Letter Test (NLT; Cai et al., 2011)—a measure in which participants evaluate the likeability of the letters in their name. Research using other measures has yielded mixed results (Blass, Schmitt, Jones, & O’Connell, 1997; Boucher, Peng, Shi, & Wang, 2009; Hetts et al., 1999; Falk et al., 2013). For the most part then, aside from some exceptions, the studies using these various methods to measure ISE may be interpreted to indicate that East Asians and North Americans have roughly similar levels of ISE. However, before we can draw conclusions about what this general lack of cultural differences in ISE might mean, we need to first consider what ISE is and what kind of validity evidence exists for the different operationalizations of it. The next section of the article reviews a traditional definition of ISE, the associated validity evidence of this, and explores an alternative conceptualization of the construct.

ISE: What Is It, and Is It a Valid Construct?

According to some commonly used definitions, ISE is “. . . the association of the concept of self with a valence attribute” (Greenwald et al., 2002, p. 5) or “a global self-evaluation that people are unable or unwilling to report” (Buhrmester et al., 2011, p. 366). These definitions have their roots in implicit attitude research, dual processing theories, and the assertion that the brain contains at least two different information-processing systems (Fazio & Olson, 2003; Gawronski & Bodenhausen, 2006; Petty, Briñol, & DeMarree, 2007). Individuals possess one processing system based on conscious, rational thought, and deliberation. A second system processes information automatically, quickly, efficiently, in a relatively holistic manner, and is associative and either unconscious or preconscious (e.g., Epstein, 2003). It is now commonly thought that such attitudes affect behavior outside of our awareness, but individuals may become aware of their implicit attitudes (e.g., Epstein, 2003; Gawronski, Hofmann, & Wilbur, 2006; Greenwald, Nosek, & Sriram, 2006). Implicit attitude measures thus attempt to assess how individuals’ second processing system automatically evaluates objects, people, or other concepts. In the case of ISE, people are thought to have a representation of themselves that exists in memory (i.e., the self-concept) that is accessible to this second system and has automatic valence associations (e.g., good/bad). This system is sometimes thought to exist independently from explicit representations of the self or at least that some underlying self-feelings are not consciously accessible (Hetts & Pelham, 2001; but see Fazio & Olson, 2003; Olson, Fazio, & Hermann, 2007), and the implicit associations are thought to develop slowly over time through evaluative conditioning.

The most common way of assessing ISE is to use measures specifically designed for this purpose. The two most frequently used measures are the IAT (Greenwald & Farnham, 2000) and a measure of how much individuals like the letters in their own names (i.e., the NLT; Jones, Pelham, Mirenberg, & Hetts, 2002). ISE may also be assessed with an assortment of other word categorization-based tasks (e.g., Karpinski & Steinman, 2006; Nosek & Banaji, 2001) or priming methodologies (e.g., Hetts et al., 1999; Spalding & Hardin, 1999). Typically, there is an assumption that these implicit attitude measures are able to directly assess associations that an individual has between the self and other positive/negative concepts. Many of these measures are computer-based categorization tasks that rely on assessing fast reaction times or error rates, and a subject’s performance is often considered largely outside of their conscious control. Thus, self-presentational biases should not influence the resulting scores.

The ISE Validity Problem

At first glance, there would not seem to be any special reason to question the validity of ISE measures. For example, the IAT has been found to have good criterion validity ($r = .27$) across measurement of a number of implicit attitude domains (race, consumer preference, political preference, etc.) in more than 100 studies (Greenwald et al., 2009). In addition, a recent meta-analysis found that 12 out of 13 different measures of implicit attitudes toward specific drugs were significant predictors of substance use ($r = .31$ on average across more than 19,000 subjects; Rooke, Hine, & Thorsteinsson, 2008). Furthermore, there is a large body of evidence testifying to the existence of unconscious and automatic information processing, learning, and memory (e.g., Bargh, 1984, 1994, 1996; Nisbett & Wilson, 1977; Schacter, 1987; Van den Bussche, Van den Noortgate, & Reynvoet, 2009). Overall, then, there is considerable validity evidence for implicit attitude measures in general (but see critiques on the IAT by Blanton, Jaccard, Christie, & Gonzales, 2007; Blanton, Jaccard, Gonzales, & Christie, 2006; Blanton et al., 2009; Oswald, Mitchell, Blanton, Jaccard, & Tetlock, 2013; cf. Nosek & Sriram, 2007).

However, to argue that a particular measure is valid based on evidence that the measurement procedure *in general* is valid is analogous to arguing that any given self-report measure must be valid because self-report measures in general have shown good validity evidence. Of course, there are many instances where particular self-report measures face validity challenges, for example, because individuals may be unaware of some aspects of their personality (T. D. Wilson & Dunn, 2004) or unwilling to directly report racist attitudes, that they are narcissistic, or that they have a drug or drinking problem (see Paulhus & Vazire, 2007). Creating valid self-report measures of these constructs requires alternative strategies. Likewise, the validities of particular implicit attitude

measures are sure to vary. For example, Greenwald and colleagues' (2009) meta-analysis found that IAT predictive validity was lower when the topics being studied were more socially sensitive and when lower implicit–explicit attitude correlations were observed.

In particular, the validity evidence for the IAT in measuring ISE is strikingly weak, and these results extend to other implicit attitude measures. There are three main sources of validity evidence that are problematic for these measures. First, implicit attitudes are thought to be generally in agreement with explicit attitudes (e.g., Epstein, 2006; Gawronski & Bodenhausen, 2006; but see Hetts & Pelham, 2001) with a disjunction theoretically indicating psychological dysfunction (Bosson, 2006; Epstein, 2006; Kernis, 2003). This point is supported by recent work suggesting that implicit and explicit memory are related rather than independent systems (Berry, Shanks, Speekenbrink, & Henson, 2012). However, measures of ISE are poorly correlated with explicit measures of self-esteem (e.g., Bosson, Swann, & Penebaker, 2000). For instance, in a large multisample study, Falk et al. (2013) found that the average correlation between nine implicit and seven explicit measures of self-esteem was .08, $-.003$, and $.03$ for Japanese, Asian Canadians, and Euro-Canadians, respectively. Furthermore, meta-analyses with the IAT ($r = .13$) and NLT ($r = .11$) have found perhaps the lowest implicit–explicit correlations of any implicit attitude (Hofmann, Gawronski, Gschwendner, Le, & Schmitt, 2005; Krizan & Suls, 2008). This lack of correlation between implicit and explicit self-esteem measures does not necessarily constitute a failure of validity evidence for ISE under theoretical positions that assume ISE is independent of explicit self-evaluations (Hetts & Pelham, 2001). However, this evidence as a standard of validity would be more tolerable if we could identify what ISE reliably correlates with, which we examine below.

The second source of weak validity evidence for ISE measures comes from the numerous studies that have found that different ISE measures lack convergent validity (Bosson et al., 2000; Krause, Back, Egloff, & Schmukle, 2011; Rudolph et al., 2008). For example, in a recent study, the average correlations between nine different measures of ISE were $-.02$, $.002$, and $.005$ for Japanese, Asian Canadians, and Euro-Canadians, respectively (Falk et al., 2013). Although it has been suggested that different ISE measures tap different aspects of the construct (Krause et al., 2011; Rudolph et al., 2008), this assertion implies that ISE either violates basic measurement principles or does not actually exist as a construct that influences responses to ISE tasks (e.g., see Bollen, 1984).³ These different measures thus do not appear to be measuring the same construct.

Third, measures of ISE show a remarkably consistent lack of predictive validity. For example, a common claim that a mismatch between implicit and explicit self-esteem is predictive of narcissism and defensiveness (e.g., Jordan et al., 2003) is not supported in meta-analyses for the IAT and only

weakly so for the NLT (Bosson et al., 2008). In another effort to validate ISE measures, Buhrmester et al. (2011) conducted an extensive review and meta-analysis of the IAT and NLT, and found that ISE measures (compared with explicit measures) were poor predictors of the expected criteria of psychological well-being, depression, physical health problems, affective experiences, and automatic negative self-thoughts (e.g., Bos, Huijding, Muris, Vogel, & Biesheuvel, 2010; DeHart & Pelham, 2007; Schimmack & Diener, 2003; Verplanken, Friborg, Wang, Trafimow, & Woolf, 2007). Studies where ISE was a better predictor than explicit self-esteem are few and far between and are often unreplicated (e.g., Robinson & Meier, 2005). Though it is common to think that ISE ought to correlate better with independently rated criteria (Spalding & Hardin, 1999), implicit attitude measures typically correlate better with self-reported criteria (Greenwald et al., 2009), and recent studies using peer reports and independent ratings of subjects' essays have yielded no evidence for predictive validity of several ISE measures (Falk et al., 2013). Given this low rate of predictive validity in the published literature and the popularity of ISE measures, we imagine that there is likely also an extensive file drawer of unpublished studies which have not seen the light of day because the ISE measures failed to predict the dependent measures under study.

Similarly, empirical studies that simultaneously compare the predictive validity of a wide range of implicit and explicit self-esteem measures have yielded discouraging results. Bosson et al. (2000) found that explicit self-esteem measures had much better predictive validity than seven different ISE measures across a variety of criteria. Using a similar approach, Falk et al. (2013, Study 1) again found that explicit self-esteem measures far outperformed nine ISE measures in terms of predicting 13 criteria; whereas the average correlations between the explicit measures of self-esteem and the criteria were $.20$, $.29$, and $.26$ for Japanese, Asian Canadians, and Euro-Canadians, respectively, the average correlations between the ISE measures and the criteria were $.06$, $.02$, and $.04$. In addition to peer reports and independent ratings of subjects' essays, criteria in this study represented a broad swath of potential ISE correlates identified from previous research such as the positive interpretation of ambiguous information about the self (Bosson et al., 2000), seeking of positive information about the self (Bosson et al., 2000), positive affect and pride (Koole & DeHart, 2007; Tracy, Cheng, Robins, & Trzesniewski, 2009), parental nurturance and overprotectiveness (DeHart, Pelham, & Tennen, 2006), automatic negative self-thoughts (Verplanken et al., 2007), and so on. In sum, our review of the literature on correlates of ISE measures leaves us without a reliable answer to the question "What is it that these ISE measures actually predict?"

Finally, it should be noted that the so-called "positivity bias" of ISE measures is sometimes invoked as validity evidence (Rudolph et al., 2008; Yamaguchi et al., 2007). That is, ISE scores are significantly above some threshold thought to

represent a border between low/negative and high/positive self-esteem, and this result is expected due to the population overall likely having high self-esteem. We find this argument unconvincing because the boundary score separating negative/positive self-esteem is typically arbitrary (Blanton & Jaccard, 2006). To the extent that scores on any ISE task could be influenced by some cognitive bias unrelated to the construct of interest, the resulting scores could be artificially moved (e.g., inflated). In the case of the IAT, for example, it is possible to obtain positive implicit attitude scores when there is actually no implicit preference for a construct (B. P. I. Chang & Mitchell, 2009, 2011; Mitchell, 2004; Rothermund & Wentura, 2004, 2001; Rothermund, Wentura, & De Houwer, 2005; but see Greenwald, Nosek, Banaji, & Klauer, 2005). A case in point with respect to ISE is the fact that clinically depressed individuals exhibit “positive” ISE across three different measures (De Raedt, Schacht, Franck, & De Houwer, 2006).

Why Do ISE Measures Fare So Poorly?

When various other measures of implicit attitudes show adequate validity, why would measures of ISE perform so poorly? Implicit attitude measures are not perfect and have problems such as unreliability (Krause et al., 2011) and extraneous sources of method variance (De Houwer, Teige-Mocigemba, Spruyt, & Moors, 2009). However, given that implicit measures perform quite well in other domains (Greenwald et al., 2009; Rooke et al., 2008), it suggests that there is something specifically wrong with the construct of ISE—the precise problem is unknown and requires future research. Although our argument is speculative, we submit that it is questionable whether global self-esteem is a construct that can be maintained at an implicit level. There are two key reasons for this.

First, people tend to experience the world with their attention directed away from the self for the purpose of acting on the environment (i.e., the self is represented as a *subject*, in a state of subjective self-awareness) *or* with their attention directed toward themselves as if they are the target of an external observer (i.e., the self is represented as an *object*, in a state of objective self-awareness; Duval & Wicklund, 1972). Implicit attitudes are often studied for target objects that are separate from the self and are objects of our attention (e.g., Pepsi, George W. Bush, women, Black people). In contrast, the self is less often the target of our attention because the default state of awareness is to experience the self as a subject—directing our attention toward external objects (Duval & Wicklund, 1972; this is especially true among Western people; Heine, Takemoto, Moskalenko, Lasaleta, & Henrich, 2008). Hence, we imagine that many of the implicit associations that people form regarding themselves are with response to experiencing the world as a subject and these may not easily be represented at an implicit level as an object. Conceiving of the self as an object requires considerable

self-reflection, and these resources are typically not available when completing implicit attitude measures (Buhrmester et al., 2011), unlike for explicit self-evaluation tasks in which people are readily able to conjure up a global image of themselves. To our knowledge, however, this first explanation has yet to be directly explored with empirical research.

Second, a challenge with the enterprise of assessing automatic associations of the self is that much research has demonstrated that representations of the self-concept are highly multidimensional and complex (Linville, 1987; Markus & Wurf, 1987; Shavelson, Hubner, & Stanton, 1976). Hence, representations of the self at an implicit level would likely entail multiple possible patterns of activation depending on what aspects of the self are currently accessible (Conrey & Smith, 2007; Fazio, 2007; Gawronski & Bodenhausen, 2007). Each representation of the self would likely share associations with many distinct positive and negative concepts (e.g., Greenwald et al., 2002; Petty et al., 2007). Moreover, the formation of implicit associations with the self would seem to occur within particular situations (e.g., Bosson, 2006), such as taking a math test, flirting at a bar, or giving a public speech, as it is only within specific contexts that people experience regular feedback about their performance. In contrast, there would seem to be few implicit associations that would be formed at a global level of the self, as people are occupying different roles across situations, and they have differing degrees of expectations of success on different tasks and in different contexts. It is conceivable that the predictive validity of ISE measures could be enhanced by priming different aspects of the self prior to measuring ISE, but one study that attempted to do this did not find evidence for increased predictive validity (Study 2 of Falk et al., 2013).

Implicit attitude representation and activation should be easier for attitude objects that are more primitive and specific, and many of the attitude objects that have been studied implicitly are social categories (e.g., race, gender, political party, etc.). These categories are typically stereotypes that are simplified, have few defining features (such as consumer products), or can be easily placed into another social category (e.g., Barack Obama = Democrat). In contrast, constructs like the “self” and “others” are more abstract and thus may suffer from a similar lack of predictive validity as that which plagues general versus specific attitudes (Fishbein & Ajzen, 1975). Furthermore, whereas the utility of forming implicit attitudes for such specific categories is clear in that it would facilitate rapid information processing and would afford more seamless navigation of one’s social world, the utility of quickly processing global information about the self is less clear (for theoretical arguments, see Epstein, 2006; Hetts & Pelham, 2001; Pelham, Carvallo, & Jones, 2005).

An Alternative Definition for ISE

Given the poor validity evidence for measures of ISE, it is difficult to not become pessimistic about the whole construct

of ISE, let alone in our ability to compare cultures on ISE. Are there any alternative ways of conceiving of ISE that might be more promising? Even if we are incorrect about our argument for why ISE, as traditionally defined, cannot be easily measured, we believe a viable alternative definition of ISE has been offered that is distinct from the way that ISE has been operationalized in most research. This definition has the potential to both offer future directions for ISE research as well as answer whether there is cultural variability in ISE or self-enhancement motivations that extends beyond self-presentational biases.

Prior to the development of the IAT self-esteem measure, Greenwald and Banaji (1995) offered the following definition: “*Implicit self-esteem* is the introspectively unidentified (or inaccurately identified) effect of the self-attitude on evaluation of self-associated and self-dissociated objects” (p. 11). This definition is noteworthy in a number of respects. First, it suggests that people’s ISE can be assessed not by measuring how quickly they can associate positive words or concepts with the individual self (as in the IAT), but instead by measuring how positively people evaluate other objects that either do or do not reflect on their selves. The notion that the self-concept extends beyond the corporeal individual has been around since at least William James (1890):

a man’s self is the sum total of all that he can call his, not only his body and his psychic powers, but his clothes and his house, his wife and children, his ancestors and friends, his reputation and works, his lands and horses, and yacht and bank-account. (pp. 291-292)

Hence, self-associated objects may be viewed as an extension of self-identity.

Second, this definition does not require the existence of a self-attitude that is itself implicit (Hetts & Pelham, 2001). We propose that an underlying representation of self-feelings exists in memory, but this is common and accessible to both explicit and implicit processes and may be formed in part by both. This view of implicit processing is consistent with that of other theorists (e.g., Fazio & Olson, 2003; Gawronski & Bodenhausen, 2007; Olson et al., 2007), and our speculative account suggests that traditional ISE measures fail because of difficulty in activating this underlying structure. In contrast, this alternative definition suggests that there are implicit processes by which individuals evaluate self-associated objects that may lie outside of conscious awareness. For instance, individuals may place a high value on the model of car that they drive, but be unaware that their attitude toward the car is due in part to a projection of their own positive self-feelings onto it. It is the *effect* of the self-attitude on these self-associated objects through an unconscious route that constitutes ISE. Therefore, individuals’ attitudes toward self-associated objects offer a venue through which indirect assessments about an individual’s self-feelings become possible and should largely circumvent self-presentational

biases. There is no necessity to invoke the existence of dual attitudes (an implicit and an explicit evaluation) or to rely on implicit attitude measures to assess these.

Greenwald and Banaji (1995) summarized an inventory of psychological phenomena that they argued are likely reflections of ISE when defined in this manner and that we describe in further detail later, including the endowment effect, the similarity-attraction effect, minimal group effects, postdecisional dissonance, social comparisons, autobiographical memories, liking for name letters, and so on. These phenomena constitute research findings in which it seems reasonable to assume that individuals’ evaluations of a self-associated object, idea, or person(s), reflect their own self-evaluations, while the individual remains unaware of this connection. As Sedikides and Gregg (2008) put it, “at a primitive level of mental operation beyond the reach of social desirability, the pleasant scent of self consistently perfumes nearby objects” (p. 110). In addition to reflecting the positivity of one’s self-views, some phenomena (social comparisons and autobiographical memory) are thought to also help maintain high self-esteem. Although each of these phenomena have a number of theoretical explanations that are often distinct from ISE, Greenwald and Banaji (1995) noted that “the implicit self-esteem interpretation goes beyond other interpretations in predicting that the various effects should be moderated by self-esteem. That is, there should be stronger implicit manifestations of self-esteem for subjects who are higher in self-esteem” (p. 14). Hence, an individual’s underlying self-feelings could theoretically be assessed indirectly by measuring how much individuals demonstrate these phenomena. To the extent that the implicit processes are accessing the same underlying representation of self-feelings as explicit processes, we would expect that explicit self-esteem would be positively related to these effects. In the next section, we offer an integration of this alternative conception of ISE with a discussion of the evidence for cross-cultural variation in self-enhancement motivations.

Cultural Variation in Self-Enhancement Under an Alternative Definition of ISE

To the extent that the positivity of people’s self-views are implicated in the various measures of ISE that Greenwald and Banaji (1995) suggested, this offers a productive route for comparing cultures on self-enhancement motivations in a way that circumvents self-presentational concerns. If cultural differences extend to these phenomena, it would suggest that the cultural differences in self-enhancement are not solely a product of cultural differences in self-presentational norms. To integrate our discussion of ISE and culture, we next examine such phenomena that have also been studied across East Asian and Western cultures. Within each section, we review evidence from outside of cross-cultural research that these phenomena are (at least in part) reflections

of people's self-evaluations, evidence that speaks to their relative magnitude across cultures, and any evidence that directly explains cross-cultural variability. A discussion of additional phenomena and the links among them appears afterwards.

The Endowment Effect

Experimental research has shown that merely owning an object (e.g., a coffee mug), even if just awarded, is often sufficient to lead individuals to value it more than potential buyers (Kahneman, Knetsch, & Thaler, 1990). This phenomenon is known as the "endowment effect" and has been replicated with a variety of objects, such as basketball tickets, chocolates, or key chains. Although there are multiple mechanisms that have been identified that contribute to the endowment effect (e.g., evolutionary accounts, Huck, Kirchsteiger, & Oechssler, 2005; loss aversion, Kahneman & Tversky, 1979; egocentric empathy gaps, Van Boven, Dunning, & Loewenstein, 2000), one account relevant to ISE is that the mere ownership of an object establishes an association between the object and the self. Individuals with a tendency toward self-enhancement subsequently enhance the value of the object as they do other self-associated objects (Beggan, 1992; Gawronski, Bodenhausen, & Becker, 2007; Morewedge, Shu, Gilbert, & Wilson, 2009). Individuals who do not own the object or do not have a strong self-object association do not project their self-feelings onto the object. Recent experimental work suggests that self-projection and the potential loss of a self-associated object is one mechanism through which the endowment effect likely occurs (Buhrmester & Swann, 2009; Chatterjee, Irmak, & Rose, 2013; Morewedge et al., 2009). Thus, we would expect a stronger endowment effect among cultures with stronger self-enhancement motivations.

The first set of studies to compare the magnitude of the endowment effect across cultures contrasted various East Asian samples with Western ones (Maddux et al., 2010). These studies found that Asian Americans/Canadians exhibited a smaller endowment effect than Euro-Americans/Canadians, and that the magnitude of the endowment effect was increased when participants were primed with an independent self-construal (common among Westerners), but reduced when primed with an interdependent self-construal (common among East Asians). Moreover, the relevance of the self-concept to the endowment effect was demonstrated in a study that found that when self-object associations were made salient, the endowment effect became stronger for Euro-Canadians and weaker for Japanese. Overall, this pattern of results indicates that East Asians exhibit a smaller endowment effect than Westerners, and that variability in self-enhancement motivations plays a role in this cultural difference. The positive self-evaluations of North Americans (vs. the lower self-evaluations of East Asians) colors subjects' evaluations of objects that they own.⁴

Similarity-Attraction Effect

One of the most robust findings in the interpersonal attraction literature is that people tend to like those that are similar to them in some way. This effect is often called the *similarity-attraction effect* (or homophily) and has been demonstrated for domains such as similarities in attitudes, opinions, and values (Byrne & Nelson, 1965); activity preferences (Hogan, Hall, & Blank, 1972; Jamieson, Lydon, & Zanna, 1987); and a variety of demographic and social status variables (Buss, 1985). Although there are multiple mechanisms that have been offered for the similarity-attraction effect (e.g., similar others validate one's views, Byrne & Clore, 1970; it makes for smoother and more rewarding interactions, Berscheid & Walster, 1978; it increases the likelihood of reciprocal liking, Condon & Crano, 1988), ISE has also been implicated as part of the effect (Jones, Pelham, Carvalho, & Mirenberg, 2004) and explicit self-esteem tends to positively correlate with it (Karylowski, 1976; Leonard, 1975). The idea is that people should be attracted to those who are similar to them because people's positive views of themselves should generalize to those who share the same characteristics as them. A similar person is desirable to the extent that one views oneself (and thus also the similar other) as having desirable traits; a self-critical individual might not see as much to like in someone who shares his or her own less desirable aspects. On the basis of this rationale, we would expect that East Asians would have a smaller similarity-attraction effect due to less positive self-feelings.

There have been several cross-cultural studies of the similarity-attraction effect between East Asians and Westerners. Two studies found null effects (Byrne et al., 1971; Gudykunst & Nishida, 1984), although in neither of these studies was similarity measured between actual relationships nor was it experimentally manipulated with real targets. Six other published studies find that East Asians display a significantly smaller similarity-attraction effect than Westerners (Heine, Foster, & Spina, 2009; Heine & Renshaw, 2002; Schug, Yuki, Horikawa, & Takemura, 2009). Importantly, this cultural difference was found to be, at least in part, a product of individual's self-esteem. Within both cultural groups, the higher an individual's explicit self-esteem, the more pronounced was the similarity-attraction effect, and explicit self-esteem was found to mediate the cultural difference in the similarity-attraction effect (Heine et al., 2009). In sum, part of the reason that people are attracted to those who are similar to themselves is that others reflect on their own desirable characteristics, and the cultural difference in the magnitude of this effect is consistent with the notion that East Asians view themselves less positively than Westerners.

Minimal Group Effects

Another way that people's self-evaluations may generalize away from their individual self is in terms of how people

evaluate the groups to which they belong. People self-enhance not only by viewing themselves in especially positive terms but also by viewing their groups positively. For example, people tend to view their friends, sports teams, spouses, countries, and fellow group members in highly positive terms and often engaging in the same kinds of self-deceptive strategies to preserve their positive evaluations of them (e.g., Brown, 1986; Hastorf & Cantril, 1954; Murray, Holmes, & Griffin, 1996). Viewing one's groups in especially positive terms is not necessarily indicative of self-enhancing motivations, as people may have chosen to enter into relationships with others whom they viewed positively in the first place, or they may have had experiences with those relationship partners or groups that led them to form a positive evaluation. However, research from the minimal group paradigm controls for other factors that might affect how positively one may evaluate their groups and demonstrates a clear role for implicit self-enhancement.

The minimal group paradigm is one of the most widely used methodologies from the literature on intergroup conflict. Individuals are experimentally assigned to one of two novel groups via either some relatively trivial criterion (e.g., art preferences) or some random process. A reliable finding from this procedure is that individuals perceive their minimal in-groups as having more positive qualities than their minimal out-groups (Tajfel, 1970; Tajfel, Billig, Bundy, & Flament, 1971). Although numerous explanations have been offered to account for these minimal group effects (e.g., outgroup derogation enhances self-esteem, Abrams & Hogg, 1988; in-group identification reduces uncertainty, Grieve & Hogg, 1999; self-identity and self-categorization theory, Tajfel & Turner, 1986; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), much theory and evidence suggests that minimal group effects may be due, in part, to a projection of one's own self-feelings on to the in-group (Cadinu & Rothbart, 1996; Crocker, Thompson, McGraw, & Ingerman, 1987; Gawronski, Bodenhausen, et al., 2007; Krueger, 1998; Otten & Epstude, 2006). This position is summarized concisely by Gramzow and Gaertner (2005): "We propose that, once a novel group is linked to the self, the perceiver's self-evaluation is extended automatically to this new in-group. Persons with favourable self-concepts, therefore, should spontaneously generate favourable in-group evaluations" (p. 802). Further evidence of the relation between minimal groups and self-esteem can be seen in that minimal group effects increase following threats to the self (e.g., Hogg & Sunderland, 1991), and people's explicit self-esteem is higher if they have had the opportunity to discriminate between two groups (Lemyre & Smith, 1985). Therefore, to the extent that self-enhancement motivations underlie the minimal group effect, we would expect smaller effects for East Asians compared with Westerners.

Most cross-cultural research that has explored how positively people evaluate their groups has examined real-life groups, as opposed to minimal groups. For the most part, this research finds that North Americans view their groups more

positively than do East Asians. This pattern has been found for students' evaluations of family members (Heine & Lehman, 1997a; Ma-Kellams, Spencer-Rodgers, & Peng, 2011), mother's evaluations of their children's school performance (Stevenson & Stigler, 1992), evaluations of romantic partners (Endo, Heine, & Lehman, 2000), universities (Heine & Lehman, 1997a; Snibbe, Kitayama, Markus, & Suzuki, 2003), those who share the same ethnocultural background (Ma-Kellams et al., 2011; Rogers & Biesanz, 2014), and of one's gender (Bond, Hewstone, Wan, & Chiu, 1985). Two exceptions to this pattern are that no cultural differences were found in comparisons of the degree to which Japanese and Americans evaluated their best friends relative to other students (Brown & Kobayashi, 2002), or in comparisons of Japanese' and Canadians' evaluations of the quality of their relationships with their families and friends (Endo et al., 2000). East Asians have also been found to score lower than Westerners on measures of national pride (Rose, 1985), and on measures of collective self-esteem (Crocker, Luhtanen, Blaine, & Broadnax, 1994). We do not know of any studies that have found evidence that East Asians enhance their groups more than Westerners. In sum, the bulk of the evidence finds that Westerners evaluate their groups more positively than East Asians. It may seem counterintuitive that those from collectivistic cultures would rate their in-group members in a critical light (e.g., Brown & Kobayashi, 2002), as collectivism relates to the strength of the connection that in-group members have with the self. However, at the same time, collectivism correlates negatively with motivations to enhance the self (Heine et al., 1999), which should also generalize to those connected to the self. In general, explicit self-esteem is positively related to in-group biases (see meta-analysis by Aberson, Healy, & Romero, 2000).

There has been less cross-cultural research on minimal group effects. We recently conducted what we believe is the first cross-cultural comparison of a true minimal group effect (Falk, Heine, & Takemura, 2014): Japanese and Americans were assigned to different groups on the basis of their preferences for two abstract paintings (both by Wassily Kandinsky), and participants then evaluated the groups on three measures (group identification, intelligence, and personality traits) and allocated resources to the groups. Across all four measures, the American minimal group effect was significantly larger than that of the Japanese. Furthermore, explicit self-esteem was a significant predictor of the magnitude of the minimal group effect, and the obtained cultural differences in the minimal group effect were partially mediated by explicit self-esteem for all four dependent measures. Additional cultural variability has been found in similar paradigms but under conditions where participants knew other group members (Buchan, Johnson, & Croson, 2006; Wetherell, 1982). A tendency to view oneself positively colors how one views a minimal group to which one has been assigned, and East Asians appear to view both themselves and their minimal groups less positively than do Westerners.

Postdecisional Dissonance

A well-known effect in the cognitive dissonance literature is that people will often rationalize their decisions by coming to view their choices more positively after they have made them (Brehm, 1956). Among the numerous explanations for dissonance effects (e.g., inconsistency, Festinger, 1957; aversive consequences, Cooper & Fazio, 1984; physiological arousal, Zanna & Cooper, 1974), one account maintains that postdecisional dissonance is an indirect motivation to view oneself positively; by rationalizing their decisions, people can feel more confident that they made the best decision and are good decision makers (e.g., Aronson, 1969; Steele, 1988). Some evidence for this can be seen in that people are less likely to show postdecisional dissonance if they have been provided with another means to feel good about themselves (Heine & Lehman, 1997b; Steele & Liu, 1983). Similarly, an emerging ISE perspective is that choosing a product establishes a link between the self and that product (Greenwald & Banaji, 1995; Gawronski, Bodenhausen, et al., 2007) and some evidence specifically links dissonance effects with explicit self-esteem (Gibbons, Eggleston, & Benthin, 1997; Stone, 2003). In a similar manner to the endowment effect, participants with positive self-views then project more positive feelings, ratings, and higher prices onto their chosen products over the ones that they did not choose. It is also possible that products that are not chosen may be seen as disassociated from the self, and may receive lower ratings as a result.

Numerous cross-cultural studies have been conducted contrasting East Asians and North Americans in the tendency to rationalize decisions. One finding that emerges from all of these is that in a standard postdecisional dissonance design, North Americans show a significant dissonance effect, whereas East Asians do not (Heine & Lehman, 1997b; Hoshino-Browne et al., 2005; Imada & Kitayama, 2010; Kitayama, Snibbe, Markus, & Suzuki, 2004). This is consistent with the notion that postdecisional dissonance is the product of people's self-evaluations coloring their choices, and that North Americans have more positive self-views than East Asians. Furthermore, this cultural difference was amplified when participants received a threat to the self in terms of negative feedback on a personality test, highlighting the role of self-enhancement in the task (Heine & Lehman, 1997b). However, East Asians have been found to rationalize choices when others are implicated in them, either when they are making choices for others (Hoshino-Browne et al., 2005) or when they make their choices under the watchful eyes of others (Imada & Kitayama, 2010; Kitayama et al., 2004). At present, it is not clear how the other-oriented postdecisional dissonance exhibited by East Asians reflects on the positivity of their self-views (the effect is curiously often absent among North Americans; Hoshino-Browne et al., 2005; Imada & Kitayama, 2010; Kitayama et al., 2004) and whether this is also indicative of ISE.

Social Comparisons

People evaluate themselves by comparing themselves with others (Festinger, 1954). In contrast to ISE effects where there is a positive evaluation of a self-associated group or other person, the comparison we discuss here is exclusively with a person who is viewed as distinct from or disassociated with the self. Furthermore, the comparison is done in a biased way such that bringing a specific individual to mind may reinforce the individuals' preexisting self-view or underlying motivation for (or against) high self-esteem (Greenwald & Banaji, 1995). For example, a positive self-view can be facilitated by comparing oneself with someone worse off, thereby creating a favorable contrast (i.e., a downward social comparison; Wills, 1981). Self-motivations are relevant to these different kinds of social comparisons, in that people who are motivated by self-enhancement tend to recruit downward social comparisons (e.g., Pyszczynski, Greenberg, & LaPrelle, 1985; Vohs & Heatherton, 2004; S. R. Wilson & Benner, 1971), whereas those seeking self-improvement goals are more likely to focus on upward social comparisons (Buunk, Collins, Taylor, VanYperen, & Dakof, 1990; Lockwood & Kunda, 1997; Vohs & Heatherton, 2004).

A few studies have explicitly investigated cultural variability in social comparisons. Among Chinese and American participants, collectivism is associated with more upward social comparisons and less with downward social comparisons (Chung & Mallery, 1999). Across three studies, Asian Canadians were more likely than Euro-Canadians to make upward social comparisons and even more so after failure feedback (White & Lehman, 2005). In experimentally assigning participants to engage in either upward or downward social comparisons, Asian Canadians respond more positively to hearing about a successful other than an unsuccessful other, and the opposite pattern of results was true for Euro-Canadians (White, Lehman, & Cohen, 2006). This cross-cultural effect has been replicated via the use of priming independent versus interdependent self-construals (White et al., 2006). In an open-ended response format, Canadians made more downward social comparisons than did Japanese (Ross, Heine, Wilson, & Sugimori, 2005). Overall, the evidence indicates that East Asians (vs. Westerners) are more likely to engage in social comparisons that are reflective of a self-critical attitude toward the self and a desire for self-improvement rather than social comparisons that would enhance the self.

Autobiographical Memory

ISE has also been linked to autobiographical memory in the sense that those with more positive self-views are more likely to maintain and revise their memories, often unconsciously, so as to project a positive self-image (e.g., Greenwald, 1980). For example, self-enhancement motivations are sometimes linked to an exaggeration of people's

past performance (among Westerners; Gramzow & Willard, 2006). Likewise, Canadians feel that proud events seem subjectively closer to them in time than do embarrassing events (Ross & Wilson, 2002). Such self-favoring biases in memory are related to explicit self-esteem and global perceptions of the self (Christensen, Wood, & Barrett, 2003; D'Argembeau & Van der Linden, 2008; Gramzow & Willard, 2006; Willard & Gramzow, 2008). Thus, memories of the self may be viewed as an extension of the self and revision of memory may be an unconscious process that seeks to reinforce individuals' self-enhancing (or self-critical) tendencies (Greenwald & Banaji, 1995).

There has been little direct cross-cultural research that has examined this type of phenomenon. Whereas Canadians tend to report proud events as being closer in time and easier to recall than embarrassing events, East Asians recall proud and embarrassing events to be equally easy to remember and similar in temporal distance (Ross et al., 2005). Japanese are less likely to recall feeling proud in past success situations than Americans and more likely to recall feeling lucky (Imada & Ellsworth, 2011). Americans have been found to have more memories of successes than failures, whereas for Japanese, the pattern was reversed (Endo & Meijer, 2004). Asian Americans are also more likely to remember lower levels of well-being even in situations when their online reports of well-being are similar to those of European Americans (Oishi, 2002). Hence, the available evidence suggests that East Asians do not revise their memory in a self-enhancing manner to the same degree as Westerners. Given that these are self-report measures, it is possible that self-presentation norms do influence people's reported recollections; however, some of the distinct patterns that have been found are quite indirect and nonobvious (e.g., Ross et al., 2005) and would seem unlikely to be the result of conscious efforts to present the self modestly.

Liking for Name Letters

Greenwald and Banaji (1995) also identified liking of the letters of one's own name, especially one's initials, as an ISE effect (Jones et al., 2002). That is, individuals should feel some connection between themselves and their initials, and therefore like their initials more than they do other letters of the alphabet (likewise, people should prefer numbers of their own birthday more than other numbers).

As noted earlier, the little cross-cultural evidence thus far either suggests that East Asians do not like their name letters and birthday numbers as much as Westerners (Blass et al., 1997; Cai et al., 2011) or that no cultural variability exists (Falk et al., 2013). In sum then, this cross-cultural evidence is slightly consistent with our position. However, the status of this effect as reflecting self-enhancement motivations is somewhat uncertain considering the lack of validity of this effect as an ISE measure (Bosson et al., 2000; Buhrmester et al., 2011; Falk et al., 2013) and that it is only weakly related

with explicit self-esteem ($r < .12$; Falk et al., 2013; Krizan & Suls, 2008). We suspect that the validity evidence for the name letter/birthday effect is as weak as it is because the letters and numbers associated with one's name and birthday are too specific, are encountered far more frequently in the context of words and numbers that have nothing to do with one's name or birthday, and are too trivial of a self-attribute to be a good predictor for positive self-feelings more generally (see also Buhrmester et al., 2011). To us, it seems reasonable to assume that self-associations with these abstract numbers and letters should be weaker and less central to individuals' self-concepts than their memory for past performance, the quality of the decisions they make, or the attributes of the groups to which they belong.

Summary, Alternative Explanations, and Additional Phenomena

There are numerous ways to identify effects of ISE, and the above review lists seven different phenomena that have been theoretically linked to ISE by Greenwald and Banaji (1995) and have been investigated across cultures in previous research. Our review of the literature on these phenomena revealed both that there is evidence that these phenomena reflect on the positivity of one's self-view, and that there is substantial cultural variability for each of these phenomena with Westerners showing more pronounced effects than East Asians (with the possible exception of postdecisional dissonance on tasks that implicate others). Furthermore, an experimental manipulation of self-object associations enhanced the cultural differences of the endowment effect (Maddux et al., 2010), and threatening feedback increased the cultural differences for both postdecisional dissonance (Heine & Lehman, 1997b) and tendencies to make downward social comparisons (White & Lehman, 2005), demonstrating the link between these phenomena and motivations to maintain positive self-views. Likewise, cultural differences in the similarity-attraction effect (Heine et al., 2009) and the minimal group effect (Falk et al., 2014) were found to be mediated by explicit self-esteem, underscoring the relevance of self-enhancement to these phenomena.

Although there are multiple theories or processes to explain the existence of each of these phenomena (some of which may differ across cultures), the notion that cultures vary in their motivations for self-enhancement is the only account that we are aware of that can explain all of these effects. Moreover, we also believe that it is unlikely that cultural differences in self-presentational motivations could account for the findings from these studies, because participants would be largely unaware that their behavior and/or ratings for any of these effects reflects on the self; for example, participants are surely not consciously reflecting on how their self has anything to do with how they price objects as buyers and sellers. To the extent that a case could be made that, say, a modest self-presentational style colors both

people's self-evaluations and their evaluations of their belongings, this would imply that self-presentation is operating unconsciously or in an automatic fashion, which would render the label "self-presentation" inappropriate, as it would be indistinguishable from individuals' true self-feelings. Furthermore, we know of no published evidence that links self-presentation motivations to any of these phenomena, which further weakens the appeal of a self-presentational account.

We also argue that an opposite conclusion based on these results, that people with low explicit self-esteem should be more likely than those high in explicit self-esteem to exhibit these ISE effects, is not tenable. Specifically, some have argued that individuals with low explicit self-esteem are more likely to engage in self-enhancing strategies as a means for compensating for feelings of low self-worth both for minimal group effects (Abrams & Hogg, 1988) and for dissonance (Nail, Misak, & Davis, 2004; Steele, Spencer, & Lynch, 1993). However, these ideas have been challenged by many (e.g., Aronson, 1994; Cadinu & Rothbart, 1996; Gramzow & Gaertner, 2005; Otten, 2002; Tesser, 2000), and a meta-analysis of response to self-threats indicates that those with high explicit self-esteem are more likely to compensate for self-doubts and use more self-protective strategies whereas low self-esteem individuals more readily accept self-threatening information (vanDellen et al., 2011). Moreover, the cross-cultural research that has targeted these effects includes a threatening feedback manipulation (Heine & Lehman, 1997b) and mediation analysis with self-esteem (Falk et al., 2014), neither of which supported this alternative claim.

The diversity of the above phenomena strengthens our argument that cultural variability exists in self-enhancement motivations, while also presenting important future challenges on the study of the relationships among such phenomena and their cross-cultural variability. Greenwald and Banaji (1995) suggested that these phenomena are all united by their relationship with ISE, yet to our knowledge there is little, if any, research directly exploring the relationships among such phenomena. To the extent that they all do measure ISE, we would expect that these phenomena should all correlate positively with each other (e.g., a stronger similarity-attraction effect among those who show more pronounced endowment effects), although these correlations would likely be modest given the many other mechanisms aside from ISE that have been shown to underlie each phenomenon. Given that cultures differ in a number of other dimensions other than self-enhancement, it is also possible that other mechanisms may partly explain cross-cultural variability in these phenomena. However, we are unaware of any single explanation that is as parsimonious as our own. We also suppose that some alternative explanations are not necessarily mutually exclusive with cultural variability in self-enhancement. For example, Falk et al. (2014) found evidence that both self-esteem and perceived competition were both mediators of minimal group effects with each having independent effects.

Greenwald and Banaji (1995) considered a number of other phenomena (i.e., role-playing in persuasion, cognitive responses to persuasion, and displaced self-esteem) that we do not discuss here because, to our knowledge, there is no cross-cultural research on any of these. These, and other psychological phenomena in which individuals project their self-feelings onto a self-associated object may also be promising ISE effects. To the extent that these phenomena do reliably predict positive self-views we would predict that they would likely differ across cultures similar to the ways observed above. Likewise, there are surely other kinds of phenomena not considered by Greenwald and Banaji that may also reflect on ISE (e.g., egocentric perceptions of fairness in negotiations; Gelfand et al., 2002) and might also differ between cultures. We encourage researchers to consider alternative ways in which positive evaluations of the self might indirectly influence a range of different kinds of judgments and to explore the magnitude of these effects across cultures. Finally, although it may be possible to construct a valid measure of ISE that is based on Greenwald and Banaji's definition and is relatively free from other contaminating processes, existing ISE measurement procedures do not appear to adequately capture this definition.⁵

Conclusion

ISE has been conceptualized in two distinct ways: "the association of the concept of self with a valence attribute" (Greenwald et al., 2002, p. 5) and "the introspectively unidentified (or inaccurately identified) effect of the self-attitude on evaluation of self-associated and self-dissociated objects" (Greenwald & Banaji, 1995, p. 11). We propose that the validity evidence for the former definition is weak and that the latter conception remains a possible viable construct that is quickly gaining validity evidence.

The notion that the association between the self and valence attributes can be reliably assessed with implicit measures receives little support. The various measures that have been developed using this conceptualization tend not to be correlated with each other, they do not correlate well with explicit measures, and they do not reliably predict theoretically relevant criteria; in short, they do not reliably predict *anything* that has been investigated thus far. We submit that these measures yield such poor validity evidence because the self is not an attitudinal object that can be evaluated implicitly. Although we cannot rule out the future development of a valid ISE measure that is consistent with Greenwald et al.'s (2002) definition, they currently stand in stark contrast to the considerable validity evidence that has been garnered for implicit measures of other kinds of attitudes.

In contrast, there is emerging validity evidence for the notion that ISE can be redefined and assessed in terms of how positively people evaluate self-associated and self-dissociated objects. People's attitudes toward objects that reflect on themselves correlate with their self-assessments

and are affected in predictable ways by manipulations of associations with the self or positive feedback about the self (Falk et al., 2014; Heine et al., 2009; Heine & Lehman, 1997b; Maddux et al., 2010; White & Lehman, 2005). Moreover, cultural differences between East Asians and Westerners on these latter measures of ISE parallel those found with other kinds of measures of self-esteem and self-enhancement, whereas cultural comparisons of the former measures of ISE yield a pattern that does not converge with that found with other measures.

This new conception of ISE has numerous theoretical and applied implications. First, our review strongly suggests that any findings from traditional measures of ISE are difficult to interpret, given the strikingly weak validity evidence for them. On the contrary, our new conceptualization of ISE suggests that fields of inquiry that may at first glance appear to be removed from concerns of self-evaluations, such as the endowment effect and the similarity-attraction effect, are also reflective of the positivity of people's self-views. This reconceptualization should open up new avenues of research into self-evaluations that avoid self-presentational concerns. Moreover, the converging evidence for cultural differences in these measures of ISE suggests that what we view as markers of mental health may importantly vary across cultures and that interventions that emerge from a Western understanding of well-being may not be as successful in East Asian cultural contexts.

The measurement of ISE remains an important goal, as researchers are rightfully concerned about the role that self-presentational norms play in explicit measures of self-esteem. As do Greenwald and Banaji (1995), we propose that the projection of self-feelings onto self-associated objects likely occurs outside of conscious awareness, and thus, allows cultural comparisons that circumvent self-presentational biases. Given that the past 15 years of implicit measurement research has failed to yield a valid measure of ISE, we propose that the study of ISE will benefit more by targeting measures that assess how positively people evaluate objects that vary in their associations with the self-concept.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Heine received a grant from the Social Sciences and Humanities Research Council of Canada (410-2011-0409), and Falk was awarded a Postdoctoral Fellowship from the Social Sciences and Humanities Research Council of Canada.

Notes

1. In brief, the debate hinges on which studies ought to be included in a meta-analysis. Heine, Kitayama, and Hamamura

(2007a, 2007b) considered a wide range of methodologies (53 effects in total, including all of the effects from the meta-analyses by Sedikides, Gaertner, & Vevea, 2005, 2007a, 2007b) and found that East Asians did *not* self-enhance more for especially valued traits (average $r = -.01$), in contrast to Westerners (average $r = .18$). Moreover, since the publication of these meta-analyses, a number of other studies using different methods have similarly found that East Asians do not self-enhance more for important traits (Falk, Heine, Yuki, & Takemura, 2009; Hamamura, Heine, & Takemoto, 2007; Ross, Heine, Wilson, & Sugimori, 2005; Su & Oishi, 2011). In contrast, Sedikides et al. (2005, 2007a, 2007b) found a different pattern (average $r = .22$ and $r = .26$ for East Asian and Westerners, respectively), but only by restricting the research base to 29 effects, 27 of which came from a single methodology (i.e., the better-than-average-effect). What is especially problematic with limiting the database largely to studies of the better-than-average-effect is that this measure incorporates a number of cognitive biases in addition to self-enhancement motivations (Chambers & Windschitl, 2004; Kruger & Burrus, 2004). Most notably, the measure is compromised by a tendency for people to evaluate "everyone as better than average" (Klar & Giladi, 1997; Klar, Medding, & Sarel, 1996), which artificially inflates estimates of both self-enhancement and the correlations between self-enhancement and perceived trait/domain importance (Hamamura et al., 2007). East Asians only self-enhance more for important traits in studies that measure self-enhancement with the better-than-average-effect; the other 11 methods find either that East Asians show a null correlation or a negative correlation between self-enhancement and trait/domain importance (Hamamura et al., 2007; Heine et al., 2007a, 2007b; Ross et al., 2005; Su & Oishi, 2011). The tactical self-enhancement perspective fails to account for why these methods do not find evidence in support of it.

2. Although a lack of measurement invariance across cultures could also distort cultural variability on self-report scales of self-esteem (e.g., Chen, 2008), two studies that controlled for it still found significant (Baranik et al., 2008) and marginally significant cultural differences (Song, Cai, Brown, & Grimm, 2011).
3. Such a pattern could be partly explained by the low reliability of such measures (Bosson, Swann, & Pennebaker, 2000). In another recent study, among 5 different ISE measures (scored in different ways to obtain 19 different measures), not a single test-retest reliability exceeded .55, with most measures below .4 (Krause, Back, Egloff, & Schmukle, 2011). However, as it is unlikely that such measures are free from method variance (De Houwer, Teige-Mocigemba, Spruyt, & Moors, 2009) and ISE measures tend not to positively correlate with one another, one must wonder whether such reliability estimates are merely picking up on systematic noise rather than ISE.
4. Another potential interpretation is that perhaps cultural differences in materialism could account for the cultural difference in the endowment effect. Although Westerners may appear stereotypically materialistic compared with those from some other cultures, there is little evidence for consistent cross-cultural variability (e.g., Clarke & Micken, 2002; Ger & Belk, 1996; Schaefer, Hermans, & Parker, 2004; Workman & Lee, 2010) and East Asians are more likely than Westerners to choose brand-name products (H. S. Kim & Drolet, 2009).

Thus, such a mechanism seems unlikely in accounting for the endowment effect.

5. One promising measurement procedure is the affect misattribution procedure (AMP; Payne, Cheng, Govorun, & Stewart, 2005) for self-esteem, in which participants are primed with “self” or “neutral” primes before rating the pleasantness of ambiguous stimuli (Falk, Heine, Takemura, Zhang, & Hsu, 2013). If self-primes were sufficient to establish a connection between the self and ambiguous stimuli, we might expect higher ratings of such stimuli (vs. stimuli following the neutral prime) for participants who are high in self-esteem. However, the only study that we know of that used the AMP for self-esteem did not find sufficient validity evidence (Falk et al., 2013), perhaps suggesting that the self-primes used (first/last name, hometown, etc., as used in the IAT for self-esteem; for example, Yamaguchi et al., 2007) were not adequate at either activating self-feelings for something as complex as the self or at establishing a strong connection between the self and ambiguous stimuli.

References

- Aberson, C. L., Healy, M., & Romero, V. (2000). Ingroup bias and self-esteem: A meta-analysis. *Personality and Social Psychology Review, 4*, 157-173.
- Abrams, D., & Hogg, M. A. (1988). Comments on the motivational status of self-esteem in social identity and intergroup discrimination. *European Journal of Social Psychology, 18*, 317-334.
- Alicke, M., & Sedikides, C. (2009). Self-enhancement and self-protection: What they are and what they do. *European Review of Social Psychology, 20*, 1-48.
- Aronson, E. (1969). The theory of cognitive dissonance: A current perspective. In L. Berkowitz (Ed.), *Advances in experimental psychology (Vol. 4)*, pp. 1-34. New York, NY: Academic Press.
- Aronson, E. (1994). *The social animal*. San Francisco, CA: Freeman Press.
- Baranik, L. E., Meade, A. W., Lakey, C. E., Lance, C. E., Hu, C., Hua, W., & Michalos, A. (2008). Examining the differential item functioning of the Rosenberg Self-Esteem Scale across eight countries. *Journal of Applied Social Psychology, 38*, 1867-1904.
- Bargh, J. A. (1984). Automatic and conscious processing of social information. In R. S. Wyer, Jr., & T. K. Srull (Eds.), *Handbook of social cognition (Vol. 3)*, pp. 1-43. Hillsdale, NJ: Lawrence Erlbaum.
- Bargh, J. A. (1994). The four horsemen of automaticity: Awareness, efficiency, intention, and control in social cognition. In R. S. Wyer, Jr., & T. K. Srull (Eds.), *Handbook of social cognition* (2nd ed., pp. 1-40). Hillsdale, NJ: Lawrence Erlbaum.
- Bargh, J. A. (1996). Automaticity in social psychology. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 169-183). New York, NY: Guilford Press.
- Beggan, J. K. (1992). On the social nature of nonsocial perception: The mere ownership effect. *Journal of Personality and Social Psychology, 62*, 229-237.
- Berry, C. J., Shanks, D. R., Speekenbrink, M., & Henson, R. N. A. (2012). Models of recognition, repetition priming, and fluency: Exploring a new framework. *Psychological Review, 119*, 40-79.
- Berscheid, E., & Walster, E. H. (1978). *Interpersonal attraction*. Reading, MA: Addison-Wesley.
- Blanton, H., & Jaccard, J. (2006). Arbitrary metrics in psychology. *American Psychologist, 61*, 27-41.
- Blanton, H., Jaccard, J., Christie, C., & Gonzales, P. M. (2007). Plausible assumptions, questionable assumptions and post hoc rationalizations: Will the real IAT, please stand up? *Journal of Experimental Social Psychology, 43*, 399-409.
- Blanton, H., Jaccard, J., Gonzales, P. M., & Christie, C. (2006). Decoding the implicit association test: Perspectives on criterion prediction. *Journal of Experimental Social Psychology, 42*, 192-212.
- Blanton, H., Jaccard, J., Klick, J., Mellers, B., Mitchell, G., & Tetlock, P. E. (2009). Strong claims and weak evidence: Reassessing the predictive validity of the IAT. *Journal of Applied Psychology, 94*, 567-582.
- Blass, T., Schmitt, C., Jones, E., & O'Connell, M. (1997, August). *The own-birthday effect: From Japan to the United States*. Paper presented at the 105th Annual Convention of the American Psychological Association, Chicago, IL.
- Bollen, K. A. (1984). Multiple indicators: Internal consistency or no necessary relationship? *Quality & Quantity, 18*, 377-385.
- Bond, M. H., Hewstone, M., Wan, W.-C., & Chiu, C.-K. (1985). Group-serving attributions across intergroup contexts: Cultural differences in the explanation of sex-typed behaviours. *European Journal of Social Psychology, 15*, 435-451.
- Bos, A., Huijding, J., Muris, P., Vogel, L., & Biesheuvel, J. (2010). Global, contingent, and implicit self-esteem and psychopathological symptoms in adolescents. *Personality and Individual Differences, 48*, 311-316.
- Bosson, J. K. (2006). Conceptualization, measurement, and functioning of nonconscious self-esteem. In M. H. Kernis (Ed.), *Self-esteem issues and answers: A sourcebook of current perspectives* (pp. 53-59). New York, NY: Psychology Press.
- Bosson, J. K., Lakey, C. E., Campbell, W. K., Zeigler-Hill, V., Jordan, C. H., & Kernis, M. H. (2008). Untangling the links between narcissism and self-esteem: A theoretical and empirical review. *Social & Personality Psychology Compass, 2*, 1415-1439.
- Bosson, J. K., Swann, W. B., & Pennebaker, J. W. (2000). Stalking the perfect measure of implicit self-esteem: The blind men and the elephant revisited? *Journal of Personality and Social Psychology, 79*, 631-643.
- Boucher, H. C., Peng, K., Shi, J., & Wang, L. (2009). Culture and implicit self-esteem: Chinese are “good” and “bad” at the same time. *Journal of Cross-Cultural Psychology, 40*, 24-45.
- Boyd, R., Borgerhoff-Mulder, M., Durham, W. H., & Richerson, P. J. (1997). Are cultural phylogenies possible? In P. Weingart (Ed.), *Human by nature: Between biology and the social sciences* (pp. 355-386). Mahwah, NJ: Lawrence Erlbaum.
- Brehm, J. (1956). Postdecision changes in the desirability of alternatives. *Journal of Abnormal and Social Psychology, 52*, 384-389.
- Brown, J. D. (1986). Evaluations of self and others: Self-enhancement biases in social judgments. *Social Cognition, 4*, 353-376.
- Brown, J. D. (2003). The self-enhancement motive in collectivistic cultures. *Journal of Cross-Cultural Psychology, 34*, 603-605.
- Brown, J. D., & Kobayashi, C. (2002). Self-enhancement in Japan and America. *Asian Journal of Social Psychology, 5*, 145-168.

- Buchan, N. R., Johnson, E. J., & Croson, R. T. A. (2006). Let's get personal: An international examination of the influence of communication, culture and social distance on other regarding preferences. *Journal of Economic Behavior & Organization*, 60, 373-398.
- Buhrmester, M. D., Blanton, H., & Swann, W. B. (2011). Implicit self-esteem: Nature, measurement, and a new way forward. *Journal of Personality and Social Psychology*, 100, 365-385.
- Buhrmester, M. D., & Swann, W. B. (2009, February). *The role of the self in the endowment effect*. Poster presented at the meeting of the Society of Personality and Social Psychology, Tampa, FL.
- Buss, D. M. (1985). Human mate selection. *American Scientist*, 73, 47-51.
- Buunk, B. P., Collins, R. L., Taylor, S. E., VanYperen, N. W., & Dakof, G. A. (1990). The affective consequences of social comparison: Either direction has its ups and downs. *Journal of Personality and Social Psychology*, 59, 1238-1249.
- Byrne, D., & Clore, G. L. (1970). A reinforcement model of evaluative responses. *Personality: An International Journal*, 1, 103-128.
- Byrne, D., Gouaux, C., Griffitt, W., Lamberth, J., Murakawa, N., Prasad, M., . . . Ramirez, M., III. (1971). The ubiquitous relationship: Attitude similarity and attraction. *Human Relations*, 24, 201-207.
- Byrne, D., & Nelson, D. (1965). Attraction as a linear function of positive reinforcement. *Journal of Personality and Social Psychology*, 1, 659-663.
- Cadinu, M. R., & Rothbart, M. (1996). Self-anchoring and differentiation processes in the minimal group setting. *Journal of Personality and Social Psychology*, 70, 661-677.
- Cai, H., Brown, J. D., Deng, C., & Oakes, M. A. (2007). Self-esteem and culture: Differences in cognitive self-evaluations or affective self-regard? *Asian Journal of Social Psychology*, 10, 162-170.
- Cai, H., Sedikides, C., Gaertner, L., Wang, C., Carvallo, M., Xu, Y., . . . Jackson, L. E. (2011). Tactical self-enhancement in China: Is modesty at the service of self-enhancement in East-Asian culture? *Social Psychological & Personality Science*, 2, 59-64.
- Chambers, J. R., & Windschitl, P. D. (2004). Biases in social comparative judgments: The role of nonmotivated factors in above-average and comparative-optimism effects. *Psychological Bulletin*, 130, 813-838.
- Chang, B. P. I., & Mitchell, C. J. (2009). Processing fluency as a source of salience asymmetries in the Implicit Association Test. *Quarterly Journal of Experimental Psychology*, 62, 2030-2054.
- Chang, B. P. I., & Mitchell, C. J. (2011). Discriminating between the effects of valence and salience in the implicit association test. *Quarterly Journal of Experimental Psychology*, 64, 2251-2275.
- Chang, H.-C., & Holt, G. R. (1994). A Chinese perspective on face as inter-relational concern. In S. Ting-Toomey (Ed.), *The challenge of facework: Cross-cultural and interpersonal issues* (pp. 95-132). New York: State University of New York Press.
- Chatterjee, P., Irmak, C., & Rose, R. L. (2013). The endowment effect as self-enhancement in response to threat. *Journal of Consumer Research*, 40, 460-476.
- Chen, F. F. (2008). What happens if we compare chopsticks with forks? The impact of making inappropriate comparisons in cross-cultural research. *Journal of Personality and Social Psychology*, 95, 1005-1018.
- Christensen, T. C., Wood, J. V., & Barrett, L. F. (2003). Remembering everyday experience through the prism of self-esteem. *Personality and Social Psychology Bulletin*, 29, 51-62.
- Chung, T., & Mallery, P. (1999). Social comparison, individualism-collectivism, and self-esteem in China and the United States. *Current Psychology: Developmental, Learning, Personality, Social*, 18, 340-352.
- Clarke, I., & Micken, K. S. (2002). An exploratory cross-cultural analysis of the values of materialism. *Journal of International Consumer Marketing*, 14, 65-89.
- Cohen, D. (2001). Cultural variation: Considerations and implications. *Psychological Bulletin*, 127, 451-471.
- Condon, J. W., & Crano, W. D. (1988). Inferred evaluation and the relation between attitude similarity and interpersonal attraction. *Journal of Personality and Social Psychology*, 54, 789-797.
- Conroy, F. R., & Smith, E. R. (2007). Attitude representation: Attitudes as patterns in a distributed connectionist representational system. *Social Cognition*, 25, 718-735.
- Cooper, J., & Fazio, R. H. (1984). A new look at dissonance theory. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 17, pp. 229-266). San Diego, CA: Academic Press.
- Crocker, J., Luhtanen, R., Blaine, B., & Broadnax, S. (1994). Collective self-esteem and psychological well-being among White, Black, and Asian college students. *Personality and Social Psychology Bulletin*, 20, 503-513.
- Crocker, J., Thompson, L. L., McGraw, K. M., & Ingerman, C. (1987). Downward comparison, prejudice, and evaluations of others: Effects of self-esteem and threat. *Journal of Personality and Social Psychology*, 52, 907-916.
- D'Argembeau, A., & Van der Linden, M. (2008). Remembering pride and shame: Self-enhancement and the phenomenology of autobiographical memory. *Memory*, 16, 538-547.
- DeHart, T., & Pelham, B. W. (2007). Fluctuations in state implicit self-esteem in response to daily negative events. *Journal of Experimental Social Psychology*, 43, 157-165.
- DeHart, T., Pelham, B. W., & Tennen, H. (2006). What lies beneath: Parenting style and implicit self-esteem. *Journal of Experimental Social Psychology*, 42, 1-17.
- De Houwer, J., Teige-Mocigemba, S., Spruyt, A., & Moors, A. (2009). Implicit measures: A normative analysis and review. *Psychological Bulletin*, 135, 347-368.
- De Raedt, R., Schacht, R., Franck, E., & De Houwer, J. (2006). Self-esteem and depression revisited: Implicit positive self-esteem in depressed patients? *Behaviour Research and Therapy*, 44, 1017-1028.
- Dunning, D. (1999). A newer look: Motivated social cognition and schematic representation of social concepts. *Psychological Inquiry*, 10, 1-11.
- Duval, T. S., & Wicklund, R. (1972). *A theory of objective self-awareness*. New York, NY: Academic Press.
- Endo, Y., Heine, S. J., & Lehman, D. R. (2000). Culture and positive illusions in close relationships: How my relationships are better than yours. *Personality and Social Psychology Bulletin*, 26, 1571-1586.
- Endo, Y., & Meijer, Z. (2004). Autobiographical memory of success and failure experiences. In Y. Kashima, Y. Endo, E. S.

- Kashima, C. Leung, & J. McClure (Eds.), *Progress in Asian social psychology* (Vol. 4, pp. 67-84). Seoul, Korea: Kyoyook-Kwahak-Sa.
- Epstein, S. (2003). Cognitive-experiential self-theory of personality. In I. B. Weiner (Series Ed.) and T. Millon & M. J. Lerner (Vol. Eds.), *Handbook of psychology: Vol. 5. Personality and social psychology* (pp. 159-184). Hoboken, NJ: John Wiley.
- Epstein, S. (2006). Conscious and unconscious self-esteem from the perspective of cognitive-experiential self-theory. In M. H. Kernis (Ed.), *Self-esteem issues and answers: A sourcebook of current perspectives* (pp. 69-76). New York, NY: Psychology Press.
- Falk, C. F., Heine, S. J., & Takemura, K. (2014). Cultural variation in the minimal group effect. *Journal of Cross-Cultural Psychology, 45*, 265-281.
- Falk, C. F., Heine, S. J., Takemura, K., Zhang, C. X. J., & Hsu, C. (2013). Are implicit self-esteem measures valid for assessing individual and cultural differences? *Journal of Personality*. Advance online publication. doi:10.1111/jopy.12082
- Falk, C. F., Heine, S. J., Yuki, M., & Takemura, K. (2009). Why do Westerners self-enhance more than East Asians? *European Journal of Personality, 23*, 183-203.
- Fazio, R. H. (2007). Attitudes as object-evaluation associations of varying strength. *Social Cognition, 25*, 603-637.
- Fazio, R. H., & Olson, M. A. (2003). Implicit measures in social cognition research: Their meaning and use. *Annual Review of Psychology, 54*, 297-327.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7*, 117-140.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Funder, D. C., & Dobroth, K. M. (1987). Differences between traits: Properties associated with interjudge agreement. *Journal of Personality and Social Psychology, 52*, 409-418.
- Gawronski, B., & Bodenhausen, G. V. (2006). Associative and propositional processes in evaluation: An integrative review of implicit and explicit attitude change. *Psychological Bulletin, 132*, 692-731.
- Gawronski, B., & Bodenhausen, G. V. (2007). Unraveling the process underlying evaluation: Attitudes from the perspective of the APE model. *Social Cognition, 25*, 687-717.
- Gawronski, B., Bodenhausen, G. V., & Becker, A. P. (2007). I like it, because I like myself: Associative self-anchoring and post-decisional change of implicit evaluations. *Journal of Experimental Social Psychology, 43*, 221-232.
- Gawronski, B., Hofmann, W., & Wilbur, C. J. (2006). Are "implicit" attitudes unconscious? *Consciousness and Cognition, 15*, 485-499.
- Gawronski, B., LeBel, E. P., & Peters, K. R. (2007). What do implicit measures tell us? Scrutinizing the validity of three common assumptions. *Perspectives on Psychological Science, 2*, 181-193.
- Gelfand, M. J., Higgins, M., Nishii, L. H., Raver, J. L., Dominguez, A., Murakami, F., . . . Toyama, M. (2002). Culture and egocentric perceptions of fairness in conflict and negotiation. *Journal of Applied Psychology, 87*, 833-845.
- Ger, G., & Belk, R. W. (1996). Cross-cultural differences in materialism. *Journal of Economic Psychology, 17*, 55-77.
- Gibbons, F. X., Eggleston, T. J., & Benthin, A. C. (1997). Cognitive reactions to smoking relapse: The reciprocal relation between dissonance and self-esteem. *Journal of Personality and Social Psychology, 72*, 184-195.
- Gramzow, R. H., & Gaertner, L. (2005). Self-esteem and favoritism toward novel in-groups: The self as an evaluative base. *Journal of Personality and Social Psychology, 88*, 801-815.
- Gramzow, R. H., & Willard, G. (2006). Exaggerating current and past performance: Motivated self-enhancement versus reconstructive memory. *Personality and Social Psychology Bulletin, 32*, 1114-1125.
- Greenwald, A. G. (1980). The totalitarian ego: Fabrication and revision of personal history. *American Psychologist, 35*, 603-618.
- Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: Attitudes, self-esteem, and stereotypes. *Psychological Review, 102*, 4-27.
- Greenwald, A. G., Banaji, M. R., Rudman, L. A., Farnham, S. D., Nosek, B. A., & Mellott, D. S. (2002). A unified theory of implicit attitudes, stereotypes, self-esteem, and self-concept. *Psychological Review, 109*, 3-25.
- Greenwald, A. G., & Farnham, S. D. (2000). Using the implicit association test to measure self-esteem and self-concept. *Journal of Personality and Social Psychology, 79*, 1022-1038.
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology, 74*, 1464-1480.
- Greenwald, A. G., Nosek, B. A., Banaji, M. R., & Klauer, K. C. (2005). Validity of the salience asymmetry interpretation of the implicit association test: Comment on Rothermund and Wentura (2004). *Journal of Experimental Psychology: General, 134*, 420-425.
- Greenwald, A. G., Nosek, B. A., & Sriram, N. (2006). Consequential validity of the implicit association test: Comment on Blanton and Jaccard (2006). *American Psychologist, 61*, 56-61.
- Greenwald, A. G., Poehlman, T. A., Uhlmann, E. L., & Banaji, M. R. (2009). Understanding and using the Implicit Association Test: III. Meta-analysis of predictive validity. *Journal of Personality and Social Psychology, 97*, 17-41.
- Grieve, P. G., & Hogg, M. A. (1999). Subjective uncertainty and intergroup discrimination in the minimal group situation. *Personality and Social Psychology Bulletin, 25*, 926-940.
- Gudykunst, W., & Nishida, T. (1984). Individual and cultural influences on uncertainty reduction. *Communication Monographs, 51*, 23-36.
- Hamamura, T., & Heine, S. J. (2008). Self-enhancement, self-improvement, and face among Japanese. In E. C. Chang (Ed.), *Self-criticism and self-enhancement: Theory, research, and clinical implications* (pp. 105-122). Washington, DC: American Psychological Association.
- Hamamura, T., Heine, S. J., & Paulhus, D. L. (2008). Cultural differences in response styles: The role of dialectical thinking. *Personality and Individual Differences, 44*, 932-942.
- Hamamura, T., Heine, S. J., & Takemoto, T. R. S. (2007). Why the better-than-average effect is a worse-than-average measure of self-enhancement: An investigation of conflicting findings

- from studies of East Asian self-evaluations. *Motivation and Emotion*, 31, 247-259.
- Hamamura, T., Meijer, Z., Heine, S. J., Kamayo, K., & Izumi, H. (2009). Approach-avoidance motivations and information processing: A cross-cultural analysis. *Personality and Social Psychology Bulletin*, 35, 454-462.
- Hastorf, A. H., & Cantril, H. (1954). They saw a game: A case study. *Journal of Abnormal and Social Psychology*, 49, 129-134.
- Hayes, A. F., & Dunning, D. (1997). Construal processes and trait ambiguity: Implications for self-peer agreement in personality judgment. *Journal of Personality and Social Psychology*, 72, 664-677.
- Heine, S. J. (2003). Self-enhancement in Japan? A reply to Brown and Kobayashi. *Asian Journal of Social Psychology*, 6, 75-84.
- Heine, S. J. (2005). Where is the evidence for pancultural self-enhancement? A reply to Sedikides, Gaertner, & Toguchi. *Journal of Personality and Social Psychology*, 89, 531-538.
- Heine, S. J., & Buchtel, E. E. (2009). Personality: The universal and culturally specific. *Annual Review of Psychology*, 60, 369-394.
- Heine, S. J., Foster, J.-A. B., & Spina, R. (2009). Do birds of a feather universally flock together? Cultural variation in the similarity-attraction effect. *Asian Journal of Social Psychology*, 12, 247-258.
- Heine, S. J., & Hamamura, T. (2007). In search of East Asian self-enhancement. *Personality and Social Psychology Review*, 11, 4-27.
- Heine, S. J., Kitayama, S., & Hamamura, T. (2007a). Inclusion of additional studies yields different conclusions: Comment on Sedikides, Gaertner, & Vevea (2005). *Journal of Personality and Social Psychology*. *Asian Journal of Social Psychology*, 10, 49-58.
- Heine, S. J., Kitayama, S., & Hamamura, T. (2007b). Which studies test whether self-enhancement is pancultural? Reply to Sedikides, Gaertner, and Vevea, 2007. *Asian Journal of Social Psychology*, 10, 198-200.
- Heine, S. J., Kitayama, S., Lehman, D. R., Takata, T., Ide, E., Leung, C., & Matsumoto, H. (2001). Divergent consequences of success and failure in Japan and North America: An investigation of self-improving motivations and malleable selves. *Journal of Personality and Social Psychology*, 81, 599-615.
- Heine, S. J., & Lehman, D. R. (1995). Cultural variation in unrealistic optimism: Does the West feel more invulnerable than the East? *Journal of Personality and Social Psychology*, 68, 595-607.
- Heine, S. J., & Lehman, D. R. (1997a). The cultural construction of self-enhancement: An examination of group-serving biases. *Journal of Personality and Social Psychology*, 72, 1268-1283.
- Heine, S. J., & Lehman, D. R. (1997b). Culture, dissonance, and self-affirmation. *Personality and Social Psychology Bulletin*, 23, 389-400.
- Heine, S. J., Lehman, D. R., Markus, H. R., & Kitayama, S. (1999). Is there a universal need for positive self-regard? *Psychological Review*, 106, 766-794.
- Heine, S. J., & Renshaw, K. (2002). Interjudge agreement, self-enhancement, and liking: Cross-cultural divergences. *Personality and Social Psychology Bulletin*, 28, 578-587.
- Heine, S. J., Takata, T., & Lehman, D. R. (2000). Beyond self-presentation: Evidence for self-criticism among Japanese. *Personality and Social Psychology Bulletin*, 26, 71-78.
- Heine, S. J., Takemoto, T., Moskalkenko, S., Lasaleta, J., & Henrich, J. (2008). Mirrors in the head: Cultural variation in objective self-awareness. *Personality and Social Psychology Bulletin*, 34, 879-887.
- Hetts, J. J., & Pelham, B. W. (2001). A case for the nonconscious self-concept. In G. B. Morskwitz (Ed.), *Cognitive social psychology: The Princeton symposium on the legacy and future of social cognition* (pp. 105-123). Mahwah, NJ: Lawrence Erlbaum.
- Hetts, J. J., Sakuma, M., & Pelham, B. W. (1999). Two roads to positive regard: Implicit and explicit self-evaluation and culture. *Journal of Experimental Social Psychology*, 35, 512-559.
- Ho, D. Y.-F. (1976). On the concept of face. *The American Journal of Sociology*, 81, 867-884.
- Hofmann, W., Gawronski, B., Gschwendner, T., Le, H., & Schmitt, M. (2005). A meta-analysis on the correlation between implicit association test and explicit self-report measures. *Personality and Social Psychology Bulletin*, 31, 1369-1385.
- Hogan, R., Hall, R., & Blank, E. (1972). An extension of the similarity-attraction hypothesis to the study of vocational behavior. *Journal of Counseling Psychology*, 19, 238-240.
- Hogg, M. A., & Sunderland, J. (1991). Self-esteem and intergroup discrimination in the minimal group paradigm. *British Journal of Social Psychology*, 30, 51-62.
- Hoshino-Browne, E., Zanna, A. S., Spencer, S. J., Zanna, M. P., Kitayama, S., & Lackenbauer, S. (2005). On the cultural guises of cognitive dissonance: The case of Easterners and Westerners. *Journal of Personality and Social Psychology*, 89, 294-310.
- Huck, S., Kirchsteiger, G., & Oechssler, J. (2005). Learning to like what you have: Explaining the endowment effect. *The Economic Journal*, 115, 689-702.
- Imada, T., & Ellsworth, P. C. (2011). Proud Americans and lucky Japanese: Cultural differences in appraisal and corresponding emotion. *Emotion*, 11, 329-345.
- Imada, T., & Kitayama, S. (2010). Social eyes and choice justification: Culture and dissonance revisited. *Social Cognition*, 28, 294-310.
- James, W. (1890). *The principles of psychology*. New York, NY: Dover Publications.
- Jamieson, D. W., Lydon, J. E., & Zanna, M. P. (1987). Attitude and activity preference similarity: Differential bases of interpersonal attraction for low and high self-monitors. *Journal of Personality and Social Psychology*, 53, 1052-1060.
- John, O. P., & Robins, R. W. (1993). Determinants of interjudge agreement on personality traits: The Big Five domains, observability, evaluativeness, and the unique perspective of the self. *Journal of Personality*, 61, 521-551.
- Johnson, D. D. P., & Fowler, J. H. (2011). The evolution of overconfidence. *Nature*, 477, 317-320.
- Jones, J. T., Pelham, B. W., Carvallo, M., & Mirenberg, M. C. (2004). Do I love thee? Let me count the Js: Implicit egotism and interpersonal attraction. *Journal of Personality and Social Psychology*, 87, 665-683.
- Jones, J. T., Pelham, B. W., Mirenberg, M. C., & Hetts, J. J. (2002). Name letter preferences are not merely mere exposure: Implicit egotism as self-regulation. *Journal of Experimental Social Psychology*, 38, 170-177.

- Jordan, C. H., Logel, C., Spencer, S. J., Zanna, M. P., Wood, J. V., & Holmes, J. G. (2013). Responsive low self-esteem: Low explicit self-esteem, implicit self-esteem, and responses to performance feedback. *Journal of Social and Clinical Psychology, 32*, 703-732.
- Jordan, C. H., Spencer, S. J., Zanna, M. P., Hoshino-Browne, E., & Correll, J. (2003). Secure and defensive high self-esteem. *Journal of Personality and Social Psychology, 85*, 969-978.
- Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1990). Experimental test of the endowment effect and the Coase theorem. *Journal of Political Economy, 98*, 1325-1347.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decisions under risk. *Econometrica, 47*, 313-327.
- Karpinski, A., & Steinman, R. B. (2006). The single category implicit association test as a measure of implicit social cognition. *Journal of Psychology and Social Psychology, 91*, 16-32.
- Karylowski, J. (1976). Self-esteem, similarity, liking and helping. *Personality and Social Psychology Bulletin, 2*, 71-74.
- Kernis, M. H. (2003). Toward a conceptualization of optimal self-esteem. *Psychological Inquiry, 14*, 1-26.
- Kim, H. S., & Drolet, A. (2009). Express your social self: Cultural differences in choice of brand-name versus generic products. *Personality and Social Psychology Bulletin, 35*, 1555-1566.
- Kim, Y., Cohen, D., & Au, W. (2010). The jury and abjuration of my peers: The self in face and dignity cultures. *Journal of Personality and Social Psychology, 98*, 904-916.
- Kitayama, S. (2002). Culture and basic psychological processes—Toward a system view of culture: Comment on Oyserman et al. (2002). *Psychological Bulletin, 128*, 89-96.
- Kitayama, S., Markus, H. R., Matsumoto, H., & Norasakkunkit, V. (1997). Individual and collective processes in the construction of the self: Self-enhancement in the United States and self-criticism in Japan. *Journal of Personality and Social Psychology, 72*, 1245-1267.
- Kitayama, S., Snibbe, A. C., Markus, H. R., & Suzuki, T. (2004). Is there any free choice? Self and dissonance in two cultures. *Psychological Science, 15*, 527-533.
- Kitayama, S., & Uchida, Y. (2003). Explicit self-criticism and implicit self-regard: Evaluating self and friend in two cultures. *Journal of Experimental Social Psychology, 39*, 476-482.
- Klar, Y., & Giladi, E. E. (1997). No one in my group can be below the group's average: A robust positivity bias in favor of anonymous peers. *Journal of Personality and Social Psychology, 73*, 885-901.
- Klar, Y., Medding, A., & Sarel, D. (1996). Nonunique invulnerability: Singular versus distributional probabilities and unrealistic optimism in comparative risk judgments. *Organizational Behavior and Human Decision Processes, 67*, 229-245.
- Kobayashi, C., & Greenwald, A. G. (2003). Implicit-explicit differences in self-enhancement for Americans and Japanese. *Journal of Cross-Cultural Psychology, 34*, 522-541.
- Koole, S. L., & DeHart, T. (2007). Self-affection without self-reflection: Origins, models, and consequences of implicit self-esteem. In C. Sedikides & S. Spencer (Eds.), *The self in social psychology* (pp. 36-86). New York, NY: Psychology Press.
- Krause, S., Back, M. D., Egloff, B., & Schmukle, S. C. (2011). Reliability of implicit self-esteem measures revisited. *European Journal of Personality, 25*, 239-251.
- Krizan, Z., & Suls, J. (2008). Are implicit and explicit measures of self-esteem related? A meta-analysis for the name-letter test. *Personality and Individual Differences, 44*, 521-531.
- Krueger, J. (1998). Enhancement bias in descriptions of self and others. *Personality and Social Psychology Bulletin, 24*, 505-516.
- Kruger, J., & Burrus, J. (2004). Egocentrism and focalism in unrealistic optimism (and pessimism). *Journal of Experimental Social Psychology, 40*, 332-340.
- Kurman, J. (2003). Why is self-enhancement low in certain collectivist cultures? An investigation of two competing explanations. *Journal of Cross-Cultural Psychology, 34*, 496-510.
- Lemyre, L., & Smith, P. M. (1985). Intergroup discrimination and self-esteem in the minimal group paradigm. *Journal of Personality and Social Psychology, 49*, 660-670.
- Leonard, R. L. (1975). Self-concept and attraction for similar and dissimilar others. *Journal of Personality and Social Psychology, 31*, 926-929.
- Linville, P. W. (1987). Self-complexity as a cognitive buffer against stress-related illness and depression. *Journal of Personality and Social Psychology, 52*, 663-676.
- Lockwood, P., & Kunda, Z. (1997). Superstars and me: Predicting the impact of role models on the self. *Journal of Personality and Social Psychology, 73*, 91-103.
- Maddux, W. W., Yang, H., Falk, C. F., Adam, H., Adair, W., Endo, Y., . . . Heine, S. J. (2010). For whom is parting with possessions most painful? Cultural differences in the endowment effect. *Psychological Science, 21*, 1910-1917.
- Ma-Kellams, C., Spencer-Rodgers, J., & Peng, K. (2011). I am against us? Unpacking cultural differences in ingroup favoritism via dialecticism. *Personality and Social Psychology Bulletin, 37*, 15-27.
- Markus, H., & Wurf, E. (1987). The dynamic self-concept: A social psychological perspective. *Annual Review of Psychology, 38*, 299-337.
- Mezulis, A. H., Abramson, L. Y., Hyde, J. S., & Hankin, B. L. (2004). Is there a universal positivity bias in attributions? A meta-analytic review of individual, developmental, and cultural differences in the self-serving attributional bias. *Psychological Bulletin, 130*, 711-747.
- Mitchell, C. J. (2004). Mere acceptance produces apparent attitude in the implicit association test. *Journal of Experimental Social Psychology, 40*, 366-373.
- Morewedge, C. M., Shu, L. L., Gilbert, D. T., & Wilson, T. D. (2009). Bad riddance or good rubbish? Ownership and not loss aversion causes the endowment effect. *Journal of Experimental Social Psychology, 45*, 947-951.
- Murray, S. L., Holmes, J. G., & Griffin, D. W. (1996). The benefits of positive illusions: Idealization and the construction of satisfaction in close relationships. *Journal of Personality and Social Psychology, 70*, 79-98.
- Muthukrishna, M., Heine, S. J., Toyakawa, W., Hamamura, T., Kameda, T., & Henrich, J. (2014). *Overconfidence is universal? Depends on what you mean*. Manuscript submitted for publication.
- Nail, P. R., Misak, J. E., & Davis, R. M. (2004). Self-affirmation versus self-consistency: A comparison of two competing self-theories of dissonance phenomena. *Personality and Individual Differences, 36*, 1893-1905.

- Nisbett, R., & Wilson, T. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychology Review*, 84, 231-259.
- Nosek, B. A. (2007). Implicit-explicit relations. *Current Directions in Psychological Science*, 16, 65-69.
- Nosek, B. A., & Banaji, M. R. (2001). The go/no-go association task. *Social Cognition*, 19, 625-664.
- Nosek, B. A., & Sriram, N. (2007). Faulty assumptions: A comment on Blanton, Jaccard, Gonzales, and Christie (2006). *Journal of Experimental Social Psychology*, 43, 393-398.
- Oishi, S. (2002). The experiencing and remembering of well-being: A cross-cultural analysis. *Personality and Social Psychology Bulletin*, 28, 1398-1406.
- Oishi, S., & Diener, E. (2003). Culture and well-being: The cycle of action, evaluation, and decision. *Personality and Social Psychology Bulletin*, 29, 939-949.
- Olson, M. A., Fazio, R. H., & Hermann, A. D. (2007). Reporting tendencies underlie discrepancies between implicit and explicit measures of self-esteem. *Psychological Science*, 18, 287-291.
- Oswald, F. L., Mitchell, G., Blanton, H., Jaccard, J., & Tetlock, P. E. (2013). Predicting ethnic and racial discrimination: A meta-analysis of IAT criterion studies. *Journal of Personality and Social Psychology*, 105, 171-192.
- Otten, S. (2002). "Me and us" or "us and them"? The self as a heuristic for defining minimal ingroups. *European Review of Social Psychology*, 13, 1-33.
- Otten, S., & Epstude, K. (2006). Overlapping mental representations of self, ingroup, and outgroup: Unraveling self-stereotyping and self-anchoring. *Personality and Social Psychology Bulletin*, 32, 957-969.
- Paulhus, D. L., & Vazire, S. (2007). The self-report method. In R. W. Robins, R. C. Fraley, & R. F. Krueger (Eds.), *Handbook of research methods in personality psychology* (pp. 224-239). New York, NY: Guilford Press.
- Payne, B. K., Cheng, C. M., Govorun, O., & Stewart, B. D. (2005). An inkblot for attitudes: Affect misattribution as implicit measurement. *Journal of Personality and Social Psychology*, 89, 277-293.
- Pelham, B. W., Carvallo, M., & Jones, J. T. (2005). Implicit egotism. *Current Directions in Psychological Science*, 14, 106-110.
- Petty, R. E., Briñol, P., & DeMarree, K. G. (2007). The meta-cognitive model (MCM) of attitudes: Implications for attitude measurement, change, and strength. *Social Cognition*, 25, 657-686.
- Pyszczynski, T., Greenberg, J., & LaPrelle, J. (1985). Social comparison after success and failure: Biased search for information consistent with a self-serving conclusion. *Journal of Experimental Social Psychology*, 21, 195-211.
- Pyszczynski, T., Greenberg, J., Solomon, S., Arndt, J., & Schimel, J. (2004). Why do people need self-esteem? A theoretical and empirical review. *Psychological Bulletin*, 130, 435-468.
- Robinson, M. D., & Meier, B. P. (2005). Rotten to the core: Neuroticism and implicit evaluations of the self. *Self and Identity*, 4, 361-372.
- Rogers, K. H., & Biesanz, J. C. (2014). The accuracy and bias of interpersonal perceptions in intergroup interactions. *Social Psychological & Personality Science*. Advance online publication. doi:10.1177/1948550614537307
- Rooke, S. E., Hine, D. W., & Thorsteinsson, E. B. (2008). Implicit cognition and substance use: A meta-analysis. *Addictive Behaviors*, 33, 1314-1328.
- Rose, R. (1985). National pride in cross-national perspective. *International Social Science Journal*, 103, 85-96.
- Ross, M., Heine, S. J., Wilson, A. E., & Sugimori, S. (2005). Cross-cultural discrepancies in self-appraisals. *Personality and Social Psychology Bulletin*, 31, 1175-1188.
- Ross, M., & Wilson, A. E. (2002). It feels like yesterday: Self-esteem, valence of personal past experiences, and judgments of subjective distance. *Journal of Personality and Social Psychology*, 82, 792-803.
- Rothermund, K., & Wentura, D. (2001). Figure-ground asymmetries in the Implicit Association Test (IAT). *Zeitschrift für Experimentelle Psychologie*, 48, 94-106.
- Rothermund, K., & Wentura, D. (2004). Underlying processes in the implicit association test: Dissociating salience from associations. *Journal of Experimental Psychology: General*, 133, 139-165.
- Rothermund, K., Wentura, D., & De Houwer, J. (2005). Validity of the salience asymmetry account of the Implicit Association Test: Reply to Greenwald, Nosek, Banaji, and Klauer (2005). *Journal of Experimental Psychology: General*, 134, 426-430.
- Rudolph, A., Schröder-Abé, M., Schütz, A., Gregg, A. P., & Sedikides, C. (2008). Through a glass, less darkly? Reassessing convergent and discriminant validity in measures of implicit self-esteem. *European Journal of Psychological Assessment*, 24, 273-281.
- Schacter, D. L. (1987). Implicit memory: History and current status. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 13, 501-518.
- Schaefer, A. D., Hermans, C. M., & Parker, R. S. (2004). A cross-cultural exploration of materialism in adolescents. *International Journal of Consumer Studies*, 28, 399-411.
- Scheff, T. L., & Fearon, D. S., Jr. (2004). Cognition and emotion? The dead end in self-esteem research. *Journal for the Theory of Social Behavior*, 34, 73-90.
- Schimmack, U., & Diener, E. (2003). Predictive validity of explicit and implicit self-esteem for subjective well-being. *Journal of Research in Personality*, 37, 100-106.
- Schug, J., Yuki, M., Horikawa, H., & Takemura, K. (2009). Similarity attraction and actually selecting similar others: How cross-societal differences in relational mobility affect interpersonal similarity in Japan and the United States. *Asian Journal of Social Psychology*, 12, 95-103.
- Sedikides, C., Gaertner, L., & Toguchi, Y. (2003). Pancultural self-enhancement. *Journal of Personality and Social Psychology*, 84, 60-70.
- Sedikides, C., Gaertner, L., & Vevea, J. L. (2005). Pancultural self-enhancement reloaded: A meta-analytic reply to Heine (2005). *Journal of Personality and Social Psychology*, 89, 539-551.
- Sedikides, C., Gaertner, L., & Vevea, J. L. (2007a). Evaluating the evidence for pancultural self-enhancement. *Asian Journal of Social Psychology*, 10, 201-203.
- Sedikides, C., Gaertner, L., & Vevea, J. L. (2007b). Inclusion of theory-relevant moderators yield the same conclusions as Sedikides, Gaertner, and Vevea (2005): A meta-analytic reply to Heine, Kitayama, and Hamamura (2007). *Asian Journal of Social Psychology*, 10, 59-67.
- Sedikides, C., & Gregg, A. P. (2008). Self-enhancement: Food for thought. *Perspectives on Psychological Science*, 3, 102-115.

- Shavelson, R. J., Hubner, J. J., & Stanton, G. C. (1976). Self-concept: Validation of construct interpretations. *Review of Educational Research, 46*, 407-441.
- Smith, P. B. (2004). Acquiescent response bias as an aspect of cultural communication. *Journal of Cross-Cultural Psychology, 35*, 50-61.
- Snibbe, A. C., Kitayama, S., Markus, H. R., & Suzuki, T. (2003). They saw a game: A Japanese and American (football) field study. *Journal of Cross-Cultural Psychology, 34*, 581-595.
- Song, H., Cai, H., Brown, J. D., & Grimm, K. J. (2011). Differential item functioning of the Rosenberg Self-Esteem Scale in the US and China: Measurement bias matters. *Asian Journal of Social Psychology, 14*, 176-188.
- Spalding, L. R., & Hardin, C. D. (1999). Unconscious unease and self-handicapping: Behavioral consequences of individual differences in implicit and explicit self-esteem. *Psychological Science, 10*, 535-539.
- Spencer-Rodgers, J., Peng, K., Wang, L., & Hou, Y. (2004). Dialectical self-esteem and East-West differences in psychological well-being. *Personality and Social Psychology Bulletin, 30*, 1416-1432.
- Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology (Vol. 21)*, pp. 261-302. San Diego, CA: Academic Press.
- Steele, C. M., & Liu, T. J. (1983). Dissonance processes as self-affirmation. *Journal of Personality and Social Psychology, 45*, 5-19.
- Steele, C. M., Spencer, S. J., & Lynch, M. (1993). Self-image resilience and dissonance: The role of affirmational resources. *Journal of Personality and Social Psychology, 64*, 885-896.
- Stevenson, H. W., & Stigler, J. W. (1992). *The learning gap: Why our schools are failing and what we can learn from Japanese and Chinese education*. New York, NY: Summit Books.
- Stone, J. (2003). Self-consistency for low self-esteem in dissonance processes: The role of self-standards. *Personality and Social Psychology Bulletin, 29*, 846-858.
- Su, J. C., & Oishi, S. (2011). Re-examining the positivity of self-evaluations among East Asians and European Americans. *Journal of Research in Personality, 45*, 642-647.
- Swann, W. B. (1983). Self-verification: Bringing social reality into harmony with the self. In J. Suls & A. G. Greenwald (Eds.), *Psychological perspectives on the self (Vol. 2)*, pp. 33-66. Hillsdale, NJ: Lawrence Erlbaum.
- Swann, W. B., Griffin, J. J., Predmore, S. C., & Gaines, B. (1987). The cognitive-affective crossfire: When self-consistency confronts self-enhancement. *Journal of Personality and Social Psychology, 52*, 881-889.
- Szeto, A., Sorrentino, R. M., Yasunaga, S., Otsubo, Y., Kouhara, S., & Sasayama, I. (2009). Using the IAT across cultures: A case of implicit self-esteem in Japan and Canada. *Asian Journal of Social Psychology, 12*, 211-220.
- Tafarodi, R. W., & Ho, C. (2006). Implicit and explicit self-esteem: What are we measuring? *Canadian Psychology, 47*, 195-202.
- Tafarodi, R. W., Shaughnessy, S. C., Yamaguchi, S., & Murakoshi, A. (2011). The reporting of self-esteem in Japan and Canada. *Journal of Cross-Cultural Psychology, 42*, 155-164.
- Tajfel, H. (1970). Experiments in intergroup discrimination. *Scientific American, 223*, 96-102.
- Tajfel, H., Billig, M. G., Bundy, R. P., & Flament, C. (1971). Social categorization and intergroup behaviour. *European Journal of Social Psychology, 1*, 149-178.
- Tajfel, H., & Turner, J. C. (1986). A social identity theory of intergroup behaviour. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (pp. 7-24). Chicago, IL: Nelson-Hall.
- Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin, 103*, 193-210.
- Tesser, A. (1988). Toward a self-evaluation maintenance model of social behavior. In L. Berkowitz (Ed.), *Advances in experimental social psychology (Vol. 21)*, pp. 181-227. New York, NY: Academic Press.
- Tesser, A. (2000). On the confluence of self-esteem maintenance mechanisms. *Personality and Social Psychology Review, 4*, 290-299.
- Tice, D. M. (1991). Esteem protection or enhancement? Self-handicapping motives and attributions differ by trait self-esteem. *Journal of Personality and Social Psychology, 60*, 711-725.
- Tracy, J. L., Cheng, J. Y., Robins, R. W., & Trzesniewski, K. H. (2009). Authentic and hubristic pride: The affective core of self-esteem and narcissism. *Self and Identity, 8*, 196-213.
- Turner, J. C., Hogg, M., Oakes, P., Reicher, S., & Wetherell, M. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford, UK: Blackwell.
- Van Boven, L., Dunning, D., & Loewenstein, G. (2000). Egocentric empathy gaps between owners and buyers: Misperceptions of the endowment effect. *Journal of Personality and Social Psychology, 79*, 66-76.
- vanDellen, M. R., Campbell, W. K., Hoyle, R. H., & Bradfield, E. K. (2011). Compensating, resisting and breaking: A meta-analytic examination of reactions to self-esteem threat. *Personality and Social Psychological Review, 15*, 51-74.
- Van den Bussche, E., Van den Noortgate, W., & Reynvoet, B. (2009). Mechanisms of masked priming: A meta-analysis. *Psychological Bulletin, 135*, 452-477.
- Verplanken, B., Friborg, O., Wang, C. E., Trafimow, D., & Woolf, K. (2007). Mental habits: Metacognitive reflection on negative self-thinking. *Journal of Personality and Social Psychology, 92*, 526-541.
- Vohs, K. D., & Heatherton, T. F. (2004). Ego threat elicits different social comparison processes among high and low self-esteem people: Implications for interpersonal perceptions. *Social Cognition, 22*, 168-191.
- von Hippel, W., & Trivers, R. (2011). The evolution and psychology of self-deception. *Behavioral & Brain Sciences, 34*, 1-56.
- Wetherell, M. (1982). Cross-cultural studies of minimal groups: Implications for the social identity theory of intergroup relations. In H. Tajfel (Ed.), *Social identity and intergroup relations* (pp. 207-240). Cambridge, UK: Cambridge University Press.
- White, K., & Lehman, D. R. (2005). Culture and social comparison seeking: The role of self-motives. *Personality and Social Psychology Bulletin, 31*, 232-242.

- White, K., Lehman, D. R., & Cohen, D. (2006). Culture, self-construal, and affective reactions to successful and unsuccessful others. *Journal of Experimental Social Psychology, 42*, 582-592.
- Willard, G., & Gramzow, R. H. (2008). Exaggeration in memory: Systematic distortion of self-evaluative information under reduced accessibility. *Journal of Experimental Social Psychology, 44*, 246-259.
- Wills, T. A. (1981). Downward comparison principles in social psychology. *Psychological Bulletin, 90*, 245-271.
- Wilson, S. R., & Benner, L. A. (1971). The effects of self-esteem and situation on comparison choices during ability evaluation. *Sociometry, 34*, 381-397.
- Wilson, T. D., & Dunn, E. W. (2004). Self-knowledge: Its limits, value, and potential for improvement. *Annual Review of Psychology, 55*, 493-518.
- Workman, J. E., & Lee, S.-H. (2010). Materialism, fashion consumers and gender: A cross-cultural study. *International Journal of Consumer Studies, 35*, 50-57.
- Yamagishi, T., Hashimoto, H., Cook, K. S., Kiyonari, T., Shinada, M., Mifune, N., . . . Li, Y. (2012). Modesty in self-presentation: A comparison between the USA and Japan. *Asian Journal of Social Psychology, 15*, 60-68.
- Yamaguchi, S., Greenwald, A. G., Banaji, M. R., Murakami, F., Chen, D., Shiomura, K., . . . Krendl, A. (2007). Apparent universality of positive implicit self-esteem. *Psychological Science, 18*, 498-500.
- Zanna, M. P., & Cooper, J. (1974). Dissonance and the pill: An attribution approach to studying the arousal properties of dissonance. *Journal of Personality and Social Psychology, 29*, 703-709.