

## CHAPTER 4

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# ON THE RELATIONSHIPS BETWEEN EXPLICIT AND IMPLICIT GLOBAL SELF-ESTEEM AND PERSONALITY

**Jerry Suls and Zlatan Krizan**  
*University of Iowa*

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Global self-esteem refers to the general value that a person places on him- or herself and should be distinguished from appraisals of specific traits or abilities (such as academic self-concept). Psychologists, psychiatrists, sociologists, and educators have identified global self-esteem as a factor that influences motivation, career aspirations, educational success, job satisfaction, and mental and physical health (e.g., Baumeister, Campbell, Krueger, & Vohs, 2003). Because of its apparent connection to many important outcomes, global self-esteem is one of the most extensively studied individual differences. Self-esteem has tended, however, to be treated as a freestanding construct and as quite distinct from other individual differences. This treatment of self-esteem as an independent entity is surprising because it seems implausible that feelings of global self-worth should be unconnected to or independent of the individual's general temperament or personality. For one thing, a person's consistent

patterns of thought, feeling, and behavior should influence how they feel about themselves (e.g., Robins, Norem, & Cheek, 1999).

The pursuit of global self-esteem as an independent construct may be a consequence of the earliest writings about this concept. In *The Principles of Psychology*, William James (1890) set the research agenda for the study of the self. His best-known proposition was that self-esteem is a function of judgments about self-attributes (i.e., self-esteem = success/preensions ratio). This idea led subsequent researchers to conceive of the individual as evaluating specific abilities and attributes and then arriving at an overall sense of self-worth with some implicit cognitive algebra (Pelham, 1995; Pelham & Swann, 1989). This view has not, however, fared very well in terms of research. People hold specific views about their standing on particular domains (e.g., academic or athletic self-esteem), but these domain-specific assessments are only modestly associated with global self-esteem (Marsh, 1993, 1995). Even when domains are weighted by personal relevance, they still account for very little predictive variance (Marsh, 1995). However, perhaps because James's idea is so appealing, social psychologists have continued to treat global self-esteem as a freestanding construct, removed from personality.

James (1890) actually admitted a role for what we now refer to as "personality," but this aspect of his thinking is often overlooked (but see Brown, 1993). He observed, "there is a certain average tone of self-feeling ... which is independent of the objective reasons we may have for satisfaction and discontent" (p. 306). In this statement, James acknowledged that some aspects of self-esteem are strongly contingent on generalized feelings about the self that have little to do with the appraisals of particular abilities and other personal attributes. This generalized "self-feeling" has a resemblance to contemporary formulations of personality traits. Presumably, such self-feeling (independent of objective reasons—i.e., standing in traits and abilities) stems from individual differences in affect and personality. In this chapter, we review evidence concerning the relations between global self-esteem and personality.<sup>1</sup>

In contemporary research, global self-esteem has been most commonly measured by researchers with self-report questionnaires. Two of the most frequently used instruments are Rosenberg's (1965) 10-item self-report questionnaire and Coopersmith's (1967) 25-item Self-Esteem Inventory. Two representative items from the Rosenberg inventory are "On the whole, I am satisfied with myself," and "I certainly feel useless at times" (reverse-scored). Importantly, the Coopersmith and the Rosenberg scales and other global measures are *explicit measures* of self-esteem because they require respondents to report on their conscious feelings about the self (Greenwald & Banaji, 1995).

Greenwald and Banaji (1995), however, observed that people process self and social information not only in an aware, controlled, and reflective mode, but also in an unaware, automatic, and intuitive mode. In fact, considerable research has demonstrated that the self can and does operate automatically in many contexts (e.g., Markus, 1977; Rogers, Kuiper, & Kirker, 1977). For example, people are quicker at reading a word when they encountered it earlier, even though they do not remember the encounter (Jacoby & Kelley, 1990). Also, they make more negative self-evaluations when subliminally exposed to pairs of self-referent words (e.g., “I”) and negative adjectives (e.g., “bad”), presumably due to selective activation of negative self-knowledge (Riketta & Dauenheimer, 2003). In both of these empirical examples people are aware of the resultant cognitions, but are unaware of the mental processes that shape these cognitions. Accordingly, Greenwald and Banaji suggest that an implicit cognition is the introspectively unidentified (or inaccurately identified) trace of past experience that mediates a set of responses. Note that both past experience and responses can be accessible to awareness; for a process to be implicit it is only required that the effect of one on the other be consciously unrecognized. In keeping with these ideas, *implicit self-esteem* is defined as an automatic, overlearned, and nonconscious evaluation of the self (“past experience”) that guides spontaneous reactions to self-relevant stimuli (“set of responses”). A variety of implicit self-esteem measures have been developed; these will be described later in this chapter.

The relationship between explicit and implicit self-esteem and their links to behavior are currently the subject of considerable research (e.g., Bosson, Swann, & Pennebaker, 2000; Koole, Dijksterhuis, & van Knippenberg, 2001; Pelham, Mirenberg, & Jones, 2002). A general finding is that the scores on measures of implicit and explicit self-esteem are only modestly correlated (if at all; see below), which is consistent with the idea the self operates on two relatively parallel tracks—one involving controlled and deliberative thought and action and the other relatively automatic and nonreflective processes. Presumably, the conscious content of the explicit judgments of self may be different from the individual’s implicit or unconscious sense of self. For one thing, the latter should be less susceptible to self-presentation and defensiveness.

This raises the question whether the relations between global self-esteem and personality are the same for both implicit and explicit measures of self-esteem. Personality refers to stable, consistent patterns of thought, feeling, and behavior and is most typically measured by individual self-reports (projective measures would be an exception). Since measures of personality typically involve conscious, explicit judgments about the self, there may be substantial associations between explicit measures of self-esteem, but not necessarily with implicit measures. We will report

some preliminary evidence that addresses this question. First, however, we discuss research findings about the relations between explicit global self-esteem and personality.

## **GLOBAL SELF-ESTEEM AND THE BIG FIVE PERSONALITY DIMENSIONS**

### **The Big Five Personality Dimensions**

People differ in a variety of ways with respect to affect, thought, and behavior, so the potential number of personality dimensions is virtually limitless. However, specific types of traits, such as locus of control or sense of humor, can be considered narrowband traits—they refer to circumscribed domains. Advances in individual differences research suggest that there are a limited number of broadband traits that subsume more specific, differentiated traits. Eysenck (1967), for example, proposed a trait model that conceptualized personality as consisting of three main factors: Neuroticism, Extraversion, and Psychoticism. More recent efforts, starting with extensive analyses of the natural language of trait descriptors, consistently reveal the value of defining personality into five broad factors: Neuroticism, Extraversion, Conscientiousness, Agreeableness, and Openness to Experience. In this approach, a person essentially receives scores for each of the five dimensions; standing on each trait is considered to be independent of scores on the others. This structure, commonly known as the *Big Five*, consistently emerges from both self- and peer ratings (McCrae & Costa, 1987), in children and adults (Digman, 1987), and across languages and cultures (McCrae & Costa, 1997). The five-factor model is conceived as a hierarchical structure such that each of the dimensions can be decomposed into a number of specific facet traits. For example, the facets of Neuroticism are anxiety, angry hostility, depression, self-consciousness, impulsiveness, and vulnerability (Costa & McCrae, 1992). The Big Five is commonly measured with self-report questionnaires (Costa & McCrae, 1985; Goldberg, 1993; John, Donohue, & Kentle, 1991), although observer versions are also available. Some empirical and conceptual elements of the Big Five model continue to be the subject of debate and research but there appears to be consensus among individual difference researchers that the Big Five is a reasonable approximation of human personality.

#### ***Defining the Big Five***

To prepare the reader for the results reported in the next section, the Big Five dimensions must be described. The Neuroticism dimension

reflects emotional adjustment versus emotional instability. Persons who score high in Neuroticism (N) tend to be nervous, tense, and moody. In general, such individuals are considered highly emotionally unstable; their low-scoring counterparts tend to be emotionally stable and calm. Extraversion (E) refers to the quality of interpersonal interaction, with sociability and assertiveness anchoring one end of the continuum and reserve and shyness at the other end. The dimension of Agreeableness (A) represents the attitudes that the person holds toward other people, whereas E reflects the degree to which the person enjoys being in the presence of others. "A" refers to such traits as generosity, kindness, and cooperativeness. Those who score low in A tend to be manipulative, cynical, and noncooperative. Conscientiousness (C) refers to degree of organization, reliability, and carefulness. Low C individuals tend to be negligent, careless, and undependable. Openness to Experience (O) is defined by the appreciation and seeking of experience for its own sake. O is defined at one end by such traits as curiosity, imagination, and creativity and at the other end by conventionality, lack of curiosity, and intolerance of the new.

The most commonly used questionnaire measures of the Big Five are the NEO-PI-R (Costa & McCrae, 1985), the briefer NEO Five-Factor Inventory (NEO-FFI; Costa & McCrae, 1992), Goldberg's (1993) lexical markers, and the Big Five Inventory (BFI; John et al., 1991). Each of these yields continuous scores for all five dimensions.

### **Trait Affectivity**

A similar approach that focuses on the analysis of self-rated mood descriptors consistently reveals two broad emotional dispositions (Watson & Clark, 1992): negative affectivity—the chronic tendency to experience negative mood states (e.g., sadness and anxiety)—and positive affectivity: the chronic tendency to experience positive mood states (e.g., joy and enthusiasm). These are largely independent factors that emerge consistently across a variety of contexts (e.g., Mayer & Gaschke, 1988) and, like the Big Five, seem to reflect basic dispositions. Interestingly, trait affectivity seems to reflect the "average tone of self-feeling" that James discussed.

Negative and positive affectivity also overlap with the neuroticism (N) and extraversion (E) dimensions, respectively (e.g., Watson & Clark, 1992). Negative affectivity is strongly related to N (e.g., Judge, Erez, Bono, & Thoresen, 2002). These are logically related because a high score on both dimensions reflects emotional instability. The tendency for positive affectivity to be related to extraversion is also reasonable, as

sociability and assertiveness seem linked to positive emotions (e.g., Lucas & Diener, 2001).

### **Relations between Global Explicit Self-Esteem and General Personality Dimensions**

Several studies have assessed associations between neuroticism, extraversion, and global (explicit) self-esteem using the Rosenberg (1965) or the Coopersmith (1967) inventories. Results are quite consistent: global self-esteem relates negatively to neuroticism, with correlations typically exceeding  $-.50$  (Judge, Erez, & Bono, 1998) and relates positively to extraversion, with correlations typically ranging between  $.30$  and  $.50$ . As would be expected, similar results also are observed between global self-esteem and negative ( $r = -.54$ ) and positive affectivity ( $r = .47$ ; Watson, Suls, & Haig, 2002). These results suggest that the general disposition to experience negative emotions is strongly negatively associated with self-esteem, whereas the disposition to experience positive emotions is moderately positively associated with self-esteem.

Results for explicit global self-esteem and all Big Five dimensions have only recently been systematically presented. Watson and colleagues (2002) conducted three studies that included all five dimensions. In the first study, participants and their friends rated both themselves and their friends on the Rosenberg and on the BFI (John et al., 1991). Peer-report data were included to provide external indicators of the self-reports. For the self-ratings, self-esteem was inversely correlated with N ( $r = -.61$ ) and was positively and moderately correlated with E ( $r = .47$ ). In addition, self-esteem was modestly correlated with conscientiousness (C) ( $r = .28$ ), A ( $r = .25$ ), and O ( $r = .25$ ). The magnitude of the correlations was lower for peer ratings, but exhibited the same pattern. A confirmatory factor analysis (Bentler & Wu, 1995) was conducted, where each content factor was defined by a self-rating and its corresponding peer rating. The latent self-esteem factor was strongly negatively correlated with N ( $r = -.83$ ) and moderately with E ( $r = .44$ ) and A ( $r = .42$ ). Associations with C ( $r = .32$ ) and openness to experience (O) ( $r = .18$ ) were weaker. In sum, neuroticism has a strong (negative) association and extraversion has a moderate (positive) relationship with global explicit self-esteem.

A constructive replication was conducted to examine whether global self-esteem has a special relationship to one facet of personality: depression. (Although depression is not a personality trait *per se*, its recurring nature indicates that at least some persons have a depressogenic disposition and exhibit a habitual dysphoria that is punctuated by depressive episodes; e.g., Judd & Akiskal, 2000). Depression was made a special

focus of the research because there is a natural affinity between self-esteem and depression (e.g., Tarlow & Haaga, 1996). A negative self-concept is thought to play an etiological role in cognitive theories of depression, and one primary symptom of depression is “feelings of worthlessness” (American Psychiatric Association, 1994). Hence, we predicted that self-esteem would not only be strongly related to N but also to depression, a more narrowband construct.

To evaluate whether self-esteem has a special connection to certain types of negative affect, such as depression, we also included a measure of anxiety, another narrowband construct, as a comparison. Feelings of worthlessness and anhedonia, which are characteristic of depression or dysphoria, are quite different from fear and somatic tension, characteristics of anxiety. The prediction was that fear and anxiety should have weaker associations with self-esteem, while depression and self-esteem should be strongly associated. Furthermore, this differential pattern of associations should be exhibited despite the fact that fear, anxiety, and depression all share a negative valence and are subsumed under the broadband construct, N.

Approximately 300 college-aged participants completed the Rosenberg and the Coopersmith questionnaires, the BFI, and measures of depressive and anxiety symptoms (Mood and Anxiety Symptom Questionnaire [MASQ]; Watson & Clark, 1991). The results replicated those found in Study 1: both measures of self-esteem were inversely related to N ( $r = -.66$  for Rosenberg and Coopersmith) and positively associated with E ( $r = .40$  for Rosenberg;  $r = .48$  for Coopersmith). Associations with A, C, and O were modest. Consistent with predictions, self-esteem was strongly related to depression ( $r$ 's ranged from  $-.67$  to  $-.74$ ), but only moderately correlated with anxiety ( $r$ 's =  $-.42$  to  $-.47$ ). Confirmatory factor analysis confirmed that depression was about as strongly related to self-esteem ( $r = -.82$ ) as was neuroticism ( $r = -.87$ ). Anxiety exhibited a more modest correlation with self-esteem ( $r = -.53$ ). Other researchers also have found strong negative correlations between global explicit self-esteem and depressive symptomatology (e.g., Judge et al., 2002). These results indicate that global explicit self-esteem and depression might be best conceptualized as defining the opposite ends of a bipolar dimension. This is reasonable because the most notable feature of both low self-esteem and depression is negative self-view, reflected in item content of both types of self-report questionnaires.

Watson and colleagues (2002) conducted a third study in which a different measure of the Big Five and depression, the NEO-PI-R (Costa & McCrae, 1992), was used. This assessment tool was included because it has items that permit the scoring of each general dimension, in addition to particular facets of N, such as depression and anxiety. Approximately

350 college students completed the NEO-PI-R and the Rosenberg. As in Studies 1 and 2, Rosenberg scores were highly correlated with N ( $r = -.69$ ) but less so with E ( $r = .46$ ). Associations with C and O were negligible ( $r$ 's  $< .13$ ). In support of the idea that self-esteem has a special connection to depression, Rosenberg scores were more strongly correlated with the depression facet ( $r = .79$ ) than any of the other facets of the NEO. Furthermore, a structural equation model with all measures showed that a latent depression construct was most strongly associated with global explicit self-esteem ( $r = -.86$ ) than neuroticism ( $r = -.73$ ), extraversion ( $r = -.69$ ), or anxiety ( $r = -.53$ ).

### **Summary**

The results just described lend support to the idea that global explicit self-esteem is not a free-standing construct, but in fact is strongly associated both with general dimensions of personality—notably neuroticism—and with a more narrowband dimension: depression. The participants in these studies were college students, however, so we acknowledge that the results mainly apply to subclinical levels of sadness and hopelessness. (In addition, the instruments that were used did not assess other clinical symptoms of depression such as loss of appetite, psychomotor retardation/agitation, or sleep disturbance.) Even with these limitations, the strength and reliability of the findings seem to clearly demonstrate that global explicit self-esteem as commonly measured should not be considered as distinct from dimensions of personality and affect. The predisposition to experience negative emotions, particularly depressive affect, is strongly related to the individual's overall sense of self-worth.

The above results might shed light on the commonly observed discrepancy between a person's personal attributes and global self-esteem. Dimensions like N have strong roots in heredity (see Plomin & Caspi, 1999) and in early developmental experiences (see Lewis, 1999). This may help to explain why global feelings of self-worth often seem to have little connection to the individual's objective abilities and other attributes. There are persons who hold high opinions of themselves, although they have few positive attributes and other persons with many talents, but who nevertheless think poorly of themselves (Diener, Wolsic, & Fujita, 1995).

## **GLOBAL IMPLICIT SELF-ESTEEM AND PERSONALITY**

Should we expect personal affective dispositions, particularly sadness and hopelessness and an absence of positive emotions, also to be connected to global implicit self-esteem? On the one hand, basic personality dispositions, such as N and E, rooted in heredity and early developmental expe-

riences, might correspond most closely to the automatic, implicit self. Some theories (Epstein, 1994) emphasize the contributions of

“generalizations about what the self and the world are like” (Teglasi & Epstein, 1998, p. 543), which are often implicit and unconscious. This would suggest that implicit self-esteem measures may have even stronger associations with personality dimensions than do explicit measures. Alternatively, global implicit self-esteem measures might capture mental processes and mental content that are quite distinct from conscious patterns of thought, affect and behavior reflected in personality self-reports. If this is the case, then implicit measures and personality should be only modestly related, if at all.

To address these issues, we first need to consider what is known about the relation between implicit global and explicit global self-esteem. In the following sections, we describe the most commonly used measures of implicit global self-esteem and their associations with explicit global self-esteem. Then we describe some preliminary results from our laboratory that bear on the relation between implicit self-esteem and personality.

## **Measures of Implicit Global Self-Esteem**

Several different measures are available to assess implicit self-esteem, but we will only consider those most commonly used by researchers. A necessary feature of any valid implicit measure is that it must be based on automatic rather than deliberative cognitive processing. In the case of self-esteem, one measure relies on the person's feelings about the self “leaking out” and coloring stimuli that are closely or implicitly associated with the self. Nuttin (1985, 1987) asks subjects to rate their liking (on a Likert scale) for each letter of the alphabet under the guise that ratings will be used to develop future studies of linguistic preferences. According to Nuttin's reasoning, if people have positive feelings about themselves, then they should also show a preference for anything associated with the self, such as the letters of their name. (Ratings of the name letters are compared to the average popularity ratings of the same letters made by people who do not have them in their names). Furthermore, persons with high self-esteem should have more decided preferences for the letters that comprise their first and last names (than persons low in self-esteem). By similar reasoning, researchers have had subjects rate the numbers 0 through 31. A preference for numbers of the person's birthday (compared to other numbers) is taken as an indication of implicit self-esteem (Jones, Pelham, Mirenberg, & Hetts, 2002; Kitayama & Karasawa, 1997).

Greenwald and Farnham (2000) developed another type of implicit self-esteem measure, adapted from the Greenwald, McGhee, and

Schwartz (1998) Implicit Association Test (IAT). This is a computerized task that measures automated associations of self-relevant and non-self-relevant words with pleasant and unpleasant words. Initially, subjects view lists of *me* (descriptive of self, such as city of origin) and *not me* words. Prepared lists of pleasant (e.g., health) and unpleasant (e.g., torture) words (based on pilot testing) were also created by the researchers. During the task, participants are instructed to press one of two keys to categorize a target word that appears in the middle of the computer screen. Each target word is either taken from the *me* or *not me* lists or from the lists of pleasant and unpleasant words. For one set of trials, the *me* and *pleasant* category labels appear on the same side of the computer screen; thus, correct categorization of *me* and *pleasant* words is accomplished by pressing the same key. For another block of trials, the *me* and *unpleasant* labels appear on the same side of the screen, forcing participants to categorize self-relevant and unpleasant words together. The reaction time is recorded for each trial. The mean response latency for the *me-pleasant* block is subtracted from the mean latency for the *me-unpleasant* block, which should reflect the ease with which participants associate pleasant versus unpleasant words with the self, or an index of implicit self-esteem (Greenwald & Farnham, 2000).

### **Relation between Implicit and Explicit Global Self-Esteem**

In one investigation, Greenwald and Farnham (2000) had approximately 150 participants respond to the self-esteem version of the IAT and also complete four different measures of explicit global self-esteem. These included the Rosenberg (1965), which was previously described, and the Self-Attributes Questionnaire (SAQ; Pelham & Swann, 1989), which has participants rate themselves on a series of attributes (e.g., academic ability, physical attractiveness) compared to their peers. Participants also responded to a thermometer scale on which the participants indicated how warmly they felt toward themselves on a vertical scale anchored at the bottom by 0 and the top by 99, and to five items using a 7-point semantic differential scale with bad/good, unpleasant/pleasant, dishonest/honest, and awful/nice as endpoints.

The measures of explicit global self-esteem were moderately correlated with each other (average  $r = .46$ ), suggesting that they are tapping similar elements. Of greatest relevance to the present discussion, however, the range of correlations between the implicit and the explicit measures ranged from .13 to .27. Greenwald and Farnham (2000) also conducted a confirmatory factor analysis to determine whether the data for the implicit and explicit measures were better fit by a model with two fac-

tors—implicit and explicit self-esteem—or one—self-esteem. Results indicated that the two-factor model showed a better fit than the one-factor model. In addition, the estimated latent correlation between implicit and explicit self-esteem was .28 in the two factor model. The researchers concluded that implicit and explicit self-esteem are “distinct constructs that are positively, but weakly, correlated” (Greenwald & Farnham, 2000, p. 1027).

Bosson and colleagues (2000) also looked at the relationships between implicit and explicit global self-esteem measures. Approximately 80 college students responded to three implicit measures, the IAT and the initials and birthday preference task, and to the Rosenberg and the SAQ (two other explicit self-esteem measures were also completed, but because they have been employed less often by researchers and results were similar, they will not be described here). The explicit measures were correlated moderately,  $r = .45$ , but the implicit measures were uncorrelated, ranging from  $r$ 's  $-.06$  and  $-.11$ . This pattern of findings indicates that the implicit measures are tapping a different construct than the explicit measures.

Of greatest note, the responses to the Rosenberg were modestly correlated with the IAT,  $r = .22$ ,  $p < .10$ , but the relations with the letter and number preferences were trivial ( $r$ s =  $.13$  and  $-.10$ ). A more recent investigation from our lab (Krizan & Suls, 2003, Study 2), also found a lack of convergence between the IAT and the Rosenberg ( $r < .02$ ) and a modest correlation between the letter-preference implicit measure and the Rosenberg ( $r = .20$ ).

The magnitude of these associations suggests that implicit global self-esteem measures are mostly independent of explicit global self-esteem. More research, however, is needed to determine whether the implicit measures show such low convergence because of psychometric weaknesses or because different implicit measures assess separate aspects of the self. The most cautious conclusion at this stage of research is that implicit self-esteem is differentiable from explicit measures.

## **Implicit Global Self-Esteem and Personality**

We can now turn to the issue with which we began—the relation between implicit self-esteem measures and the Big Five. Krizan and Suls (2003, Study 1) conducted a study to evaluate the relationship between implicit self-esteem and the Big Five dimensions. Approximately 250 college students responded to the letter preference and number preference implicit self-esteem measures and completed the BFI (v. 44) and a measure of depression, the CES-D. To control for order effects, administra-

tion of materials was counterbalanced across participants. The first-initial, last-initial and birthday indices were averaged to obtain an aggregate implicit self-esteem index. In contrast to the results for explicit self-esteem described earlier (Watson et al., 2002), the correlations between implicit self-esteem and the Big Five were smaller and in most cases inconsequential. N was inversely related,  $r = -.13$ ,  $p < .05$ , and A was positively related,  $r = .21$ ,  $p < .05$ , to implicit self-esteem. Correlations for the E, C, and O dimensions ranged between .04 and .08. The association with depression was  $-.07$ , which stands in dramatic contrast to the correlations reported between depression and explicit self-esteem, which had substantial relations of .7 to .8.

Subsequently, we conducted a second study with 287 college students (Krizan & Suls, 2003, Study 2), which included measures of positive and negative trait affectivity, in addition to the Big Five, and assessed implicit self-esteem with the IAT (Greenwald & Farnham, 2000) and the letter preference measure. Letter preferences again were modestly negatively associated with N ( $r = -.18$ ), but not with the other dimensions of the Big Five ( $r$ s ranged from .01 to .11) or with trait affectivity. IAT scores exhibited a similar pattern, correlating  $-.15$  with N, but to a trivial degree with the other dimensions ( $r$ s ranged from  $-.06$  to  $.05$ ). Both implicit measures also were unrelated to depression (measured with the Beck Depression Inventory; Beck, Steer, & Brown, 1996).

Taken together, these findings suggest that explicit and implicit self-esteem appear to represent substantially different aspects of the self as they appear to be unrelated and the implicit measures do not generally show meaningful associations with personality traits. The exception is neuroticism, which seems to be modestly related to both types of implicit global self-esteem measures (i.e., letter preferences and the IAT).

## SUMMARY AND CONCLUSIONS

A person's global sense of self-worth should logically be related to personality, but these constructs have tended to be treated as independent by behavioral scientists. This chapter reviews empirical evidence on the relation between explicit and implicit self-esteem and the Big Five personality dimensions. Studies indicate that explicit global measures of self-esteem, such as the Rosenberg inventory, are strongly negatively correlated with neuroticism and negative affectivity and positively correlated with extraversion and positive affectivity. In more fine-grained explorations, global self-esteem is strongly (inversely) related to a particular negative affect: depression. The study of implicit (automatic, nondeliberative) self-esteem is still in the preliminary stage, but evidence suggests that it is relatively

independent of explicit self-esteem and personality, as traditionally measured.

Two issues seem critical for future research in this area. First, the problematic psychometric nature of implicit measures (i.e., lack of convergent validity) needs to be addressed more systematically, as low reliability and validity might be contributing to their lack of convergence, and to the small associations obtained with self-reported personality characteristics. When conducting research involving implicit self-esteem, researchers should use both types of measures; this should increase our understanding both of implicit self-esteem and of the adequacy of its measurement. Given that the two measures (IAT and name-letter preference) use radically different methods, exploring measurement artifacts is also potentially important. Second, if implicit self-esteem can be reliably measured, it becomes important to explore whether particular *configurations* of explicit and implicit self-esteem have associations with the broadband personality dimensions. For example, perhaps individuals who exhibit great discrepancies between their explicit statements of self-worth and their unconscious feelings are particularly likely to be emotionally unstable. We hope future research will pursue these questions to further our understanding of self-evaluation and its relation to personality.

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### **NOTE**

1. We acknowledge that global measures of self-esteem are only weakly related to domain-specific self-concepts (e.g., athletic self-esteem) and to relevant performance outcomes (e.g., athletic performance; Marsh, 1993). When it has been studied, domain-specific kinds of self-esteem also tend to be weakly correlated or uncorrelated with personality measures (Suls, 2002). However, global self-esteem continues to be of interest to social psychologists, individual difference researchers, and educators. Consequently, we focus our attention in this chapter on global rather than domain-specific self-esteem.

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