Secure and Defensive High Self-Esteem

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Long-standing theories have suggested high self-esteem (SE) can assume qualitatively different forms that are related to defensiveness. The authors explored whether some high-SE individuals are particularly defensive because they harbor negative self-feelings at less conscious levels, indicated by low implicit SE. In Study 1, participants high in explicit SE but low in implicit SE showed the highest levels of narcissism—an indicator of defensiveness. In Studies 2 and 3, the correspondence between implicit and explicit SE predicted defensive behavior (in-group bias in Study 2 and dissonance reduction in Study 3), such that for high explicit-SE participants, those with relatively low implicit SE behaved more defensively. These results are consistent with the idea that high SE can be relatively secure or defensive.

Although high self-esteem (SE) is typically viewed as an indicator of psychological health, conflicting views of its adaptive value can be found in both the SE literature and the broader culture. On the one hand, the popular media bombards people with the message that high SE reflects optimal functioning and that it is a necessary precursor to productivity and happiness (see Baumeister, 1998). Indeed, positive self-views are associated with less depression (Tennen & Affleck, 1993), less neuroticism (Robins, Hendin, & Trzesniewski, 2001), greater persistence at difficult tasks (Shrauger & Rosenberg, 1970), and higher levels of life satisfaction (Diener, 1984). Yet when positive self-views are cast as vanity, conceit, arrogance, or narcissism, they assume more negative connotations. Rather than indicating healthy adjustment and well-being, overly positive self-opinions can signal maladjustment and delusion (Colvin, Block, & Funder, 1995). In this vein, positive self-views have been linked to a number of behaviors that can be viewed as defensive and potentially maladaptive, such as prejudice (Crocker, Thompson, McGraw, & Ingerman, 1987), aggression and violence (Baumeister, Smart, & Boden, 1996), pervasive self-serving biases (Blaine & Crocker, 1993), and the denial of responsibility for failure (Fitch, 1970). Thus, high SE is alternately depicted as secure and adaptive or as defensive and maladaptive.

How can these seemingly contradictory views of high SE be reconciled? We suggest that both views contain an element of truth but that each broadly characterizes a different subset of high-SE individuals. In keeping with theories that posit that high SE can assume qualitatively different forms (e.g., Coopersmith, 1959; Deci & Ryan, 1995; Kernis & Paradise, 2002), we suggest that some individuals possess positive self-views that are secure and confidently held, whereas others possess positive self-views that are fragile and vulnerable to threat, leading them to zealously promote and protect their esteem. In other words, some people possess *secure high SE*, whereas others possess *defensive high SE*. Drawing on contemporary theories of implicit attitudes and automatic processes, we explore the possibility that some high SE individuals have fragile and defensive self-views because they simultaneously hold two discrepant attitudes toward the self. At a conscious, explicit level they feel quite good about themselves, whereas at a less conscious, implicit level they feel relatively negative about themselves.

Types of High SE

A number of perspectives converge on the notion that some high-SE individuals are more defensive than others. Coopersmith (1959) and Harder (1984) each described a subset of high-SE individuals who demonstrated "compulsively confident, boastful, aggressive, defensive self-esteem" (Harder, 1984, p. 33). Each suggested that such individuals' positive self-views mask less conscious self-doubts and feelings of inadequacy, which motivate defensive behaviors. A similar account of defensive SE was also described earlier by Horney (1937). As intriguing as these accounts are, however, their suggestion that defensive SE rests on a base of nonconscious negative self-feelings remains largely theoretical, supported only by evidence gathered with nonstandardized clinical interviewing techniques and projective tests of dubious validity.

More recently, Kernis and his colleagues have amassed an impressive body of research demonstrating that individuals with unstable high SE— global SE that frequently fluctuates in response to daily events— behave more defensively than do individuals with stable high SE (see Kernis & Paradise, 2002; Kernis & Waschull, 1995). According to Kernis and colleagues, one factor that contributes to instability of SE is an acute dependence on everyday events for a sense of self-worth (cf. Deci & Ryan, 1995). Thus,

positive self-views that are unstable may be particularly defensive. Yet it is unclear why some individuals have unstable rather than stable SE. We suggest—building on the theorizing of Horney (1937), Coopersmith (1959), and Harder (1984)—that some high-SE individuals' self-views wax and wane in response to daily events because their positive self-views conceal less conscious self-doubts that are sometimes manifested experientially in the face of setbacks and failure. Thus, when their explicitly positive self-views are challenged, the normally less conscious self-doubts of individuals with defensive SE may enter awareness. As a consequence, their self-views may be more labile than those of their secure high-SE counterparts. Such lability, however, may engender defensiveness, and when their positive self-views are challenged, we suggest that defensive high-SE individuals will marshal an assortment of self-image maintenance techniques to guard their positive self-images.

Implicit SE and Dual Attitudes Toward the Self

Although, as we have seen, a variety of timeworn perspectives suggest some individuals with positive self-views possess deep-seated self-doubts and insecurities at less conscious levels, this belief has remained largely conjectural. Indeed, it is a difficult proposition to test. It requires researchers to assess aspects of personality to which target individuals themselves are presumed to have little or no introspective access. Traditional self-report measures of SE, by themselves, will clearly not suffice for this purpose. How can individuals be expected to admit to harboring negative self-images that they are generally unaware of possessing? The advent of sophisticated techniques for assessing implicit attitudes and implicit SE in particular suggests a way this problem might be circumvented.

Self-theorists have recently begun exploring the possibility that self-evaluations can affect behavior in a nondeclarative, automatic manner (e.g., Greenwald & Banaji, 1995). In contrast to *explicit SE*—the conscious and deliberately reasoned evaluations of self that are elicited by self-report scales—*implicit SE* is generally defined as highly efficient evaluations of self that occur unintentionally and outside of awareness. Thus, attitudes toward the self may be activated automatically, with little effort or conscious guidance, just as are attitudes toward many other objects in people's environments (e.g., Bargh, Chaiken, Raymond, & Hymes, 1996). A number of indirect assessment techniques have been developed to measure implicit SE by recording responses that are nonobviously related to self-evaluations or that respondents cannot easily control (see Bosson, Swann, & Pennebaker, 2000). These measures may allow researchers to assess self-evaluations at levels of awareness that cannot be accessed by self-report measures. Indeed, measures of implicit SE have been found to correlate only weakly, at best, with self-report measures of explicit SE, suggesting that they measure distinct types of self-evaluation (e.g., Bosson et al., 2000; Farnham, Greenwald, & Banaji, 1999). Because knowing an individual's level of explicit SE tells us virtually nothing about his or her level of implicit SE, many individuals who report positive self-views may also possess relatively negative implicit self-views.

This observation is consistent with a recent model of dual attitudes proposed by Wilson, Lindsey, and Schooler (2000). Within this model, people can simultaneously hold two different attitudes toward the same attitude object—one at a deliberative, explicit level and the other at an automatic, implicit level (see also Smith & DeCoster, 2001). One route by which such dual attitudes might develop is through normal processes of attitude change. When an attitude is changed from one valence level to another, the older, more habitual attitude may persist in memory and continue to affect behavior at an implicit level. Extending this model to the domain of the self implies that an individual can hold two inconsistent self-attitudes concurrently, perhaps as a consequence of having relatively recently updated his or her self-views.

This model also highlights an aspect of implicit attitudes that is generally underappreciated. Though many theorists define implicit attitudes, including implicit SE, as unconscious (see Bosson et al., 2000; Farnham et al., 1999), there is as yet no clear evidence for this assumption. It is equally possible that implicit SE is more akin to a preconscious cognitive structure that can sometimes enter awareness than it is to an unconscious structure that exists wholly outside of awareness. In Wilson et al.'s (2000) model, implicit attitudes are believed to guide conscious responses when individuals are not motivated to, or are unable to, retrieve their explicit attitudes (cf. Smith & DeCoster, 2001; for a more elaborate discussion, see Jordan, Spencer, & Zanna, 2002). Indeed, with regard to SE, it has been shown that individuals whose cognitive capacity has been taxed by busyness or time pressure constraints report explicit self-views that correspond more closely to their levels of implicit SE than do individuals who report their self-views in the absence of such constraints (Koole, Dijksterhuis, & van Knippenberg, 2001).

Thus, people may sometimes directly experience their levels of implicit SE. When implicit and explicit SE are congruent, such experiences are not likely to be consequential. When explicit and implicit SE are inconsistent, however, such awareness might be experienced as an aversive inconsistency within the self, especially when implicit SE is more negative than explicit SE. In this case, people may experience their low implicit SE as inexplicably negative self-feelings or nagging doubts about their competence and worth. Such aversive experiences, we suggest, are likely to motivate them to deny their negative implicit self-views and to actively strive to defend their explicitly positive self-views. Thus, in the present studies, we explored whether the correspondence between explicit and implicit SE predicts various indicators of defensiveness, specifically narcissism, in-group bias, and cognitive dissonance reduction. We predicted that individuals with high explicit but low implicit SE would behave more defensively than individuals with high explicit and high implicit SE.

Study 1: Explicit SE, Implicit SE, and Narcissism

We first examined whether the correspondence between explicit and implicit SE predicts narcissism. Narcissism seemed like an ideal indicator of defensiveness to test first because narcissists possess excessively favorable self-views and react quite defensively when their self-views are threatened (see, e.g., Morf & Rhodewalt, 1993). In addition, many theorists view narcissists' grandiose self-views as concealing an unacknowledged base of self-doubt and self-recrimination (Brown & Bosson, 2001; Kernberg, 1970; Kohut, 1971). In other words, narcissists are viewed as simultaneously holding positive conscious self-views while harboring significant self-doubts at less conscious levels, consistent

with our conceptualization of defensive individuals as possessing high explicit but low implicit SE.

In this study and in all studies reported herein, we measured implicit SE with the Implicit Associations Test (IAT; Greenwald, McGhee, & Schwartz, 1998). Of the extant measures of implicit SE, the IAT has shown the highest reliability (Bosson et al., 2000) and greater evidence of its construct validity. For example, the SE IAT predicts responses to success and failure (Greenwald & Farnham, 2001), the experience of positive emotions (Bosson et al., 2000), and persistence in the face of failure (Jordan et al., 2002).

We thus measured participants' levels of explicit and implicit SE and examined whether the correspondence between them is related to narcissism. We expected individuals with high explicit but low implicit SE to show the highest levels of narcissism overall.

Method

Participants

Fifty-seven students (41 female) enrolled in introductory psychology participated in exchange for partial course credit. Gender showed no effects in any of the studies reported in this article and so is not discussed further.

Measures and Procedure

Explicit SE and narcissism. Before arriving at the lab, all participants completed a booklet of questionnaires, including the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) as a measure of explicit SE ($\alpha = .86$) and the Narcissistic Personality Inventory (NPI; Raskin & Hall, 1988) as a measure of narcissism intended for use in subclinical populations. The NPI consists of 37 items ($\alpha = .89$) for which participants indicated their level of agreement with such statements as "I really like to be the center of attention," "I like to look at myself in the mirror," and "I am more capable than other people," using a 7-point scale with endpoints labeled 1 (*strongly disagree*) and 7 (*strongly agree*).

Once at the lab, participants were run individually or in pairs. After consenting to participate, participants were seated at individual workstations containing IBM computers.

Implicit SE. Participants next completed the IAT measure of implicit SE, which was described as a measure of perceptual style. Participants categorized, as quickly and accurately as possible, words that appeared on their computers. The target words appeared in the center of the screen, and the relevant category labels appeared in the upper left and right sides of the screen, corresponding to the response keys (A and K) used to indicate the category to which each word belonged. Participants made two types of categorizations: (a) between pleasant and unpleasant words (e.g., *holiday*, *warmth*; *cockroach*, *vomit*) and (b) between self and not-self words (i.e., *me*, *myself*; *it*, *that*). Within each block of trials, words were presented in random order.[1] There were seven blocks of trials in all. Blocks 1, 2, and 5 were practice blocks for which participants made single categorizations (pleasant vs. unpleasant or self vs. not-self). In the remaining blocks, participants discriminated unpleasant versus pleasant words and self versus not-self words on separate trials within the same block. In Block 5, participants used one response key to indicate if a word belonged to the unpleasant or not-self categories and the other key if the word belonged to the pleasant or self categories. In Block 7, participants used one response key to indicate if a word belonged to the unpleasant or self categories and the other key if the word belonged to the pleasant or not-self categories. Blocks 3 and 6 served as practice for Blocks 4 and 7. Only data from Blocks 4 and 7 were used to compute IAT scores.

The IAT is premised on the logic that individuals with relatively high implicit self-esteem will respond faster when self and pleasant share a response (Block 4) than when self and unpleasant share a response (Block 7), because their automatic associations between the self and positive affect will interfere with their responses in the latter but not the former case (Greenwald et al., 1998). We thus computed IAT scores by subtracting participants' average response latencies during Block 4 from their average response latencies during Block 7. Before doing so, however, we excluded all errors. To control the influence of outliers, we recoded response latencies longer than 3,000 ms as 3,000 ms and response latencies shorter than 300 ms as 300 ms (Greenwald et al., 1998). It is worth noting that the not-self words (i.e., *it*, *that*) were selected to be as neutral as possible rather than having them represent the concept of other (e.g., *they*, *them*) as suggested by Farnham et al. (1999). In our view, opposing self with other makes IAT scores difficult to interpret because high scores can reflect positive affect associated with the self, negative affect associated with others, or an indeterminate combination of the two. Thus, by representing the not-self category with relatively neutral words, we increased our confidence that IAT scores reflect affect associated with the self. Once they finished the IAT, participants were thanked and fully debriefed.

Results and Discussion

RSES scores and IAT scores were not related to each other ($r = .01$), replicating the common finding that explicit and implicit SE are independent. To determine whether explicit and implicit SE were related to narcissism, we conducted a multiple regression analysis. We first centered scores on the RSES and the IAT and then multiplied these centered variables together to create the cross-product vector representing the interaction between them (Aiken & West, 1991). We then regressed narcissism onto these three variables.

As Figure 1 shows, levels of narcissism depended on participants' levels of explicit and implicit SE. Although there were no significant main effects of RSES or IAT scores, the interaction between them was significant, $t(53) = -1.97, p = .05$ ($\beta = -.26$). As RSES scores increased among our participants, the relation between narcissism and IAT scores became increasingly negative. To explore this interaction in more detail, we tested simple slopes at values one standard deviation above and below the mean of explicit SE (Cohen & Cohen, 1983). As can be seen in Figure 1, there was a significant negative relation between IAT scores and NPI scores for participants with high explicit SE (+1 *SD*; $\beta = -.38$), $t(53) = -2.16, p = .03$. Thus, participants with high explicit but low implicit SE showed significantly more narcissism than individuals high in both types of SE. In contrast, among individuals with low explicit SE (−1 *SD*) the relation between implicit SE and narcissism was nonsignificantly positive ($\beta = .17$; $t < 1$).

The results thus support our predictions. Participants' levels of narcissism depended on the correspondence between their levels of explicit and implicit SE. Participants with high explicit but low implicit SE showed the highest levels of narcissism overall; substantially higher than individuals with high explicit and implicit SE. In light of evidence that narcissists are highly defensive, these results suggest that individuals with high explicit SE may differ

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[1] A full list of words used in the IAT is available on request from the authors.
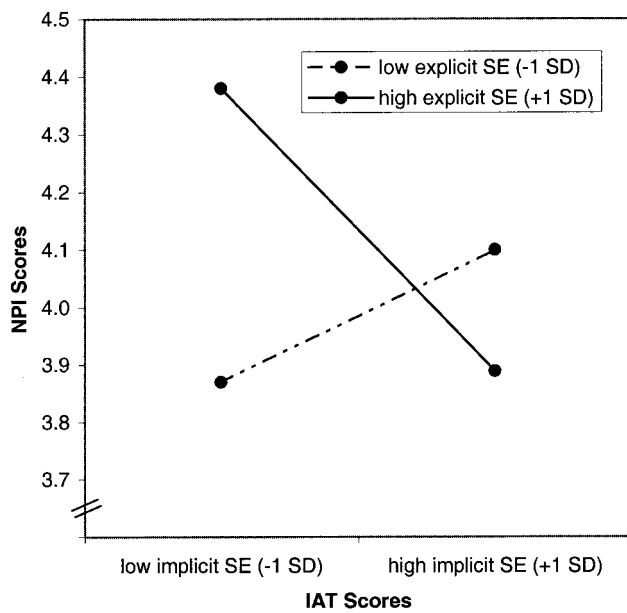
Figure 1. Narcissism as a function of explicit SE and implicit SE. SE = self-esteem; SD = standard deviation; NPI = Narcissistic Personality Inventory; IAT = Implicit Associations Test.

markedly in their levels of defensiveness. High explicit SE accompanied by high implicit SE may represent a form of secure SE, whereas high explicit SE accompanied by low implicit SE may represent a form of defensive SE.

Study 2: Explicit SE, Implicit SE, and In-Group Bias

Study 1 showed that discrepancies between explicit and implicit SE predict an individual difference measure of defensiveness. We next examined whether such discrepancies could predict defensive behavior; specifically, we examined in-group bias in the minimal-group paradigm. In the standard minimal-group paradigm, participants are divided into two groups on the basis of a trivial or arbitrary criterion (e.g., preference for one of two unfamiliar painters, or coin flips). This establishes two novel groups for each participant—an in-group and an out-group. Participants then make judgments about or allocate rewards to one other in-group member and one out-group member, both of whom are identified only by their group membership status. Despite the fact that the groups are completely novel, and participants do not know the individuals whom they are judging or rewarding, they tend to show an *in-group bias* (e.g., Tajfel, 1981); that is, people attribute more positive personality characteristics to fellow in-group members, allocate more rewards to them, and deem their output from group tasks to be superior to that of out-group members. Within the framework of social identity theory, Tajfel and Turner (1979) argued that in-group bias reflects a form of self-enhancement. Favoring members of one's in-group creates a positive distinctiveness for that group relative to contrasting out-groups, and this distinctiveness reflects favorably on one's social identity as a member of the in-group. Enhanced social identity, in turn, increases personal SE. A recent review of research examining the effects of in-group bias on SE supports the contention that it serves

a self-enhancement function—SE tends to increase after individuals engage in in-group bias (Rubin & Hewstone, 1998). We thus expected individuals with high explicit SE to show varying levels of in-group bias as a function of their levels of implicit SE.

Testing our predictions about defensive high-SE individuals by examining in-group bias as a form of defensiveness is a particularly interesting approach in the context of theorizing about implicit SE. In their seminal article, Greenwald and Banaji (1995) identified in-group bias as a possible implicit SE effect. In their view, the positive associations most people have toward their own selves generalize implicitly to other objects that are associated with the self, including in-groups and their members, thus accounting for the tendency for people to favor their in-groups. Indeed, Farnham et al. (1999) found among female participants that implicit SE, as measured by an IAT, was associated positively with an implicit bias in favor of females over males, particularly for participants who identified strongly with their gender. From this perspective, individuals with higher implicit SE ought to engage in more in-group favoritism. In contrast, we predict a negative relation between implicit SE and in-group bias, at least among individuals with high explicit SE. This prediction, in our view, is not at odds with the findings of Farnham et al., however, because they examined implicit in-group bias (measured with an IAT) rather than behavioral in-group bias. In addition, they examined gender bias rather than bias in favor of a novel in-group. Although individuals with high implicit SE, perhaps regardless of their levels of explicit SE, may associate positive feelings with important social groups to which they belong, we do not believe that individuals with high explicit and high implicit SE will demonstrate a particularly strong tendency to favor in-groups in a minimal-group context.

Thus, in Study 2 we examined whether individuals with high explicit SE vary in their tendency to self-enhance through in-group bias as a function of their levels of implicit SE. We expected individuals with high explicit SE but low implicit SE to show greater in-group bias than individuals with high explicit and implicit SE.

Method

Participants

Forty-eight students enrolled in introductory psychology participated in exchange for partial course credit. Five participants' data were excluded from analyses because their error rates on the IAT exceeded 20% (following Greenwald et al., 1998), suggesting they misunderstood instructions or tried to respond too quickly. This left 43 participants (31 female).

Materials and Procedure

Explicit and implicit SE. Participants completed the RSES as part of a mass pretesting booklet distributed at the beginning of the academic term. They were scheduled in groups of 1–4. After signing consent forms, they were seated at separate cubicles containing Macintosh computers. They completed an IAT identical to that used in Study 1, except that the order of the critical blocks was reversed such that participants first completed the block in which unpleasant and self share a single response and then completed the block in which unpleasant and not-self share a response. The practice critical blocks (Blocks 3 and 6), were also eliminated. IAT scores were computed in the same manner as in Study 1.

Minimal-group procedure. Following Tajfel, Flament, Billig, and Bundy (1971), participants estimated the number of dots in three arrays presented briefly on their computers. Ostensibly on the basis of their performances, they received feedback that they had a "strong tendency" toward over- or underestimation and were thus assigned to be "member #81 of Group Blue." They then received a booklet containing our dependent measures. The cover page stated, "Booklet for Participants in Group Blue," which was also printed at the top of each page as a reminder. Participants were told that they would be assigning points to a member of their own group and a member of the other group and that these points would be used as the basis for assigning a $20 prize at the end of the term. It was made clear that participants' point allocations would not affect their own chances of winning the prize. They used Tajfel's (1970) matrices to award points.[2] The matrices were scored using the standard procedure (Bourhis, Sachdev, & Gagnon, 1994; Tajfel et al., 1971), such that higher numbers indicate greater in-group bias. After completing the matrices, participants were thanked and debriefed. Because the point allocations could not actually be used to determine a winner for the prize, 1 participant was randomly selected to receive the prize.

Results and Discussion

RSES and IAT scores were not significantly related to each other ($r = .13, p > .35$). In addition, our minimal-group procedure successfully elicited in-group bias; the overall mean in-group bias score was 1.98, which was significantly greater than zero, $t(46) = 2.62, p = .01$.

To determine whether explicit and implicit SE related to in-group bias, we conducted a multiple regression analysis. Paralleling the analysis in Study 1, we regressed in-group bias as our measure of defensiveness onto RSES scores, IAT scores, and the interaction between them. As can be seen in Figure 2, the amount of in-group bias displayed depended on participants' levels of explicit and implicit SE. Although there was no main effect of explicit SE, $t(40) < 1$, the main effect of implicit SE approached significance, $t(40) = -1.51, p = .14$, indicating that participants with low implicit SE tended to show more in-group bias ($\beta = -.23$). As predicted, however, this effect was qualified by a significant interaction between explicit and implicit SE, $t(39) = -2.42, p = .02$ ($\beta = -.35$); as RSES scores increased among our participants, the relation between IAT scores and in-group bias became increasingly negative. Simple slope tests revealed that among participants with high explicit SE (+1 *SD*), there was a significant negative relation between implicit SE and in-group bias ($\beta = -.57$), $t(39) = -2.83, p = .007$. Thus, participants with high explicit but low implicit SE favored the in-group member more than did participants with high explicit and implicit SE. Among participants with low explicit SE (−1 *SD*), however, there was no relation ($\beta = .09$) between implicit SE and in-group bias ($t < 1$).

Thus, the results are consistent with our predictions. The amount of in-group bias participants displayed depended on the correspondence between their levels of explicit and implicit SE. At higher levels of explicit SE, the relation between in-group bias and implicit SE became increasingly negative, such that individuals with high explicit but low implicit SE favored the in-group member more than did participants with high explicit and implicit SE. In addition, we found no evidence that behavioral in-group bias in a minimal-group context reflects a direct implicit SE effect (Greenwald & Banaji, 1995)—there was no significant positive relation between implicit SE and in-group bias.

Thus, as in Study 1, we found that individuals with high explicit SE were more or less defensive as a function of their levels of implicit SE. In Study 1, participants with high explicit but low implicit SE showed higher levels of narcissism. Study 2 extended this finding by showing that variability in the tendency for individuals with high explicit SE to engage in in-group bias is related to their levels of implicit SE. Individuals with high explicit SE but low implicit SE may thus possess defensive high SE, whereas individuals with high explicit and implicit SE may possess secure high SE. Indeed, inspection of Figure 2 shows that individuals with high explicit and implicit SE were the only individuals in this study who did not show a tendency toward in-group bias, suggesting that their high SE might be particularly secure.
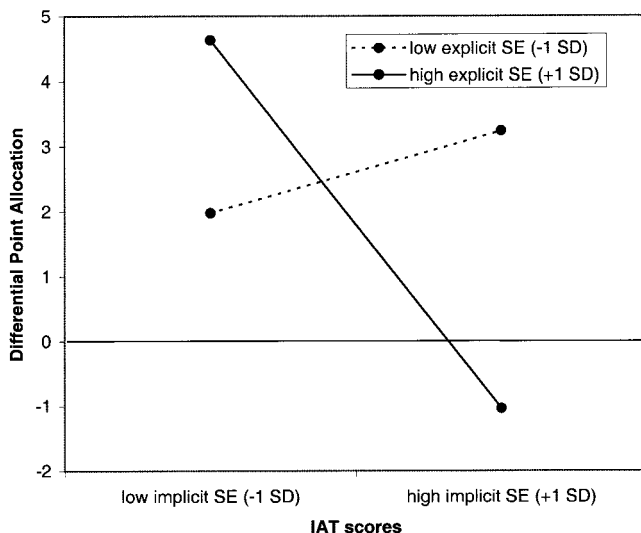
Study 3: Explicit SE, Implicit SE, and Dissonance Reduction

In Study 3 we sought to extend the findings of Studies 1 and 2 by examining a rather different form of defensiveness, namely cognitive dissonance reduction (Festinger, 1957). It has long been recognized that the self plays an important role in dissonance processes. According to self-consistency theory (Aronson & Carlsmith, 1962), dissonance is aroused when one perceives a discrepancy between one's behavior and one's positive self-views. Thus, when people behave in a manner that they perceive to be foolish or immoral, this arouses the aversive state of cognitive dissonance, which people are motivated to reduce. They often do so by establishing justifications for their behavior that uphold and thus protect their positive self-images. Self-affirmation theory (Steele, 1988) similarly posits that dissonance arises from a threat to one's global sense of self-integrity. Research in this tradition has shown that the threat posed by dissonance need not be directly addressed by processes of dissonance reduction but can instead be quelled by

Figure 2. Differential point allocation (in-group bias) as a function of explicit SE and implicit SE. SE = self-esteem; SD = standard deviation; IAT = Implicit Associations Test.

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[2] The exact matrices used are available on request from the authors.

other means that affirm the overall moral and adaptive adequacy of the self. Both of these perspectives thus agree that dissonance stems from threats to the self and that processes of dissonance reduction serve as one means to defend the self from such threats.

We thus predicted that among individuals with high explicit SE, those with relatively low implicit SE would engage in more dissonance reduction. We tested this prediction in the classic free-choice dissonance paradigm (Brehm, 1956). In this paradigm, participants choose between two similarly attractive alternatives (here, two Chinese food entrées). After their decision, any perceived negative features of the chosen alternative and any perceived positive features of the rejected alternative cast doubt on participants' ability to make optimal decisions, thus threatening the self and arousing dissonance. People generally neutralize this threat by increasing their valuation of the chosen alternative and decreasing their valuation of the rejected alternative following their decision—a response known as the *spread of alternatives* in the dissonance literature. We thus predicted that individuals with high explicit but low implicit SE would engage in more dissonance reduction, in the form of a postdecisional spread of alternatives, than individuals with high explicit and high implicit SE.

Method

Participants

Forty students enrolled in introductory psychology participated in exchange for partial course credit. Seven participants were excluded from analyses because their IAT error rates exceeded 20% or because they failed to follow instructions. This left 33 participants (16 female).

Materials and Procedure

Explicit and implicit SE. Participants completed the RSES as part of a mass pretesting booklet distributed at the beginning of the academic term. They participated in groups of 1–4. After signing consent forms, they were seated at separate cubicles containing Macintosh computers. They completed the IAT as described in Study 2.

Free-choice dissonance procedure. The materials and procedure for the dissonance paradigm were adapted from those used by Hoshino-Browne, Zanna, Spencer, and Zanna (in press). Participants were told that the study concerned decision making and was being conducted in coordination with the proprietors of a new Chinese food restaurant who were interested in students' meal preferences. Participants were first given a list of 25 Chinese food entrées from which they selected the 10 dishes they most preferred. They next rank ordered these 10 entrées in terms of their preferences and then rated each entrée in terms of how much they "would like to order it," using 7-point scales with the endpoints 1 (*not at all*) and 7 (*very much*). Participants next completed a demographic survey that included items concerning their eating habits and preferences. This served to validate the cover story and to allow the experimenter time to prepare the materials for the next part of the study. The experimenter then offered each participant a choice between two gift certificates for free lunch entrées. The experimenter explained that the proprietors wanted to thank them for participating in the study but that only some entrées were definitely going to be included on the menu, so their most preferred choices could not be offered. Participants had to choose between their fifth- and sixth-ranked entrées, which were highly similarly rated. Once participants had made a choice, the experimenter left the room for 10 min (to allow participants time to rationalize their decisions; Walster & Festinger, 1962). Participants then rated the same 10 entrées a second time, presented in a different order with elaborated descriptions. Participants rated how much they liked each entrée using a 9-point scale with the endpoints 1 (*not at all*) and 9

(*extremely*). The difference between participants' pre- and postchoice ratings of their chosen and rejected entrées constituted our measure of dissonance reduction.[3] At the end of the study, all participants were thanked and debriefed; because there was actually no new Chinese food restaurant, each participant was given $5 in lieu of their coupon.

Results and Discussion

RSES and IAT scores were not significantly correlated, although the magnitude of the correlation between them was somewhat higher than is typically found ($r = .24$, $p > .15$). Initial analyses revealed that our free-choice procedure was successful in eliciting dissonance reduction. Overall, participants significantly spread their ratings of their chosen and rejected entrées on their postchoice ratings relative to their prechoice ratings ($M = .68$); $t(31) = 2.63$, $p = .01$.

Recall that among participants with high explicit SE, we expected those with relatively low implicit SE to evidence more rationalization of their decisions by spreading the alternatives than individuals with relatively high implicit SE. We tested this prediction by regressing the difference between pre- and postchoice entrée ratings on explicit SE, implicit SE, and the interaction between the two. Although this analysis revealed no main effect of implicit SE on dissonance reduction ($p > .25$), the main effect of explicit SE approached significance, $t(30) = 1.61$, $p = .12$ ($\beta = .27$). Participants with relatively high explicit SE tended to show more dissonance reduction than participants with relatively low explicit SE. As expected, however, this main effect was qualified by a significant interaction between explicit and implicit SE, $t(29) = -2.63$, $p = .01$, demonstrating that the amount of dissonance reduction participants displayed depended on the correspondence between their levels of explicit and implicit SE. The negative sign of this interaction ($\beta = -.46$) shows that at higher levels of explicit SE among our participants, the relation between implicit SE and dissonance reduction became more negative. As can be seen in Figure 3, among participants with high explicit SE ($+1$ SD) there was a significant negative relation ($\beta = -.57$) between implicit SE and dissonance reduction, $t(29) = -2.18$, $p = .04$, indicating that participants with high explicit but low implicit SE showed more postdecision rationalization of their choices than did participants with high explicit and implicit SE. In contrast, among participants with low explicit SE (-1 SD) there was a nonsignificant positive relation between implicit SE and dissonance reduction ($t < 1$).

Thus, the results of Study 3 support our predictions. Individuals with high explicit but low implicit SE behaved more defensively by engaging in more dissonance reduction than did individuals with high explicit and implicit SE, suggesting that the former may have defensive high SE whereas the latter may have secure high SE. Indeed, individuals with high explicit SE but low implicit SE rationalized their decisions the most, producing the greatest spread

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[3] The response scales differed on the prechoice and postchoice measures to discourage participants from trying to recall their original ratings on the postchoice measure. To make the ratings equivalent in our analyses, we rescaled the postchoice ratings so that they fell on the same scale as prechoice ratings. However, the alternative procedures of rescaling the prechoice ratings or leaving both ratings on their original metrics produced equivalent results.
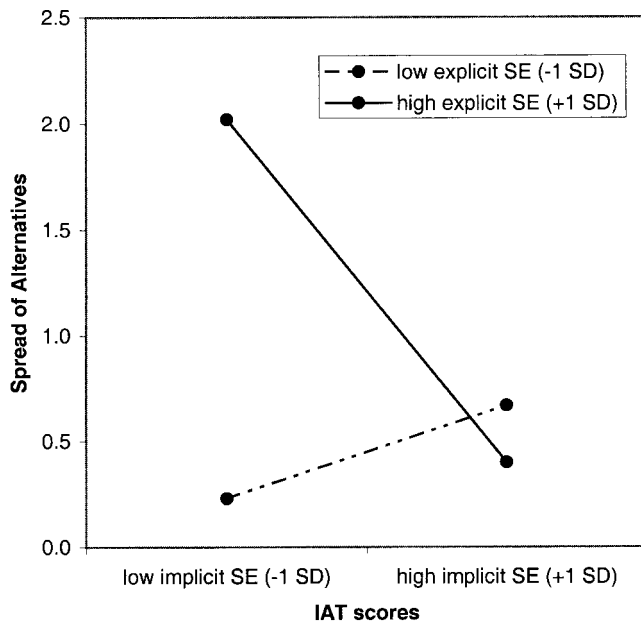
Figure 3. Spread of alternatives dissonance reduction as a function of explicit self-esteem and implicit self-esteem. SE = self-esteem; SD = standard deviation; IAT = Implicit Associations Test.

of alternatives and suggesting that they may be particularly defensive.

General Discussion

Taken together, these studies provide strong convergent evidence that high SE can assume relatively secure or defensive forms that relate to whether an individual possesses less conscious, negative self-feelings. Across three studies, individuals with high explicit but low implicit SE (a) showed higher levels of narcissism, an individual difference variable that is closely related to defensiveness; (b) showed more self-enhancement in the form of ingroup bias; and (c) rationalized their decisions more in the form of cognitive dissonance reduction than did individuals with high explicit and implicit SE. These latter two findings are, to our knowledge, the first demonstrations that discrepancies between individuals' trait levels of explicit and implicit SE are related to defensive behaviors. Although we examined two quite different defensive behaviors, we found in each case that individuals with high explicit SE behaved more defensively to the extent that they had relatively low implicit SE. These findings are paralleled by recent evidence, collected independently from the present studies, that individuals with high explicit but low implicit SE show more unrealistic optimism, more strongly prefer positive to negative personality descriptions, and report smaller self–ideal discrepancies than do individuals high in both types of SE (Bosson, Brown, Zeigler-Hill, & Swann, 2002). Thus, individuals with high explicit but low implicit SE seem to possess defensive high SE, whereas those with high explicit and implicit SE seem to possess secure high SE.

Our preferred interpretation of these findings, and the model that led us to our predictions, is that some high-SE individuals possess self-doubts and insecurities that are less than conscious but that they sometimes experience consciously, leading them to strive to bolster their explicitly held positive self-views through self-image maintenance strategies. Recall that implicit SE is generally defined as being nonconscious. Partly on the basis of evidence suggesting that individuals can sometimes consciously experience their implicit self-evaluations when their cognitive resources are taxed (Koole et al., 2001), we have suggested that implicit SE might actually be preconscious, existing largely outside of awareness but being sometimes consciously experienced. However, it must be acknowledged that another possibility exists. Measures of implicit SE might actually tap strictly conscious self-evaluations that some individuals intentionally distort on self-report scales. In this case, individuals with high explicit SE but low implicit SE may actually feel negative about themselves at a conscious level and report more positive self-evaluations in order to make themselves appear better adjusted to others. This suggestion is consistent with the observation that self-report measures of SE correlate with measures of *impression management*—that is, the tendency to intentionally dissemble on self-report scales in order to appear more socially desirable (e.g., Greenwald & Farnham, 2001; Raskin, Novacek, & Hogan, 1991). We find this suggestion implausible for a couple of reasons, however.

First, if individuals with high explicit but low implicit SE actually possess low SE (that is, low explicit SE that they disguise on self-report scales), they might be expected to behave similarly to other low-SE individuals. This was not the case in the present studies, particularly in terms of the amount of narcissism and dissonance reduction they displayed. Second, although self-report measures of SE do tend to correlate with tendencies toward impression management, they correlate more strongly with tendencies toward self-deception (e.g., Greenwald & Farnham, 2001; Raskin et al., 1991), which has been conceptualized by some as an indicator of defensiveness, particularly in light of its association with narcissism (e.g., Paulhus, 1998). In self-deception, the respondent reports a positive self-view that he or she "actually believes to be true" (Paulhus, 1986, p. 144) but which does not reflect his or her less conscious beliefs. Thus, to the extent that reports of high SE reflect self-presentational styles, this does not mean the reports are necessarily fraudulent. Paulhus (1986) argued that self-deception is a valid part of SE, because respondents honestly believe their reports even though such reports may reflect defensiveness.

Pertinently, Study 2 afforded us the chance to examine how discrepancies between explicit and implicit SE relate to self-presentational styles. Participants in that study all completed the Balanced Inventory of Desirable Responding (Paulhus, 1991), which has subscales measuring tendencies toward impression management and self-deception, as part of the mass pretesting booklet they completed. When we examined the relation between explicit and implicit SE and these subscales, we found that the interaction between explicit and implicit SE was unrelated to impression management, $t(39) < 1$ ($\beta = -.13$), suggesting that discrepancies between explicit and implicit SE are not the products of intentional dissembling. Moreover, the same interaction was marginally related to self-deception, $t(39) = -1.90$, $p = .06$ ($\beta = -.27$)—at higher levels of explicit SE, there was an increasingly negative relation between self-deception and implicit SE. Indeed, individuals with high explicit but low implicit SE showed the

highest levels of self-deception overall. This pattern of results suggests that individuals with high explicit but low implicit SE do believe their explicitly positive self-views but appear to do so in a defensive manner. On the basis of these data and the reasons outlined above, we believe it is unlikely that implicit SE is strictly conscious, though additional research is needed to determine more definitively whether implicit SE is conscious, nonconscious, or preconscious in nature.

These considerations have important implications for researchers interested in how self-views relate to behavior. Noting the correlations between explicit SE and socially desirable responding, Farnham et al. (1999) suggested that "to measure genuine self-esteem, self-presentation must be avoided altogether through indirect measures of self-esteem" (p. 232). We agree that it is important to consider how implicit SE relates to behavior, but we do not view implicit SE as more genuine than explicit SE. In keeping with contemporary models of implicit attitudes (e.g., Wilson et al., 2000), we believe that explicit and implicit attitudes represent distinct evaluations that exist at different processing levels and that each affects behavior. With regard to the self, we believe a full understanding of how self-views relate to behavior requires consideration of both explicit and implicit SE. We go beyond most current models, however, by suggesting that the correspondence between explicit and implicit attitudes will also uniquely predict behavior in many situations.[4] Within the domain of the self, the combination of high explicit with low implicit SE may define a unique psychological state that is related to the motivation to achieve and enhance positive self-views. Focusing only on explicit or implicit SE may often obscure the relations between self-views and self-relevant behavior.

Moreover, considering both explicit and implicit SE may reveal important differences among low explicit SE individuals as well. Though not the focus of the present studies, individuals with low explicit but high implicit SE tended to show somewhat more defensiveness than those low in both explicit and implicit SE across all three studies and the measure of self-deception described above. Although this effect was not significant in any individual analysis, when meta-analyzed across all four measures—narcissism, in-group bias, dissonance reduction, and self-deception—it approached significance ($z = 1.75$, $p = .08$). (Of course, this meta-analysis revealed much stronger results for the interaction between implicit and explicit SE, $z = 4.25$, $p < .0001$, and the simple slope between implicit SE and defensiveness for high explicit SE individuals, $z = 4.06$, $p = .0001$.)[5] In terms of Wilson et al.'s (2000) dual-attitude model, individuals with low explicit but high implicit SE may historically have had high SE, but because of recent life events may now be suffering relatively low explicit SE. Thus, although they feel relatively bad about themselves at a conscious level, they may sometimes be aware of their more positive implicit SE, which, rather than being experienced as aversive, might be tantalizing. Thus, this type of discrepancy, at least in some contexts, might also motivate heightened self-enhancement efforts as such individuals work to regain their historically positive self-views. An understanding of the psychology of these individuals might considerably enhance understanding of how self-views affect behavior as well as understanding of the nature of implicit SE. There may thus be important differences among individuals with low explicit SE, as a function of their

levels of implicit SE, just as there are among individuals who report high SE.

Of course, there may be factors other than implicit SE that relate to whether high SE conforms to the image of secure or defensive SE. Recall that individuals whose SE depends highly on recent events often behave more defensively than individuals whose SE is more stable (e.g., Deci & Ryan, 1995; Kernis & Paradise, 2002). One question facing researchers in this area is whether high-SE individuals with low implicit SE also demonstrate unstable self-views. We believe that they do. Preliminary evidence shows that regardless of their levels of explicit SE, individuals with low implicit SE report that their self-views are more contingent on daily events, relative to individuals with high implicit SE (Jordan et al., 2002). Consistent with this finding, individuals with low implicit SE also showed lower performance state SE following negative feedback on an alleged intelligence test (Jordan et al., 2002), suggesting their self-views were indeed most reactive to their levels of performance. Although clearly preliminary, these findings suggest that high SE that is accompanied by low implicit SE may also be marked by instability and contingency. These possibilities certainly merit further investigation.

The present studies, and research aimed at distinguishing different qualitative types of SE more generally, do suggest one clear implication. The vast majority of research on SE has addressed the basic question, "How do individuals with low SE differ from individuals with high SE?" Thus, researchers have focused on the differences between individuals who report relatively positive versus relatively negative self-evaluations. Such research has been remarkably productive and enlightening, but its exclusive focus on levels of SE may have masked important differences between individuals within a particular level of SE. When researchers measure participants' levels of SE without any further considerations, they must treat all individuals with the same level of SE as de facto equivalent. There may, however, be important differences between individuals with high SE that are related to their propensities toward defensiveness. This possibility assumes particular significance in light of the popular view of high SE as an absolute virtue and widespread efforts to boost people's levels of SE. Whether or not programs designed to raise people's levels of SE are prudent may well depend on whether the SE they foster is defensive or secure in character.

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[4] Within the domain of prejudice, for example, individuals with low explicit but high implicit prejudice behave like aversive racists (Son Hing, Chung-Yan, Grunfeld, Robichaud, & Zanna, in press; Son Hing, Li, & Zanna, 2002).

[5] If the individual-difference measures of defensiveness (i.e., narcissism and self-deception) are meta-analyzed separately from the behavioral measures (i.e., in-group bias and dissonance reduction), the results are highly parallel, though the positive relation between implicit SE and defensiveness for low explicit SE individuals appears to be stronger for the individual-difference measures ($z = 1.57$, $p = .12$) than for the behavioral measures ($z = .90$, $p = .37$). In contrast, the two-way interaction (individual difference, $z = 2.67$, $p = .008$; behavioral, $z = 3.35$, $p = .001$) and the negative relation between implicit SE and defensiveness for high explicit SE individuals (individual difference, $z = 2.36$, $p = .02$; behavioral, $z = 3.39$, $p = .001$) remain consistently strong.

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