
Self-Esteem and Emotion: Some Thoughts About Feelings

Jonathon D. Brown
Margaret A. Marshall
University of Washington

Self-esteem has been linked to a diverse array of positive and negative affective states. The present research explored the nature of these relationships. Study 1 found that self-esteem (as measured by the Rosenberg Self-Esteem Scale) is more closely associated with self-relevant emotional states than with emotional states that do not directly implicate the self. Study 2 replicated these findings and found that although several personality variables predicted participant's emotional reactions to success and failure, these effects were eliminated once self-esteem was taken into account. Study 3 found that self-esteem predicted participant's self-relevant emotional reactions to failure but not their non-self-relevant emotional reactions. These findings provide converging evidence that self-esteem is most closely linked to a particular class of emotions that pertain to how people feel about themselves.

Self-esteem is related to numerous emotional states. It has been linked to anxiety and depression in the clinical literature (Mineka, Watson, & Clark, 1998), to pride and shame in the developmental literature (Tangney & Fischer, 1995), to happiness and contentment in personality psychology (Diener & Diener, 1995), and to anger and hostility in social psychology (Bushman & Baumeister, 1998; Kernis, Grannemann, & Barclay, 1989).

Although they attest to the central role that self-esteem plays in emotional life, the sheer number of these linkages poses some interpretive problems. Emotional states are often highly correlated, raising the question of whether self-esteem is uniquely associated with some emotions but not others. For example, people who feel ashamed also may feel unhappy, but self-esteem may be uniquely related to the former emotion, not the latter. Evidence that this occurs is found by asking whether self-esteem predicts unhappiness once feelings of shame are taken into account.

In this article, we report three studies that examine the relation between self-esteem and various emotional states. The first study was exploratory. It was conducted to answer the question, "Which emotional states are most closely linked to self-esteem?" Studies 2 and 3 offer a replication and extension of these initial findings and test more specific predictions regarding the nature of the relation between self-esteem and emotional states. To set the stage for this research, we review two frameworks that discriminate among various emotions.

Positive Affectivity and Negative Affectivity

Numerous taxonomies of emotional states have been offered but a particularly fruitful distinction was offered by Watson and Clark (1984; see also Watson & Tellegen, 1985). These researchers identified two broad dimensions of emotional experience. Each dimension is composed of several correlated yet distinct emotional states, and the two dimensions themselves are largely uncorrelated. The first dimension, termed positive affectivity (PA), reflects the degree to which a person generally feels a zest for life. People who score high in PA feel enthusiastic, active, and alert. The second dimension, termed negative affectivity (NA), measures affective distress. People who score high in NA are prone to experience a variety of negative emotional states, including anxiety, guilt, and hostility.

According to Watson and Clark (1984), each of these emotional dimensions incorporates aspects of self-

Authors' Note: This research was supported by a Presidential Young Investigator Award from the National Science Foundation (SBR-8958211) to Jonathon D. Brown. Address correspondence to Jonathon D. Brown, Department of Psychology, Box 351525, University of Washington, Seattle, WA 98195-1525; e-mail: jdb@u.washington.edu.

PSPB, Vol. 27 No. 5, May 2001 575-584

© 2001 by the Society for Personality and Social Psychology, Inc.

esteem. High PA individuals tend to have a positive self-view, whereas low PA individuals tend to be insecure and unsure of themselves. In a similar vein, high NA individuals tend to have a negative self-view, whereas low NA individuals tend to be secure and satisfied with themselves. For these reasons, the typical high-self-esteem (HSE) person scores high in PA and low in NA, and the typical low-self-esteem (LSE) person scores low in PA and high in NA.

Self-Relevant Emotional States

The link between self-esteem and emotion may be more specific than this analysis implies. As first noted by William James (1890), some emotions always describe how people feel about themselves. According to James, these self-relevant emotions include feelings of pride, conceit, and arrogance (on the positive side) and modesty, shame, and mortification (on the negative side).

An example may serve to clarify the distinction between self-relevant emotions and emotions that are not, by definition, self-relevant. Consider the antecedents of happiness and pride. Happiness is a diffuse emotion that does not necessarily involve the self as a reference point. One can, for example, feel happy standing in the warm sunshine or watching a toddler eat an ice cream cone. These experiences will not, however, evoke feelings of pride. This is because pride always describes how people feel about themselves, usually arising when people assume causal responsibility for bringing about a positive outcome (Weiner, 1986).¹

This does not mean that happiness never results from a self-relevant experience. After all, students are happy when they get good grades. But they feel proud only insofar as these grades are viewed as arising from a self-relevant factor (Brown & Weiner, 1984). The key distinction to be made, then, is that self-relevant emotions always involve the self as a reference point but that non-self-relevant emotions (such as happiness and sadness) do not necessarily involve the self as a reference point.

There is one other way of looking at these relations. A person who feels proud also is apt to feel happy, but the reverse is not necessarily true. This asymmetry clouds the interpretation of the link between self-esteem and emotional states. If one finds that self-esteem is related to both happiness and feelings of pride, then the former relation may be artifactual. If so, the relation between self-esteem and happiness may disappear once feelings of pride are taken into account.

STUDY 1

We conducted an initial (exploratory) investigation to examine the association between self-esteem and the various emotional states included on the Positive and

Negative Affect Scale (PANAS) developed by Watson, Clark, and Tellegen (1988). Of the 20 terms that comprise the PANAS, 2 items (ashamed and proud) were identified by James (1890) as being self-relevant emotions; 2 other items (guilty and strong) were judged by Watson and Clark (1994) to qualify as self-relevant items. Consequently, we hypothesized that these emotions would be most closely associated with self-esteem.²

METHOD

Participants

The study included 178 undergraduates (67 men and 111 women) attending the University of Washington who participated in this study for extra course credit.³ Two additional participants did not adequately complete the personality scales (see below), and their data were discarded.

Procedure and Materials

In a single random order, the participants completed the Rosenberg Self-Esteem Scale (RSE) (Rosenberg, 1965), the Positive and Negative Affect Scale (PANAS) (Watson et al., 1988), and the Texas Social Behavior Inventory (TSBI) (Helmreich & Stapp, 1974).

The RSE is a measure of global self-esteem. It focuses on general feelings toward the self without reference to any specific quality or attribute. Participants indicate their agreement with 10 items (e.g., "On the whole, I am satisfied with myself"; "All in all, I am inclined to feel that I am a failure") using 4-point scales (0 = *strongly disagree*, 3 = *strongly agree*). After reversing the scoring for 5 negatively worded items, a total self-esteem score is found by summing the 10 responses. The validity of the measure is well established (Gray-Little, Williams, & Hancock, 1997) and the reliability of the measure in the present sample was high ($\alpha = .86$).

The PANAS measures emotional states. Ten of the items measure PA; the other 10 measure NA. For each item, participants indicate "To what extent do you feel this way in general?" (1 = *very slightly or not at all*, 5 = *extremely*). For ease of exposition, we reversed the scoring for the 10 NA items so that high scores equal low NA. The reliability of each scale was high ($\alpha = .86$ and $.84$, respectively).

The TSBI is commonly used by personality and social psychologists as a measure of self-esteem (Baumeister, Tice, & Hutton, 1989). The measure focuses on perceived competence and confidence in social situations (e.g., "I have no doubts about my social competence"; "I am not likely to speak to people until they speak to me"). The 16 items are answered on 5-point scales (1 = *not at all true of me*, 5 = *very true of me*). After reversing the scoring for 5 negatively worded items, a total score is found by sum-

ming across the 16 items. As with our other measures, the internal consistency of the scale was high ($\alpha = .84$).

RESULTS AND DISCUSSION

Preliminary Analyses

Zero-order correlations showed a good deal of overlap among self-esteem and affect (all $ps < .01$). Scores on the RSE were substantially correlated with scores on the TSBI ($r = .65$), PA ($r = .53$), and NA ($r = .56$), and scores on the TSBI were substantially correlated with PA ($r = .68$) and NA ($r = .42$). (The correlation between PA and NA was $.30$.)

Main Analyses

Given the sizeable correlations between self-esteem and affect, the critical question becomes which aspects of PA and NA are most closely related to self-esteem. To answer this question, we (a) examined the zero-order correlations between the two self-esteem scales and the 20 PANAS items and (b) then conducted simultaneous regression equations using the 20 PANAS items to predict scores on the RSE and the TSBI. Table 1 presents the results. The entries are given in descending order, with items making the strongest unique prediction to self-esteem entered first.

We had hypothesized that four items on the PANAS (ashamed, proud, guilty, and strong) would be closely linked to self-esteem. Inspection of the left-hand side of Table 1 shows that this prediction was largely supported when self-esteem was measured with the RSE. Of the six best predictors of scores on the RSE, four were items we identified on a priori grounds as being of a self-relevant nature. In fact, two of these items (proud and ashamed) accounted for 83% of the explained variance in scores on the RSE.⁴ These findings support the claim that self-relevant emotional states are most closely related to self-esteem.

Note, however, that this is not as true when self-esteem is measured with the TSBI. Although the item "strong" is closely linked to scores on the TSBI, other items of a non-self-relevant nature (e.g., enthusiastic and active) also predict scores on the TSBI. Furthermore, the two items "proud" and "ashamed," which were so closely linked with scores on the RSE, do not make a unique contribution to the prediction of TSBI scores. It appears, therefore, that the TSBI is a better measure of PA than of self-esteem.

To summarize, the data shown in Table 1 make three points: (a) not all positive and negative emotions are (uniquely) associated with self-esteem, (b) feelings of pride and shame are closely related to scores on the RSE scale but not scores on the TSBI, and (c) the TSBI is primarily a measure of PA.

TABLE 1: Zero-Order Correlations and Standardized Beta Weights Predicting Self-Esteem From Emotion: Study 1

	RSE			TSBI	
	R	β		R	β
Proud	.48	.25****	Enthusiastic	.61	.20*
Ashamed	.45	.18**	Strong	.54	.20***
Afraid	.45	.11	Active	.47	.15**
Alert	.41	.11	Afraid	.40	.11
Guilty	.44	.11	Interested	.48	.11
Strong	.43	.11	Determined	.46	.09
Distressed	.39	.09	Alert	.42	.08
Irritable	.31	.09	Ashamed	.36	.08
Attentive	.37	.05	Excited	.53	.07
Excited	.33	.05	Nervous	.26	.07
Jittery	.20	.05	Distressed	.33	.06
Upset	.41	.04	Proud	.46	.06
Active	.33	.02	Upset	.37	.06
Inspired	.33	.02	Irritable	.26	.03
Determined	.37	.01	Scared	.29	-.00
Scared	.36	.00	Attentive	.37	-.02
Interested	.30	-.01	Hostile	.17	-.02
Nervous	.23	-.03	Jittery	.09	-.02
Enthusiastic	.40	-.05	Guilty	.32	-.04
Hostile	.20	-.06	Inspired	.41	-.10

NOTE: RSE = Rosenberg Self-Esteem Scale, TSBI = Texas Social Behavior Inventory.

* $p < .10$. ** $p < .05$. *** $p < .01$. **** $p < .001$.

Naturally, these results should be regarded as preliminary until they have been replicated. Caution also is indicated because many factors, such as multicollinearity among the predictor variables, can influence the strength of regression weights in a regression equation. In this regard, it is worth noting that the multicollinearity that exists among the predictor variables is just as apparent when the RSE is used as the criterion as when the TSBI is used. Consequently, multicollinearity cannot explain why self-relevant emotions are better predictors of scores on the RSE than they are of scores on the TSBI. Moreover, the fact that self-relevant emotions predicted scores on the RSE but not scores on the TSBI suggests that the effect is not simply a methodological artifact. If it were, it would affect both self-esteem scales equally.

STUDY 2

Having examined the affective correlates of self-esteem, we turn now to an ancillary issue. According to Watson and Clark (1984), PA and NA are not only momentary emotional states but also involve more chronic affective tendencies representative of a personality trait. People who score high in NA are dispositionally distressed. They tend to have negative views of themselves and their world. In short, they act very much

like people with LSE. In contrast, people who score high in PA are generally engaged in life and hold positive views of themselves and their world. In short, they act very much like people with HSE.

The overlap between these personality traits means that effects previously attributable to self-esteem might instead be due to these chronic affective states. People's emotional responses to positive and negative events provide one venue for examining this possibility. Previous research has shown that LSE people respond with greater emotional distress to failure than do HSE people (Brown & Dutton, 1995; Dutton & Brown, 1997). NA appears to have a similar effect, such that high NA individuals are more reactive to stressful circumstances than are low NA individuals (Bolger & Zuckerman, 1995; Lyubomirsky & Ross, 1997; Suls, Green, & Hillis, 1998).

To determine the extent to which the effects of one variable (e.g., self-esteem or NA) are influenced by the other variable, Study 2 assesses the predictive utility of both measures in a single study. In the first part of the investigation, participants completed both types of personality scales (i.e., self-esteem and affect). We then led them to experience success or failure on an alleged test of their intellectual ability. Afterward, we examined their emotional reactions to these outcomes.

METHOD

Participants

The participants were 92 male and 199 female University of Washington undergraduates who participated in exchange for extra course credit. Three additional participants failed to follow directions and their data were discarded.

Procedure and Materials

Participants were tested in small groups of 2 to 4, with each participant seated at a separate computer in such a way that they could not see each other's computer screen. All instructions and experimental measures were presented on the computer.

At the start of the experimental sessions, the participants completed the same personality scales used in Study 1. Subsequently, they learned that the experiment involved a problem-solving ability called integrative orientation. Integrative orientation was described as an aspect of creativity, an ability to find creative and unusual solutions to problems.

The experimental task was then introduced. This task was the Remote Associates Test (RAT) (Mednick, 1962). With this task, participants are shown three words (e.g., car, swimming, cue) and asked to find a fourth word that relates to the other three (pool). Working interactively with the computer, participants completed three sample

problems to ensure that they understood how the problems were solved.

They were then informed that the test was made up of 10 problems and that they would have 5 minutes to solve these problems. Success and failure were experimentally manipulated by varying the difficulty of the problems participants received. Using random assignment to conditions, half of the participants received a set of easy problems (hereafter referred to as the success condition) and half received a set of difficult problems (hereafter referred to as the failure condition). Difficulty level was determined on the basis of prior testing with an independent sample and on published norms (McFarlin & Blascovich, 1984).

When the allotted time for working on the test had expired, the computer paused for a moment and informed participants how many problems they had correctly solved. After receiving this information, participants evaluated their performance (1 = *very poor*, 9 = *very good*) and indicated the extent to which they were presently experiencing each of four emotions (proud, pleased with myself, humiliated, ashamed) (1 = *not at all*, 7 = *very much*). These emotions were selected for study because (a) they directly bear on how people feel about themselves after they have succeeded or failed (Brown & Dutton, 1995; Dutton & Brown, 1997) and (b) because two of these emotions (proud, ashamed) were the best predictors of scores on the RSE in Study 1. After reversing the scoring for the negative emotions, we averaged the four items to derive a single emotion scale ($\alpha = .78$).

When they had finished completing these items, participants informed the experimenter that they were finished with the experiment. They were then debriefed, thanked, and excused.

RESULTS AND DISCUSSION

Preliminary Analyses

Manipulation check. Preliminary analyses indicated that the success/failure manipulation was effective. Participants in the success condition solved more problems and evaluated their performance more favorably than did participants in the failure condition (both $ps < .001$).

Replication of Study 1. To assess the reliability of the effects reported in Study 1, we first computed the correlations among the predictors. As in Study 1, the RSE was correlated with scores on the TSBI ($r = .53$), PA ($r = .59$), and NA ($r = .59$), and scores on the TSBI were correlated with PA ($r = .48$) and NA ($r = .31$). All of these effects were highly significant ($ps < .001$). Finally, PA and NA were, again, moderately correlated ($r = .32$).

To determine which of the 20 PANAS items were uniquely associated with self-esteem, we conducted multiple regression analyses. Table 2 reveals (a) that the

items “ashamed” and “proud” were excellent predictors of scores on the RSE but not scores on the TSBI and (b) that the TSBI is best predicted by the items “alert,” “strong,” and “excited.” These results essentially mirror those reported in Table 1, although the item ‘strong’ in this study predicted scores on both self-esteem scales.

Main Analyses

Multiple regression analyses were conducted to determine the degree to which each of our four predictor variables (i.e., RSE, TSBI, PA, and NA) moderated participant’s emotional reactions to performance outcomes. In the first step of each analysis, we entered the (standardized) predictor variable and (standardized) task performance (coded: 1 = success, 2 = failure). Afterward, we added a term representing the interaction of these variables (formed by multiplying the two predictors to form a cross-product term).

For three of the four predictors (RSE, TSBI, and PA), the cross-product term added significantly to the prediction of emotion. (The effect of NA was in the same direction but it did not reach conventional levels of statistical significance, $p = .11$.) Inspection of these effects by graphing (Cohen & Cohen, 1983) revealed that the interaction occurred because personality played only a small role following success but a sizable role following failure. In all cases, participants who scored 1 standard deviation below the mean felt much worse about themselves after failing than did those who scored 1 standard deviation above the mean. These findings replicate prior research (Brown & Dutton, 1995).

Given the overlap among the predictors, it is important to determine which of the four predictors uniquely predicted participant’s emotional reactions to performance outcomes. In the first analysis, we used (standardized) RSE scores, TSBI scores, and task performance as predictors. All main effects were entered in Step 1, all two-way interactions were entered in Step 2, and the three-way effect was entered in Step 3. The second analysis used the same analytic strategy but included RSE scores, PA scores, and task performance as predictors. The third analysis used RSE scores, NA scores, and task performance as predictors.

Table 3 presents the results of these analyses. Inspection of the table reveals that, in all cases, scores on the RSE interacted with performance outcomes to predict participant’s emotional states. This is not true for the other variables. Once scores on the RSE are removed from these variables, none of them interacts with the success-failure manipulation to predict emotion (all $ps > .40$). Substantively, these findings imply that it is the variance uniquely attributable to self-esteem (as measured by the RSE scale) that predicts who feels bad about themselves in the face of failure and who does not.

TABLE 2: Zero-Order Correlations and Standardized Beta Weights Predicting Self-Esteem From Emotion: Study 2

	RSE			TSBI	
	R	β		R	β
Ashamed	.66	.33****	Alert	.34	.17***
Proud	.55	.24****	Strong	.40	.17**
Strong	.49	.12**	Excited	.38	.13
Distressed	.51	.11**	Ashamed	.33	.12
Inspired	.41	.10	Proud	.32	.09
Enthusiastic	.43	.09	Enthusiastic	.38	.06
Afraid	.46	.08	Hostile	.18	.05
Attentive	.34	.07	Irritable	.20	.05
Guilty	.45	.07	Afraid	.24	.05
Active	.30	.06	Nervous	.18	.03
Jittery	.31	.04	Upset	.25	.02
Scared	.43	.03	Interested	.32	.02
Determined	.40	.03	Attentive	.28	.02
Hostile	.27	.02	Jittery	.15	.01
Upset	.42	.01	Distressed	.26	.01
Irritable	.29	-.02	Inspire	.29	.01
Alert	.22	-.02	Determined	.28	-.02
Excited	.39	-.02	Scared	.21	-.02
Nervous	.32	-.04	Active	.25	-.02
Interested	.42	-.07	Guilty	.14	-.07

NOTE: RSE = Rosenberg Self-Esteem Scale, TSBI = Texas Social Behavior Inventory.

** $p < .05$. *** $p < .01$. **** $p < .001$.

STUDY 3

To this point, we have shown that (a) self-esteem is most closely associated with self-relevant emotions and (b) self-esteem moderates people’s self-relevant emotional reactions to failure. Study 3 was designed to assess an additional issue. Support for our claim that self-esteem is most closely linked to self-relevant emotions would be buttressed by showing that self-esteem does not moderate people’s non-self-relevant emotional reactions to failure. To address this issue, we conducted a conceptual replication of Study 2 using the PANAS as a dependent variable (rather than a predictor variable).

METHOD

Participants

The participants were 23 male and 49 female University of Washington undergraduates who participated in exchange for extra course credit. These participants were recruited from a larger pool of students who had completed the RSE (Rosenberg, 1965) during a mass testing procedure at the start of the academic term (approximately 3 weeks before this study was conducted). Only participants who had scored in the lower one third (21 or less) or upper one third (27 or more) of the distribution were eligible to participate in this study.

TABLE 3: Hierarchical Multiple Regression Analyses: Study 2

	<i>Predictor 1 = RSE, Predictor 2 = TSBI</i>		<i>Predictor 1 = RSE, Predictor 2 = PA</i>		<i>Predictor 1 = RSE, Predictor 2 = NA</i>	
	β	ΔR^2	β	ΔR^2	β	ΔR^2
Step 1						
Predictor 1	.37****		.36****		.44****	
Predictor 2	.19****		.19****		.05	
Task performance	-.32****	.32****	-.33****	.32****	-.30****	.30****
Step 2						
Predictor 1 × Task Performance	.17***		.17***		.23****	
Predictor 2 × Performance	.03		.04		-.06	
Predictor 1 × Predictor 2	.01	.04***	.01	.04***	.01	.04***
Step 3						
Predictor 1 × Predictor 2 × Task Performance	-.06	.00	.00	.00	-.02	.00

NOTE: RSE = Rosenberg Self-Esteem Scale, TSBI = Texas Social Behavior Inventory, PA = positive affect, NA = negative affect. Entries are standardized regression coefficients. R^2 values are increments in variance for each step.
 ** $p < .05$. *** $p < .01$. **** $p < .001$.

Based on these designations, 33 of our participants had low self-esteem ($M = 17.21$) and 39 had high self-esteem ($M = 28.90$). The experimenters were unaware of each participant’s self-esteem level throughout the experimental procedure.⁵

Procedure and Materials

The procedures were the same as in Study 2, except the PANAS was completed only after the participants had learned how they had performed on the experimental task. In addition, to retain consistency with Study 2, we added two items (pleased with myself and humiliated) to the PANAS.

RESULTS AND DISCUSSION

After reversing the scoring for the negatively worded items, we computed two emotion scales. The four items used in Study 2 (proud, ashamed, pleased with myself, and humiliated) were averaged to form an index of self-relevant emotions ($\alpha = .77$). The remaining 18 items on the PANAS (the 20 PANAS items minus proud and ashamed) were averaged to form an index of non-self-relevant emotions ($\alpha = .87$).⁶

These emotion scales were then submitted to a 2 (self-esteem) × 2 (outcome) analysis of variance (ANOVA), with emotion type treated as a repeated measure. The ANOVA revealed main effects of self-esteem, outcome, and emotion type (all $ps < .05$) as well as a more theoretically meaningful three-way interaction, $F(1, 68) = 3.96, p = .051$. Figure 1 presents the data pertinent to interpreting this interaction. The left-hand side shows the data for the self-relevant emotions. Analysis of these data revealed a significant simple Self-Esteem × Outcome interaction, $F(1, 68) = 13.66, p < .001$. One way to interpret the interaction is to note that the success-failure

manipulation had a stronger effect among LSE participants, $t(68) = 5.91, p < .001$, than among HSE participants, $t < 1$. Another way to interpret the interaction is to note that self-esteem differences were more pronounced following failure, $t(68) = 7.82, p < .001$, than following success, $t(68) = 2.59, p < .025$. These findings parallel the effects observed in Study 2.

The right-hand side of Figure 1 shows the findings for the non-self-relevant PANAS items. These data reveal two main effects: a main effect of self-esteem, indicating that HSE participants felt better ($M = 3.78$) than did LSE participants ($M = 3.35$), $F(1, 68) = 27.07, p < .001$, and a main effect of outcome, indicating that those who succeeded felt better ($M = 3.71$) than did those who failed ($M = 3.42$), $F(1, 68) = 12.73, p < .001$. The simple Self-Esteem × Outcome interaction did not even approach significance in the analysis of these data, $F < 1$.

To summarize, self-esteem moderated participant’s self-relevant emotional reactions to performance outcomes but did not moderate their non-self-relevant emotional reactions.

GENERAL DISCUSSION

Self-esteem is arguably psychology’s most popular construct, with linkages to many different areas of psychology. In this article, we examined the emotional correlates of self-esteem and sought to determine which aspect of self-esteem moderates people’s emotional reactions to success and failure.

Emotional Correlates of Self-Esteem

As concerns the first issue, we found consistent evidence that self-esteem, as measured by the RSE, is more closely associated with self-relevant emotions (e.g., particularly feelings of pride and shame) than with

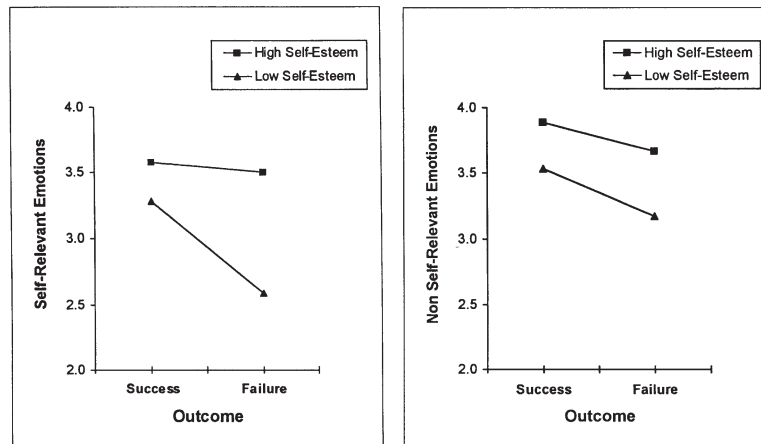


Figure 1 Self-relevant and non-self-relevant reactions to success and failure as a function of self-esteem: Study 3.

non-self-relevant emotions (e.g., feelings of enthusiasm and nervousness). These associations are not surprising. After all, a self-esteem scale should capture the degree to which people feel good or bad about themselves.

However obvious this assertion might seem, many of these self-relevant emotions were not closely associated with self-esteem as measured by the TSBI. We believe this is because the TSBI does not really measure self-esteem at all; it measures social confidence and the ability to enjoy interacting with others. Although some researchers use the term "social self-esteem" to describe these perceptions, our results suggest that the term is a misnomer. Once the effect of non-self-relevant emotions is controlled, people who score high on the TSBI do not necessarily feel better about themselves than do people who score low on this scale.

This finding has several important implications. The first is methodological. We would suggest that researchers interested in studying self-esteem should use the RSE and not the TSBI. The second implication is more conceptual, because it concerns the nature of self-esteem itself. Self-esteem has been linked to numerous emotions and has been assumed to be one aspect of a tendency to experience more general positive and negative affective states (Watson & Clark, 1984). Our findings suggest that the effects of self-esteem are more specific than this characterization implies. HSE people do feel better than do LSE people, but this is especially true when we examine emotions that measure how people feel about themselves. The effects of self-esteem are much less pronounced when we consider emotions that do not directly implicate the self.

Pride and shame appear to be particularly closely tied to self-esteem. We believe this is because these emotions are not only self-relevant (i.e., people feel proud and ashamed about themselves) but also are explicitly

evaluative. Both pride and shame involve an appraisal of one's worth as a person.

This evaluative process may explain why guilt, which is also a self-relevant emotion, was not a strong independent predictor of self-esteem. Although there is some disagreement on the matter, many theorists believe that guilt is a narrower emotion than is shame (e.g., Barrett, 1995; Lazarus, 1991; Lewis, 1971; Niedenthal, Tangney, & Gavanski, 1994). The focus of guilt is behavior: People feel guilty when they believe they have done something they should not have. In contrast, shame is a more global emotion, arising from the perception that one is a bad person or is wholly inadequate. These differences may explain why shame was more closely associated with self-esteem than was guilt.

The PANAS item "strong" showed an inconsistent relation with self-esteem. "Strong" emerged as an independent (and sizable) predictor of scores on the TSBI in both studies but did not make a unique contribution to scores on the RSE in Study 1 and its contribution to scores on the RSE in Study 2 was modest (although significant given the large sample size). The ambiguity of the term may account for some of this inconsistency. "Strong" can connote a positive evaluation of self but also can mean active, enthusiastic, and spirited. This ambiguity invites inconsistency in people's interpretation of the item, perhaps explaining why it was not consistently related to self-esteem in our research and in our pilot study (see Note 2).

Self-Esteem and Emotional Reactions to Evaluative Feedback

The present research also examined people's emotional reactions to success and failure. In previous research, self-esteem (Brown & Dutton, 1995; Dutton & Brown, 1997) and affective states (Lyubomirsky & Ross,

1997; Marco & Suls, 1993) have been shown to moderate these reactions. Because these variables overlap with one another, it is possible that the effects attributable to one variable are actually due to its association with other variables.

Our research found that self-esteem, as measured by scores on the RSE, uniquely predicted people's self-relevant emotional reactions to success and failure. Scores on the TSBI and PA scale (and to a lesser extent, the NA scale) showed a similar effect when examined alone, but these effects were eliminated once scores on the RSE were statistically controlled. Although various methodological factors (e.g., differences in measurement error and range) could explain such findings, we believe the effect occurs because people's self-relevant emotional responses to failure are best predicted by their global self-esteem level.

Note, however, that this is true only when self-relevant emotions are examined. In Study 3, self-esteem did not interact with performance outcomes to predict participant's non-self-relevant emotions (see also Brown & Dutton, 1995). It is entirely possible that other personality variables, such as PA or NA, predict these non-self-relevant emotional reactions. In fact, a recent investigation by Lyubomirsky and Ross (1997) found just such an effect. Thus, we are not suggesting that other personality variables cannot be used to understand people's reactions to failure; we are only suggesting that self-esteem is the best predictor of how people feel about themselves when they fail.

We also are not suggesting that self-esteem and valenced outcomes interact to predict only the four emotions we measured in Studies 2 and 3. For example, when interpersonal rejection is encountered, LSE people may feel lonelier than HSE people; when a moral transgression is committed, LSE people may feel guiltier than HSE people; and when an interpersonal affront is experienced, LSE people may feel angrier than HSE people. Our manipulations concerned only achievement-related outcomes; therefore, we cannot say whether these other effects occur as well (for a further discussion of these issues, see Bushman & Baumeister, 1998; Kernis et al., 1989; Leary, Tambor, Terdal, & Downs, 1995). We do, however, believe that feelings of pride and humiliation are most apt to be most closely linked to self-esteem across situations. This is because they inherently involve a self-evaluative process. Other self-relevant emotions, such as loneliness, do not necessarily imply an appraisal of one's worth.

Toward an Integration: Understanding the Function of Self-Esteem

We have found that (a) self-relevant emotional states are the best predictors of self-esteem (Study 1) and

(b) HSE people experience more positive feelings of self-worth following failure than do LSE people (Studies 2 and 3). Both of these tendencies can be explained by assuming that a primary function of self-esteem is to regulate feelings of self-worth, particularly when negative outcomes, such as failure, criticism, or rejection, are experienced (Brown, 1993, 1998).

Although our research did not examine the means by which HSE people protect their feelings of self-worth in the face of failure, other research has explored this issue. For example, HSE people compensate for failure in one domain by exaggerating their virtues in other, unrelated domains (Baumeister, 1982; Brown & Smart, 1991; Steele, 1988). To illustrate, after failing at an intellectual task, an HSE person might console himself or herself by thinking about his or her many other fine qualities, such as athleticism, attractiveness, or warm sense of humor. Doing so helps HSE people restore their positive feelings of self-worth (Brown & Dutton, 1995). Other strategies, such as self-serving attributions or downward social comparison processes, serve a similar function (Brown, 1993, 1998; Brown & Dutton, 1995; Dutton & Brown, 1997).

For the most part, we believe these strategies are largely interchangeable and arbitrary. If one strategy does not work, an HSE person will try another until a strategy that does work is found. A commitment to not feel bad about oneself following failure is, we believe, a defining feature of HSE. How an HSE person goes about fulfilling the mandate is less important than the commitment itself.

Treating self-esteem in this way shifts the emphasis away from a static characterization to one that has a more dynamic flavor. The key fact to consider is not simply that HSE people feel better about themselves than do LSE people but that they possess the ability to respond to failure in ways that ensure that these feelings remain. In our judgment, it is this capacity, rather than the feelings themselves, that is most critical to understanding the nature of self-esteem (Brown, 1993, 1998; Brown & Dutton, 1995).

This issue is important because many prominent theorists (e.g., Greenberg et al., 1992; Heatherton & Polivy, 1991; Leary et al., 1995) claim to experimentally manipulate self-esteem in the laboratory by giving participants positive or negative self-relevant feedback. We see problems with this approach. In our judgment, giving participants positive or negative self-relevant feedback affects their feelings of self-worth (i.e., how proud or ashamed of themselves they feel at the moment) but does not affect their self-esteem level. This is because experimental manipulations of this sort do not change the manner in which people cope with positive and negative feedback, which, we have argued, is a defining feature of self-esteem. Therefore, we believe it is inappropriate to

speak of experiences (or experimental manipulations) that affect self-esteem, only experiences (or experimental manipulations) that affect feelings of self-worth (Brown, 1998).

A related issue concerns the use of self-evaluations to measure self-esteem. Many self-esteem scales assess how people appraise themselves in particular areas of their lives. For example, the scale that Marsh (1990) developed measures one's (perceived) physical abilities, appearance, problem-solving abilities, social skills, peer relationships, opposite-sex relationships, and emotional stability (see also Byrne & Shavelson, 1996; Harter, 1986; Shavelson, Hubner, & Stanton 1976). These scales assume that people have different self-esteem levels for different attributes, situations, and activities.

Scores on these domain-specific self-esteem scales have been shown to predict a host of variables, attesting to their importance in psychological life (for a review, see Marsh, 1993), but they do not seem to predict how people feel about themselves when they fail (Dutton & Brown, 1997). To illustrate this point, consider a golfer's reaction when he or she shoots a score of 95 for 18 holes. If we want to know whether the person regards this score as a success or a failure, we need to know how the person evaluates his or her ability in golf. If he or she thinks they are a good golfer, then he or she is apt to regard this score as a negative outcome. But if we want to know how he or she feels when they fail, we need to look at his or her global self-esteem level. As we have seen in this research, it is global self-esteem that most clearly predicts how people feel about themselves after they fail.

NOTES

1. In this context, the term "self" is broadened to include what James (1890) called the extracorporeal self. Included here are other people (e.g., children, siblings, friends). In this manner, people can feel proud about their loved one's accomplishments. People even feel proud when their favorite team wins a championship (which is why people shout "We're #1").

2. As a check on these designations, we had faculty members and graduate students ($N=6$) in the social/personality area at the University of Washington rate each item on the PANAS according to its self-relevance (1 = *very rarely self-relevant*, 5 = *always self-relevant*). The three items receiving the highest self-relevance ratings were ashamed ($M=4.50$), guilty ($M=4.10$), and proud ($M=4.00$). All of these items were ones we had designated on a priori grounds as being self-relevant, and statistical analyses comparing each of these scores with the 17 remaining items on the PANAS produced significant differences for 48 of the 51 tests. The fourth item we had labeled as self-relevant (strong) was not rated as such by our colleagues ($M=1.55$). We return to a consideration of this issue in the Discussion section of this article.

3. Gender of subject did not modify any of the findings reported in this article, and this variable will not be discussed further.

4. This value is derived by taking the variance explained by the two items (proud and ashamed: $R^2 = .38$) and dividing this value by the total amount of variance explained ($R^2 = .46$).

5. We recruited participants from the lower and upper thirds on the RSE for this study because the subject pool was smaller during the quarter this study was conducted and the available subjects were rationed among each of the experiments being performed.

6. We did not include two PANAS items (strong and guilty) when computing a self-relevant emotion scale because (a) these items were not consistently linked to scores on the RSE in both of the previous studies reported in this article and (b) they were not used to measure self-relevant emotions in Study 2 and in our prior research (Brown & Dutton, 1995; Dutton & Brown, 1997). However, including these items did not alter the pattern of findings reported in the text.

REFERENCES

- Barrett, K. C. (1995). A functionalist approach to shame and guilt. In J. P. Tangney & K. W. Fischer (Eds.), *Self-conscious emotions: The psychology of shame, guilt, pride, and embarrassment* (pp. 25-63). New York: Guilford.
- Baumeister, R. F. (1982). Self-esteem, self-presentation, and future interaction: A dilemma of reputation. *Journal of Personality*, *50*, 29-45.
- Baumeister, R. F., Tice, D. M., & Hutton, D. G. (1989). Self-presentational motivations and personality differences in self-esteem. *Journal of Personality*, *57*, 547-579.
- Bolger, N., & Zuckerman, A. (1995). A framework for studying personality in the stress process. *Journal of Personality and Social Psychology*, *69*, 890-902.
- Brown, J. D. (1993). Self-esteem and self-evaluation: Feeling is believing. In J. Suls (Ed.), *Psychological perspectives on the self* (Vol. 4, pp. 27-58). Hillsdale, NJ: Lawrence Erlbaum.
- Brown, J. D. (1998). *The self*. New York: McGraw-Hill.
- Brown, J. D., & Dutton, K. A. (1995). The thrill of victory, the complexity of defeat: Self-esteem and people's emotional reactions to success and failure. *Journal of Personality and Social Psychology*, *68*, 712-722.
- Brown, J. D., & Smart, S. A. (1991). The self and social conduct: Linking self-representations to prosocial behavior. *Journal of Personality and Social Psychology*, *60*, 368-375.
- Brown, J. D., & Weiner, B. (1984). Affective consequences of ability versus effort attributions: Controversies, resolutions, and quandaries. *Journal of Educational Psychology*, *76*, 146-158.
- Bushman, B. J., & Baumeister, R. F. (1998). Threatened egotism, narcissism, self-esteem, and direct and displaced aggression: Does self-love or self-hate lead to violence? *Journal of Personality and Social Psychology*, *75*, 219-229.
- Byrne, B. M., & Shavelson, R. J. (1996). On the structure of social self-concept for pre-, early, and late adolescents: A test of the Shavelson, Hubner, and Stanton (1976) model. *Journal of Personality and Social Psychology*, *70*, 599-613.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.
- Diener, E., & Diener, M. (1995). Cross-cultural correlates of life satisfaction and self-esteem. *Journal of Personality & Social Psychology*, *68*, 653-663.
- Dutton, K. A., & Brown, J. D. (1997). Global self-esteem and specific self-views as determinants of people's reactions to success and failure. *Journal of Personality and Social Psychology*, *73*, 139-148.
- Gray-Little, B., Williams, V.S.L., & Hancock, T. D. (1997). An item response theory analysis of the Rosenberg Self-Esteem Scale. *Personality and Social Psychology Bulletin*, *23*, 443-451.
- Greenberg, J., Solomon, S., Pyszczynski, T., Rosenblatt, A., Burling, J., Lyon, D., Simon, L., & Pinel, E. (1992). Why do people need self-esteem? Converging evidence that self-esteem serves an anxiety-buffering function. *Journal of Personality and Social Psychology*, *63*, 913-922.
- Harter, S. (1986). Processes underlying the construction, maintenance, and enhancement of the self-concept in children. In J. Suls & A. G. Greenwald (Eds.), *Psychological perspectives on the self* (Vol. 3, pp. 137-181). Hillsdale, NJ: Lawrence Erlbaum.
- Heatherton, T. F., & Polivy, J. (1991). Development and validation of a scale for measuring state self-esteem. *Journal of Personality and Social Psychology*, *60*, 891-895.
- Helmreich, R., & Stapp, J. (1974). Short forms of the Texas Social Behavior Inventory (TSBI), an objective measure of self-esteem. *Bulletin of the Psychonomic Society*, *4*, 473-475.

- James, W. (1890). *The principles of psychology* (Vol. 1). New York: Holt.
- Kernis, M. H., Grannemann, B. D., & Barclay, L. C. (1989). Stability and level of self-esteem as predictors of anger arousal and hostility. *Journal of Personality and Social Psychology*, *56*, 1013-1022.
- Lazarus, R. S. (1991). *Emotion and adaptation*. New York: Oxford University Press.
- Leary, M. R., Tambor, E. S., Terdal, S. K., & Downs, D. L. (1995). Self-esteem as an interpersonal social monitor: The sociometer hypothesis. *Journal of Personality and Social Psychology*, *68*, 518-553.
- Lewis, H. B. (1971). *Shame and guilt in neurosis*. New York: International Universities Press.
- Lyubomirsky, S., & Ross, L. (1997). Hedonic consequences of social comparison: A contrast of happy and unhappy people. *Journal of Personality and Social Psychology*, *73*, 1141-1157.
- Marco, C. A., & Suls, J. (1993). Daily stress and the trajectory of mood: Spillover, response assimilation, contrast, and chronic negative affectivity. *Journal of Personality and Social Psychology*, *64*, 1053-1063.
- Marsh, H. W. (1990). A multidimensional, hierarchical model of self-concept: Theoretical and empirical justification. *Educational Psychology Review*, *2*, 77-172.
- Marsh, H. W. (1993). Academic self-concept: Theory, measurement, and research. In J. Suls (Ed.), *Psychological perspectives on the self* (Vol. 4, pp. 59-98). Hillsdale, NJ: Lawrence Erlbaum.
- McFarlin, D. B., & Blascovich, J. (1984). On the Remote Associates Test (RAT) as an alternative to illusory performance feedback: A methodological note. *Basic and Applied Social Psychology*, *5*, 223-229.
- Mednick, S. A. (1962). The associative basis of the creative process. *Psychological Review*, *26*, 220-232.
- Mineka, S., Watson, D., & Clark, L. A. (1998). Comorbidity of anxiety and unipolar mood disorders. *Annual Review of Psychology*, *49*, 377-412.
- Niedenthal, P. M., Tangney, J. P., & Gavanski, I. (1994). "If only I weren't" versus "If only I hadn't": Distinguishing shame and guilt in counterfactual thinking. *Journal of Personality and Social Psychology*, *67*, 585-595.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Shavelson, R. J., Hubner, J. J., & Stanton, G. C. (1976). Self-concept: Validation of construct interpretations. *Review of Educational Research*, *46*, 407-441.
- 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, 261-302). New York: Academic Press.
- Suls, J., Green, P., & Hillis, S. (1998). Emotional reactivity to everyday problems, affective inertia, and neuroticism. *Personality and Social Psychology Bulletin*, *24*, 127-136.
- Tangney, J. P., & Fischer, K. W. (Ed.). (1995). *Self-conscious emotions: The psychology of shame, guilt, pride, and embarrassment*. New York: Guilford.
- Watson, D., & Clark, L. A. (1984). Negative affectivity: The disposition to experience aversive emotional states. *Psychological Bulletin*, *96*, 465-490.
- Watson, D., & Clark, L. A. (1994). *The PANAS-X: Manual for the Positive and Negative Affect Schedule—Expanded Form*. Unpublished manuscript, University of Iowa.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of Positive and Negative Affect: The PANAS Scales. *Journal of Personality and Social Psychology*, *54*, 1063-1070.
- Watson, D., & Tellegen, A. (1985). Toward a consensual structure of mood. *Psychological Bulletin*, *98*, 219-235.
- Weiner, B. (1986). *An attributional theory of motivation and emotion*. New York: Springer.

Received October 8, 1999

Revision accepted April 26, 2000