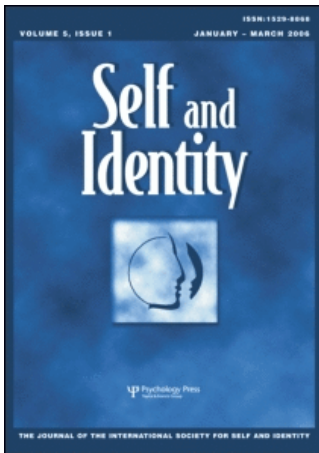


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### Testing competence and acceptance explanations of self-esteem

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# Testing Competence and Acceptance Explanations of Self-esteem

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*Recent theorizing suggests that both competence and acceptance contribute to global self-esteem. However, relatively little empirical work has focused on the relative contributions of competence and acceptance. We tested in four studies (N = 332) two competing hypotheses about how competence and acceptance play a role in self-esteem. According to the acceptance hypothesis, acceptance should influence self-esteem more than competence should. According to the competence/acceptance hypothesis, acceptance and competence should influence self-esteem roughly equally. The studies assessed state self-esteem in several ways: responses to feedback in an experimental setting (Studies 1 and 2), predicted changes in self-esteem in response to hypothetical events (Study 3), and recall of changes in self-esteem in retrospective accounts (Study 4). Overall, results supported the acceptance hypothesis: acceptance influenced self-esteem more than did competence.*

But it's a tiresome preoccupation, self-esteem. Something has to be done to limit the number of people whose opinions can affect us. (Saul Bellow)

Kenneth Trachtenberg, the protagonist in Saul Bellow's novel *More Die of Heartbreak*, ponders the merits of spending time with a woman he does not love and ultimately acknowledges the benefits to his self-esteem. Trachtenberg's recognition that feedback from other people strongly affects self-esteem is echoed in contemporary psychological theory, which proposes that feelings of social inclusion contribute directly to self-esteem (e.g., Leary & Downs, 1995; Leary, Haupt, Strausser, & Chokel, 1998; Leary, Tambor, Terdal, & Downs, 1995). Psychological theory also suggests that feelings of competence contribute directly to

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self-esteem (e.g., Harter, 1993; Tatarodi & Milne, 2002; Tatarodi & Swann, 2001). The present research combined these two theoretical approaches and sought to compare how competence and acceptance contribute to self-esteem.

Researchers disagree on how best to define self-esteem (e.g., Kernis, 2003). Considerable contemporary research defines self-esteem as a global, unitary evaluation of the self (e.g., Kernis, 2003; LaGuardia & Ryff, 2003). However, some researchers depict self-esteem as two-dimensional, consisting of feelings of both self-liking and self-competence. Evidence for this depiction includes factor analyses revealing a two-factor structure of the widely used Rosenberg (1965) Self-Esteem Scale (Tatarodi & Milne, 2002) and additional analyses of a measure specifically designed to tap the two components of self-esteem (Tatarodi & Swann, 2001). However, analyses of the self-liking and self-competence dimensions also typically reveal moderately high correlations between the two dimensions (Tatarodi, 1998; Tatarodi, Marshall, & Milne, 2003; Tatarodi & Milne, 2002; Tatarodi & Swann, 2001), suggesting some utility in combining the two dimensions into one construct. Thus, we acknowledge the evidence for the two-component structure of self-esteem, but our interest lies in how those two components contribute to global self-esteem.

### *Acceptance and Self-Esteem*

According to sociometer theory, self-esteem serves as a gauge of others' acceptance or rejection (Leary & Downs, 1995; Leary et al., 1995, 1998). Feeling accepted or included by others leads to high self-esteem, whereas feeling rejected or excluded by others leads to low self-esteem. Self-esteem, then, serves as a monitor of inclusionary status. By monitoring people's inclusionary status, the sociometer allows people to strive for an optimal level of social acceptance. If people sense that others reject them, they may correct their behavior to make others accept them. If they sense that others accept them, they may act in ways that assure continued acceptance. Furthermore, acceptance and rejection experiences may affect more than state self-esteem; over time, they may define trait self-esteem. Repeated experiences of acceptance may result in high trait self-esteem, and repeated experiences of rejection may result in low trait self-esteem (Leary et al., 1995).

Sociometer theory has garnered considerable empirical support. For example, self-esteem positively correlates with imagined feelings of acceptance in response to engaging in various hypothetical behaviors (e.g., cheating on an exam, donating a kidney; Leary et al., 1995). Similarly, state self-esteem positively correlates with how included people feel in retrospective accounts of real social situations, and additional research demonstrates that state self-esteem declines when people are rejected for personal reasons (Leary et al., 1995). Research also suggests a positive relationship between trait self-esteem and perceived acceptance. People with high self-esteem tend to view themselves as better than average on communal traits (Campbell, Rudich, & Sedikides, 2002), and trait self-esteem correlates positively with how included or accepted people generally feel (Leary et al., 1998). Thus, a sense of acceptance apparently accounts for considerable variance in self-esteem.

### *Competence and Self-esteem*

Although sociometer theory capably explains how a sense of acceptance contributes to self-esteem, classical and contemporary theory suggests that a sense of competence also contributes to self-esteem. William James (1892) proposed that

people derive self-esteem from performing well in areas that are important to them. More recently, Harter (1993) described how self-evaluations contribute to self-esteem in five domains, including scholastic competence and athletic competence. Following James, Harter proposes that children may maintain self-esteem by devaluing a domain in which they fare poorly (i.e., areas in which they show low competence).

Results of several studies support the competence approach. For example, self-esteem increases over time in response to a “track record” of successful outcomes as values associated with achievement and competence progressively become linked with self-esteem (Feather, 1991). Similarly, state self-esteem tends to increase when students receive good grades and decrease when students receive poor grades (Crocker, Karpinski, Quinn, & Chase, 2003), and applied research finds that, in both real employment settings and in mock job interviews, a sense of competence influences self-esteem (Ilardi, Leone, Kasser, & Ryan, 1994; Lorentz & Hinsz, 1997). People with high self-esteem tend to perceive themselves as better than average on agentic (e.g., competence, intelligence) traits (Campbell et al., 2002). In fact, a sense of efficacy or power (i.e., competence) may be an essential component of self-esteem (e.g., Tafarodi & Vu, 1997). In sum, various findings suggest that a sense of competence—like a sense of acceptance—contributes to self-esteem.

### *The Present Research*

Surprisingly, little research to date has compared the relative influence of acceptance and competence on self-esteem. One notable exception is a recent meta-analysis that examined several possible antecedents of self-esteem, including competence and acceptance (Twenge & Campbell, 2001). The analyses revealed that acceptance contributed to changes in self-esteem across time. For instance, self-esteem generally decreased from elementary to junior high school, coinciding with disruptions in relationships, but tended to increase from high school to college as relationships solidified (Twenge & Campbell, 2001). Contrary to the notion that a sense of competence explains unique variance in self-esteem, analyses revealed that self-esteem scores have increased over time while measures of achievement or intelligence (e.g., SAT scores) have declined. Although these findings suggest that competence may play a comparatively small role in self-esteem, a lack of experimental evidence that manipulates acceptance and competence feedback precludes strong conclusions. Thus, the question of the relative contribution of competence and acceptance to global self-esteem remains.

Recent research suggests other potential sources of unique variance in self-esteem such as religious faith, appearance, and virtue (Crocker, 2002; Crocker & Wolfe, 2001). We focused exclusively on acceptance and competence in the present studies because of their roots in both classical (e.g., Cooley, 1902; James, 1892) and contemporary (e.g., Crocker & Wolfe, 2001; Leary et al., 1995; Twenge & Campbell, 2001) theory. We suspect that competence and acceptance account for most of the variance in self-esteem.

We acknowledge that teasing apart two potentially intertwined sources of self-esteem may seem unfeasible. On the one hand, any apparent effects of competence may actually stem from the perceived acceptance associated with demonstrations of competence. For example, winning a scholarship may increase state self-esteem because the scholarship winner receives or anticipates praise from friends and

family, rather than because the scholarship demonstrates competence. On the other hand, any apparent effects of acceptance may actually stem from perceived competence associated with feelings of acceptance. For example, feeling socially included may increase state self-esteem because acceptance from others suggests that one is socially competent (i.e., possesses social skills), rather than because one feels accepted.

Several lines of research, however, suggest that the two sources of self-esteem are not inextricably intertwined. For example, research on upward social comparison suggests that feelings of high competence may exist in the absence of feelings of acceptance (e.g., Exline & Lobel, 1999). More importantly, the research suggests that people who are the target of an upward social comparison because of their superior performance may fear that the person making the comparison will shun them or even terminate their relationship (Exline & Lobel, 1999). Given the close correspondence between feelings of rejection and feelings of diminished self-esteem (e.g., Leary et al., 1995), it seems possible that positive competence feedback may prompt a fear of rejection that in turn may temporarily lower self-esteem. Thus, self-esteem may not necessarily rise, and in fact may decline, in response to positive competence feedback, suggesting that competence and acceptance do not completely overlap in their contributions to self-esteem.

People can also experience fluctuations in self-esteem in response to events that are irrelevant to competence, suggesting again that competence and acceptance are distinct in their contributions to self-esteem. For example, participants in one study predicted their feelings of inclusion and their self-esteem in response to several hypothetical situations (Leary et al., 1995, Study 1). Predicted feelings of inclusion correlated positively with predicted self-esteem, even in situations seemingly unrelated to demonstrations of competence (e.g., "I was unfaithful to my boyfriend or girlfriend," "I accidentally sneezed on someone...").

Furthermore, positive evaluations of others do not necessarily involve positive evaluations of both competence and likeability. For example, research on the pratfall effect demonstrates that people view a highly competent individual more favorably when he or she commits a blunder than when he or she commits no blunder (Aronson, Willerman, & Floyd, 1966). Evidence also suggests that individuals use visibly distinct strategies when attempting to convey an impression of likeability versus competence (Godfrey, Jones, & Lord, 1986). These findings raise the possibility that a positive self-evaluation need not involve equally positive evaluations of one's own competence and acceptance. Collectively, these studies suggest that competence and acceptance, although overlapping, are distinct.

We examined how both competence and acceptance influence self-esteem in four studies. Participants in Studies 1 and 2 received either success or failure (i.e., competence) feedback and either acceptance or rejection feedback. Because competence and acceptance are naturally confounded, we manipulated them independently in the laboratory. Participants in Study 3 considered various hypothetical events directly related to competence or acceptance and indicated their predicted level of self-esteem in response to each event. Finally, participants in Study 4 provided retrospective accounts of real events that affected their self-esteem.

We conceptualized "competence" broadly. Studies 1 and 2 focused on the concept "intelligence," given its presumed importance to college students. Study 3 used hypothetical competence-oriented events involving a variety of areas (e.g., academic performance, job performance, scholarship competitions, general intelligence), and Study 4 allowed participants to write about any type of event that influenced their

self-esteem, permitting any number of competence-oriented events. Across the four studies, we tested two competing hypotheses:

*The acceptance hypothesis.* Feelings of acceptance should contribute more to self-esteem than should feelings of competence. Although sociometer theory acknowledges other possible influences on self-esteem (Leary, 2004), the guiding assumption is that self-esteem serves to monitor an individual's actual or potential acceptability. Thus, implicit in sociometer theory is the notion that acceptance shapes self-esteem more than other factors do.

*The competence/acceptance hypothesis.* Feelings of competence and acceptance should influence self-esteem roughly equally. Several theoretical approaches incorporate both competence and acceptance sources of self-esteem (e.g., Crocker & Wolfe, 2001; Harter, 1993; Tafarodi & Milne, 2002). Although such approaches typically do not explicitly predict equal contributions of competence and acceptance to self-esteem, some literature hints at this possibility. For example, recent theorizing depicts the self-liking and self-competence components of global self-esteem as analogous to the length and width components of a rectangle (Tafarodi & Swann, 2001)—components that contribute equally to the shape of the rectangle. Thus, implicit in this analogy and in these approaches more broadly is the notion that acceptance and competence are equally important in shaping self-esteem.

Although, as previously noted, both trait and state self-esteem are tied to a sense of feedback from others (Leary et al., 1995), we limited our focus to state self-esteem because it is more responsive to experimental manipulations. We assumed that examining changes in self-esteem might best inform the question of how competence and acceptance influence self-esteem.

## Study 1: Pilot

Study 1 experimentally manipulated competence (i.e., performance) and acceptance (i.e., social) feedback, thereby permitting examination of how both influence state self-esteem.

### *Method*

*Participants.* Because interpersonal feedback ostensibly from a friend presumably would be more meaningful than would feedback from a stranger, the sign-up instructions directed students to bring a friend to the experiment. A total of 51 pairs of same- and mixed-sex friends (85 females and 17 males) participated.

*Procedure.* Participants arrived at the experiment in pairs and were randomly assigned to one of four experimental conditions: *success/acceptance*, *success/rejection*, *failure/acceptance*, or *failure/rejection*. Two experimenters greeted and then separated participants into two rooms, and one experimenter interacted with each participant. After receiving an overview of the study, participants completed the Rosenberg (1965) Self-Esteem Scale. The experimenters explained that the purpose of the experiment was to establish local norms for a national intelligence test, and that the experiment also examined how people interpret responses to intelligence tests. To justify the presence of the friend, the experimenters stated that they were interested in how friends perceive each other upon learning each other's test performance.

After hearing the cover story, participants completed an “intelligence” test consisting of analogies. In the *success* conditions, the test consisted of relatively easy items; in the *failure* conditions, the test consisted of relatively difficult items.

Participants completed several filler items, and then, after ostensibly scoring the intelligence test, the experimenter returned and presented participants a feedback form that introduced the experimental manipulations. Participants in the *success* conditions saw at the top of the feedback form that they had scored in the 92nd percentile on the test, whereas participants in the *failure* conditions saw that they had scored in the 62nd percentile on the test. Pilot testing indicated that college students indeed perceived the 62nd percentile as a “failing” score, and that they viewed any lower score as implausible.

The social manipulation, which was directly below the performance feedback, contained three 7-step items (1 = *strongly disagree* and 7 = *strongly agree*) adapted from the Liking portion of Rubin’s (1970) Liking and Loving Scale. Items were, “I have strong admiration for my friend,” “I have tremendous respect for my friend,” and “I am proud of my friend.” In the *acceptance* conditions, participants saw that 7s had been circled for each item, indicating strong, positive ratings of the participant. In the *rejection* conditions, participants saw that two 4s and one 5 had been circled for the three items, indicating rather neutral ratings of the participant. Although this feedback may seem neutral and unlikely to induce a sense of rejection, prior research demonstrates that people are most sensitive to moderate cues of rejection, and that adding stronger rejection cues does not diminish self-esteem further (Leary et al., 1998). In addition, pilot testing revealed that people viewed any responses below the midpoint as implausible.

After having a few minutes to read their feedback form, participants completed a 12-adjective (e.g., confident, worthless) State Self-esteem Scale (McFarland & Ross, 1982). Participants responded to each adjective according to how they felt “right now” (1 = *not at all*; 5 = *extremely*). We summed the items after reverse-coding to create a single measure of state self-esteem ( $M = 40.0$ ,  $SD = 11.2$ , Cronbach’s  $\alpha = .86$ ). The final measures that participants completed contained several manipulation check and filler items. The experimenter then fully debriefed participants and thanked them for their participation.

### *Results and Discussion*

We instructed participants to bring friends so that the acceptance or rejection experiences would be psychologically meaningful. Based on past research (Williams & Sommer, 1997), however, we were aware that the rejection feedback would exceed credibility in some friendship pairs, and that we would consequently have to exclude data from some participants in the rejection condition. In the end, we were forced to discard data from 16 participants who expressed suspicion about their rejection feedback.

Data from eight additional participants were discarded because they expressed suspicion about the performance feedback (i.e., participants believed they had scored higher or lower on the test), data from three participants were discarded because they expressed suspicion at both types of feedback, and data from eight participants were discarded for other reasons (e.g., doing homework during the experiment). Thus, the final sample consisted of 67 participants. Unless otherwise indicated, all analyses were conducted using a 2 (Social Feedback)  $\times$  2 (Acceptance Feedback) Analysis of Variance (ANOVA). All  $\eta^2$  statistics reported are partial.

*Manipulation checks.* We assessed the performance feedback manipulation by asking participants how they did on the test (1 = *not very well*; 7 = *very well*).

Analysis revealed a significant effect of performance feedback,  $F(1, 63) = 98.99$ ,  $p < .001$ ,  $\eta^2 = .61$ , such that participants in the success conditions ( $M = 5.91$ ) reported performing better than did participants in the failure conditions ( $M = 3.73$ ). Analysis also revealed an unexpected, relatively small main effect of social feedback,  $F(1, 63) = 4.88$ ,  $p < .03$ ,  $\eta^2 = .07$ , such that participants in the acceptance condition ( $M = 5.06$ ) reported that they performed better on the test than did participants in the rejection condition ( $M = 4.61$ ). The social  $\times$  performance feedback interaction was not statistically significant,  $F(1, 63) < 1.0$ ,  $p > .70$ ,  $\eta^2 = .002$ .

We assessed the social feedback manipulation by asking participants how their friend evaluated them after the test (1 = *very negatively*; 7 = *very positively*). Participants reported that their friend evaluated them more positively in the acceptance conditions ( $M = 7.00$ ) than in the rejection conditions ( $M = 4.06$ ),  $F(1, 63) = 5199.65$ ,  $p < .001$ ,  $\eta^2 = .99$ . Participants did not report that their friend evaluated them significantly differently in the success ( $M = 5.50$ ) versus failure ( $M = 5.61$ ) conditions,  $F(1, 63) = 2.35$ ,  $p > .10$ ,  $\eta^2 = .04$ , and the social  $\times$  performance feedback interaction was not statistically significant,  $F(1, 63) = 2.35$ ,  $p > .10$ ,  $\eta^2 = .04$ . In sum, both our performance feedback and social feedback manipulations were successful.

*State self-esteem effects.* According to the acceptance hypothesis, acceptance feedback will influence state self-esteem more than competence feedback will. In other words, participants receiving acceptance feedback will report higher state self-esteem than will participants receiving rejection feedback, regardless of their competence feedback. In contrast, according to the competence/acceptance hypothesis, competence and acceptance feedback will influence state self-esteem equally. In other words, participants will report higher state self-esteem after receiving success versus failure feedback, and after receiving acceptance versus rejection feedback. Furthermore, the difference in state self-esteem for acceptance versus rejection conditions should be roughly equal to the difference in state self-esteem for success versus failure conditions.

Analysis revealed significant main effects of both acceptance feedback,  $F(1, 63) = 29.78$ ,  $p < .001$ ,  $\eta^2 = .32$ , and competence feedback,  $F(1, 63) = 6.48$ ,  $p = .01$ ,  $\eta^2 = .09$ , on state self-esteem. An effect size comparison revealed that the acceptance effect is significantly larger than the competence effect,  $z = 2.00$ ,  $p < .05$  (Rosenthal & Rosnow, 1991). More importantly, analysis revealed a competence feedback by acceptance feedback interaction that approached statistical significance,  $F(1, 63) = 2.96$ ,  $p = .09$ ,  $\eta^2 = .04$  (see Table 1). Follow-up  $t$ -tests indicated that in the acceptance conditions, participants did not differ in state self-esteem regardless of whether they received success versus failure feedback,  $t(32) < 1.00$ ,  $p = ns$ ,  $r = .11$ . In contrast, in the rejection conditions, participants reported higher state self-esteem when receiving success feedback than when receiving failure feedback,  $t(31) = 2.75$ ,  $p < .05$ ,  $r = .43$ . Thus, when participants received acceptance feedback, success or failure feedback appeared to matter little to their state self-esteem. However, when participants received rejection feedback, competence feedback did appear to matter: participants reported higher state self-esteem when they were accepted than when they were rejected.<sup>1</sup>

Additional analyses revealed that in the success conditions, participants reported higher state self-esteem when receiving acceptance feedback than when receiving rejection feedback,  $t(32) = 2.71$ ,  $p < .05$ ,  $r = .43$ . Similarly, in the failure conditions, participants reported higher state self-esteem when receiving acceptance feedback

**TABLE 1** Study 1: Means (and Standard Deviations) for State Self-esteem in Response to Competence and Acceptance Feedback

Performance feedback	Social feedback	
	Acceptance	Rejection
Success	50.70 <sub>a</sub> (4.18)	46.18 <sub>b</sub> (5.47)
Failure	49.71 <sub>a</sub> (4.78)	41.00 <sub>c</sub> (5.34)

*Note:* Within the same row or column, means not sharing a subscript differ significantly from each other at the .05 level.

than when receiving rejection feedback,  $t(31) = 4.94$ ,  $p < .05$ ,  $r = .66$ . Thus, regardless of whether participants received success or failure feedback, acceptance feedback mattered to their state self-esteem.

In summary, consistent with the acceptance hypothesis, acceptance feedback appeared to influence state self-esteem more strongly than did competence feedback. When participants received acceptance feedback, competence feedback did not significantly influence their self-esteem. The results do not support the competence/acceptance hypothesis. Thus, acceptance appears to buffer self-esteem from the impact of failure, but success does not appear to buffer self-esteem from the impact of rejection.

## Study 2

It is possible in Study 1 that participants cared little about their test performance. Study 2 examined whether the results of Study 1 would replicate in an experiment designed to provide a fairer test of the influence of competence by implementing a more engaging task on which to receive feedback. In addition, given the high number of participants omitted from analyses in Study 1, we also sought to modify the procedure to make rejection feedback more plausible to participants. The modified procedure also allowed us to examine whether the effects of acceptance versus rejection feedback extend beyond feedback received from friends.

### *Method*

*Participants.* Students (17 male, 54 female) participated as part of a course obligation in introductory psychology.

*Procedure.* The procedure of Study 2 closely followed that of Study 1, except for several modifications designed to improve upon the first study. First, participants participated with a stranger rather than a friend, thereby eliminating the potential implausibility of negative feedback from friends. Second, we modified the cover story so that the experimenters explained that the experiment investigated the concept of "multiple intelligences," and that we were specifically interested in social and academic intelligence. This change shifted the focus from social perceptions to intelligence. Third, to make the performance feedback more meaningful, the intelligence test contained items from a mechanical reasoning test (Bennett, Seashore, & Wesman, 1972). We selected items that were ambiguous enough to make both success and failure feedback plausible. Furthermore, pilot participants

suggested that the test was more engaging than the test used in Study 1. We suspected that a more engaging test would provide a stronger test of the effects of competence feedback by making participants more involved in the task, thereby making the subsequent test feedback more meaningful.

Fourth, because we were concerned that participants might not find acceptance or rejection feedback from a stranger personally meaningful, participants engaged in the 9-minute Closeness Induction Task (Sedikides, Campbell, Reeder, & Elliot, 1999) after completing the "intelligence" test. In this task, participants ask each other an established series of questions that increase in intimacy and create a temporary sense of psychological closeness (Sedikides et al., 1999). Presumably, the increased sense of closeness would increase participants' interest in their partner's evaluation of them.

After completing the Closeness Induction Task, participants were moved to separate rooms and completed a filler task that involved rating the quality of the Closeness Induction Task questions while their co-participants ostensibly evaluated them. Next, the experimenter presented participants with a feedback form, similar to that of Study 1, containing their test score and their co-participant's evaluation of them. To make the co-participant's supposed evaluation more global than it might have appeared in Study 1, the feedback form contained three items: "Most people would like my interaction partner after a brief acquaintance," "I think that my interaction partner is one of those people who quickly wins respect," and "It seems to me that it is very easy for my interaction partner to gain admiration." As in Study 1, participants randomly received one of four feedback combinations: *success/acceptance*, *success/rejection*, *failure/acceptance*, or *failure/rejection*. Participants viewed the feedback form and then completed the state self-esteem measure, followed by the manipulation checks. Finally, the experimenter debriefed participants and thanked them for their participation.

### Results and Discussion

We discarded the data from five participants who expressed suspicion about the experiment (e.g., stated that the feedback was false, participated in similar deceptive studies, claimed to know the study's true purpose) or, in one case, did not notice the competence feedback. Excluded participants were distributed across conditions as follows: *acceptance/success* = 1, *acceptance/failure* = 1, *rejection/success* = 0, and *rejection/failure* = 3. Including the data of excluded participants did not substantially alter the results. Thus, we present analyses for the final sample consisting of 66 participants (15 male and 51 female). Unless otherwise indicated, all analyses were conducted using a 2 (Social Feedback)  $\times$  2 (Acceptance Feedback) ANOVA.

*Manipulation checks.* Participants in the success conditions ( $M = 6.24$ ) reported performing better than did participants in the failure conditions ( $M = 4.21$ ),  $F(1, 62) = 98.19$ ,  $p < .001$ ,  $\eta^2 = .61$ . As in Study 1, analysis also revealed that participants in the acceptance condition ( $M = 5.50$ ) reported that they performed better on the test than did participants in the rejection condition ( $M = 4.97$ ),  $F(1, 62) = 6.76$ ,  $p < .05$ ,  $\eta^2 = .10$ . Analysis also revealed a social  $\times$  performance feedback interaction that approached significance,  $F(1, 62) = 3.73$ ,  $p < .06$ ,  $\eta^2 = .06$ . However, these unexpected effects were small compared to the main effect of performance feedback.

Participants reported that their co-participant evaluated them more positively in the acceptance conditions ( $M = 6.87$ ) than in the rejection conditions ( $M = 3.85$ ),  $F(1, 62) = 395.35$ ,  $p < .001$ ,  $\eta^2 = .86$ . Participants did not report that their

co-participant evaluated them significantly differently in the success ( $M = 5.33$ ) versus failure ( $M = 5.30$ ) conditions,  $F < 1.0$ ,  $p > .50$ ,  $\eta^2 = .001$ . The social  $\times$  performance feedback interaction was not significant,  $F(1, 62) < 1.0$ ,  $p > .50$ ,  $\eta^2 = .006$ . In sum, both our performance feedback and social feedback manipulations again were successful.

*State self-esteem effects.* As in Study 1, analysis revealed significant main effects of both acceptance feedback,  $F(1, 62) = 22.57$ ,  $p < .001$ ,  $\eta^2 = .27$ , and competence feedback,  $F(1, 62) = 7.70$ ,  $p < .01$ ,  $\eta^2 = .11$ , on state self-esteem. An effect size comparison revealed that the acceptance main effect was not significantly greater than the competence main effect,  $z = 1.37$ ,  $p > .10$  (Rosenthal & Rosnow, 1991). Although the competence feedback  $\times$  acceptance feedback interaction was not significant,  $F(1, 62) < 1.0$ ,  $p > .50$ ,  $\eta^2 = .005$ , because we were testing whether the results of Study 1 would replicate, we conducted a series of planned contrasts using the pooled error term ( $MSE = 21.40$ ). Planned contrasts revealed a pattern identical to that of Study 1 (see Table 2). Specifically, in the acceptance conditions, participants did not differ in state self-esteem regardless of whether they received success or failure feedback,  $t(62) = 1.53$ ,  $p > .10$ ,  $r = .19$ . In contrast, in the rejection conditions, participants reported higher state self-esteem when receiving success feedback than when receiving failure feedback,  $t(62) = 2.41$ ,  $p < .05$ ,  $r = .29$ . Thus, as in Study 1, competence feedback appeared not to matter to participants' self-esteem unless they received rejection feedback.

Also, as in Study 1, the results suggest a different pattern for the remaining comparisons. Specifically, results indicated that in the success conditions, participants reported higher state self-esteem when receiving acceptance feedback than when receiving rejection feedback,  $t(62) = 2.95$ ,  $p < .05$ ,  $r = .35$ . Similarly, in the failure conditions, participants reported higher state self-esteem when receiving acceptance feedback than when receiving rejection feedback,  $t(62) = 3.77$ ,  $p < .05$ ,  $r = .43$ . Thus, when participants received success feedback, acceptance feedback apparently still mattered to their state self-esteem. Similarly, when participants received failure feedback, acceptance feedback again appeared to matter to their state self-esteem.

In summary, the pattern of results for Study 2 was remarkably similar to the pattern found in Study 1, even though Study 2 included several procedural changes. We note, however, that although our effects emerged from a priori comparisons, the pattern of means in Table 2 resembles two main effects rather than an interaction. Thus, we urge caution in interpreting these effects. As in Study 1, the results were consistent with the acceptance hypothesis: acceptance feedback influenced state

**TABLE 2** Study 2: Means (and Standard Deviations) for State Self-esteem in Response to Competence and Acceptance Feedback

Performance feedback	Social feedback	
	Acceptance	Rejection
Success	51.75 <sub>a</sub> (4.42)	47.00 <sub>b</sub> (5.05)
Failure	49.25 <sub>a</sub> (3.15)	43.18 <sub>c</sub> (5.46)

*Note:* Within the same row or column, means not sharing a subscript differ significantly from each other at the .05 level.

self-esteem more strongly than did competence feedback. When participants received acceptance feedback, competence feedback did not appear to influence their self-esteem significantly. Thus, as in Study 1, acceptance appears to buffer self-esteem from the impact of failure, but success does not appear to buffer self-esteem from the impact of rejection. The results do not support the competence/acceptance hypothesis, which suggests that competence and acceptance feedback influence self-esteem equally.

### Study 3

The results of Studies 1 and 2 suggest that a sense of acceptance contributes more to self-esteem than a sense of competence does. In Study 3, we tested whether these findings would generalize beyond the laboratory to responses to various situations that are likely to occur in participants' lives. We created hypothetical competence- and acceptance-oriented situations that participants would find personally meaningful. Using hypothetical situations allowed us statistically to equalize competence versus acceptance events' desirability and importance, thereby permitting more stringent examination of the relative influence of competence and acceptance feedback. Although the use of hypothetical events has drawbacks (e.g., participants may not perfectly predict their responses to a situation), previous research has successfully used hypothetical situations to examine the relationship between self-esteem and participants' imagined reactions to a variety of experiences, including interpersonal rejection (Leary et al., 1995, 1998) and ambiguous social situations (Kernis, Paradise, & Goldman, 2000, as cited in Kernis, 2003).

#### *Method*

*Participants.* One hundred seven male and female students participated as part of a course obligation in introductory psychology.

*Procedure.* Participants completed a questionnaire describing 20 events. Event valence (positive versus negative outcome) and event type (competence versus acceptance) were equally distributed. Thus, five events described a positive, acceptance-oriented situation (e.g., "Someone you have been attracted to for a while asks you on a date"), five described a positive, competence-oriented situation (e.g., "You get your top choice of a job after graduation"), five described a negative, acceptance-oriented situation (e.g., "You overhear your roommate saying bad things about you"), and five described a negative, competence-oriented situation (e.g., "You receive poor GRE scores"). Pilot participants rated each event's importance and its valence. Following discussion of the pilot participants' ratings, we revised the 20 events so that they described competence- and acceptance-oriented events that ranged from very negative to very positive and from relatively minor to very important.

Additional pilot testing revealed a moderate, positive correlation between feelings of acceptance and competence for each event. Because we had no way of ascertaining whether this correlation represented participants' true sense that these constructs are intertwined or merely a response bias (such that participants simply provided consistent responses), we employed a between-subjects design in Study 3. Half of the participants reported how competent they would feel (1 = *very incompetent*, 7 = *very competent*), and half of the participants reported how accepted they would feel

(1 = *very rejected*, 7 = *very accepted*) in response to each of the 20 events. In addition, for each of the 20 events, all participants rated the importance of the outcome (1 = *not at all important*, 7 = *very important*), the desirability of the outcome (1 = *very negative*, 7 = *very positive*), and the anticipated effect on their self-esteem (1 = *lower my self-esteem a lot*, 7 = *raise my self-esteem a lot*).

Although participants might have brought to mind their own idiosyncratic definitions of self-esteem, recent research suggests that people's awareness of the meaning of self-esteem has increased dramatically since the 1960s (Twenge & Campbell, 2001). In fact, awareness of the construct of self-esteem is now so prevalent that researchers recently validated a one-item measure of self-esteem, in which participants simply rate their agreement with the statement, "I have high self-esteem" (Robins, Hendin, & Trzesniewski, 2001). Therefore, we were confident that participants would not only understand our item but also bring to mind a concept that closely matched a typical social psychological definition of self-esteem.

Following the questionnaire was a series of open-ended items (see Study 4). After completing the measures or an unrelated experiment, participants were debriefed and thanked for their participation.

### *Results and Discussion*

*Manipulation check.* We examined participants' anticipated feelings of competence and acceptance across events by summing their responses across each event type. Results revealed that participants anticipated higher feelings of competence ( $M = 31.47$ ,  $SD = 3.12$ ) than acceptance ( $M = 27.57$ ,  $SD = 4.19$ ) for the positive competence events,  $t(53) = 7.06$ ,  $p < .001$ ,  $r = .70$ . Similarly, participants anticipated lower feelings of competence ( $M = 13.09$ ,  $SD = 4.32$ ) than acceptance ( $M = 15.11$ ,  $SD = 4.62$ ) for the negative competence events,  $t(53) = 4.62$ ,  $p < .001$ ,  $r = .54$ .

A similar pattern emerged for the acceptance events. Although participants did not anticipate significantly higher feelings of acceptance ( $M = 27.89$ ,  $SD = 3.60$ ) than competence ( $M = 27.28$ ,  $SD = 4.72$ ) for the positive acceptance events, the pattern of means was in the predicted direction (or, perhaps more importantly, the pattern was not in the opposite direction),  $t(53) = 1.06$ ,  $p > .05$ ,  $r = .14$ . Finally, participants anticipated lower feelings of acceptance ( $M = 13.19$ ,  $SD = 4.29$ ) than competence ( $M = 15.85$ ,  $SD = 3.75$ ) for the negative acceptance events,  $t(53) = 5.74$ ,  $p < .001$ ,  $r = .62$ . Thus, overall, our designations of "competence" versus "acceptance" events seem accurate.

*Overview of HLM analyses.* We analyzed our data using hierarchical linear modeling (HLM), which creates the equivalent of a regression equation for each participant (e.g., Nezlek & Gable, 2001). HLM allowed us to estimate each participant's anticipated self-esteem in response to competence versus acceptance events while statistically controlling for the participant's ratings of the events' importance and desirability. With HLM, we could test whether any significant self-esteem differences reflected differences in the nature of the event (i.e., competence or acceptance), rather than differences in overall positivity or importance of events. Thus, even if the competence and acceptance events we constructed differed on average in terms of their desirability or importance, our analyses allowed us to control for such differences by examining anticipated state self-esteem at mean levels of events' desirability and importance. Because positive and negative events should have different effects on self-esteem, and because we were interested in comparing

intercepts (i.e., average self-esteem for competence versus acceptance events) rather than slopes, we modeled positive and negative events separately. We used the following HLM equation for the 10 positive events (five competence, five acceptance), and we then used the same equation for the 10 negative events:

$$y_{ij} = \beta_{0j} + \beta_{1j}\text{importance} + \beta_{2j}\text{desirability} + r_{ij}$$

In this equation,  $y$  is the outcome variable (anticipated self-esteem) for person  $j$  for event  $i$ ,  $\beta_{1j}$  is the within-person association between self-esteem and event importance,  $\beta_{2j}$  is the within-person association between self-esteem and event desirability, and  $r_{ij}$  represents error. Because desirability and importance ratings were centered around each participant's mean ratings, the primary variable of interest—the intercept ( $\beta_{0j}$ )—is each participant's anticipated self-esteem in response to events at the mean importance and desirability ratings. We simultaneously estimated one equation for competence events and one for acceptance events. Thus, using these equations yielded two intercepts, allowing for comparison of anticipated self-esteem in response to competence versus acceptance events.

*Positive events.* Results of a one-sample  $t$ -test revealed that the intercepts ( $\beta_{0j}$ ) for competence and acceptance events differed significantly from 4 (the midpoint, which indicates no anticipated change in self-esteem), demonstrating that participants anticipated that both competence,  $\beta_{0j} = 5.43$ ,  $SE = 0.14$ ,  $t(106) = 9.93$ ,  $p < .001$ , and acceptance,  $\beta_{0j} = 6.29$ ,  $SE = 0.15$ ,  $t(106) = 15.17$ ,  $p < .001$ , events would affect their self-esteem.

To examine the relative role of competence and acceptance, we created a model in which we constrained anticipated self-esteem change in response to acceptance versus competence events to be equal. We then tested the fit of this constrained model with the fit of the original, unconstrained model. If, for example, participants anticipated that positive acceptance events would raise their self-esteem more than would positive competence events, then the fit of the constrained model (in which the competence and acceptance intercepts were equal) should differ significantly from the fit of the original, unconstrained model (in which the competence and acceptance intercepts were free to vary). Results revealed that the fits of the constrained and unconstrained models significantly differed from each other,  $\chi^2(1) = 6.75$ ,  $p < .01$ , demonstrating that participants anticipated that positive acceptance events would raise their self-esteem more than would positive competence events.

*Negative events.* The intercepts ( $\beta_{0j}$ ) for competence and acceptance events differed significantly from 4 (the midpoint), demonstrating that participants anticipated that both competence,  $\beta_{0j} = 3.23$ ,  $SE = 0.19$ ,  $t(106) = 4.05$ ,  $p < .001$ , and acceptance,  $\beta_{0j} = 2.46$ ,  $SE = 0.20$ ,  $t(106) = 8.10$ ,  $p < .001$ , events would affect their self-esteem. As with the positive events, a comparison of models that did versus did not constrain anticipated self-esteem in response to the two event types to be equal revealed that the models significantly differed from each other,  $\chi^2(1) = 4.47$ ,  $p = .03$ . Participants anticipated that negative acceptance events would lower their self-esteem more than would negative competence events.<sup>2</sup>

*Summary.* Responses to the hypothetical events revealed that participants anticipated that both acceptance events and competence events would influence their self-esteem. However, in support of the acceptance hypothesis and consistent

with the results of Studies 1 and 2, participants anticipated that acceptance events, either positive or negative, would affect their self-esteem more than competence events would. Importantly, these results are not due to participants rating acceptance/rejection events as more important or desirable than they rated competence/incompetence events. The greater influence ascribed to acceptance/rejection events appeared even after controlling for the importance and desirability of the events.

## Study 4

Examining how participants have actually responded to competence and acceptance feedback in their lives could further inform the question of the relative contribution of competence and acceptance to self-esteem. Study 4 therefore examined participants' retrospective accounts of events that affected their self-esteem. Previous research has employed retrospective accounts to examine numerous psychological phenomena, including teasing (Kowalski, 2000), unrequited love (Baumeister, Wotman, & Stillwell, 1993), interpersonal rejection (e.g., Leary et al., 1995), and ego-shock (Campbell, Baumeister, Dhavale, & Tice, 2003). Although some research suggests that people often emphasize social acceptance or rejection in accounts of events that changed their self-esteem (e.g., Baumeister, Dori, & Hastings, 1998), this research did not probe for other types of events that reportedly affected self-esteem. Thus, in Study 4, we looked for references to feelings of both competence and acceptance in participants' narrative accounts.

Although participants' accounts of events that influenced their self-esteem will not necessarily reveal the real processes involved in how competence and acceptance influence self-esteem, they can provide a useful starting point before conducting research to explain *how* such events influence self-esteem.

### *Method*

*Participants.* Ninety-seven participants from Study 3 and 52 additional participants who participated as part of a course obligation participated by responding to open-ended items. (Ten participants from Study 3 elected not to complete the open-ended items.)

*Procedure.* For Study 4, participants wrote about an event that was a real blow to their self-esteem and then wrote why the event affected their self-esteem. Next, participants wrote about an event that was a real boost to their self-esteem and then wrote why the event affected their self-esteem. Finally, participants completed the Rosenberg Self-Esteem Scale (1965) and several additional measures unrelated to the present study.<sup>3</sup> As in Study 3, given the prevalence of the concept of self-esteem in contemporary Western culture, we assumed that participants would have a clear understanding of what we meant by the term "self-esteem."

### *Results and Discussion*

Participants described a variety of events that reportedly influenced their self-esteem. Common accounts involved romantic relationships (e.g., "My boyfriend rode the bus four hours to surprise me," ". . . my boyfriend took another girl to the prom"), college admissions experiences (e.g., "scoring 1560 on the SAT," "Not getting into

my preferred college”), and fraternity/sorority experiences (e.g., “I joined a sorority and have become friends with a lot of new girls,” “Being dropped from many houses during rush”). Two undergraduate assistants coded each event and its corresponding explanation as *acceptance* if participants mentioned anything relating to how much another person(s) values them or the relationship with them, and as *competence* if participants mentioned anything relating to how skilled, competent, able, etc., they were. Because participants could describe or explain events in terms of *both* competence and acceptance, we created a third coding category—“both”—for anything relating to both how much another person(s) values the participant or the relationship with the participant *and* how skilled, competent, able, etc., the participant is.

Agreement between coders was high, averaging 87% across the four items (description of self-esteem drop = 93%, explanation of self-esteem drop = 86%, description of self-esteem boost = 87%, and explanation of self-esteem boost = 83%). Furthermore, an analysis of interrater reliability indicated strong consistency across ratings, with an average kappa of .78 across the four items (description of self-esteem drop = .83, explanation of self-esteem drop = .76, description of self-esteem boost = .77, and explanation of self-esteem boost = .75). Thus, the coders demonstrated adequate interrater reliability, and in cases of discrepant codes we consistently used the ratings of one randomly selected coder. Consistently using the ratings of the other coder did not alter the pattern of results.

Table 3 displays the frequencies of participants’ coded responses to each open-ended item. Because only a few participants described or explained an event in terms of both competence and acceptance, we omitted data from these participants from further analyses. We used Chi-square analyses to explore whether participants were more likely to describe competence- versus acceptance-oriented events when describing events that lowered or boosted their self-esteem and the explanations they generated to explain why the event lowered or boosted their self-esteem. In these analyses, we set the expected frequency of competence- and acceptance-oriented events at 50%. Results of Chi-square analyses separated by sample were virtually identical; thus, all analyses presented collapse across samples.

**TABLE 3** Study 4: Frequency of Open-ended Responses Coded as Acceptance, Competence, or Both

Item	Coded category of event		
	Acceptance	Competence	Both
<b>“Blow to self-esteem”</b>			
Description of event	90	35	3
Explanation of event	81	28	9
<b>“Boost to self-esteem”</b>			
Description of event	55	64	5
Explanation of event	56	44	15

*Note:* Because some of the 149 participants failed to respond to some of the open-ended items, the total responses across items are unequal.

When describing an event that lowered their self-esteem, significantly more participants described an acceptance event than a competence event,  $\chi^2(1) = 24.80$ ,  $p < .0001$ . Similarly, when explaining why they thought the event lowered their self-esteem, more participants offered acceptance explanations than competence explanations,  $\chi^2(1) = 26.13$ ,  $p < .0001$ . When we examined participants' descriptions of an event that raised their self-esteem, we found no difference between the number of acceptance events and the number of competence events,  $\chi^2(1) = 1.14$ ,  $p = .29$ . Similarly, when we examined participants' explanations of why they thought the event raised their self-esteem, we found no difference in the number acceptance explanations and the number of competence explanations,  $\chi^2(1) = 1.81$ ,  $p = .18$ .

The finding that an equivalent number of participants described competence events as described acceptance events when writing about an event that produced a boost in self-esteem would seem to support the competence/acceptance hypothesis. However, we recognize the need to interpret this effect cautiously. Sociometer theory suggests that people are most sensitive to decrements—rather than increases—in acceptance (Leary et al., 1995, 1998), and research suggests that raising self-esteem is more difficult than lowering self-esteem (e.g., Leary et al., 1995). Thus, perhaps the factors that contribute to self-esteem become most visible when researchers examine self-esteem declines, rather than increases.

*Summary.* Study 4 revealed that participants reported both competence-oriented and acceptance-oriented events when recalling events that affected their self-esteem. Consistent with the acceptance hypothesis and the results of Studies 1–3, the results of Study 4 suggest that acceptance influences self-esteem more strongly than does competence. When participants recalled actual events that lowered their self-esteem, they were more likely to recall acceptance-oriented events than competence-oriented events. However, consistent with the competence/acceptance hypothesis, when participants recalled actual events that raised their self-esteem, they were not significantly more likely to recall acceptance-oriented events than competence-oriented events.

## General Discussion

Does self-esteem derive primarily from a sense of acceptance? Or might competence and acceptance play equal roles in self-esteem? The results of four studies suggest that acceptance appears to influence self-esteem more strongly than does competence. In Studies 1 and 2, participants who received acceptance feedback reported relatively high levels of state self-esteem, regardless of whether they received success or failure feedback. These results suggest that although the effect of competence feedback is not negligible, the effect of acceptance feedback is more powerful.

Studies 3 and 4 also suggest that both competence and acceptance influence self-esteem, but acceptance affects self-esteem more. In Study 3, participants considered various hypothetical situations that might influence their self-esteem. Even when we controlled for differences in the events' importance and desirability, participants anticipated that positive acceptance events would raise their self-esteem more than would positive competence events. They also anticipated that negative acceptance events (i.e., rejection events) would lower their self-esteem more than would negative competence events. Finally, in Study 4, when participants recounted actual events that lowered their self-esteem, they recalled significantly more

rejection-oriented events than negative competence-oriented events. Although people may deny that social acceptance matters to them (Leary et al., 2003), Studies 3 and 4 suggest that people can easily imagine how specific acceptance or rejection events might affect their self-esteem, and that they more often spontaneously report a rejection event than a negative competence event when recalling actual events that lowered their self-esteem. In sum, across four studies, the evidence suggests that the contribution of acceptance to self-esteem is more powerful than the contribution of competence.

### *Disentangling Acceptance and Competence*

Can acceptance explanations of self-esteem subsume competence explanations, or vice versa? The issue of whether one explanation of self-esteem subsumes the other raises the question of whether our studies artificially separated two constructs that, in reality, cannot be disentangled. As we noted early on, teasing apart constructs such as competence and acceptance may not seem feasible. However, some findings suggest that competence and acceptance—although overlapping—are independent. First, the high interrater reliability of the coders in Study 4 suggests that events that influence self-esteem may easily be classified as competence- or acceptance-oriented. Similarly, relatively few participants in Study 4 recalled events coded as *both* competence- and acceptance-oriented, suggesting that many events seem relevant to primarily one or the other construct. Thus, the ratings of our judges offer some support for viewing acceptance and competence as independent constructs, but we acknowledge that this evidence is not conclusive, as the coders would not have been able to detect the real processes at work in the events that participants described. The evidence for the independence of acceptance and competence, therefore, is only suggestive.

### *Caveats and Limitations*

We consistently found that acceptance influenced self-esteem more strongly than did competence. Could this finding be an artifact of our methodology? After all, responses to manipulation check items in Studies 1 and 2 revealed that our manipulation of acceptance was more powerful than our manipulation of competence, suggesting that participants' greater sensitivity to acceptance feedback may reflect nothing more than the inequality of the acceptance and competence manipulations. Although this explanation for our findings has some appeal, the results of Studies 3 and 4 suggest otherwise. In Study 3 we statistically controlled for differences in the importance that participants attached to acceptance and competence events. Study 4 relied on participants' own reports of events, rather than on our manipulation of feedback.

We did not examine individual differences in the role that competence and acceptance play in self-esteem, but evidence demonstrates that people vary in the importance they place on different domains relevant to self-esteem (e.g., Crocker, 2002; Harter, 1993). Although both competence and acceptance may matter to most people, we would not expect the two contributors to self-esteem to be equally relevant to everyone. Indeed, we can imagine that competence may influence self-esteem more among people who value competence over acceptance, and future research may investigate this possibility. For example, employing recent measures of contingencies of self-worth (e.g., Crocker, Luhtanen, Cooper, & Bouvrette, 2003),

future studies may test whether individuals who stake their self-esteem highly on others' approval are particularly affected by rejection feedback, whereas individuals who stake their self-esteem highly on academic competence are particularly affected by performance feedback.

We also did not manipulate the order in which participants received competence versus acceptance feedback. Instead, participants received their competence and acceptance feedback at the same time. Future research may manipulate the order of feedback to determine whether positive competence feedback may buffer the effects of rejection feedback.

Finally, we did not directly measure participants' perceptions of both competence and acceptance, preventing a test of the possibility that competence feedback influences self-esteem via perceived acceptance (controlling for perceived competence). Put differently, our studies did not allow us to test directly whether perceived acceptance mediated the relationship between competence or acceptance feedback and self-esteem. However, for exploratory purposes, we indirectly tested this possibility in Study 4 by examining whether participants' descriptions and explanations of events that affected their self-esteem "matched" in terms of whether they were classified as competence- or acceptance-oriented. Analyses revealed that with few exceptions, events with descriptions coded as "acceptance" had explanations coded as "acceptance," and events with descriptions coded as "competence" had explanations coded as "competence." If perceived acceptance mediated participants' responses, more explanations should have been coded as "acceptance," regardless of how the description of the event was coded. However, we acknowledge that this analysis represents a crude test of the mediation possibility and does not tap relevant processes directly. Future research can test this possibility more precisely by assessing participants' perceived acceptance after receiving competence or acceptance feedback.

### *Implications*

Our finding that high self-esteem can occur in the absence of high competence suggests that attempts to protect self-esteem by shielding people from negative performance feedback (e.g., poor grades) may be misguided. Unfortunately, perhaps as part of a "culture of self-worth" that emphasizes and embraces self-esteem (Twenge & Campbell, 2001), concerns with esteem preservation seem pervasive in educational settings. For example, while working at an elementary school some years ago, the first author encountered a principal who defended the policy of "social promotion" (i.e., passing on students to the next grade level regardless of their academic records), arguing that holding children back lowers self-esteem to a point from which they cannot recover. However, the results of Studies 1 and 2 hint that self-esteem will not necessarily plummet in response to failure feedback.

### *Conclusion*

We launched our investigation of self-esteem with a quote from Saul Bellow describing a fictional character who is bewildered by his constant concern over others' opinions of him and how these opinions affect his self-esteem. The present results suggest that Bellow's characterization of self-esteem is correct, in that feedback from others (i.e., acceptance feedback) does strongly influence self-esteem—even more strongly than performance feedback does.

## Notes

1. The state self-esteem measure contains a number of items that may be viewed as more related to competence than to acceptance. For both Studies 1 and 2, we re-ran all analyses retaining only the five items (proud, inadequate, confident, worthless, shameful) that seemed relevant to either competence or acceptance. These analyses revealed the same pattern of results.
2. In all four studies, we tested whether trait self-esteem moderated any of the present effects. In all but one case, trait self-esteem had no effect. The exception was for negative acceptance-oriented events in Study 3. Results revealed that participants with higher trait self-esteem predicted a less negative effect of the events on their state self-esteem,  $\beta = .07$ ,  $SE = 0.03$ ,  $t(103) = 2.29$ ,  $p < .05$ .
3. One could argue that participants who also completed Study 3 might have been primed to recall events (either competence or acceptance) consistent with the scenario they read. However, participants in Study 3 received 10 competence and 10 acceptance scenarios. Although participants might have been primed to consider acceptance or competence more strongly, depending on which "How . . . would you feel?" item they were randomly assigned to respond to, half of the participants would have been primed by acceptance and half by competence. Overall, then, participants were no more primed to recall competence events than acceptance events in their lives.

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