Self-esteem and responses to success and failure: Subsequent performance and intrinsic motivation

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Abstract

A model is proposed in which the goal of people with high self-esteem is to cultivate personal strengths in order to excel, whereas the goal of people with low self-esteem is to remedy personal deficiencies in order to become adequate In two experiments, subjects received initial outcome feedback of either success, humiliating failure (internal attribution), or failure that allowed face-saving (external attribution) Experiment 1 then measured subjects intrinsic motivation to pursue the task during free-choice time Subjects with high self-esteem had the highest intrinsic motivation after success Subjects with low self-esteem had the highest intrinsic motivation after the humiliating failure Experiment 2 required a second performance on a similar task Performance results were consistent with the intrinsic motivation results of Experiment 1, with one exception High self-esteem subjects were sensitive to the different failure treatments, performing well after humiliation but poorly after face-saving Subjects with low self-esteem performed the same in both failure conditions The relation of the present model and results to previous work is discussed

The purpose of the present article is to articulate a general model of how trait self-esteem predisposes behavioral responses to success and failure, and then to provide evidence relevant to that model

Self-Esteem and Responses to Success vs Failure

Self-esteem means a global evaluation of the self, and it is typically measured by the degree to which the person endorses various

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evaluative statements about the self We suggest that differences in such self-reports indicate differences in attention and self-presentation Persons who score high in self-esteem are those who attend to and emphasize their abilities, strengths, and good qualities Persons who score low in self-esteem are those who focus on and emphasize their deficiencies, weaknesses, and bad qualities

To elaborate our theory, we invoke the distinction between primary and secondary control proposed by Rothbaum, Weisz, and Snyder (1982) Primary control involves efforts to change the world (presumably including self-improvement) to fit one's needs and wants, and it is seen in active, instrumental behavior Secondary control involves submission to fit in with the real, seemingly unchangeable exigencies of the world, and it is seen in passive, inward, and interpretive behavior Primary control aims to fulfill one's goals, whereas secondary control aims to avoid disappointment We propose that both high and low self-esteem individuals have both primary and secondary control systems, but that these systems differ in goal and pattern as a function of self-esteem

McFarlin and Blascovich (1981) showed that both high and low self-esteem persons *prefer* to succeed, but people with high self-esteem *expect* to succeed more than do people with low self-esteem This difference presumably occurs because high self-esteem is based on a belief that one often and habitually succeeds, whereas low self-esteem is based on a sense that one often falls short of success The discrepancy between high and low self-esteem may arise either from differential levels of ability or differential patterns of selective perception and memory

We propose that the primary control systems for modifying the self are the ones that address the (self-perceived) commonest problems in the individual's life Moreover, we propose that these primary control systems are designed to improve some feature of the self by a reasonable amount from its habitual level Thus, differences arise as a function of self-esteem level Individuals with high self-esteem are accustomed to success, and so their primary control systems are designed to cultivate talents and maximize successes in order to excel In contrast, people with low self-esteem believe that their performances are often inadequate, so their primary control systems are designed to remedy personal deficiencies in order to reach minimally successful or satisfactory levels of performance To put it more simply, the primary control systems of people with high self-esteem are designed to take them from good to excellent, whereas those of people with low self-esteem are designed to take them from substandard to passable

One important implication of the proposed self-esteem difference in primary control systems is that different initial experiences will activate them The primarily control systems of high self-esteem persons will be activated by initial success, which signifies a talent or ability that may be cultivated or maximized The primary control systems of people with low self-esteem will be activated by initial failure, which signifies a deficit needing to be remedied

Secondary control systems are designed to avoid disappointment (Rothbaum et al , 1982) We propose that secondary control may characterize the responses of persons with high self-esteem to initial failure and the responses of persons with low self-esteem to initial success

Initial failure may cause secondary control behaviors such as withdrawal or passivity in persons with high self-esteem, because initial failure suggests two possible future courses, neither of which is appealing to someone with high self-esteem On the one hand, initial failure suggests that further performances may bring further failure, which is unacceptable to the person with high self-esteem On the other hand, by investing effort, the individual could improve up to a satisfactory or passable level, but this too is unfulfilling to the person with high self-esteem, whose goal is to excel rather than to be merely adequate The prospects of excelling in some sphere of endeavor in which one initially fails are unfavorable, and in most cases it must seem simply not worth the effort Someone with high self-esteem, by definition, believes that he or she has numerous talents and abilities, any of which might be cultivated into excellence It is neither prudent nor efficient to neglect those and try instead to excel at something for which one seems not to have aptitude, as indicated by initial failure Thus, to someone with high self-esteem, initial failure suggests that further efforts in that sphere are likely to lead to disappointment no matter what Therefore the person turns to secondary control as a means of avoiding such disappointment

For people with low self-esteem, as we have said, the prospect of transforming a deficient feature of the self into a passable one is not disappointing, as it is for people with high self-esteem, rather, it is a primary goal Initial failure thus does not threaten people with low self-esteem with unfamiliar disappointment Instead, we suggest that initial success may threaten them with disappointment, for two reasons First, people with low self-esteem are unlikely to feel confident about transforming initial success into excellence, unlike people with high self-esteem, because low self-esteem signifies that the individual does not feel outstanding or superlative very often Second, initial success may surpass the initial expectations of some-

one with low self-esteem, and the person may not be quite confident of being able to repeat that success Initial success thus becomes threatening, for to fail after initial success is doubly disappointing, once because of the failure, and once because of the expectations created by the initial success (cf Jones & Berglas, 1978, Baumeister, Hamilton, & Tice, 1985, Rothbaum et al , 1982) Past evidence supports the view that success may be threatening to people with low self-esteem Rothbaum et al (1982) interpret the literature on 'rejection of success" (Maracek & Mettee, 1972, Mettee, 1971) as meaning that people with low self-esteem may withdraw after success, not because they dislike success, but because initial success increases the potential disappointment of future failures

Three points need to be clarified First, we have suggested that people with low self-esteem may find success threatening because they may lack confidence that they can repeat that success, but we made no such argument about people with high self-esteem The discrepancy is due to the nature of self-esteem High self-esteem entails confidence that one can repeat one's successes, whereas low self-esteem entails the lack of such confidence

Second, our suggestion that people with high self-esteem may respond to failure with secondary control such as passivity or withdrawal seems to contradict evidence that such individuals respond to initial failure with determined effort, such as increased persistence (McFarlin, Baumeister, & Blascovich, 1984) or strategic moves including compensatory self-enhancement (Baumeister, 1982) The reasons for this apparent discrepancy lie in situational structure We have said that initial failure signifies to someone with high self-esteem that there is little chance of fulfilling his or her primary goal of excelling, and so that individual prefers to withdraw and abandon that task in order to avoid further disappointment That argument is fully consistent with the concept of *compensatory* self-enhancement (Baumeister, 1982, Baumeister & Jones, 1978), which says that the person with high self-esteem turns his or her attention to *alternative* spheres rather than concentrate on spheres in which there has been initial failure Some experiments and some situations, however, do not permit the individual to withdraw, they require further performance at the same task In such a situation, individuals with high self-esteem can avoid the disappointment of further failure only by exerting maximal effort to reach passable levels of performance Their motivation to improve in such situations derives from the extrinsic desire to avoid further humiliation, not from any intrinsic desire to improve their abilities in that sphere

A final point is that our discussions of failure have all presupposed

that the failure setting encourages internal attributions for failure If the situation encourages external attributions or face-saving after initial failure, then there is no reason for the primary control systems to be activated, regardless of self-esteem level Indeed, there is substantial risk to pursuing a task for which initial failure has been externalized, for continued failure will begin to suggest that the true cause is incompetence rather than external circumstances Moreover, excuse-making is itself a form of secondary control in the sense of interpretive control (Rothbaum et al , 1982), so a situation that encourages dealing with failure by interpretation and external attribution is unlikely to elicit primary control

Figure 1 summarizes the theoretical model we have discussed

Present Research

To test our model we confronted subjects having different self-esteem levels with initial experiences of either success or failure Because our theory distinguished between two types of failure, our procedures maintained that distinction by contrasting *humiliating* failure, for which internal attributions were encouraged, with failure followed by *face-saving*, which meant encouraging external attributions To measure the activation of primary control systems, we borrowed the measurement procedure from research on intrinsic motivation (e g , Deci, 1971, Lepper, Greene, & Nisbett, 1973), in which the subject is left alone with the target task The percentage of free-choice time spent on the task is construed as a measure of the subject's intrinsic motivation for that task

		Initial outcome	
	Success	Failure, external attribution	Failure, internal attribution
High self-esteem	Primary control Cultivate talents, excel	Secondary control Small chance of excelling, so avoid disappointment of further failures	Secondary control Small chance of excelling, so avoid disappointment of further failures Withdraw
Low self-esteem	Secondary control Avoid risk of failure, which would discredit the initial success	Secondary control Avoid risk of further failure, which would discredit the excuse and imply an internal attribution	Primary control Remedy deficiency, become passable

Figure 1 Summary of theoretical model

Experiment 1 thus studies intrinsic motivation as a function of initial outcome feedback and self-esteem level Experiment 2 is a follow-up using subsequent performance instead of intrinsic motivation as the dependent variable Experiment 1 provides the main evidence for our theoretical model Experiment 2 verifies that people with high self-esteem do show increased effort after initial, humiliating failure when further performance is required, thus indicating that our procedure does replicate past work and putting it in an attributional context

Experiment 1 Intrinsic motivation

In Experiment 1, subjects performed a task and received outcome feedback The effects of the outcome on intrinsic motivation were measured by covertly observing whether subjects continued to perform the same task during an unstructured waiting period Outcome feedback was either success or failure Because our model distinguished two kinds of failure, our procedures included two failure conditions In one condition, subjects were encouraged to save face after their failure by offering an *account* (Scott & Lyman, 1968, Goffman, 1971) Schlenker (1980) showed that accounts can minimize the appearance of incompetence after a poor performance Thus, in the *face-saving* condition, the experimenter permitted the subject to attribute initial failure to external factors In the other failure condition, however, the subjects' attempts to furnish accounts for their poor performances were rejected by the experimenter, and the subjects were forced to accept the blame for their failure

We hypothesized that activation of primary control systems would lead to high motivation to pursue the task Therefore, we predicted that for subjects high in self-esteem, intrinsic motivation would be highest after success, whereas subjects with low self-esteem would have the greatest intrinsic motivation after the humiliating failure

Method

Overview

Sixty-one undergraduate psychology students participated in a 2 (Self-Esteem) × 3 (Manipulated Performance Feedback) analysis of variance design The subjects self-esteem was measured and then they worked on an anagram task They were given one of three types of false feedback about their performance success, humiliating failure, or failure allowing them to save face " They were then left alone in the room while the experimenter supposedly went to get the second task The dependent measure was the amount of time subjects worked on the anagrams when they were alone

Self-Esteem Measure

Silverman's (1964) adaptation of the Janis and Field (1959) Self-Esteem Scale was used This is primarily a measure of social self-esteem, although several of the items ask for competence ratings Because the experiment examined the self-presentational impact of (social) feedback, social competence self-esteem ratings seemed most appropriate The split-half reliability estimate reported by Janis and Field (1959, p 58) is 83, the reliability estimate based on the Spearman-Brown formula is 91 The possible range of scores is 0 to 96 Actual scores in the present experiment ranged from 9 to 88 The median score was 59 The mean was 56 1, and the standard deviation was 13 95

Procedure

When the subject entered the laboratory, he or she was told that the experiment involved playing two word games which were part of different verbal assessment procedures The subject was asked to fill out a personality inventory before starting the word games This inventory contained the measure of self-esteem by Janis and Field (1959) Subjects were later divided into high and low self-esteem groups by a median split ($M = 59$), therefore the experimenter was blind to condition while running the experiment After completing the questionnaire, subjects were taken to another room across the hall, leaving their belongings in the first room This was done so that no subject would have books or notebooks to read when left alone in the room

Subjects were told that the first word game was part of a national, standardized assessment technique and consisted of solving anagrams They were led to believe that they would be randomly assigned to one of two anagram lists of equivalent difficulty Both lists were on the desk in front of the subject They were told that the second task was a different kind of word game and involved stringing together blocks with words printed on them The experimenter explained that someone else was using the second task, and she would have to go get it when the subject finished the first task

Feedback Manipulation

Subjects in the success condition were given a list of 14 anagrams, 10 of which were solvable Subjects in both the face-saving failure and the humiliating failure conditions were given a list of 14 anagrams, only 5 of which were solvable Subjects were randomly assigned to condition All subjects were given four minutes to work on the anagrams Subjects were then asked to fill out a demographic data survey, in order to give the experimenter time (to pretend) to score the anagram task Subjects were told that their answers would be compared to the answers of other college undergraduates across the country in order to determine a percentile rank score

Subjects in the success condition were told that they had done very well and had scored in the 89th percentile The experimenter indicated that this was one of the best scores she had seen while administering the test She

concluded, 'Anagrams must be something you're especially good at Subjects in both the face-saving and humiliating failure conditions were told that they had scored only in the 21st percentile Subjects in the humiliating failure were told bluntly, 'You did quite badly I m surprised, this is one of the lowest scores I've seen since I've been administering the test Is something wrong?" If the subject started to offer an excuse (e g , not enough sleep the night before), the experimenter replied, "I don't think this test is affected by anything like that " Subjects in the face-saving condition received the feedback in a manner designed to be gentler than in the humiliating condition Subjects in the face-saving condition were told, 'You didn t do so well I'm kind of surprised, this is one of the lowest scores I ve seen since I ve been administering the test Is anything bothering you—did you not get enough sleep last night, or have you been working too hard lately?' Subjects were encouraged to offer some excuse for their failure, and when they did, the experimenter replied, "I'm not sure, but I think someone told me once that this particular test might be affected by things like that ' The experimenter did not make any note of the excuse in the presence of the subject, or alter the subject's score in any way The purpose of the excuse was just to allow the subject to save face in front of the experimenter, not to invalidate the score

Dependent Variable

After the feedback manipulation, the experimenter explained that she would have to leave the room for a few minutes to get the second task She said that it might take her several minutes, because another experimenter was using the task She left the subject sitting at the desk with both the solvable and the unsolvable anagram lists (including the list the subject had just worked on) in front of him or her The experimenter signaled the observer in the next room, then went to the room across the hall for exactly 15 minutes The observer was behind a one-way mirror The mirror was curtained and the curtains were closed so that the subject would not be aware of being observed, but on one side the curtain was pulled back a little to allow the observer to see into the room The observer was positioned so that he could not see into the room until signaled by the experimenter The observer wore stereo headphones and listened to music when not observing, therefore he was blind to the feedback condition Like the experimenter, he was also blind to the subject's level of self-esteem The observer used a stopwatch to record the amount of time the subject worked on the anagram lists while the experimenter was out of the room

After 15 minutes, the experimenter returned, had the subject fill out a manipulation check form, and debriefed him or her

Results

Intrinsic Motivation

Self-esteem scores were subjected to a median split The major

dependent variable was the amount of free-choice time the subject spent doing more anagrams The main results are presented in Table 1

Analysis of variance revealed a significant interaction between self-esteem and an initial outcome feedback, F (2,55) = 5 58, $p <$ 01 Main effects were not significant

Pairwise comparisons of cell means generally supported the predictions Subjects high in self-esteem spent more time on the task after success than after either type of failure, $t(55)$ = 2 34, $p <$ 05 The two failure conditions did not produce different results for subjects with high self-esteem, $t < 1$, *ns* In contrast, subjects with low self-esteem appeared to have the most motivation to pursue the task after a humiliating failure In that condition, they spent more time on the task than in the success condition, $t(55)$ = 2 82, $p <$ 01 The humiliating failure also produced more intrinsic motivation than did the face-saving failure condition, t = 2 30, $p <$ 05, for subjects with low self-esteem Thus, the difference between the two failure conditions was significant for subjects with low self-esteem but negligible for subjects high in self-esteem Table 1 indicates the significant differences between cells according to Duncan's Multiple Range Test (Kirk, 1969)

Supplementary Findings and Manipulation Checks

The postexperimental questionnaire asked subjects to rate how well they had done on the initial task A main effect for outcome feedback obtained, F (2,55) = 95 24, $p <$ 001 Subjects (correctly) rated their performance higher in the success condition than in either failure condition After success, mean self-ratings of performance were 9 6 for low and 9 6 for high self-esteem, after face-saving, 1 5 and 2 2, and after humiliating failure, 2 9 and 1 4, respectively It is important to note that there was no difference in performance self-rating between the two failure conditions, $t < 1$, *ns* This contra-

Table 1 Free-time preference for task

	Success	Failure face-saving	Failure humiliation
Self-esteem			
High	706 6$_a$ (8,193 6)	390 3$_b$ (9,305 4)	456 3$_{ab}$ (13,387 3)
Low	347 4$_b$ (12,312 2)	402 4$_b$ (10,244 9)	712 8$_a$ (9,202 6)

Note —Numbers are mean number of seconds spent on target task during 90-sec waiting period Cell *n* and *SD* are in parentheses Means not sharing a common subscript are significantly different The difference between 456 3 and 706 6 or 712 8 is marginally significant

dicts the alternative explanation that the humiliating failure treatment constituted more negative task feedback than did the face-saving treatment Thus, subjects appeared to interpret the outcome feedback as they were intended to do as good in the success condition, and as (equally) bad in the two failure conditions

Subjects were asked to rate how considerate the experimenter was while delivering the score Analysis of variance revealed a significant main effect for feedback, $F(2,55) = 8\ 88$, $p < 01$, and a significant interaction between outcome and self-esteem, $F(2,55) = 4\ 11$, $p < 05$ Subjects rated the experimenter most considerate after success (mean ratings of 10 0 for low and 9 3 for high self-esteem) and least considerate in the humiliating failure condition The consideratenes of the experimenter who allowed face-saving was rated 7 1 by low and 9 6 by high self-esteem subjects, that of the humiliating experimenter was rated 7 3 and 5 5, respectively Interestingly, the difference between the two failure conditions was significant when rated by subjects high in self-esteem, $t(55) = 3\ 84$, $p < 01$, but not when rated by subjects low in self-esteem, $t < 1$, *ns* The same pattern emerged when subjects were asked to rate how humiliated they felt after receiving their scores Mean self-reported humiliation was negligible after success, 1 7 for low and 1 8 for high self-esteem subjects, after face-saving, it was 6 6 for low but only 2 9 for high self-esteem subjects, and after humiliating failure it was 6 1 for low and 6 5 for high self-esteem subjects Again, there was a main effect for outcome feedback, $F(2,55) = 15\ 53$, $p < 01$, and a significant interaction, $F(2,55) = 3\ 59$, $p < 05$ Subjects with high self-esteem reported more humiliation after the humiliating than after the face-saving failure, $t(55) = 3\ 12$, $p < 01$, but for subjects with low self-esteem there was no difference, $t < 1$, *ns*

Self-ratings for several other feelings failed to distinguish the two failure conditions, although significant main effects were obtained due to the difference between success and failure Subjects were more pleased, more appreciative, less angry, more proud, and less disappointed after success than after failure Initial outcome feedback did not interact significantly with self-esteem on any of these measures

A last finding concerns subjects' self-reports of the amounts of time they spent on the task during the free-choice period These ratings were remarkably close to the actual times and showed the same pattern of results, including the significant interaction between initial outcome feedback and self-esteem level, $F(2,55) = 3\ 99$, $p < 05$ This high agreement attests both to the accuracy of our obser-

vation and to our subjects' capacity for accurate behavioral self-reports (cf Harackiewicz, Manderlink, & Sansone, in press)

Discussion

The results of Experiment 1 confirmed our model's predictions Subjects with high self-esteem were motivated to pursue the task only when they succeeded Their subjective self-reports acknowledged the difference between the two failure conditions—humiliating failure vs failure with face-saving afterward—but this emotional difference had no relevance to their interest in pursuing the task Failure, whether excusable or humiliating, appears to sap the intrinsic motivation of persons with high self-esteem They appear to respond instead with secondary control, signified by a withdrawal from the task In some cases this withdrawal was quite literal, for a few subjects tried to exit from the laboratory room during the free-choice period!

In contrast, subjects with low self-esteem lost interest in the task when they succeeded They showed the greatest level of intrinsic motivation following the humiliating failure When failure could be attributed to an external factor by giving an account, and when the experimenter appeared to accept the subject's account, motivation to pursue the task was also low

Our manipulation check data might suggest that the difference between the two failure treatments was only successfully manipulated among subjects with high self-esteem On the major dependent variable (intrinsic motivation), however, those two conditions produced different results only among subjects with *low* self-esteem It seems reasonable to conclude that the manipulation was effective and successful but that subjects low in self-esteem were reluctant or unable to self-report its effects It seems quite plausible that such subjects may be reluctant to criticize (seemingly) the experimenter or to admit feeling humiliated

Thus, subjects' intrinsic motivation to pursue a task depended on their self-esteem and their initial success or failure (and on whether the failure could be attributed to external factors) Experiment 2 was designed to determine the effects of the same variables on task performance

Experiment 2 Performance

Our model noted one particular condition in which extrinsic motivations should be much higher than intrinsic ones when high self-esteem subjects experience humiliating failure Experiment 1

showed that such persons have little intrinsic interest in pursuing such a task But if a second performance is required, persons with high self-esteem should be unwilling to experience a second humiliating failure, because they are unwilling to be viewed as incompetent Therefore, they may put forth maximum effort in a subsequent performance In such circumstances, their motivation would be due to the desire to avoid the self-presentational damage of failure rather than to the desire to excel at the tasks This motivation may be explained as follows

Schlenker (1980) discussed the self-presentational functions of accounts An effective account can minimize the appearance of incompetence that a poor performance may cause By getting the audience to attribute failure to something other than incompetence, one reduces or nullifies the self-presentational damage of failure If a person can thus save face after failure, subsequent performance at that time does not have to be good On the other hand, if no such face-saving ploy is possible, the main option for offsetting the self-presentational damage of failure is to improve performance By doing well on the second performance, one refutes the implication of incompetence from the first failure Someone with high self-esteem should certainly have enough confidence to believe he or she could accomplish that

Baumeister (1982) showed that subjects with high self-esteem are especially prone to engage in compensatory self-enhancement (cf Baumeister & Jones, 1978), that is, to respond to self-presentational damage by seeking to make an extra good impression subsequently Public failure on a task presumably constitutes just such a self-presentational dilemma for subjects with high self-esteem Therefore, if they cannot handle the dilemma by explaining away the failure with an account (or by touting their excellence in other spheres of endeavor), they should be especially motivated to perform well subsequently Indeed, McFarlin et al (1984) showed that subjects high in self-esteem respond to failure with increased effort and persistence, even if that response is not productive (cf Janoff-Bulman & Brickman, 1982, Shrauger & Sorman, 1977) That pattern suggests a powerful motivation to redeem oneself after humiliation

Past research has already studied the relation between self-esteem and performance in response to initial success and failure (e g , Perez, 1973, Schalon, 1968, Shrauger & Rosenberg, 1970, Shrauger & Sorman, 1977, Silverman, 1964) The main contribution of our research was the distinction between the two types of failure

For persons with low self-esteem, failure increases intrinsic motivation, presumably because their general goal is to be adequate, and

failure signals a deficiency that needs to be remedied When the failure is safely externalized, it may be risky to pursue the task further because a second failure would suggest that incompetence caused both failures Experiment 1 showed that subjects with low self-esteem did indeed avoid the task after face-saving failure When a second performance is required, however, avoiding the task is not an option Therefore, there seems little reason to expect subjects low in self-esteem to perform differentially in response to the different failure treatments

Method

Subjects

Sixty male subjects participated in connection with course requirements

Procedure

The procedure was essentially the same as that of Experiment 1, with the following exceptions The cover story concerned the effects of competition on creativity, the subject was told he was in the control condition and would therefore perform the tasks alone The first creativity task involved imagining unusual uses for a doughnut, consequences of having two thumbs on each hand, and similes regarding the appearance of a traffic light to a drunken person All subjects were told they would have 3 minutes for each question Pretesting indicated that subjects could not detect variations of 1 minute from this, so success subjects were given 4 minutes and failure subjects only 2 minutes

The next creativity task was presented as a measure of another (different) aspect of creativity, 'applied creativity " Subjects were told it involved multiple-solution anagrams Subjects performed a "practice" version while the experimenter ostensibly finished scoring the subjects responses to the first task When the subject finished the practice task, the outcome feedback was presented The same three types of outcome feedback were used as Experiment 1 (success, humiliating failure, failure plus face-saving), except that interpretive comments were couched in terms of creativity For example, in the humiliating failure condition, after rejecting the subject's excuses, the experimenter concluded, "Well, we can't all be creative " The second performance was then administered The subject was given 16 letters in the form of a fictitious newspaper headline and asked to make as many new words as possible, with minimum four letters each, from that set of letters Self-esteem scales were scored while the subjects computed the creativity tasks, and subjects were assigned to conditions based on their self-esteem scores (resulting in 10 subjects/cell) The experimenter was blind to the hypothesis being tested

Results

Performance

The main dependent variable was performance on the second task Because there was substantial variation in subjects' ability levels, practice test scores were used as covariate of performance scores An analysis of the practice scores showed no significant main effect or interaction (all $Fs < 1$, *ns*) Analysis of covariance on the performance scores (number of valid solutions) revealed a significant interaction between self-esteem and initial outcome feedback, $F(2,53) = 3\ 45$, $p < 05$ Table 2 shows the means Subjects low in self-esteem performed better after failure than success, but subjects high in self-esteem showed a different pattern They did perform well after success, but they performed best after humiliating failure

As predicted, the difference between the two failure conditions on the final performance measure was significant for subjects high in self-esteem, $t(53) = 2\ 65$, $p < 05$, but was negligible for subjects low in self-esteem, $t < 1$, *ns* The pairwise comparisons of different self-esteem levels within outcome feedback conditions did not reach significance, however Table 2 shows the results of multiple comparisons according to Duncan's Multiple Range Test, which confirms that the only significant difference is between the two failure conditions for subjects with high self-esteem

Manipulation Checks

Extensive manipulation check data were not obtained for Experiment 2 Still, subjects did describe their own performances as better in the success than in the failure conditions, $F(2,54) = 422\ 54$, $p < 01$ Self-ratings on performance did not differ between the two failure conditions, $t < 1$, *ns* Thus, again, it appears that the results on the dependent variable cannot be explained by suggesting that the two failure conditions conveyed differential task feedback

Table 2 Performance (solutions) on second task

	Outcome on first task		
	Success	Failure face-saving	Failure humiliation
Self-esteem			
High	$24\ 0_{ab}$	$19\ 6_{a}$	$28\ 3_{b}$
Low	$19\ 2_{a}$	$24\ 7_{ab}$	$23\ 3_{ab}$

Note —High score means good performance $n = 10$ per cell Means are adjusted for covariance Means not sharing a common subscript are significantly different

Discussion

Silverman (1964) showed that people with high self-esteem improve more after initial success whereas people with low self-esteem improve more after initial failure In general, our results replicate that pattern with nothing new except the difference between the two failure conditions That difference is the most novel and significant contribution of Experiment 2, so we shall focus our discussion on that After failure, the performance of subjects high in self-esteem depended on the attributional and self-presentational implications of that failure They performed better after a humiliating failure but poorly after failure that had been attributed (by means of an account) to external factors Subjects low in self-esteem showed no such difference

These results suggest that not all failures are the same The precise attributional and self-presentational context of failure interacts with self-esteem to determine performance (cf Brockner & Guare, 1983) Moreover, the increased effort of subjects with high self-esteem after failure (cf McFarlin et al , 1984, Shrauger & Sorman, 1977) apparently does not occur when an audience allows them to save face by making an excuse

General Discussion

Our model held that responses to initial success and failure would be shaped in the context of individuals' long-range goals for self-presentation and self-definition We proposed that persons with high self-esteem aspire to excel and seek opportunities for doing so, whereas persons with low self-esteem aspire to be adequate or satisfactory and seek to remedy their deficiencies Our two experiments provided evidence consistent with that model, and we shall now summarize that evidence

Persons with high self-esteem develop high interest in a task only if they initially succeed In terms of our model, initial success engages the primary control system of people with high self-esteem Initial failure suggests to them that they are not talented at this particular task Such failure should not be threatening to them, for their high self-esteem is presumably based on a faith that they are quite competent in many other endeavors To devote one's time and energy to such a task would be irrational if one's goal is to cultivate one s talents to achieve excellence Hence, people with high self-esteem respond to failure with secondary control

Experiment 2 showed that a humiliating failure can elicit efforts by subjects with high self-esteem to improve In light of Experiment

1, it seems clear that such efforts reflect largely extrinsic motivations The critical factor is probably whether subjects have a choice of which activity to perform after the initial failure (cf Folger, Rosenfield, & Hays, 1978) Given the choice, these people would probably prefer to do an alternative activity, but when required to perform the same task again, they become determined to avoid a second humiliation Failure that is not humiliating (i e , that gets blamed on external circumstances) fosters neither extrinsic nor intrinsic motivation for subjects with high self-esteem

Persons low in self-esteem, on the other hand, are primarily interested in tasks on which they need to improve to reach minimum levels of competence Initial success does not motivate them to pursue the task (Experiment 1) nor produce good subsequent performance (Experiment 2) It seems plausible that subjects low in self-esteem are inclined to avoid performing tasks on which esteem can be lost Thus, their preference for a task is low after success because a subsequent failure would discredit the success and imply incompetence It is also low after a failure that has been attributed to external causes, because subsequent failure would discredit the excuse and imply incompetence When further performance is required, however, they try to improve, especially when the initial outcome was substandard These findings are consistent with our general hypothesis that the primary control orientation of people with low self-esteem is designed to remedy deficits and achieve passable levels of performance

Brockner and Hulton (1978) suggested that failure may cause subjects with low self-esteem to become preoccupied with the self and its deficiencies Our results support their view by showing that subjects with low self-esteem were most interested in a task on which they had experienced humiliating failure Our model extends Brockner and Hulton's position by suggesting that concern with the self's deficiencies is the habitual orientation of persons with low self-esteem, which can account for their apparent loss of interest following initial success Future research is needed, however, to establish whether that loss of interest is indeed due to preoccupation with the self's shortcomings or is due to an active avoidance of the task for fear of disconfirming the initial evidence of ability

A perennial unclarity in personality theory has been the nature of the goals of people with low self-esteem One early model was that these people desire confirmation of their poor self-images (e g , Aronson & Mettee, 1968, Maracek & Mettee, 1972) That model has largely been discredited (Jones, 1973) McFarlin and Blascovich (1981) showed that subjects with low self-esteem want to succeed

as much as do subjects with high self-esteem That evidence could be taken to imply that the goals of the person with low self-esteem are the same as those of the person with high self-esteem Yet such a formulation seems inadequate in light of the extensive behavioral differences between low and high self-esteem To be sure, some of those differences may be due to differences in strategic orientations (Baumeister, 1982), in vulnerability to destructive patterns (Brockner & Hulton, 1978), and in expectations (McFarlin & Blascovich, 1981) Still, an advantage of our model is that it suggests different goals and different systems of primary control are associated with different levels of self-esteem Even though subjects with low self-esteem might enjoy it if they should happen to excel, they may act on the more realistic aspiration to be merely satisfactory and adequate Subjects with high self-esteem assume they are already more than minimally adequate, and so they can aspire to excel Although the present results are consistent with that model, more research is needed to apply it in other behavioral contexts

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