

The Pursuit of Self-Esteem: Contingencies of Self-Worth and Self-Regulation

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ABSTRACT Successful self-regulation is defined as the willingness to exert effort toward one's most important goals, while taking setbacks and failures as opportunities to learn, identify weaknesses and address them, and develop new strategies toward achieving those goals. Contingencies of self-worth can facilitate self-regulation because people are highly motivated to succeed and avoid failure in domains of contingency. However, because boosts in self-esteem are pleasurable and drops in self-esteem are painful, protection, maintenance, and enhancement of self-esteem can become the overriding goal. Several pitfalls for self-regulation can result, especially when tasks are difficult and failure is likely. In this article, we describe a program of research examining these self-regulation pitfalls associated with contingent self-worth and suggest that learning orientations, particularly the willingness to embrace failure for the learning it affords, foster successful self-regulation even in people with highly contingent self-esteem.

My biggest challenge this semester is definitely trying to turn myself around academically. I guess the deeper issue is trying to

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motivate myself I seem to start every semester with the same attitude: “This time’s going to be different, this time I’m really going to apply myself,” yet for the past 2 years I end up either dropping or failing my classes. The thing is, I know I am capable of it. There has never been a class that I have put effort into that I haven’t done well in, but there are many classes that I haven’t put effort into at all. My biggest obstacle and way that I need to stretch myself is definitely getting over my laziness. I am lazy when it comes to school, and I give up too fast. If I feel like I am getting behind, I tend to give up instead of trying to catch up.

—Anonymous student

According to Baumeister and Vohs (2003), “contemporary self-regulation theories aim to understand how, over periods of days, weeks, and years, people resist temptations, effortfully persist, and carefully weigh options to choose the optimal course of action to reach their goals” (p. 197). Few goals worth striving toward can be accomplished without a measure of persistence and effort in the face of setbacks, difficulties, and doubts. At the same time, achieving goals requires the ability to recognize when one course of action is fruitless and to substitute another strategy to achieve the desired result. Thus, self-regulation involves not only taking action to reduce discrepancies between one’s current state and a desired state or goal but also attending to feedback about whether those actions lead to progress toward the goal (Carver & Scheier, 1998). Ultimately, successful self-regulation requires clarity regarding which goals are most important, and why (Carver & Scheier, 1998). Successful self-regulation may be defined as the willingness to exert effort toward one’s most important goals while taking setbacks, difficulties, and even outright failure as an opportunity to learn, identify weaknesses and address them, and develop new strategies toward achieving those goals.

Like the student quoted above, most of us have experienced firsthand the difficulty of exerting sustained effort toward a goal in the face of setbacks while realistically assessing whether our current strategy is working. Anyone who has succumbed to the temptation to postpone a diet until tomorrow and indulge in dessert tonight, check e-mail before starting an overdue project, or give up on a difficult task in favor of one more easily accomplished knows that sustaining persistence toward goals in the face of obstacles is no simple matter. And anyone who has clung to unrequited love, held on to a

stock after it fell in value in the hope it would bounce back, or persisted in attempting to publish an article in the face of editors' rejections and reviewers' critiques knows how difficult it is to let go of a strategy in which one has invested a lot of time, effort, or money.

In this article, we describe a program of research exploring why successful self-regulation can be so difficult. We argue that concerns about self-esteem can derail the pursuit of people's most cherished goals. The idea that self-esteem is important in pursuing goals is not new (Heatherton & Ambady, 1993). Researchers have long noted that people with high self-esteem are more likely to persist in the face of difficult tasks than are low self-esteem people (Baumeister, Campbell, Krueger, & Vohs, 2003; McFarlin, Baumeister, & Blascovich, 1984). But persistence alone does not equal successful self-regulation; high self-esteem people are vulnerable to nonproductive or even counterproductive persistence, especially after an ego threat (Baumeister, Heatherton, & Tice, 1993; Heatherton & Ambady, 1993). Thus, both high- and low-self-esteem people are vulnerable to self-regulation failures, leading Heatherton and Ambady (1993) to suggest that moderate levels of self-esteem are optimal for self-regulation. In contrast, we argue that successful self-regulation is not a matter of having the right level or amount of self-esteem; rather, we suggest that *concern* with self-esteem, or desiring to maintain, enhance, and protect self-esteem, is often what derails successful self-regulation. Specifically, we argue that self-regulation is likely to falter in those domains in which people have invested their self-worth.

Contingencies of Self-Worth and Self-Regulation: The Theory

We begin with three observations about self-esteem, all of which date at least to William James (1890). First, self-esteem has the qualities of both a personality trait and a psychological state; in other words, people's average or typical levels of self-esteem are stable over time and across situations, but their moment-to-moment experience of self-esteem fluctuates around this trait level (James, 1890; Kernis, Cornell, Sun, Berry, & Harlow, 1993; Rosenberg, 1979). In contrast to previous research on self-esteem and self-regulation, we argue that it is these fluctuations of state self-esteem around a person's trait level that are particularly important for self-regulation. Second, self-esteem fluctuates when people experience success and failure. People experience positive affect and boosts to self-esteem when they

succeed at their goals and negative affect and drops in self-esteem when they fail (Carver, 2003; Carver & Scheier, 1998). Third, not all successes and failures affect a person's self-esteem equally; self-esteem fluctuates more in response to good and bad events, the more related those events are to contingencies of self-worth, i.e., beliefs about what one must be or do to have worth and value as a person (Crocker & Wolfe, 2001; Kernis & Waschull, 1995). For example, the more students' self-esteem is contingent on academic success, the more their self-esteem increases when they experience academic success, and the more it decreases when they fail (Crocker, Sommers, & Luhtanen, 2002). In other words, when self-esteem is contingent, success feels particularly good because succeeding at a task means that one is a success and therefore a worthy human being. On the other hand, failure in contingent domains is particularly painful because it means one is a failure and therefore worthless.

These three observations have important and decidedly mixed implications for self-regulation. First, when self-esteem is contingent, people are strongly motivated to succeed and not fail, thereby obtaining the intense positive emotions and high self-esteem that result from success and avoiding the painful emotions and low self-esteem that result from failure. In this sense, contingent self-worth can motivate people to invest effort to accomplish their goals.

Second, because boosts in self-esteem are pleasurable and drops in self-esteem are painful, protection, maintenance, and enhancement of self-esteem can become the overriding goal, or at least can be confused with successful self-regulation. In particular, in domains in which self-esteem is contingent, people often want to prove or demonstrate to themselves and others that they satisfy their contingencies of self-worth; in other words, they tend to have self-validation goals. Third, although self-validation goals are motivating, they are a fragile source of motivation because people quickly and easily drop the goal when they are unsure of success. Fourth, the motivation that results from contingent self-worth can undermine feelings of autonomy, or the feeling of choice and being the origin of one's behavior. This diminished autonomy should be associated with feelings of pressure and tension, and low intrinsic interest in tasks (Deci & Ryan, 1995), potentially depleting self-regulatory resources (Murrain, Tice, & Baumeister, 1998; Vohs & Heatherton, 2000). Thus,

contingent self-worth adversely affects self-regulation through the nature, quality, and stability of goals.

Fifth, because people want to succeed and not fail at tasks that are related to their contingencies of self-worth, they tend to choose activities with the chances of success in mind, doing the things they do well or expect to succeed at and avoiding the things they do poorly or think they might fail at. For example, college students, whose self-worth is highly contingent on academic success, should be particularly likely to disengage from their major, drop courses, or even change majors when their performance lags; they may avoid courses that are outside their "comfort zone" and gravitate toward courses and majors they expect to succeed at. Although focusing on what one does well may facilitate accomplishment of goals much of the time, successful self-regulation often requires learning new skills or improving on one's weaknesses and therefore stepping outside of the comfort zone of what one does well.

Sixth, because failure in domains of contingent self-worth is emotionally painful, people self-handicap when failure is possible, creating obstacles to their own success prior to a task in order to have an excuse if they should fail (Covington, 1992; Rhodewalt & Tragakis, 2002). A common self-handicapping strategy is withholding effort so one can attribute failure to lack of effort rather than lack of ability. But withholding effort on difficult tasks, when failure is possible, undermines self-regulation by increasing the probability of failure.

In sum, contingent self-worth can be very motivating because when their self worth is on the line, people really want to succeed and not fail. However, when self-esteem is at stake, self-regulation tends to prioritize maintaining, enhancing, and protecting self-esteem over accomplishing other goals, with pitfalls for self-regulation, especially on difficult tasks. These pitfalls are most likely to occur on difficult tasks in which failure is a possibility. In addition, although both high- and low-self-esteem people are vulnerable to self-regulation pitfalls when their self-worth is contingent, differences in the positivity and certainty of the self-concept associated with self-esteem can lead high- and low-self-esteem people to fall prey to self-regulation pitfalls under different circumstances. Consequently, our research on these issues tends to measure contingencies of self-worth, have people take an easy or difficult test relevant to their contingency, and measure effects on processes related to self-regulation. Often, our studies include level of self-esteem as a moderator.

Learning Orientations as a Buffer

In light of the pitfalls that contingencies of self-worth can create for self-regulation, finding a remedy is a high priority for our research. An orientation toward learning, rather than validating or proving one's abilities, can under some conditions buffer contingent self-worth from failure (Grant & Dweck, 2003). However, learning orientations such as incremental theories of ability (Dweck, 2000) or mastery goals (Elliot & Church, 1997) do not necessarily eliminate concerns about self-esteem. Instead, learning orientations may simply shift the calculation regarding when failure implies a lack of ability and, hence, lowers self-worth of highly contingent people. Specifically, learning orientations encourage the belief that with effort one can and will improve. Thus, when contingent students fail without exerting high effort, learning orientations can buffer self-esteem. However, when people with learning orientations fail despite investing high effort, the lack of improvement may suggest that they lack the requisite ability, threatening self-esteem. Consequently, we propose that learning orientations such as incremental theories of ability or mastery goals buffer contingent self-worth from failure in the absence of effort but do not buffer contingent self-worth when people invest effort and still fail.

Contingencies of Self-Worth and Self-Regulation: The Evidence

Contingencies of self-worth enhance motivation. Our first evidence that contingencies of self-worth enhance motivation comes from a longitudinal study of more than 600 college freshmen (Crocker, Luhtanen, Cooper, & Bouvrette, 2003). Prior to the start of their freshman year in college, students completed a measure of common contingencies of self-worth. Then, at the end of the first and second semesters in college, they were asked how often they engaged in various activities and how much time per week they spent on those activities. Contingencies of self-worth prior to college predicted first and second semester activities. For example, basing self-esteem on appearance predicted how much time students spent grooming, shopping, partying, and socializing in their first semester; basing self-esteem on academics predicted how much time they spent studying; basing self-esteem on virtue predicted spending time on volunteer activities; and basing self-esteem on religious faith (God's love)

predicted how much time they spent in spiritual activities such as praying, attending religious services, etc.

Although these findings are consistent with the hypothesis that contingencies of self-worth enhance motivation and facilitate self-regulation, they are limited by the self-report nature of the data; it was not possible in this study to verify that these self-reports were accurate. Subsequent laboratory experiments, in which behavior is directly observable, confirm that contingencies of self-worth facilitate self-regulation. For example, Strahan (2002) measured appearance contingency of self-worth and found that highly contingent students ate less snack food. Brook (Brook, 2005, Study 1) measured academic contingency of self-worth, had participants solve GRE analytical problems, and then gave participants the opportunity to study solutions to the problems they had attempted. Basing self-worth on academics marginally predicted spending more time studying the GRE solutions. In another study, (Brook, 2005, Study 4), participants completed a measure of basing self-worth on environmentalism and later had an opportunity to write a letter to a politician on any public policy issue of their choice. The more participants based their self-worth on environmentalism, the more likely they were to write their letter on an environmental topic. Among those who wrote their letters on an environmental topic, basing self-worth on environmentalism predicted writing a more persuasive letter and higher likelihood of emailing the letter to the politician. In sum, both survey and laboratory data show that contingencies of self-worth are associated with motivation; highly contingent people invest more time and effort in domains in which their self-esteem is contingent.

Contingent self-worth or domain importance? It is possible that people invest more effort in the domains in which their self-esteem is contingent simply because they care more about succeeding in these domains. Basing self-worth on a domain is one reason why people might care about doing well but certainly not the only reason. Correlations between importance of a domain and basing self-worth on that domain vary from .44 (academics; Brook, 2005, Study 3) to .89 (God's love; Crocker, Karpinski, Quinn, & Chase, 2003). Thus, for some domains, contingent self-worth is closely related to domain importance, but for other domains, they are only loosely related.

We argue that the effects of contingent self-worth are not merely due to domain importance but specifically to linking self-worth to the domain. Although both contingent self-worth and other reasons for importance may increase motivation to succeed, contingent self-worth should lead to unique costs for self-regulation because when people are motivated by contingent self-worth, the goal of protecting self-esteem may be prioritized over succeeding at the goal. Performance may be undermined when the behaviors that best protect self-worth do not lead to optimal performance. To test this hypothesis, Brook (2005, Study 3) measured the effects of basing self-worth on academics and overall importance of academics on a variety of self-regulatory outcomes. Contingent self-worth interacted with self-esteem level and task difficulty to predict better performance on the difficult task for low self-esteem participants but poorer performance for high self-esteem participants; overall importance of academics did not have these effects. Similarly, contingent self-worth interacted with task difficulty to predict lower intrinsic motivation on the difficult test but not the easy test; overall importance of academics did not. Thus, contingent self-worth is only one of many reasons why people may care about doing well in a domain of life, and has unique effects on self-regulation.

Contingencies of self-worth foster self-validation goals. Self-validation goals refer to the desire to demonstrate or prove the qualities of the self; for example, ability-validation goals refer to the desire to prove that one possesses the relevant ability (Grant & Dweck, 2003). When people have self-validation goals, they interpret their performance outcomes as reflections on their abilities or qualities; they want to succeed to prove that they have desired abilities or traits, and they do not want to fail because failure would demonstrate that they lack the desired characteristic.

We have examined the association between contingencies of self-worth and self-validation goals in four domains: academics, appearance, approval, and virtue (Crocker, Park, Villacorta, Luhtanen, & Klinger, 2005). Across several studies, we consistently find very strong correlations between contingencies of self-worth and self-validation goals. For example, in a study of more than 300 college students, we found that the more students based their self-worth on appearance, the more they reported that they had the goal to validate their attractiveness; the more they based their self-worth on academics,

the more they reported having the goal to validate their intelligence; and the more they based their self-worth on virtue, the more they sought to validate that they were moral, virtuous people. Typically, these correlations are very strong, on the order of .60–.70. Thus, in general, people want to validate that they have those qualities or characteristics on which their self-esteem depends.

Self-validation goals are a fragile source of motivation. Although the desire to prove to oneself and others that one possesses valued qualities can be highly motivating, these goals can lead to fragile motivation—in the face of difficulty, students with ability-validation goals tend to lose motivation, withdrawing effort and spending less time on achieving their goals (Grant & Dweck, 2003). In the face of repeated poor outcomes, ability-validation goals lead to downward spirals of performance (Grant & Dweck, 2003). Our research also suggests that ability-validation goals are fragile goals—people have them only as long as they think they can succeed and thus validate their ability. For example, Brook (2005, Study 2) had students complete a measure of basing self-esteem on academics; they were then asked to do either an easy or difficult academic task. After they finished the task, participants completed a measure of academic self-validation goals consisting of items such as, “It is important for me to confirm my intelligence through my schoolwork” (Grant & Dweck, 2003). The results revealed a significant interaction between task difficulty and contingencies of self-worth, depicted in Figure 1. For those students in the easy condition, the academic contingency of self-worth was strongly and significantly related to academic self-validation goals after the task, consistent with other research. However, after the difficult task, there was no significant association between academic contingency and academic self-validation goals because highly contingent students no longer had the goal of validating their ability. Letting go of one’s goal as soon as a task becomes difficult is a hallmark of poor self-regulation; thus, self-validation goals associated with contingent self-worth seem to be ineffective guides to self-regulation in the face of obstacles.

Motivation based on contingent self-worth can lead to stress, pressure, or tension and undermine intrinsic motivation. Although contingencies of self-worth can be motivating, the quality of motivation resulting from contingent self-worth is associated with stress, pressure,

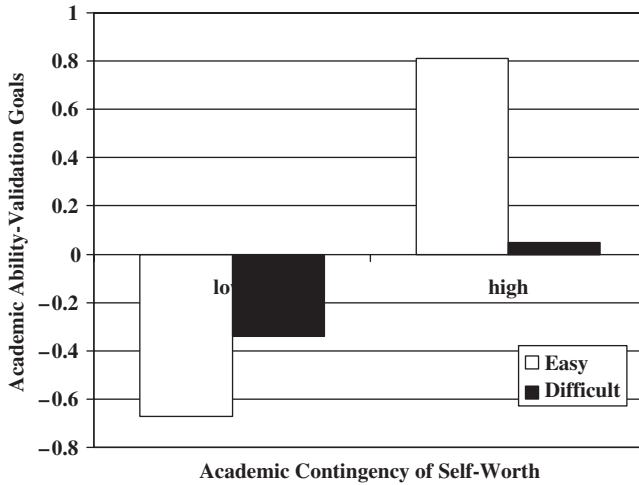


Figure 1

Academic ability validation goals as a function of academic contingency of self-worth and task difficulty.

and tension, and may even undermine intrinsic interest in tasks (Deci & Ryan, 1995, 2000).

According to self-determination theory, humans have a fundamental need for autonomy (i.e., feeling that they are the origin of their behaviors). Highly autonomous or self-determined behavior increases intrinsic motivation, facilitates internalization of values and behavioral regulations, and improves mental health and performance (Ryan & Deci, 2000a, 2000b). Contingent self-worth thwarts the need for autonomy, resulting in self-regulation through *introjection*:

The strength of introjected regulations derives from one's feelings of worth being dependent on performing as the introjects demand. When people behave because their "self-esteem" is contingent, they feel pressured or coerced to behave, and they are said to be ego involved. (Deci & Ryan, 1995, p. 39)

Thus, introjected regulation represents a controlling type of regulation and is accompanied by feelings of pressure, tension, anxiety, and loss of intrinsic motivation (Ryan, 1982). Consistent with this view, we found that college students who base their self-esteem on

academics are low in global self-determination (Villacorta & Pang, 2005).

In a laboratory experiment, Brook (2005, Study 3) had students complete a measure of basing self-esteem on academics and then do either an easy or difficult academic test. After the test, participants completed a measure of intrinsic motivation. The results revealed a significant interaction between test difficulty and contingent self-worth. Basing self-worth on academics predicted lower intrinsic motivation on the difficult test, but not on the easy test. Thus, contingent self-worth seems to undermine intrinsic motivation on difficult tasks, when motivation is most needed.

Further support for the notion that contingencies of self-worth negatively affect the quality of motivation comes from the survey of more than 600 college freshmen, described earlier. At the start of their freshman year, students completed a measure of how much they based their self-esteem on academic success; at the end of the year, they completed a measure of daily hassles of college students (Crocker & Luhtanen, 2003). The more students based their self-esteem on academics at the start of the year, the more daily hassles they reported at the end of the year, including more time pressure, dissatisfaction with their abilities, conflicts with professors and teaching assistants, and loss of interest in their courses.

These stresses and pressures have physiological consequences. Specifically, stress activates the stress response system, including the stress hormone *cortisol*. Prolonged or chronic stress leads to chronically elevated cortisol levels, which has a variety of negative effects, including increased symptoms of depression and decreased immune system response (Sapolsky, 1998). In a longitudinal study of college students, Knight and Crocker (2005) had students report to the laboratory to provide a saliva sample and indicate their grades and physical symptoms over the past week for 7 weeks in the middle of the semester (i.e., during midterm exams). The more students based their self-esteem on academics, the more physical symptoms they reported and the more their cortisol levels increased on weeks their grades were low.

In sum, although contingencies of self-worth can motivate effort and persistence on difficult tasks, this motivation is associated with decreased autonomy and intrinsic motivation and increased stress, pressure, and elevated cortisol levels. Initial studies suggest that both high levels of self-esteem and incremental theories of ability may

buffer against the negative effects of contingencies of self-worth on autonomy.

Contingent self-worth depletes self-regulatory resources. According to Baumeister, Bratslavsky, Muraven, and Tice (1998), the capacity for self-regulation is like a muscle: it can be strengthened with practice and exhausted by effort. Self-regulation on tasks such as eating a radish instead of a chocolate chip cookie decreases self-regulation on subsequent, unrelated tasks (e.g., Muraven et al., 1998). Brook (2005, Study 2) proposed that self-regulation is more depleting when self-esteem is at stake. Based on this reasoning, she conducted an experiment in which participants completed a measure of academic contingency of self-worth and then did an easy or difficult academic (editing) task. Next, participants worked on a timed anagram task; accuracy on the anagrams task was the critical dependent measure. Results revealed a significant interaction between academic contingency and difficulty of the first task. In the difficult condition, the more students based their self-esteem on academics, the lower their accuracy on the anagrams task. In the easy condition, academic contingency positively (but nonsignificantly) predicted higher accuracy on the anagrams task. These results are consistent with the idea that contingent self-worth leads to greater self-regulatory depletion after difficult tasks.

Contingencies of self-worth narrow the options people consider and shape the activities they choose. When self-esteem is at stake, people tend to choose activities with the chances of success in mind, doing the things they do well or expect to succeed at and avoiding the things they do poorly or think they might fail at. For example, Niiya and Crocker (2005) gave either an easy or difficult verbal test to students who were high or low on academic contingency and subsequently gave them the option either to do the same verbal task again or do a different task (a memory task). When the first task was easy, 63.2% of academically contingent students chose to do the same task, whereas when the task was difficult, only 18.2% did. Among less-contingent students, only about 30% chose the same task when the first task was easy, and none chose to do the same task when the first task was difficult. Again, this study indicates that contingencies of self-worth are motivating, but the motivational boost mainly occurs on tasks that are easily accomplished, not on challenging tasks that require persistence and self-regulation.

Table 1
 Percent of Participants Choosing to Repeat a Task as a Function of
 Academically Contingent Self-Worth, Mastery Goals, and Task
 Difficulty

	Low Academic CSW		High Academic CSW	
	Easy	Difficulty	Easy	Difficulty
Low mastery	38.9	0	66.7	0
High mastery	20.0	0	61.5	26.7

In this study, students' learning orientations (i.e., mastery goals) were also measured. Mastery goals interacted with contingencies of self-worth and task difficulty to predict task choice. As Table 1 shows, in the difficult task condition, none of the low-contingency students chose the same task, regardless of their endorsement of mastery goals. Among the highly contingent students, those who were low on mastery goals also never chose the same difficult task, but 26.7% of highly contingent students who were also high on mastery goals chose to do the same difficult task. Thus, in this study, mastery goals allowed highly contingent students to persist in the face of challenges. We speculate that mastery goals increased persistence among highly contingent student because learning orientations enabled students who failed in the task to maintain optimism that they could demonstrate their ability and self-worth by succeeding in the future.

To protect self-esteem from failure, people self-handicap in the domains of contingent self-worth. When people foresee a risk of failure in a domain in which they base their self-worth, they may create excuses for the possible failure and avoid the negative implications for their self-worth by doing things that can undermine their performance. For example, Niiya and Crocker (2005) presented college students with sample questions from either an easy or difficult verbal test and gave them an opportunity to practice as many or as few items as they wished (up to 25 times) prior to taking the test. Consistent with accumulating evidence that contingencies of self-worth are motivating, students whose self-esteem was highly contingent tended to practice more than less-contingent students, although this

effect was not significant. In addition, consistent with evidence that highly contingent students are particularly motivated on easy tasks, highly contingent students practiced more when the test was expected to be easy than difficult, whereas less-contingent students practiced more items when the test was expected to be difficult than easy; apparently, students who based their self-esteem on academic competence avoided practice so they could attribute failure to lack of practice, not lack of ability.

In this study, we also manipulated (primed) entity versus incremental theories of intelligence, using a method developed by Bergen (1992). In the context of taking a test of verbal abilities, participants read a text presenting (pseudo) scientific evidence asserting that intelligence is hereditary and cannot be changed by life experience or effort (entity theory condition) or that intelligence is malleable and can change greatly depending on life experience and effort (incremental theory condition). If incremental theories of intelligence take the self-threat out of failure for highly contingent students, we would expect them to be willing to practice a lot prior to the difficult task to increase their chances of success. However, it is possible that incremental theories do not remove the threat to self-esteem from failure but merely change the calculus of when failure implies lack of ability and therefore lowers the self-esteem of highly contingent students. Highly contingent students with learning orientations may be highly sensitive to the implications of investing effort for ability and self-esteem: In the absence of practice, priming incremental theories leads highly contingent students to assume that they can improve in the future, removing the self-threat from a failure (Niiya, Crocker, & Bartmess, 2004). However, in the presence of practice and effort, failure would suggest that these students really do lack ability, thus threatening their self-esteem. Therefore, if highly contingent incremental students are concerned about proving their self-worth, we expect that they would reduce the amount of practice before a difficult task (i.e., when failure is likely) to protect their self-esteem (Rhodewalt & Fairfield, 1991).

As Figure 2 shows, priming incremental theories encouraged less-contingent participants to practice more before a difficult than an easy task, whereas for the highly contingent participants, incremental theories led them to practice *less* before a difficult than an easy task. Priming entity theories led both high- and low-contingent participants to avoid practice regardless of the task difficulty.

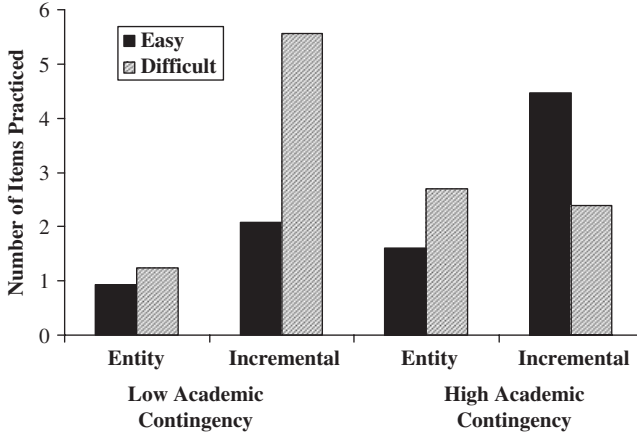


Figure 2

Number of items practiced as a function of whether the test was easy or difficult, priming of entity versus incremental theories of intelligence and academic contingency of self-worth.

Apparently, when people have contingent self-worth, priming incremental theories of ability sensitizes people to the implications of investing effort and then failing for their ability and leads them to reduce their effort as a strategy to protect self-esteem.

Limitations

The research we describe here has some limitations. First, in our studies, contingencies of self-worth are always a measured variable, not manipulated in the laboratory. Consequently, as with any measured variable, it is possible that the effects of contingencies of self-worth in our research are actually due to some correlated, unmeasured variable. We have examined and ruled out several possibilities in our research, such as level of self-esteem and domain importance; nonetheless, the possibility that some unmeasured variable accounts for our effects remains.

Second, our theory predicts that it is the specific domain of contingency that undermines successful self-regulation on tasks in that domain of contingency. To test this hypothesis, we have repeatedly shown that people who are highly contingent in a domain show effects that less-contingent people do not show. However, ideally, we

would also show that the same person shows self-regulation failures on tasks related to their contingencies but not on tasks unrelated to their contingencies. Although this would provide compelling evidence that it is the specific match of the task with the domain of contingency that undermines self-regulation, from a practical standpoint, such research is difficult to do because it is difficult to equate tasks across domains and because people can be contingent in more than one domain. In our current research (Villacorta, 2006), we have described the same difficult task as either an academic task or as a laboratory exercise and found that the academic contingency predicts feelings of pressure only when the difficult task is described as academic. This suggests that academic contingency does not undermine self-regulation on all tasks but only does so on tasks that are perceived to be relevant to the contingency.

IMPLICATIONS AND FUTURE DIRECTIONS

Overall, the research reviewed here is consistent with the idea that contingencies of self-worth are highly motivating; in the domains in which their self-worth is staked, people really want to succeed and do not want to fail. In some circumstances, especially when the chances of success are high or they have a good excuse in case of failure, highly contingent people will exert effort to succeed. However, our research suggests that as a source of motivation, contingencies of self-worth have significant drawbacks. When the task is difficult and failure is a real possibility, contingencies of self-worth lead to feelings of stress, pressure, and loss of intrinsic motivation. In these circumstances, highly contingent people are likely to let go of their goals and withdraw effort. Like the student quoted at the start of this chapter, when the going gets tough, people with contingent self-esteem do not get going; they disengage.

Although our analysis and data focus on the self-regulation pitfalls of protecting self-esteem in the face of difficulty and failure, we suspect that contingencies of self-worth also create problems for self-regulation following success. The emotional high following success in a domain of contingency feels great—so great that it may become addictive (Baumeister & Vohs, 2001) and require ever greater successes to achieve the same high. The high of success in domains of contingency—the feeling of being great—may be quickly followed by anxiety that others will discover one's flaws. Thus, in domains of

contingency, the goal to succeed can become a relentless quest (Crocker & Nuer, 2003).

In our view, contingencies of self-worth create these difficulties because when their self-worth is at stake, people prioritize boosting self-esteem by proving that they satisfy their contingencies at the expense of their other, more essential goals. As we noted at the outset, successful self-regulation requires clarity regarding which goals are most important, and why. We believe that self-esteem is rarely what people are really after. Rather, they confuse the boosts to self-esteem that accompany success, acknowledgment, recognition, and admiration for the things that humans really need: learning, mutually supportive relationships, autonomy, and safety (Crocker & Nuer, 2004; Crocker & Park, 2004; Deci & Ryan, 2000). As we have argued elsewhere, the pursuit of self-esteem undermines the satisfaction of these human needs (Crocker & Park, 2004).

One of the central problems with self-esteem or self-validation as a source of motivation is how easy it is to abandon these goals in the face of difficulty. When self-esteem is the primary goal, people can easily become amotivated, like the anonymous student quoted at the beginning of this article. To sustain progress toward their goals, people need a more compelling and enduring source of motivation; they need, simultaneously, to let go of self-validation goals and replace them with other goals that are more reliable.

What could help people with highly contingent self-esteem sustain their interest, goals, and effort on difficult tasks relevant to their contingencies? Our research suggests that learning orientations can help. Both incremental theories of ability and mastery goal orientations can take the self-esteem threat out of failure (Niiya & Crocker, 2003; Niiya et al., 2004). However, recent research in our laboratory suggests that they do so only when people have not invested effort in a task (Niiya & Crocker, 2005). Thus, incremental theories and mastery goals may be helpful in some circumstances, but learning orientations reduce the threat of failure by changing the calculus of when failure implies lack of ability, and hence worthlessness, for highly contingent people. These learning orientations do not foster willingness by highly contingent people to invest effort on difficult tasks.

Recently, we have proposed that successful self-regulation, defined as the willingness to invest effort toward important goals even when failure seems possible, is fostered by a different type of learning orientation, in which failure is not to be feared and avoided but is

actually welcomed as a learning opportunity. Failure can provide the opportunity to discover where one's assumptions were erroneous, one's strategy went awry, one's weaknesses got in the way; failure is perhaps the best way for people to discover their "blind spots" about themselves (Argyris, 1982, 1991). This deep-learning orientation is reflected in the following quotation from Fujio Cho, the president of the Toyota Motor Corporation:

We place the highest value on actual implementation and taking action. There are many things one doesn't understand and therefore, we ask them why don't you just go ahead and take action; try to do something? You realize how little you know and you face your own failures and you simply can correct those failures and redo it again and at the second trial you realize another mistake or another thing you didn't like so you can redo it once again. So, by constant improvement, or should I say, the improvement based on action, one can rise to the higher level of practice and knowledge. (Liker, 2004)

We suspect that when people have the goal of maintaining, enhancing, or protecting their self-esteem, it is particularly difficult to embrace failure or criticism as a learning opportunity and to search for blind spots in one's understanding as articulated by Fujio Cho. This deep-learning orientation requires a willingness to let go of self-validation goals of proving things about the self, replacing them with the goal of identifying one's weaknesses and addressing them.

Such a learning orientation is not easily sustained because it constantly challenges the desire to see the self in a positive light, as responsible for successes but not failures (Argyris, 1982, 1991). Deep learning often creates discomfort associated with acknowledging one's mistakes, accepting one's share of the responsibility for problems, questioning one's beliefs and assumptions, and letting go of being right. Learning for its own sake, or learning for the benefit of the self, may quickly lose its appeal in the face of this discomfort. Consequently, we suspect that the goal of learning for its own sake, while laudable, is insufficient as an alternative to self-validation goals arising from contingent self-worth. We think people need a reason to sustain a learning orientation, and that reason needs to be larger than the self so that it is not abandoned when the going gets tough for the self.

Goals focused on contributing to or creating something larger than the self may provide a sustainable source of motivation for learning, anchoring people in their efforts to achieve their goals, and creating a context in which they exert effort toward one's most important goals while taking setbacks, difficulties, and even outright failure as an opportunity to learn. Indeed, the Toyota Motor Corporation's first principle of management reflects goals that are larger than the self:

Principle 1. Base your management decisions on a long-term philosophy, even at the expense of short-term financial goals. Have a philosophical sense of purpose that supersedes any short-term decision making. Work, grow, and align the whole organization toward a common purpose that is bigger than making money Generate value for the customer, society, and the economy—it is your starting point. Evaluate every function in the company in terms of its ability to achieve this. Be responsible. Strive to decide your own fate. Act with self-reliance and trust in your own abilities. Accept responsibility for your conduct and maintain and improve the skills that enable you to produce added value. (Liker, 2004, p. 37)

Goals focused on contributing to something larger than the self are useful in sustaining a learning orientation and successful self-regulation for individuals, as well. Consider the situation of Alison, a college senior:

Since I have been so fearful of failing on the GRE, I have avoided pursuing careers which force me to have to take standardized tests altogether. I am specifically interested in school psychology, and I have been afraid of failing at getting into graduate school, so I have avoided it all together. I think this would be a field to which I have a lot to give. I love working with children, I love psychology, and I feel like it is a noble and important field in psychology since different things that inhibit the learning process trouble so many students. I believe I have a lot to give to these children, and if I don't pursue this field because I am afraid of failing, then those children will never get the help that I have to give.

Four months after writing these words, Alison sent the following email message:

Hi there! I just wanted to give you an update on my graduate school aspirations. I got into two out of the three schools I applied to. I went to the interview for my first choice this morning. I was there for about 10 minutes total before they said, “We don’t normally do this so quickly, but you are exactly what we are looking for.” So, that is that.

We began this article by suggesting that successful self-regulation may be defined as the willingness to exert effort toward one’s most important goals while taking setbacks, difficulties, and even outright failure as an opportunity to learn, identify weaknesses and address them, and develop new strategies toward achieving those goals. Contingencies of self-worth create many pitfalls and obstacles for self-regulation and, in our view, provide an ineffective—or at least flawed—source of motivation. Ultimately, we suggest, successful self-regulation requires clarity regarding which goals are most important, and why. Deep learning goals, connected to the desire to contribute to something larger than the self, may provide the optimal basis for successful self-regulation.

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