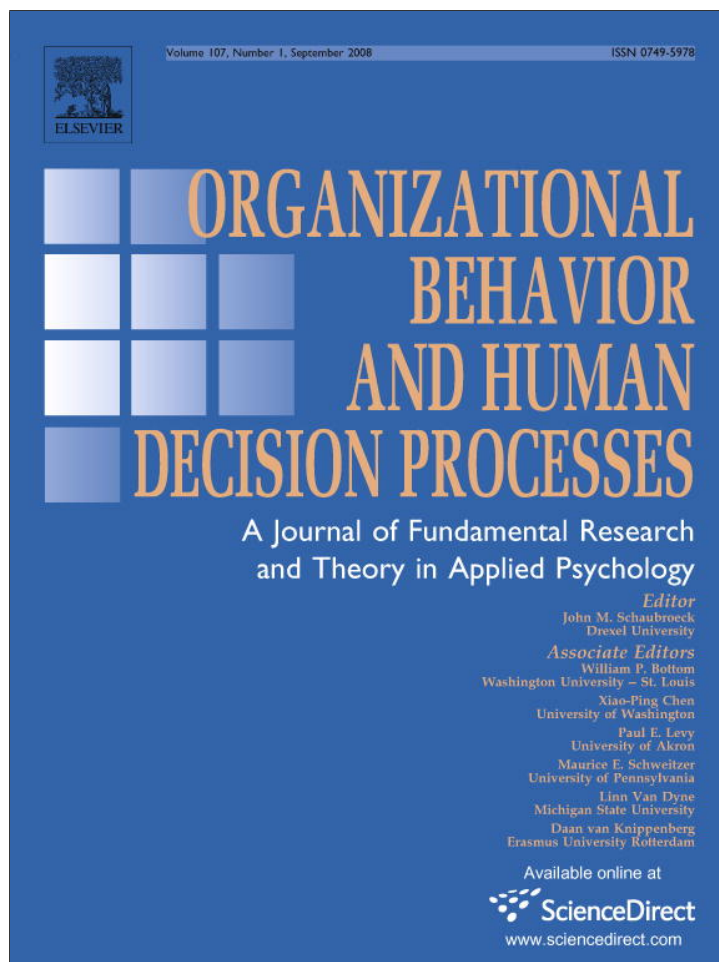


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The promise and peril of self-affirmation in de-escalation of commitment [☆]

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Abstract

Drawing on the motivated cognition literature, we examine how self-affirmation processes influence self-justification needs and escalation decisions. Study 1 found that individuals with a larger pool of affirmational resources (high self-esteem) reduced their escalation compared to those with fewer affirmational resources (low self-esteem). Study 2 extended these findings by demonstrating that individuals also de-escalated their commitments when they were provided an opportunity to affirm on an important value. Finally, Study 3 found that affirming on traits that were of low relevance (e.g., creativity) to an initial decision reduced escalation, but affirming on decision-relevant traits (e.g., decision-making ability) ironically increased escalation. Across three studies, using three instantiations of self-affirmations and two measures of escalation, the results highlight the potential benefits and costs of using self-affirmation as a vehicle to de-escalate commitment.

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High-stakes decisions are a central aspect of managerial life, and management scholars have amassed a large body of research on the anatomy of rational decision making and its anomalies (see Bazerman, 2002, for

review). One anomaly that has garnered over 30 years of research surrounds individuals' tendency to allocate additional resources to a failing course of action. Referred to as *escalation of commitment* (Staw, 1976), this bias has been shown to influence decisions involving military involvement in war (Lipshitz, 1995), auctions (Ku, Galinsky, & Murnighan, 2006; Ku, Malhotra, & Murnighan, 2005), financial investments (Ross & Staw, 1986), and human resource allocations (Schoorman, 1988; Staw & Hoang, 1995).

Escalation of commitment occurs when a decision maker has allocated resources toward a particular goal and then received feedback that the goal was not achieved. Now facing an ambiguous choice of whether further resources will bring about goal attainment, the decision maker adds to (i.e., escalates) his or her original

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investment. Thus, as noted by Brockner (1992) “. . . escalation situations include repeated (rather than one-shot) decision making in the face of negative feedback about prior resource allocations, uncertainty surrounding the likelihood of goal attainment, and choice about whether to continue” (Brockner, 1992, p. 40). Escalation of commitment is typically considered economically irrational because rationality requires ignoring costs already incurred (sunk costs) and only considering costs that may change as a result of one’s future decision (variable costs). In addition, escalation of commitment often results in poor decision outcomes as decision makers continue to pursue lost causes, resulting in additional wasted time and resources.

Although a variety of economic, social, and psychological explanations have been posited to explain why escalation occurs (See Arkes & Blumer, 1985; Brockner, 1992 for review; Staw, 1997), one particularly informative line of research focuses on people’s psychological desires for *self-justification* (Brockner et al., 1986; Staw, 1976, 1997). Staw (1976), for example, suggests that escalation occurs because “individuals actively seek to maintain or restore the appearance of rationality to a previously chosen course of action” (Staw, 1976, p. 42). As a result, when faced with negative feedback concerning a previously chosen action, the self is threatened, which activates the need to self-justify, pushing individuals to increase their allocations (of effort, money, time, or company resources) to the initial decision.

In the current research, we consider how attempting to decrease the need for self-justification may impact the ability of decision makers to de-escalate their commitments. Because self-threat arising from negative feedback can trigger justification needs and escalation processes, we examine how affirming one’s overall self-worth following a poor decision (Steele, 1988; Tesser, 2000) can decrease escalation. Although the process of self-affirmation should generally mobilize one’s resources for maintaining global self-integrity and diminish the self-threat experienced in escalation situations, several lines of research have also suggested that, in certain circumstances, attempting such affirmations can instead draw attention to self-standards that have not been met and paradoxically increase feelings of threat (Blanton, Cooper, Skurnik, & Aronson, 1997; Galinsky, Stone, & Cooper, 2000). Thus, the primary purpose of this article is to investigate when and for whom self-affirmation can eliminate or exacerbate escalation of commitment.

The role of self-justification in escalation of commitment

Most people are driven to see themselves in a positive light. As a result, the inferences people form about their own actions are typically self-serving (Dunning &

Cohen, 1992; Kunda, 1990) and there is a pervasive tendency to focus on information that is consistent with a positive view of the self, e.g., that one is intelligent (Wyer & Frey, 1983), competent (Beckman, 1973) and healthy (Ditto, Scepansky, Munro, Apanovitch, & Lockhart, 1998).

Self-justification processes in escalation of commitment are thought to reflect similar self-serving reasoning. For example, Festinger (1957) proposed that when people’s behavior contradicts their attitudes or beliefs, it creates cognitive dissonance. Because attitudes can be altered more easily than previous behaviors, individuals change their attitudes to rationalize their past behaviors. This restores psychological consistency, and thus reduces the psychological discomfort from cognitive dissonance. Extending self-justification process to escalation situations, Staw and Fox (1977) proposed that instead of altering their attitudes to be consistent with past behavior, individuals can seek to rationalize past behavior through a continued commitment to that behavior. Thus, research on the engine that drives escalation suggests that the motive to justify our earlier investments as wise and rational results in behavior that contradicts economic notions of rationality (Whyte, 1986).

Evidence for the role of self-justification in escalation can be found in multiple studies that have manipulated self-justification needs by varying perceived responsibility for an initial decision; only when people feel threatened by their personal responsibility for a failed decision should they be motivated to justify this decision and thus escalate their commitments. Confirming this pattern of results, Staw (1976) found that personal responsibility for an initial failed investment led to greater escalation. Bazerman, Beekun, and Schoorman (1982) found similar effects on employee performance appraisals: people were more likely to continue their support for poorly performing employees when they were personally responsible for the employee’s initial promotion than when they were not responsible. Finally, Staw and Fox (1977) found evidence that when accusations of responsibility threatened people’s reputation as skilled decision makers, they viewed abandoning their initial decisions as a personal threat (Brockner et al., 1986) and continued to “stay the course” in the hopes of proving that their initial decisions were justified. Taken together, these studies strongly support the role of personal threats in creating self-justification needs which fuel escalation of commitment.

Self-justification and self-affirmation

Research on personal responsibility and escalation of commitment has illustrated the important role of self-threat in triggering escalation. Yet managers are rou-

tinely expected to accept responsibility for their failed decisions, and thus cannot readily escape such threats. Instead, managers may attempt to cope with self-threats through a wide variety of self-protective and defensive mechanisms, including strategic social comparisons (Alicke, LoSchiavo, Zerbst, & Zhang, 1997), selective cognitive effort in analyzing information (Ditto et al., 1998), selective attention to the reliability of the information they receive (Doosje, Spears, & Koomen, 1995), and attributing negative performance to external or uncontrollable sources (Fries & Frey, 1980; Stephan & Gollwitzer, 1981).

One overarching mechanism of self-protection that could be of particular relevance to escalation situations is *self-affirmation*. Steele (1988) has proposed that the desire to affirm the overall worth and integrity of the self is a fundamental motive that drives people's responses to a host of different self-threats (see also Sherman & Cohen, 2002; Tesser, 2000). To maintain perceptions of overall worth in the face of threat, people can either: (a) directly attempt to discredit or counteract threatening information or (b) indirectly emphasize alternative sources of self-worth that are not currently being threatened (Sherman & Cohen, 2006).

For example, following the self-threat of a disappointing performance, one could either alleviate this threat directly by altering one's definitions of what constitutes success or failure (e.g., Dunning, Leuenberger, & Sherman, 1995) or indirectly by affirming one's success at and continued commitment to cherished goals in other domains (e.g., Liu & Steele, 1986). Either one of these strategies should effectively restore one's overall feelings of self-worth and reduce perceived threats to the self. Numerous studies have indeed demonstrated that both direct and indirect routes to restoring self-worth effectively reduce self-threats (Aronson, Blanton, & Cooper, 1995; Ditto et al., 1998; Galinsky et al., 2000; Kunda, 1990; Liu & Steele, 1986; Steele & Liu, 1983).

In escalation situations, increasing commitments by making further investments in a failing course of action is a direct attempt to respond to the self-threat created by the negative feedback regarding an initial decision. As Brockner (1992) noted, people attempt to "(re)affirm the correctness of [an] earlier decision by committing further resources to their initial course of action" (Brockner, 1992, p. 40, italics inserted). If circumstances allowed the substitution of this direct approach with an alternative, indirect means of affirmation, escalation could perhaps be prevented. Specifically, after receiving negative feedback on an initial decision, those individuals who are able to restore their general feelings of self-worth by affirming other positive traits, abilities, or values should feel less need to justify this decision. (Nail, Misak, & Davis, 2004; Spencer, Josephs, & Steele, 1993; Steele, Spencer, & Lynch,

1993). This rationale is consistent with the intuitive (but as yet untested) suggestion that, following a manager's poor initial decision, her superiors should provide her with reassuring feedback that the company values her many contributions, thereby decreasing her self-threat, self-justification needs, and future escalation (Bazerman, 2002; Heng, Tan, & Wei, 2003; Simonson & Staw, 1992).

To examine this possibility of reducing escalation of commitment through indirect self-affirmation, Study 1 explores whether people can marshal their global feelings of self-worth (i.e., self-esteem) to alleviate the threat of having made a poor decision and to avoid escalating their commitment. Study 2 extends this first study by examining whether reporting on one's dedication to a central personal value (rather than global feelings of self-worth) can also help alleviate the threat of having made a poor decision and reduce escalation.

Despite the promise of self-affirmation for reducing irrational decision making driven by self-justification needs, circumstances have been identified in which attempts at affirmation may backfire and increase, instead of relieve, self-justification concerns (Blanton et al., 1997; Galinsky et al., 2000). To effectively relieve any particular self-threat, the self-affirmation that occurs must truly provide an indirect means of addressing the threat and call upon general proficiencies or values that are not directly relevant to the failed task. Such task-irrelevant affirmation helps to bolster one's feelings of worth and integrity and removes the sting of recent failures by essentially making them seem minor in comparison to one's overall strengths as a person (Steele, 1988; Tesser, 2000). In contrast, attempts at self-affirmation that draw one's attention to the very same traits and abilities that were called into question by a recent failure may only magnify the perceived severity of this failure. Such task-relevant affirmation may serve to directly highlight important self-standards that one has not met and inadvertently enhance the desire to justify one's failure to live up to these standards (Arndt & Greenberg, 1999; Aronson et al., 1995). For example, if a manager makes a hiring decision that turns out poorly, but then receives feedback from his superiors that they are confident in his ability to judge potential job candidates, he may feel a *greater* need to justify his initial decision and be *more* prone to escalation. Thus, Study 3 considers the effects of task-relevant self-affirmation on escalation of commitment.

In sum, Study 1 examines whether individuals with high self-esteem will escalate less than those with low self-esteem. Study 2 examines how affirming important personal values compared to unimportant ones will decrease escalation. Finally, Study 3 tested whether affirming decision-relevant traits (e.g., decision making ability) would ironically increase escalation.

Study 1: De-escalating commitment by affirming global self-worth

Prior research has suggested that self-esteem often serves as an internal pool of global feelings of self-worth that people may draw upon in the face of self-threats (Nail et al., 2004; Spencer et al., 1993; Steele et al., 1993). For example, Steele et al. (1993) examined the effects of self-esteem on people's need to justify their actions following a difficult choice; self-justification needs often lead individuals to inflate their preference for their chosen option relative to the non-chosen option (see Brehm, 1956). Consistent with this need for justification, Steele et al. found that people with low self-esteem, who lacked the feelings of global self-worth that would alleviate concerns with whether they made the correct choice, showed inflation in their subsequent preference for the chosen option; however, people with high self-esteem, who possessed feelings of global self-worth, did not show such inflation.

Importantly, the effect of self-esteem on preference inflation only occurred when participants were given an opportunity to fill out a measure of self-esteem (Steele et al., 1993). These authors suggest that the differential effects of high and low self-esteem depend on whether the self-concept has been recently brought online and called to active duty, which occurs when one fills out a self-esteem measure.

Thus, when given an opportunity to reflect upon their internal "resources" for self-affirmation (Steele et al., 1993), individuals with greater resources (i.e., those with high self-esteem) should be better able to call upon these global feelings of self-worth and avoid impulses to escalate their commitment. Specifically, following negative feedback concerning their decision, individuals with high self-esteem should readily use their global self-worth as an indirect resource to alleviate the threat of failure, reducing the need for direct escalation, whereas individuals with low self-esteem should not have this indirect resource available and should show the typically observed escalation. Stated formally, we therefore hypothesized:

H1: Individuals with high self-esteem will reinvest fewer resources towards a failing course of action than will individuals with low self-esteem.

Study 1 tested this hypothesis by placing participants in the role of a financial executive who was making investment decisions (see Staw, 1976). After learning that their decision resulted in a financial loss, participants' were given an opportunity to consider their feelings of global self-worth by completing a standard measure of self-esteem (see Steele et al., 1993). Escalation of commitment was then measured by the amount of money participants chose to reinvest in their initial, failing course of action.

Methods

Participants

Participants were 80 undergraduates (62% female) from a large Midwestern university who were paid \$10 for volunteering.

Procedure

Upon arrival at the laboratory, participants were directed to follow instructions presented on a computer screen. They were told that they would participate in three separate studies.

Escalation scenario. In the "first study", participants were asked to partake in a financial problem solving task. They were presented with Staw's (1976) "A&S financial case" and told they were responsible for the allocation of some research and development (R&D) funds. The case described a corporation that had recently started to decline in earnings, in large part because of the lack of R&D funding. Participants were told that \$10 million had been allocated for R&D, which was to be invested in only one of two departments (Consumer Products or Industrial Products). Participants were further told that they were to act as the chief financial officer and allocate the money to the division that would bring the greatest financial benefit to the company. Financial incentives for making the right decision were provided by telling participants that "As a bonus, the individual whose decision results in the best outcome will be awarded a bonus payout of \$50. This rank ordered calculation will be done for every 50 participants."

Regardless of which division they chose, participants received 5 years of simulated profits and earnings information, showing that their chosen division had performed poorly. This served as the negative feedback for the individual's initial decision.

Opportunity for affirmation. Next, participants continued to the "second study", where they filled out the Rosenberg (1979) self-esteem scale. This self-report questionnaire has been widely used to assess people's global feelings of self-worth and self-acceptance. The process of completing the scale also has been shown to draw participants' attention to how high or low their general feelings of global self-worth are, or what Steele et al. (1993) refer to as the level or amount of affirmational resources they have.

Escalation measure. Finally, in "Study 3", participants revisited the "A&S financial case" and were reminded of the (poor) financial performance of the A&S Company 5 years after their initial R&D allocation decision. Participants were then told that the R&D divisions were still in need of further resources and \$20 million was now available to be allocated between the two divisions. This time, however, participants could divide the R&D money between the two

divisions in any proportion they saw fit. As in previous studies (Brockner, 1992; Staw, 1976), reinvestments to the initially-chosen, failing division were used to measure participants' escalation of commitment. Finally, participants were thoroughly debriefed, paid, and thanked.

*No-affirmation control condition.*¹ An additional control condition was also included, in which participants took part in "Studies 1 and 3" and skipped "Study 2". Specifically, participants took part in the typical A&S scenario (Staw, 1976), but were not given the opportunity to contemplate their general feelings of self-worth (i.e., did not fill out the self-esteem questionnaire). Because participants in this control condition were not given any opportunity to indirectly alleviate the feelings of threat from their initial poor decision, they should still feel the need to justify their decision and directly escalate their commitments to the initially-chosen division (Brockner, 1992). This condition therefore serves as a baseline to which the effects of considering one's global self-worth on escalation can be compared.

Results and discussion

We have argued that participants' reported level of self-esteem would serve as a proxy for the global feelings of self-worth they had available to call upon in the face of self-threat. Because individuals with high self-esteem have stronger feelings of self-worth than individuals with low self-esteem, they should display less escalation following a poor decision compared to those with low self-esteem. Furthermore, individuals able to report their high-self esteem should also display less escalation than individuals in the control condition, who did not have any opportunities to consider their feelings of self-worth.

Consistent with past research examining self-esteem as a moderator in self-justification processes (Maracek & Mettee, 1972; Steele et al., 1993; Stone, 2003; Stone & Cooper, 2003), these hypotheses were analyzed by treating self-esteem as a categorical variable and dividing participants into high self-esteem and low self-esteem groups according to a median split on the Rosenberg (1979) self-esteem scale. The results displayed in Fig. 1 demonstrated that, as predicted in Hypothesis 1,

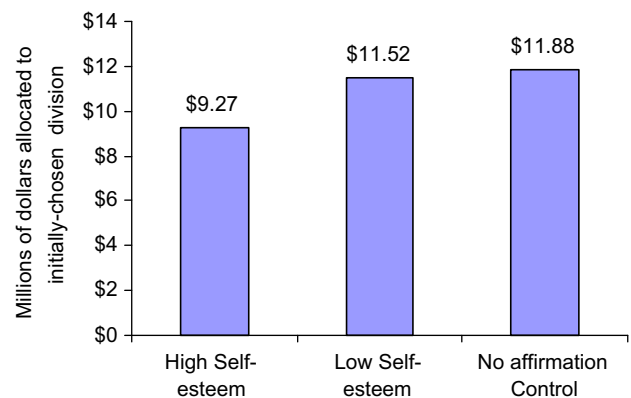


Fig. 1. Amount of money allocated in the 2nd choice towards the division initially-chosen in the A&S decision case.

following negative feedback, individuals with high self-esteem allocated fewer funds to the initially-chosen division ($M = 9.27$, $SD = 3.42$) than individuals with low self-esteem ($M = 11.52$, $SD = 3.57$; $t(61) = 2.55$, $p = .01$, $d = .64$).² Also, as expected, when comparing the effects of self-esteem to the baseline level of escalation in the no-affirmation control condition ($M = 11.88$, $SD = 5.81$), individuals with high self-esteem allocated fewer funds to the initially-chosen division ($t(45) = 1.95$, $p = .06$, $d = .59$), whereas individuals with low self-esteem did not significantly differ in their reinvestments in the initially-chosen division ($t(48) = .28$, $p = .78$; see Fig. 1).

Study 1 confirmed our main hypothesis by demonstrating that people's global feelings of self-worth, as assessed by their self-esteem, can decrease their tendencies to escalate commitments to a failing course of action. Notably, when individuals were given the opportunity to consider these feelings of worth, those with high self-esteem not only displayed less escalation than individuals with low self-esteem, but also displayed less escalation than individuals who were not given an opportunity to consider their feelings of self-worth following their initial decision. This is consistent with our theorizing that those with high self-esteem are able to draw upon their strong feelings of self-worth to indirectly alleviate the self-threats produced by their initial failure (see Spencer et al., 1993; Steele et al., 1993) and therefore do not have to directly address these self-threats by escalating their commitments.

¹ The data for the control group were collected at a later time than the data for the two experimental groups. However, the control-group data were collected from the same population of subjects and additional analyses on demographic variables revealed no significant differences between groups. Because participants were not randomly assigned to the control group vs. the experimental groups, analyses involving this control group were performed using planned comparisons rather than ANOVAs.

² Analyses using self-esteem as a continuous variable revealed similar results. As expected, self-esteem was a significant predictor of escalating commitment ($R^2 = .06$, $F(1, 61) = 4.8$, $p = .03$): the higher participants' self-esteem, the less they escalated their commitments to the previously chosen and failing course of action ($\beta = -.27$).

Study 2: De-escalating commitment by affirming specific cherished values

Although accessing one's level of global self-esteem may represent one method by which individuals can indirectly bolster the self in the face of self-threat, other possible methods may exist as well. For example, Steele and Liu (1983) examined the effects of giving people the opportunity to affirm their commitment to a specific value of personal importance (by completing a self-report scale concerning this value) on their need to justify performing a behavior that was inconsistent with their attitudes (see Festinger, 1957). They found that people who had an opportunity to affirm themselves by reflecting on an important value did not show the typical attitude change designed to eliminate the inconsistency their behavior had created, which suggests that contemplating an important personal value neutralized the self-threat. Study 2 therefore sought to extend the results of Study 1 by examining the effects of this alternate route to affirming self-worth on escalation of commitment.

To manipulate self-affirmation, we followed the same procedures used by Steele and Liu (1983), which have now become the standard protocol for a wide variety of studies on self-affirmation (Cohen, Garcia, Apfel, & Master, 2006; Creswell et al., 2005; Koole, Smeets, van Knippenberg, & Dijksterhuis, 1999; Liu & Steele, 1986; see McQueen & Klein, 2006, for review; Sherman, Nelson, & Steele, 2000; Steele & Liu, 1983). This procedure involves participants rank-ordering their values at the beginning of the experiment and then later either reflecting on their most important value (self-affirmation condition) or their least important value (no self-affirmation condition). Thus, participants in Study 2 first indicated values that were more or less centrally important to them. Next, using the same escalation paradigm as in Study 1, participants were placed into the role of a financial executive making investment decisions. After learning that their decision resulted in financial losses, some participants were given an opportunity to reflect on a value they had indicated was centrally important, whereas others were only given an opportunity to reflect on a value they had indicated was unimportant. As before, escalation of commitment was measured by the amount of money that participants chose to reinvest in their initial, failing course of action. As in Study 1, we expected that the feelings of worth that presumably come from affirming one's commitment to an important personal value would alleviate the threat of having made a poor decision and thereby reduce escalation of commitment. Stated formally, we therefore hypothesized:

H2: Individuals not given the opportunity to affirm an important personal value will reinvest greater resources towards a failing course of action than will individuals who affirm an important personal value and individuals who are not responsible for the initial failure.

Methods

Participants

Participants were 56 (68% female; mean age 20.07 years) undergraduates from a large Midwestern university who were paid \$10 for volunteering.

Procedure

The procedures for this study were similar to those of Study 1. Upon arrival, participants were directed to follow the instructions presented on a computer screen, which informed them that they would participate in four separate studies.

Cherished values. In the "first study", to determine which values were personally important or unimportant to each participant, participants ranked the personal importance of a set of six global values taken from the Allport–Vernon–Lindzey Values Scale (AVL) (Allport, Vernon, & Lindzey, 1960): Theoretical, Economical, Aesthetics, Social, Political, and Religious.

Escalation scenario. Next, participants continued to the "second study", which was exactly the same financial problem-solving task as in Study 1 (i.e., the "A&S financial case"). Financial incentives were again provided to participants to make the best decision, and, regardless of which investment they chose, all participants received feedback that their chosen division had performed poorly over the next 5 years.

Affirmation manipulation. Next, participants continued to the "third study", in which they were then randomly assigned to either an affirmation or no affirmation condition. In the affirmation condition, participants received a 10-item AVL subscale concerning the value that they had previously indicated was most important to them. Reflecting upon a personally important value should give these participants an opportunity to bolster their general feelings of self-worth. In contrast, in the no affirmation condition, participants received a 10-item AVL subscale concerning the value they indicated was least important to them. Reflecting upon a personally unimportant value should not give these participants any opportunity to bolster their general feelings of self-worth. As mentioned above, these procedures for manipulating self-affirmation have been validated in many previous studies (Creswell et al., 2005; e.g., Koole et al., 1999; Liu & Steele, 1986; see McQueen & Klein,

2006 for comprehensive review; Sherman et al., 2000; Steele & Liu, 1983; Tesser & Cornell, 1991).³

Note that the no affirmation condition is extremely similar to the affirmation condition in that all participants are making self-relevant judgments about values that are normatively positive following the negative feedback about their initial decision. The only difference between these conditions, then, is the degree to which the value being judged is personally important to the particular participant. The no affirmation condition in this study therefore provides a more stringent control group than the condition used in Study 1, in which participants did not make any self-relevant judgments after their initial decision.

Escalation measure. Finally, the “fourth study” was exactly the same as in Study 1: participants revisited the A&S financial case and made a second financial allocation decision involving \$20 million of R&D funds. Reinvestment in the failing division chosen at the beginning of the session was again the primary measure of escalation of commitment (Brockner, 1992; Staw, 1976).

No self-justification control condition. In addition to the affirmation and no affirmation conditions, some participants were randomly assigned to a control condition in which participants skipped “Studies 1–3” and only took part in “Study 4”. Upon arrival at the lab, participants were apprised of the A&S case, but were informed that an individual in an earlier experiment had made the initial allocation decision, which had resulted in further losses for the company. Now, it was up to the participant to make the second allocation decision in hopes of returning A&S to profitability. As in the other conditions, these participants in the no self-justification condition could divide the R&D money in any proportion between the two divisions. Since participants in this control condition were not personally responsible for the initial poor decision, they should not feel the need to self-justify or to escalate their commitments to this decision (Brockner, 1992).

Results and discussion

We predicted that participants in the self-affirmation condition would feel less need to escalate and would

³ Previous studies have also shown that the mechanisms by which this affirmation manipulation boosts self-worth are largely implicit and non-conscious (Koole et al., 1999; Tesser, Martin, & Cornell, 1996). Therefore, standard self-report manipulation checks on self-worth following affirmation would be unlikely to show any differences. Furthermore, there is even some evidence to suggest that such manipulation checks can disrupt affirmation processes in these circumstances (Blanton et al., 1997; Reed & Aspinwall, 1998). Thus, we did not include explicit questions to assess participants’ perceived affirmation and inferred the presence of this affirmation from the pattern of their escalation decisions.

reinvest less funds in the previously chosen division than the no self-affirmation condition. In addition, we predicted that participants in the self-affirmation condition would invest similar amounts as participants in the no self-justification condition, who would presumably not feel any threat or need to escalate commitment in the first place.

To investigate our primary hypothesis, a one-way analysis of variance (ANOVA) on the funds participants reinvested in the originally-chosen division showed a significant main effect, $F(2, 55) = 4.02, p = .02, \eta^2 = .13$. As illustrated in Fig. 2 and consistent with Hypothesis 2, planned contrasts showed that, compared to individuals in the no affirmation condition ($M = 12.55, SD = 3.82$), those in the affirmation condition reinvested significantly less funds to the initially-chosen division ($M = 8.58, SD = 4.56; t(36) = 2.90, p < .01, d = 0.94$). Also, individuals in the affirmation and no self-justification conditions ($M = 10.2, SD = 4.62$) did not significantly differ in their reinvestments, $t(34) = 1.05, p = .30$. Finally, those in the no self-justification condition reinvested marginally less than those in the no affirmation condition, $t(36) = 1.70, p = .09, d = 0.56$.

To ensure that our effects were not driven by systematic differences in the specific values participants chose as most or least important, we conducted a number of different analyses examining these choices. An initial analysis on preference-ratings for the entire sample revealed that none of the six different values was ranked as most important more frequently than any of the others, $\chi^2(5, N = 38) = .72, p = .21$. An additional analysis on differences in participants’ preferred values between the affirmation and non-affirmation conditions also revealed no significant differences, $\chi^2(5, N = 38) = .74, p = .98$. Furthermore, separate analyses on participants’ value rankings within the affirmation, $\chi^2(5, N = 18) = 2.0, p = .85$, and no-affirmation, $\chi^2(5, N = 20) = 4.0$,

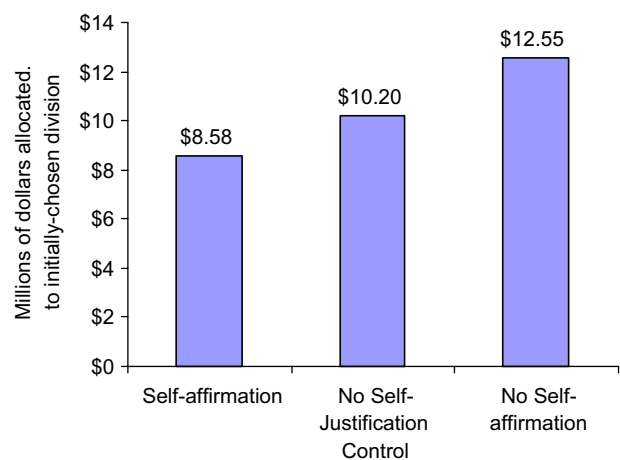


Fig. 2. Amount of money allocated in the 2nd choice towards the division initially-chosen in the A&S decision case.

$p = .55$, conditions also showed no significant preference for one value over the others. That is, there was no particular value that was most preferred in the affirmation condition or least preferred in the no affirmation condition, and thus no significant differences in what specific value-subscale participants completed following the negative feedback on their initial decision. Finally, we investigated whether our effects depended on the specific 10-item value-subscale participants completed as part of the affirmation manipulation. We conducted a 2 (affirmation vs. no affirmation) \times 6 (specific value subscale completed) ANOVA on participants' reinvestment in their initial failed choice. For this analysis, the value subscale that participants completed in the affirmation condition was the most preferred value and the value subscale that participant completed in the no-affirmation condition was the least preferred value. There was no interaction effect, $F(5,26) = 1.64$, $p = 0.19$, and the main effect of the affirmation manipulation remained significant, $F(1,26) = 7.97$, $p < .01$, $\eta^2 = .25$, demonstrating that the specific values that participants contemplated when filling out the subscale did not drive the effects reported above. Taken together, these analyses eliminate any potential confounds due to the specific types of values that participants considered as part of the affirmation manipulation. What mattered for reducing escalation was considering a centrally important personal value and not the content of that value.

The results of Study 2 provide additional evidence that opportunities to affirm feelings of self-worth following negative feedback can allow people to de-escalate their commitments. These results demonstrated that, consistent with findings from Study 1, people's opportunities to affirm their specific commitment to an important personal value can also decrease their escalation following a poor decision. Moreover, these effects emerged in comparison to a more stringent control group in which participants still had an opportunity to report their commitment to a normatively positive value, but one that was not personally important. Thus, it is not just any positive thoughts or feedback that can reduce escalation, but those that specifically help to boost individual feelings of self-worth. Finally, those who were given the opportunity to affirm these individual feelings of worth displayed no more escalation in their decisions than did participants who were not responsible for the original failed investment decision. These findings suggest that self-affirmation could indeed provide an important means of reducing escalation in circumstances where managers and employees cannot simply absolve themselves of responsibility for making a poor decision.

Together, the results of Studies 1 and 2 are consistent with a host of previous studies that have demonstrated a reduction in self-defensive judgments and decisions following self-affirmation (Koole et al., 1999; Steele &

Liu, 1983; Steele et al., 1993; Tesser & Cornell, 1991; see McQueen & Klein, 2006; Tesser, 2000). Similar to these other self-defensive decisions, increasing one's commitment to a failing course of action is a direct attempt to neutralize a self-threat, which in these circumstances arises from the negative outcome of one's initial decision (Bazerman et al., 1982; Staw, 1976; Staw & Fox, 1977; see Brockner, 1992). However, by bolstering current feelings of self-worth either through consideration of their high self-esteem (Study 1) or affirmation of their commitment to a cherished value (Study 2), people can also indirectly neutralize such self-threats, which can then preclude escalation. It thus appears that organizations interested in preventing escalation of commitment might attempt to affirm their managers' self-worth following a failed decision by allowing them to save face and by reinforcing their perceived competence and intelligence in the face of bad decisions (cf. Bazerman, 2002; Staw, 1997). However, as we explore in Study 3, additional nuances may exist in how the delivery of this affirmation can influence its effectiveness for reducing escalation.

Study 3: Escalation following high task-relevant vs. low task-relevant affirmation

As discussed previously, in addition to the many studies that have illustrated how opportunities for self-affirmation can reduce people's reactions to perceived self-threats, there is also research that has outlined circumstances in which such opportunities can instead increase reactions to self-threats (Arndt & Greenberg, 1999; Blanton et al., 1997). Self-affirmation typically provides an indirect route to relieving self-threat that can substitute for more direct methods (Steele, 1988; Tesser, 2000). In our first two studies, participants were able to affirm their global self-esteem (Study 1) or their commitment to a particular value that was personally important to them (Study 2) in ways that were not specifically relevant to the threat created by an initial investment decision. However, there are times when attempts at self-affirmation can instead draw extra attention to current self-threats. Attempts to affirm traits and abilities that are specifically relevant to the threat itself does *not* provide an indirect means for restoring self-worth and can instead create more self-threat and *encourage* self-justifying behavior (Arndt & Greenberg, 1999; Blanton et al., 1997).

These contrasting effects of threat-relevant and threat-irrelevant self-affirmation are illustrated in a study by Blanton et al. (1997). Participant's self-worth was first threatened by inducing them to make statements against funding for disabled students, which called into question their level of compassion. Everyone then received positive, self-affirming feedback, but for

some this affirmation was of low relevance to the threat, focusing on their general creative abilities, whereas for others the affirmation was of high relevance to the threat, focusing on their general compassionate tendencies. Results showed that low-relevance affirmations of creativity, which presumably provided an indirect route to restoring feelings of self-worth, reduced people's later attempts to justify their lack of compassion. In contrast, high-relevance affirmations of compassion, which presumably served only to highlight the self-threat caused by their previous lack of compassion, actually *increased* people's later attempts to justify this behavior.

Thus, to effectively relieve the self-threats that arise in the wake of a poor decision and reduce escalation of commitment, any subsequent self-affirmation may need to be of low relevance to the traits and abilities that are called into question by one's initial decision. Stated formally, we therefore hypothesize:

H3A: Individuals who affirm a low task-relevant trait will reinvest fewer resources towards a failing course of action than will individuals who affirm a high task-relevant trait and individuals who do not self-affirm.

H3B: Individuals who affirm a high task-relevant trait will reinvest *more* resources towards a failing course of action than will individuals who do not self-affirm.

To test these hypotheses, participants in Study 3 were placed in the role of a manager making a hiring decision. After learning that their chosen candidate performed poorly, some participants received affirming feedback about their abilities to make complex decisions (which pilot tests determined was directly relevant to their failed hiring choice) whereas other participants received affirming feedback about their creativity and innovation (which pilot tests determined was less relevant to their initial hiring choice). Finally, everyone was asked to reevaluate the candidate they had chosen and to decide how much additional time and resources they would commit to this employee. Escalation of commitment was measured by the amount of resources that participants chose to reinvest in the poorly performing employee.

Methods

Pilot test

To determine which traits were of high or low relevance to the decision participants were asked to make in this study, 23 students from the same population as the main study read all of the instructions for the decision-making scenario described below and rated a number of traits on how relevant each one would be for performing well in this scenario. The trait receiving the

highest rating was “decision-making competence” ($M = 6.27$, $SD = 1.03$) and the trait receiving the lowest rating was “creativity” ($M = 5.54$, $SD = 1.47$; $t(21) = 2.01$, $p = .057$). These two traits were therefore chosen for use in the *high task-relevance affirmation* and *low task-relevance affirmation* conditions described below.

Participants

Participants were 84 (57% female; mean age 19.45 years) undergraduates from a large Midwestern university who were paid \$10 for volunteering.

Procedure

Upon arrival, participants were directed to follow instructions presented on a computer screen. They were first asked to help the researcher develop future decision-making exercises by completing a short visual search exercise and a questionnaire prior to the “main experiment”. In actuality, these tasks were used to provide false feedback to manipulate high task-relevant and low task-relevant self-affirmation.

High task-relevance and low task-relevance affirmation manipulation. Two separate tasks were used to manipulate self-affirmation. The first task was a dot estimation task (Gerard & Hoyt, 1974), in which participants guessed how many dots were in seven different 3-s presentations. Participants were told that this task is commonly used to assess people's ability to assimilate and use visual information. In addition, those in the low task-relevance affirmation condition were told “this task is commonly used to examine how psychological characteristics of visual judgment are associated with one's creative thinking ability”, whereas those in the high task-relevance affirmation condition were told “this task is commonly used to examine how psychological characteristics of visual judgment are associated with one's decision-making ability”.

The second task was a short fictitious questionnaire assembled from 20 randomly chosen questions from a variety of problem solving/decision-making scales (e.g., “I tend to continue to evaluate recently made decisions”, “I always see so many possible solutions to problems I face”, and “When faced with a problem I usually see the one best solution very quickly”). For participants in the low task-relevance affirmation condition, it was labeled the “Allport Creative Thinking Inventory”; for participants in the high task-relevance affirmation condition, the scale was labeled the “Allport Decision-Making Inventory”. After finishing these tasks, participants proceeded to the “main experiment” while their responses were scored.

Escalation task. The main experiment consisted of a modified version of a performance appraisal scenario (Bazerman et al., 1982; Schoorman, 1988), which required participants to play the role of a senior

manager of a large investment banking firm responsible for making hiring decisions. Participants were told there was a recent opening for a senior trader in the foreign exchange division of the firm. After several rounds of elimination, two candidates remained. Participants were given the profiles of both candidates and asked to choose the individual who would bring the greatest financial benefit to the company.

Following their choice, participants were told that a computer algorithm would simulate the chosen candidate's earnings for the next 5 years based on historical trading data. Regardless of participants' choice, the data indicated that their candidate had performed poorly. This data served to provide negative feedback regarding the individual's initial decision. Everyone was told to study the data carefully to help them make their decisions in the next stage of the exercise.

Affirmation feedback. Before this next stage, however, participants received their scores from the visual search exercise and the questionnaire. Everyone was told that their combined scores put them in the top 10% of their university population. Individuals in the low-relevance affirmation condition learned that "Your creative orientation suggests that you possess the ability to find creative ideas from simple but complex data. More often than not, you see the creative possibilities in simple ideas and numbers." Individuals in the high-relevance affirmation condition learned that "Your decision-making orientation suggests that you possess the ability to decode and analyze complex data with ease. More often than not, you are able to use the analyzed data to make a sound and profitable decision." Everyone therefore received positive feedback that affirmed their abilities, and that differed only in how relevant it was to the poor decision they had just made.

Escalation measure. Finally, participants revisited their initial hiring decision. They were told that upper management had requested a 5-year performance review of the chosen candidate. As part of the performance review, participants were asked to assess (a) the candidate's promotability, (b) the amount of time participants would commit to training the candidate, and (c) how closely they would work with the candidate over the next year.⁴ A mean standardized commitment score was computed from the three measures ($\alpha = .62$) to create an escalation measure of continued commitment to their chosen candidate. As in previous studies (Bazerman et al., 1982; Schoorman, 1988; Wong, Yik, & Kwong, 2006), escalation was measured as further investments of money, time, and effort (i.e., participants'

standardized scores on each of these three measures) toward the initially-chosen candidate.

No-affirmation control condition. Some participants were randomly assigned to an additional control condition in which participants skipped both the dot-estimation task and the fictitious questionnaire and only completed the escalation task. These participants were given the same instructions and negative feedback about their initial choice as participants in the other two conditions, but did not receive any affirming feedback. In line with previous research using this paradigm, and consistent with the findings of Studies 1 and 2, participants in this no-affirmation condition were expected to still feel the need to justify their initial decisions and directly escalate their commitment to their initial choice.

Results and discussion

We hypothesized that participants who received affirmation of an ability not directly related to their failing decision (creativity) would, as before, reduce further commitments to their initially chosen candidate. In contrast, we hypothesized that participants who received affirmation of an ability directly related to their failing decision (decision-making ability) would instead experience increased feelings of self-threat following the negative feedback and thus increase further commitments to this candidate. Therefore, those in the low task-relevance affirmation condition should show less commitment to the candidate they initially chose than both those in the high task-relevance affirmation condition and those in the no-affirmation control condition (Hypothesis 3A). Furthermore, those in the high task-relevance affirmation condition should show even greater commitment to their initial decision than those in the no-affirmation control condition (Hypothesis 3B).

A one-way analysis of variance (ANOVA) on participants' commitment to their chosen job candidate showed a significant main effect, $F(2, 81) = 9.67$, $p < .01$, $\eta^2 = 0.20$. As displayed in Fig. 3, planned contrasts showed that, consistent with Hypothesis 3A, individuals in the low task-relevant affirmation condition ($M = -0.41$, $SD = 0.69$) reported less commitment to the job candidate than both those in the no-affirmation control condition ($M = -0.03$, $SD = 0.70$; $t(53) = 2.09$, $p = .05$, $d = 0.56$) and those in the high task-relevant affirmation condition ($M = 0.41$, $SD = 0.66$; $t(54) = 4.56$, $p < .01$, $d = 1.22$). Also, as is consistent with Hypothesis 3B (and with Blanton et al., 1997), individuals in the high task-relevant affirmation condition showed even more commitment than individuals in the control condition ($t(55) = 2.46$, $p = .02$, $d = 0.65$).

The results of Study 3 thus illustrate an important qualification to the effects of self-affirmation on escalation of commitment. Consistent with the findings of Studies 1 and 2, individuals who received affirming feed-

⁴ A fourth measure, candidate's annual pay, was also collected. However, inclusion of this item substantially lowered the reliability the escalation measure ($\alpha = .46$); therefore it was dropped from further analyses. Analysis of a standardized commitment score that included this additional item revealed the exact same pattern of results.

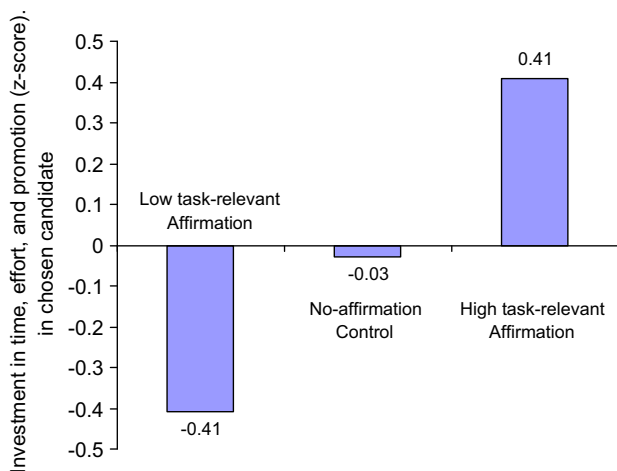


Fig. 3. Willingness to commit resources towards hired employee. A standardized commitment score is comprised of investment in time, effort, and promotion.

back on abilities that were not directly relevant to their poor decision showed less commitment to this initial decision than participants who had not received any affirming feedback. In contrast, individuals who received affirming feedback on abilities that were directly relevant to their poor decision, increasing the very self-threat triggered by their decision, showed more commitment to this decision than participants who had not received any affirming feedback. This latter finding parallels previous research by Blanton et al. (1997), which also demonstrated that such threat-relevant affirmations can increase, rather than eliminate, self-justification concerns. Therefore, if not carefully designed, the effects of implementing practices that allow individuals to save face as competent decision makers (see Bazerman, 2002; Staw, 1997) may have effects that are the opposite of those intended—instead of counteracting the threat of failed decisions and reducing escalation of commitment, such practices could instead enhance the threat and increase escalation of commitment.

General discussion

The current research has examined the role of self-affirmation in people's decisions to escalate their commitments to a failing course of action. In three studies, which employed three different manipulations of self-affirmation and two different measures of escalation, we found that, at times, affirmation of one's positive or personally important qualities can alleviate the threats of having made a poor decision, and thus reduce escalation of commitment to that decision, but that, at other times, such self-affirmation can enhance the threats of having made a poor decision and increase escalation.

Across the three studies, opportunities for self-affirmation reduced escalation when they mobilized feelings of self-worth and provided people with an additional, indirect route to cope with the threats brought on by having chosen a failing course of action. After receiving negative feedback concerning a poor managerial decision, individuals who (a) were allowed to bring to mind their high global self-esteem (Study 1, Hypothesis 1), (b) were allowed to reflect on an important personal value (Study 2, Hypothesis 2), or (c) received feedback affirming an important ability not directly related to the decision they had made (creativity in Study 3, Hypothesis 3A), all showed decreased escalation of commitment. In contrast, opportunities for self-affirmation increased escalation when they highlighted the very abilities that had been called into question by choosing the failing course of action. Following a poor managerial decision, individuals who received feedback affirming an important ability that was directly related to this decision (decision-making abilities in Study 3, Hypothesis 3B) showed increased escalation of commitment to their decision.

Mechanisms of escalating or de-escalating commitment

Throughout this article, we have discussed the effects of our manipulations of self-affirmation in terms of their effects on people's feelings of self-worth and the extent to which such feelings alleviate the threats posed by receiving negative feedback on a decision one has made. Although we did not directly measure levels of self-threat in the present studies, we used paradigms from previous research that have shown how receiving negative feedback about a decision for which one is personally responsible is experienced as threatening and increases behaviors aimed at justifying one's actions to relieve this threat (e.g., Bazerman et al., 1982; Staw, 1976; Staw & Fox, 1977; see Brockner, 1992). Because our methods were identical to this previous research, we can be fairly confident that our participants experienced similar levels of threat following their failed decisions.

Similarly, many previous studies have shown that reflecting on a personally important value or receiving feedback about an important trait or ability can temporarily increase people's feelings of self-worth (Dunning et al., 1995; Liu & Steele, 1986; McQueen & Klein, 2006; Sherman & Cohen, 2002; Steele & Liu, 1983; Tesser, 2000). In the present studies, we again used methods that were identical to this previous research and therefore can be fairly confident that our participants experienced increases in self-worth following these opportunities for self-affirmation. This confidence is partially validated by the results of Study 1 in which we directly measured people's global feelings of self-worth and demonstrated the influence of these feelings

on escalation of commitment. However, even though the well-established affirmation manipulations we used in Studies 2 and 3 closely replicate the effects of Study 1, because we did not directly assess feelings of self-worth in these two studies, our findings can only be taken as strongly suggestive of this proposed mechanism. Similarly, as future studies fine-tune the processes of self-affirmation as a tool for de-escalation, particular attention should be focused on disentangling whether it is high self-esteem itself or the explicit contemplation of one's high self-esteem that is necessary for de-escalation. Although Steele et al. (1993) suggest that the self-concept must be activated to get differential effects of self-esteem in affirmational processes, escalation situations themselves may lead to self-relevant (and self-esteem relevant) thoughts.

Implications of self-affirmation for de-escalating commitment

Regardless of the above caveats concerning self-affirmation mechanisms, the results we presented suggest several practical implications for handling escalation of commitment in organizational settings. In contemporary organizational life, people often face negative feedback and self threats in the form of substandard investment outcomes, frustrated entrepreneurial goals, and failed promotions, to name a few. Furthermore, in many cases, people are personally responsible for these failed decisions and are therefore at risk of trying to restore their self-integrity by escalating their commitments and producing even worse outcomes. The current research provides a framework for how organizations might systematically exploit self-affirmation processes as a means to restore their employees' self-integrity and to prevent escalation of commitment. For instance, organizations should be attuned to the potential benefits and costs of different post-failure face-saving strategies (Brockner, Rubin, & Lang, 1981). More specifically, our results suggest that the intuitively appealing approach of directly reassuring people of their skills as a decision maker (Bazerman, 2002; Heng et al., 2003; Simonson & Staw, 1992) could actually have the paradoxical effect of fueling escalation of commitment. Instead, organizational decision support systems (Sprague & Carlson, 1982) should encourage employees to engage in activities that affirm their values and talents in domains not directly related to the most recent failure. For instance, the emerging organizational trend of rotating an employee's task, even within the same day, could be one potential structural solution. Giving individuals the opportunity to engage in an unrelated task after negative feedback on one goal not only denies them any opportunity to escalate their commitments, it also simultaneously provides a potential indirect means of self-affirmation

through successful completion of a different type of goal.

The current research may also have important implications for situations involving interpersonal and intergroup conflict. Whether it is the escalation of conflict among colleagues at work (Matthiesen, Aasen, Holst, Wie, & Einarsen, 2003), protracted legal disputes, devastatingly prolonged strikes between unions and management, or continued military involvement in foreign countries, spirals of ever increasing conflict often have many characteristics of the typical escalation scenario (Teger, 1970). These conflicts often produce losses and sacrifices from individuals and collective groups involved, including the loss of life. These initial losses then motivate individuals to struggle and fight on to rationalize the very sacrifices that they have already endured. Not surprisingly, escalation of conflict, similar to escalation of commitment is often fueled by justification motives. Extending our results to the group level suggests that providing avenues for groups to self-affirm on important shared beliefs (Bar-Tal, 2000) may hold the promise of assuaging explosive conflicts and resolving bitter disputes. Thus, future research might investigate the efficacy of affirmation in de-escalating group level escalatory behaviors.

Given the results of Study 3, future research should explore additional moderators of the effect of self-affirmation on decreasing escalation, paying particular attention to when self-affirmation may be most effective. For instance, one important factor could be the timing of the affirmation in relation to the negative feedback one receives concerning a poor decision. In the present studies, affirmation always took place following the threat and presumably allowed boosts in feelings of self-worth to alleviate the disappointment of the feedback (cf. Koole et al., 1999; Liu & Steele, 1986; Steele & Liu, 1983; Tesser & Cornell, 1991; see Tesser, 2000). However, if people receive affirming feedback immediately before they make a decision, higher feelings of self-worth might lead to increased expectations for one's upcoming performance (Brockner and Chen, 1996; Crocker, Thompson, McGraw, & Ingerman, 1987). In these circumstances, any subsequent negative feedback about the outcome of this decision could be more threatening than it would be otherwise and thus increase the potential for escalation of commitment. Similarly, various psychological processes—a tolerance for risk, need for project information, and need to self-justify—are differentially important at the various stages of the escalation process (e.g., He & Mittal, 2007; Humphrey, Moon, Conlon, & Hofmann, 2004). As such, future research on self-affirmation as a strategy for de-escalation should explore its efficacy at various stages of the escalation process.

Conclusion

In sum, the current research suggests that self-affirmations can be a practical psychological vehicle to help prevent escalation of commitment to failing courses of action. In addition, our results provide a cautionary note for how to establish “face-saving” interventions aimed at helping employees de-escalate their commitments and suggest several strategies by which such interventions may be optimized. If properly implemented, self-affirmation mechanisms could provide an important avenue in mitigating the grave costs to individuals and organizations that result from throwing good time and money after bad.

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