Journal of Applied Psychology
1991, Vol. 76, No. 3, 408-415

0021-9010/91/$3.00

Diffusion of Responsibility: Effects on the Escalation Tendency

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In a laboratory study, the possibility was investigated that group decision making in the initial stages of an investment project might reduce the escalation tendency by diffusing responsibility for initiating a failing project. Support for this notion was found. Escalation effects occurred less frequently and were less severe among individuals described as participants in a group decision to initiate a failing course of action than among individuals described as personally responsible for the initial decision. Self-justification theory was found to be less relevant after group than after individual decisions. Because most decisions about important new policies in organizations are made by groups, these results indicate a gap in theorizing about the determinants of escalating commitment for an important category of escalation situations.

Administrators are often reluctant to make major changes in policy, even when confronted with failure. This behavior is consistent with studies showing that, when decisions fail, people may cognitively distort the negative consequences to make them appear more favorable instead of changing their behavior (Staw, 1974; Weick, 1964). This cognitive distortion can occur when people attempt to rationalize their actions or psychologically defend themselves against an apparent error in judgment.

The escalating-commitment literature further suggests that when administrators can move beyond the mental distortion of reality to rationalize past mistakes, they will do so. This rationalization may be accomplished through the increasing commitment of resources and the risking of additional errors. By attempting to justify previous behavior and establish the rationality of a course of action, administrators can become trapped or committed to a failing course of action (Staw, 1981).

Although an administrator's efforts to justify prior expenditures can lead to escalating commitment, a decision to stay the course may also be affected by the extent to which responsibility for initiating the failing course of action can be shared. This study was designed to examine whether a decision maker's ability to attribute responsibility to others for making the initial failed decision can affect the tendency toward persistence in error.

There are at least two ways that an individual might evade personal responsibility for a failed decision, even after having participated in making that decision. One way is through the improper actions of a third party at whose feet responsibility for the failure may be placed. In this case, a significant decrease in felt personal responsibility for the failure and a corresponding decrease in the desire to support a failing project are likely (Leatherwood & Conlon, 1987; Staw & Ross, 1978). Another way to evade personal responsibility for the initial failed decision becomes possible when a group makes the initial decision to pursue the failing project. A group decision may allow blame for the poor decision to be shared, so that group members each feel less personal responsibility for the decision than if they had made the decision alone. Social interaction may diminish the tendency to escalate commitment to a losing course of action by diffusing responsibility for the initial decision and inhibiting the arousal of motives to justify previous behavior.

Diffusion of responsibility is a neglected issue in the escalation literature, although it is of considerable theoretical and practical importance (Brockner & Rubin, 1985). The most commonly offered explanation for escalation, for which there is considerable empirical support, is based on the notion of self-justification (Bazerman, Giuliano, & Appelman, 1984; Staw & Ross, 1987). As suggested by Sandelands, Brockner, and Glynn (1988, p. 208), "it has become fashionable to explain such escalating commitment through mechanisms of self-justification." Yet only rarely are initial decisions about important new policies made by individuals acting alone. Most crucial decisions are made by groups in an organizational context (Bazerman et al., 1984; Donaldson & Lorsch, 1983; Janis, 1982). Hence, the most commonly offered explanation for persistence in error may be inapplicable, or at least of diminished relevance, to a broad category of escalation situations.

Individual and Group Escalation

At the individual level, the most persuasive analysis of escalating commitment is found in the work of Barry Staw and his colleagues (Ross & Staw, 1986; Staw, 1976, 1981; Staw & Fox, 1977; Staw & Ross, 1978, 1987). Staw and Ross (1978) initially distinguished between prospective and retrospective rationality in an attempt to understand the process of commitment. Retrospective rationality implies a desire to recoup past losses as well as to seek future gains. Under retrospective rationality, sunk

I thank Christine Oliver and Lee Brown for their help in conducting this study, Mirka Ondrack for her assistance with the data analysis, and Hugh Arnold, Martin Evans, and the anonymous reviewers for their constructive comments on an earlier draft of this article.

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costs or losses incurred in the past but not expected to recur in the future are considered relevant to decision making. Such reasoning, although common, violates a fundamental tenet of standard economic rationality and can lead to normatively inappropriate choices (Thaler, 1986). Sunk costs refer to irrevocable investment in a course of action. According to classical economic and normative decision theory, sunk costs are irrelevant to decisions about future courses of action because they cannot be changed by future action. Therefore, only future costs and benefits should be considered, as would be the case under prospective rationality.

In brief, personal responsibility for negative consequences leads to retrospective rationality (Staw, 1980) because people have a strong need to be correct or accurate in decision making. As a result, they are likely to feel compelled to justify their actions to prove to themselves and others that they are indeed competent and rational (Staw, 1980). This need to demonstrate the rationality of previous decisions activates escalating commitment as a means to make earlier failing decisions pay off.

The impact of personal responsibility on persistence in error has been replicated several times (e.g., Bazerman, Beekun, & Schoorman, 1982; Caldwell & O'Reilly, 1982; Staw, 1976; Staw & Fox, 1977). It can be argued, however, that self-justificatory motives are of diminished importance if the initial decision to undertake the failing policy was made by a group. A group decision is one in which members share responsibility for any negative consequences and in which causality for disaster is not imputed to any particular individual. Studies of group behavior (e.g., Darley & Latane, 1968; Mynatt & Sherman, 1975; Zimbardo, 1970) demonstrate consistently that group members experience less personal responsibility for actions of the group than they experience for their own individual behavior. Group decision making, then, should result in the diffusion of responsibility among members for any previous failed outcomes for which the group was responsible. Because each group member knows that responsibility for the previous failed decision is shared among several people, he or she should each experience fewer feelings of personal responsibility than if he or she had made the decision alone. Hence, there is less reason to believe that self-justificatory motives should be aroused. Although the theoretical device considered "perhaps most relevant to escalation has been self-justification" (Staw & Ross, 1987, p. 50), this mechanism may be of diminished relevance in the group contexts in which most important decisions occur.

There is support for the view that the ability of a decision maker to blame another for the failure of a previously chosen project can affect the tendency toward persistence (Leatherwood & Conlon, 1987). Although Bazerman et al. (1984) have shown that on average, groups escalate commitment to an extent similar to the escalation of commitment by individuals, the impact of an initial group decision on individual feelings of personal responsibility for the failure and on subsequent individual decisions in an escalation situation has yet to be examined. That was the purpose of the present investigation.

Hypotheses

The central hypothesis was that administrators who could share the blame for having undertaken a failing policy would become entrapped less frequently in a cycle of escalating commitment than would administrators who bore personal responsibility for the failing policy. Secondary hypotheses were related to the severity rather than the frequency of the escalation phenomenon. Individuals who shared responsibility for a decision to commence a losing course of action were predicted to invest fewer resources and take fewer risks to turn a losing course of action around than were personally responsible individuals.

Method

Sample

A total of 173 subjects, 67 women and 106 men, participated in the study. The sample consisted of graduate students of business administration enrolled in a course on organizational behavior at one of two Canadian universities. The average age of subjects was 26.0 (SD = 4.3) years, and subjects possessed an average of 3.1 (SD = 3.8) years of full-time work experience.

Study Design

A 3 × 3 (Responsibility × Scenario) mixed factorial design was used to determine the effect of different types of responsibility on behavior in escalation situations.

The responsibility manipulations were embedded within descriptions of three investment-decision scenarios to facilitate the generalizability of the conclusions regarding diffusion of responsibility in escalation situations. Three scenarios were used to provide multiple operationalizations of the major independent variable under study, degree of responsibility. Multiple operationalizations also help avoid "mono-operation bias" (Cook & Campbell, 1979), a common threat to construct validity in experimental research.

All three scenarios described escalation situations, defined as "predicaments where costs are suffered in a course of action and subsequent activities have the potential either to reverse or compound one's initial losses" (Staw & Ross, 1987, p. 39). Subjects were asked to imagine themselves in the situation described in the scenarios and were given authority under conditions of slack financial resources to withdraw from or escalate commitment to the initially chosen course of action. Subsequent investment could potentially turn the failing project around but it was highly likely to be in vain and possessed an expected value of $0.

All study participants were exposed to one of the three responsibility conditions; hence, responsibility was a three-level, between-subjects factor. All study participants were exposed to all scenarios, making the scenario variable a three-level, within-subjects factor. One hazard associated with this type of design is the possibility that the order in which participants encounter different scenarios could contaminate the results. Therefore, the study was designed so that each scenario appeared in each of the three order positions. Consequently, scenario was balanced with order of presentation through the use of a Latin square design, making order a three-level, between-subjects factor. This design allows for the control and estimation of scenario content and order effects and their related interactions.

Stimulus Materials

Each scenario was approximately 350 words in length and provided a realistic context within which to situate the escalation dilemma. The scenarios described the choices facing (a) a manager who must decide whether to purchase one of the firm's suppliers to manufacture a product of dubious merit in which the firm has heavily invested; (b) a director of new product development who must decide whether to invest

funds in a last-ditch effort to develop a new product ahead of the competition; and (c) a bank vice-president who must decide whether to make a high risk loan to protect an earlier investment. The scenarios also contained financial information about the choice to be made, including amount of (economically irrelevant) sunk costs incurred to date on the project, amount of potential additional investment available, probability of total loss of the additional investment, probability of receiving a return on the additional investment, and the potential net return on additional investment. A summary of this information is presented in Table 1.

The ability of the investment projects described in the scenarios to induce risk-averse choices in the absence of sunk costs was confirmed before the present study was conducted. Graduate and senior undergraduate business students ($N = 132$) were recruited to respond to decision scenarios with estimates of future costs and benefits identical to those used in the present study but without any descriptions of sunk costs. The proportion of subjects electing investment in the scenarios was .21. In contrast, a substantial majority of subjects in the present study chose to invest additional resources. In general, as will be discussed, responses to the stimulus materials in this study indicated a consistent and substantial preference for escalation rather than project abandonment.

Locus of responsibility for initiating the failing course of action was manipulated by providing information regarding participants' degree of involvement in the decision to undertake the failing project. In the individual-responsibility condition, subjects were described as personally responsible for making the initial decision to invest in the failing project. In the group-responsibility condition, subjects were described as having participated with others in a group decision to pursue the failing project. In the control condition, the decision to commence the failing course of action was described as that of someone other than the individual charged with responsibility for deciding the fate of the entire course of action. Responsibility manipulations are described in the Appendix.

The term *booklet* was used to denote each of the nine unique sets of stimulus materials used in this study. All booklets contained Scenarios 1–3 and one of the three responsibility conditions, but each booklet paired each responsibility manipulation with a different order of presentation of the scenarios. Each participant received one booklet containing three hypothetical decision scenarios.

Measures

Three dependent variables were studied: (a) subjects' decision to escalate or abandon commitment to a losing course of action, (b) the amount of funds subjects were willing to invest in a failing project, and (c) the greatest chance of losing the additional investment that subjects were willing to take. Participants provided data for decision, amount invested, and chance taken for each scenario.

The primary dependent variable was the choice of whether to make the investment described. The choices were *yes, no,* and *can't decide.* This variable provided a direct measure of the frequency with which the escalation option was preferred over the project-abandonment option.

Secondary dependent variables pertained to subjects' strength or degree of commitment to the initially chosen course of action. After making the initial decision, subjects selected from several options the maximum amount of money they would invest under the conditions described. Subjects also selected from several options the highest possibility (expressed in percentages) that additional investment would be wasted that would still induce them to invest additional funds. These measures indicate degree of escalation.

The effects of the responsibility manipulations on frequency and degree of escalation were examined statistically. First, the overall effects of the responsibility manipulations were tested, and then planned comparisons between the specific means of interest as determined by the hypotheses were conducted to test whether the hypotheses were supported.

Procedure

The study was conducted during class time in five different classes at two major Canadian universities. A brief standardized introduction to the study was given. Subjects were told that the study was about decision making under risk, that they would be asked to respond to a set of decision problems, and that they should assume the choices described in the problems were real. Versions of the nine booklets were randomly distributed to participants, subject to the constraint that each booklet condition contain approximately the same number of subjects. Results of the study were used as the basis for later class discussion.

Results

Manipulation Checks

Subjects completed a short questionnaire containing several filler and manipulation-check items immediately after responding to the scenarios. Several questions were designed to examine the assignment of responsibility for the initial decision to undertake the failing course of action. Evidence from the forced-compliance literature suggests that previous choice (Collins & Hoyt, 1972) and foreseeability of outcomes (Goethals, Cooper, & Naficy, 1979) are components of perceived personal responsibility.

To address the foreseeability of outcomes issue, subjects were asked: "Could you foresee at the time the initial decision was made to undertake the course of action described in each scenario that the initial decision might result in failure?" Ninety

Table 1
Summary of Financial Information

Scenario	Sunk costs ($)	Amount of potential additional investment ($)	Probability of total loss of additional investment	Probability of receiving a return on additional investment	Potential net return on additional investment ($)
1	8,000,000	2,000,000	.80	.20	8,000,000
2	3,500,000	500,000	.90	.10	4,500,000
3	400,000,000	100,000,000	.80	.20	400,000,000

percent of subjects in the experimental conditions responded *yes* to this question. Differences between experimental conditions in the proportion of subjects responding *yes* to this question were not statistically significant. Subjects acknowledged the foreseeability of the failure of the initial decisions described in the scenarios.

Three questions were used to assess the success of the assignment of differing degrees of responsibility for the previous choice to initiate the failing course of action. Subjects were asked: "Who made the initial decision to invest in the course of action described in each scenario?" Potential responses were (a) "Somebody else made it"; (b) "It is unclear who made it"; (c) "A group of which I was a member made it"; (d) "I don't remember who made it"; and (e) "I made it." The proportion of subjects responding with "somebody else made it" in the no-responsibility control condition was .91. The proportion responding with "a group of which I was a member made it" in the group-responsibility condition was .95. The proportion responding with "I made it" in the individual-responsibility condition was also .95.

Subjects were also asked: "How responsible do you feel for the initial decision to invest in the course of action described in each scenario?" Subject responses could range from *not at all responsible* (0) to *entirely responsible* (100). The mean level of felt responsibility was 23.4 (SD = 29.6), 65.5 (SD = 22.3), and 87.9 (SD = 15.6) in the control, group-responsibility, and individual-responsibility conditions, respectively. An analysis of variance (ANOVA) was conducted for a mixed-model design with one three-level, between-subjects factor (degree of responsibility) and one three-level, within-subjects factor (booklet, with combined scenario and order effects). Level of felt responsibility was the dependent variable. The analysis indicated a significant effect of the responsibility manipulation on level of felt responsibility for initiating the failing decision, $F(2, 170) = 115.7$, $p < .0001$.

The final question used to assess degree of felt responsibility was: "How dissatisfied with yourself did you feel as a result of the situations you found yourself in that were described by the scenarios?" Subject responses could range from *not at all dissatisfied* (0) to *extremely dissatisfied* (100). Mean levels of dissatisfaction experienced in the control, group-responsibility, and individual-responsibility conditions were 38.4 (SD = 29.6), 49.3 (SD = 30.0), and 54.0 (SD = 34.0), respectively. An ANOVA was conducted with level of dissatisfaction as the dependent variable. The results indicated a significant effect of the responsibility manipulation on level of dissatisfaction experienced, $F(2, 170) = 3.74$, $p < .03$. All three manipulation-check questions indicated that the assignment of differing levels of responsibility was successful.

Dependent Measures

A univariate ANOVA was conducted for a mixed-model design with one three-level, between-subjects factor (degree of responsibility) and one three-level, within-subjects factor (booklet, with combined scenario and order effects) to test for overall effects. The results of the univariate analyses for each dependent variable were used to investigate whether degree of responsibility had a significant effect on the tendency to escalate commitment to a losing course of action.

Decision to escalate commitment. The proportions of subjects responding *yes* (escalate commitment), *no* (abandon the project), and *can't decide* to the various decision scenarios are summarized in Table 2. An arcsine transformation was performed on the proportion of *yes* responses prior to analysis to stabilize variances, which tend not to be homogeneous in the case of proportions (Winer, 1971). The results of the analysis indicate that degree of responsibility had a significant effect on the frequency with which escalating commitment to a losing course of action occurred, $F(2, 170) = 6.6$, $p < .002$.

Amount invested. Subjects were also asked to state for each scenario the maximum amount of money they would be willing to invest in the circumstances described. These amounts are summarized for all scenarios and conditions in Table 3. So that amounts invested could be compared across scenarios, the amounts for each scenario were standardized as a percentage of the additional investment available to be made in that scenario. Standardized amounts are also summarized in Table 3. Analysis indicated that degree of responsibility had a significant effect on the amount of additional investment devoted to the failing policy, $F(2, 170) = 5.3$, $p < .006$.

Chance taken of losing additional investment. Subjects were asked to state the maximum risk that they would be willing to accept for the investment of additional funds in the project. The mean risk percentages for all scenarios and conditions are summarized in Table 4. The analysis of these data indicated that degree of responsibility also had a statistically significant effect on the amount of risk subjects were willing to accept, $F(2, 170) = 2.9$, $p < .06$.

Planned comparisons. Planned comparisons (Keppel, 1982) were conducted to determine more precisely how the responsibility manipulations affected participants' susceptibility to escalation. The results consistently supported the hypotheses. Escalating commitment to a losing course of action occurred less frequently when information suggested shared rather than personal responsibility for initiating the losing course of action, $F = 5.5$, $p < .02$. Escalating commitment to a losing course of action, however, occurred more frequently when information suggested shared responsibility than when it suggested no responsibility at all, $F = 4.2$, $p < .04$.

Subjects invested less money in the escalation dilemmas when responsibility was shared than when it was their personal responsibility, $F = 3.1$, $p < .08$, but invested more in the shared-responsibility condition than in the no-responsibility condition, $F = 7.8$, $p < .006$. The chance of failure subjects were willing to accept also was lower in the shared-responsibility condition than in the personal-responsibility condition, although the difference was not statistically significant, $F = 0.9$, $p < .34$. The chance of failure subjects were willing to take was greater in the shared-responsibility condition than in the no-responsibility condition, $F = 5.5$, $p < .02$.

Discussion

Subjects' responses on the main and secondary dependent variables revealed a clear and consistent pattern. Subjects in the individual-responsibility condition were more likely to escalate

Table 2
Proportions of Subjects Responding Yes (Escalate Commitment), No (Abandon the Project), and Can't Decide

	Responsibility								
	None (n = 58)			Group (n = 58)			Individual (n = 57)		
Scenario	Yes	No	Can't decide	Yes	No	Can't decide	Yes	No	Can't decide
1	.72	.22	.05	.79	.17	.03	.91	.09	0
2	.57	.41	.02	.62	.36	.02	.65	.33	.02
3	.48	.40	.12	.64	.31	.05	.81	.19	0
M	.59	.34	.06	.68	.28	.03	.79	.20	.01

commitment than were subjects in the group-responsibility condition, who in turn were more likely to escalate commitment than were subjects in the no-responsibility control condition. Personally responsible subjects were also willing to invest more resources and to take greater chances in an attempt to turn around a failing course of action than were subjects in the group-responsibility condition, who in turn were willing to invest more and to take greater chances than were subjects in the control condition.

Subjects' responses in the group-responsibility condition indicate that they were less motivated to establish the rationality of an initially chosen course of action than were subjects in the individual-responsibility condition. Consistent with other studies, subjects in the group-responsibility condition experienced fewer feelings of personal responsibility for the initial decision than did subjects in the individual-responsibility condition. The degree of personal responsibility experienced by subjects in the group-responsibility condition was still considerable, however, and was sufficient to increase the level of escalation over the level witnessed in the absence of responsibility.

Although very little research has been done on the escalation of commitment in group decision making, Bazerman et al. (1984) examined whether escalating commitment occurs when groups are highly responsible for initiating a failing venture. They found no difference in the average amount of resources committed to a failing course of action by individuals and groups.

The present findings appear inconsistent with a pattern in which the average degree of escalation for groups subsequent to an initial group decision is equal to that for individuals subsequent to an initial individual decision. Bazerman (1986), however, in describing Bazerman et al.'s (1984) study, stated that groups exhibited considerably more variance in the amount of additional resources committed than did individuals. A much higher percentage of individuals escalated commitment than did groups, but the groups that did escalate tended to do so to a greater degree than did individuals. These results are consistent with the present findings to the extent that group decision making in the initial stages of an investment project apparently reduced the frequency with which escalation occurred.

These parallel findings exist across studies despite the different methodologies employed. In Bazerman et al.'s (1984) study, individuals and groups made an initial decision in response to a hypothetical decision scenario and then made a subsequent related decision after having been told whether their initial decision had succeeded. Groups in Bazerman et al.'s study that had

Table 3
Mean Actual and Standardized Amounts ($) Invested in the Failing Projects

	Responsibility		
Scenario	None	Group	Individual
1			
Mean amount	1,824,000	2,214,000	2,426,000
Mean standardized amount	91.2	110.7	121.3
SD	48.3	53.9	49.0
2			
Mean amount	404,500	510,000	570,500
Mean standardized amount	80.9	102.0	114.1
SD	63.9	84.1	123.2
3			
Mean amount	72,900,000	92,200,000	104,200,000
Mean standardized amount	72.9	92.2	104.2
SD	58.9	65.3	53.0
M	81.7	101.6	113.2

Table 4
Mean Chance Taken (%) of Losing Additional Investment

	Responsibility					
	None		Group		Individual	
Scenario	*M*	*SD*	*M*	*SD*	*M*	*SD*
1	76.6	20.0	78.6	23.8	83.6	11.1
2	77.7	25.2	80.9	23.9	80.6	26.4
3	64.2	26.5	75.4	23.0	77.5	21.6
M	72.8		78.3		80.6	

made an initial decision that failed allocated significantly more funds to the initially chosen course of action than did groups that had no responsibility for the initial decision. These results are also consistent with the present findings, in which shared responsibility for the initial choice was sufficient to motivate individuals to try to justify the initial choice, although the motivation was not as strong as in the case of subjects who were personally responsible for the initial choice.

Moreover, evidence that additional resource allocations made by groups were on average comparable to those made by individuals is not necessarily inconsistent with the present findings, given the dynamics that may be found at the group level. For example, it was predicted that reliance on a group to initiate a failing course of action might reduce the tendency to escalate by attenuating motives for self-justification. Other processes, however, which should have occurred in Bazerman et al.'s study, imply that groups would be more inclined to escalate than individuals. For example, group discussion may amplify the point of view initially dominant within the group, a process referred to as *group polarization* (Myers & Lamm, 1976). Given an initial preference for escalation among group members, polarization implies that groups that decide to escalate will do so to a greater degree than would their average individual member. Such processes as polarization may explain why Bazerman et al. (1984) found that groups on average escalated as much as individuals even though, to be consistent with the self-justification perspective, individuals should escalate more frequently than groups.

The present findings indicate a possible gap in our conceptual understanding of the escalation phenomenon. Although the self-justification approach is far from the only explanation for the escalation of commitment, it remains the dominant psychological explanation (for a comprehensive review of the determinants of escalation, see Staw & Ross, 1987). According to this analysis, however, motives for self-justification are of diminished relevance in explaining escalation in the context of group responsibility for the initial failed choice. Escalating commitment at the individual level has received considerable attention over the years, yet it is arguable that the phenomenon is most significant subsequent to initial group decisions because of the widely consequential and pervasive nature of group decisions. The most notorious example of escalating commitment, the escalation of American military involvement in Vietnam, occurred after group decisions were made to undertake military action (Janis, 1982). Also, only rarely are important investment decisions made in firms by individuals acting alone (Donaldson & Lorsch, 1983). If that is the case, then alternative theoretical devices of broad applicability need to be specified to explain escalating commitment in a large and important category of escalation situations. Some additional variables of potential relevance to a theoretical account of escalation in the context of an initial group decision include group polarization (Myers & Lamm, 1976), pressures for uniformity (Janis, 1982), decision frame (Whyte, 1986), and decision rule (Davis, 1973).

The use of hypothetical choices in this study raises legitimate concerns about the generalizability of the results. The selection of this method was based on the assumption that people could accurately predict how they would behave in actual situations of choice. Reality, however, is more complex than can be described in a brief decision scenario, and people may not be aware of all of the forces that would influence their behavior in an escalation situation. For example, although subjects described as having participated in a group decision may have been able to imagine such an event, they did not experience the phenomena (e.g., modeling processes or social norms) that exist in group settings and that may influence behavior in escalation situations (for a list of social determinants of escalation, see Staw & Ross, 1987, pp. 55–59). As a result, there is a need for research, currently lacking, on the effect of diffusion of responsibility on the decision making of real groups across a variety of organizational settings.

Another limitation of the present study concerns the level of subjects' involvement with the experimental task, which did not approach the level of involvement that actual decision makers experience in an organizational setting. This suggests that the manipulations, and particularly the manipulation of individual responsibility, might have even more dramatic effects in a real-world organizational context. As a result, differences in the behavioral manifestations of motives for self-justification subsequent to individual versus group decision making are likely to be more pronounced than the present results indicate.

Intuitively, many decisions involve choices that seem too important to be left to a mere individual. According to this study, that intuition is well-founded in at least some respects. The present findings raise the possibility that group decision making may reduce the incidence and degree of escalating commitment to a losing course of action, provided groups are used to make the initial decision in a series of related sequential decisions. The mechanism for such reduction is the inhibition of the arousal of motives for self-justification; this inhibition can occur through the sharing of responsibility or blame for past failures.

The present findings, however, do not support the view that the ability to share the blame for failed decisions will necessarily prevent the pursuit of projects that are not economically viable. Group responsibility reduces, but does not eliminate, feelings of personal responsibility for an initial failed decision. Hence, self-justificatory motives may still be aroused, leading to a decision to escalate that otherwise may not have been made.

The results of this study also provide additional confirmation that the mere existence of sunk costs, regardless of who was responsible for incurring them, is sufficient to induce escalating commitment to a receding objective (Arkes & Blumer, 1985). Consequently, efforts to reduce the occurrence of this counterproductive but pervasive tendency should not simply focus on efforts to attenuate self-justificatory motives. Managers should be taught how to extricate sunk costs from decisions about future courses of action and should be rewarded for doing so.

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Appendix

Responsibility Manipulations

Scenario 1

Control—No Responsibility

Another manager in your firm decided to invest $8 million in the development of a new model car. The decision to invest in the development of this particular new model car was entirely that of this manager, although this manager was aware at the time she made her decision that the project might end in failure. . . . Recall that another manager made the risky initial decision to invest in the development of the new model car.

Group Responsibility

You were a member of a group consisting of several other managers that decided to invest $8 million in the development of a new model car. The decision to invest in the development of this particular new model car was entirely that of the group, although the group was aware at the time it made its decision that the project might end in failure. . . . Recall that you were a member of the group of several managers that made the risky initial decision to invest in the development of the new model car.

Individual Responsibility

You personally decided to invest $8 million in the development of a new model car. The decision to invest in the development of this particular new model car was entirely your own, although you were aware at the time you made your decision that the project might end in failure. . . . Recall that you personally made the risky initial decision to invest in the development of the new model car.

Scenario 2

Control—No Responsibility

Your predecessor made the decision to undertake the development of this particular vaccine. At the time your predecessor elected to undertake the project, he was aware that at least one competing firm had already launched an attempt to develop the new vaccine. As a result, your predecessor knew when he undertook the project that it might not succeed but he still decided to pursue it. . . . As you recall, your predecessor made the risky initial decision to develop the new vaccine.

Group Responsibility

You were one of several members of a group that made the decision to undertake the development of this particular vaccine. At the time the group elected to undertake the project, the group was aware that at least one competing firm had already launched an attempt to develop the new vaccine. As a result, the group knew when it undertook the project that it might not succeed but the group still decided to pursue it. . . . As you recall, you were a member of the group of several people that made the risky initial decision to develop the new vaccine.

Individual Responsibility

You personally made the decision to undertake the development of this particular vaccine. At the time you elected to undertake the project, you were aware that at least one competing firm had already launched an attempt to develop the new vaccine. As a result, you knew when you undertook the project that it might not succeed but you still decided to pursue it. . . . As you recall, you personally made the risky initial decision to develop the new vaccine.

Scenario 3

Control—No Responsibility

Another vice-president made the decision to authorize the purchase of these shares. This person decided that the bank should make such a purchase even though he knew that a substantial amount of risk was involved. . . . As you recall, another vice-president made the risky initial decision to purchase the shares of the company now requesting the loan.

Group Responsibility

You were one of several people of equal rank who participated in a group decision to authorize the purchase of these shares. The group decided that the bank should make such a purchase even though the group knew that a substantial amount of risk was involved. . . . As you recall, you were one of several members of the group that made the risky initial decision to purchase the shares of the company now requesting the loan.

Individual Responsibility

You personally made the decision to authorize the purchase of these shares. You decided that the bank should make such a purchase even though you knew that a substantial amount of risk was involved. . . . As you recall, you personally made the risky initial decision to purchase the shares of the company now requesting the loan.

Received May 17, 1990
Revision received November 9, 1990
Accepted November 12, 1990 ■