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When Success Breeds Failure: History, Hysteresis, and Delayed Exit Decisions

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The effects of feedback equivocality, information availability, and prior decision-making history on escalation and persistence were investigated. Replicating the findings of J.L. Bragger, D.H. Bragger, D.A. Hantula, and J.P. Kirnan (1998), this study found that participants receiving equivocal feedback on their decisions invested more money and invested across more opportunities; those who could purchase information invested fewer resources than did participants who did not have the opportunity to purchase information. There was an inverse linear relationship between the percentage of opportunities in which participants purchased information and the delay to exit decisions and total resources invested. Six weeks earlier, some participants took part in a more profitable investment scenario, and prior experience led to later increased investing when participants were faced with failure, even above that invested in a preceding, succeeding scenario. These results are consistent with an equivocality theory account of escalation.

For more than 20 years, researchers have been intrigued by a phenomenon labeled by social psychologists as the *sunk cost effect* ("the negative cash flows experienced in anticipation of future compensating positive cash flows"; Northcraft & Wolf, 1984, p. 226; see also Arkes & Blumer, 1985; Garland, 1990), by economists as *hysteresis* (the "failure of an effect to reverse itself after its underlying cause has reversed itself"; Dixit, 1992, p. 122; see also Cross, 1993; Davidson, 1993; Dixit, 1989a; Katzner, 1993), and by organizational psychologists as *escalation of commitment* ("the tendency for decision makers to persist with failing courses of action"; Brockner, 1992, p. 39; see also Staw, 1976; Staw & Ross, 1989). Although much of the research has been developed along separate lines and has been disparate even within disciplines, the basic conceptualization of the phenomenon is similar. Hysteresis and escalation of commitment are situations in which there is an initial investment of resources, some indication of nonprofit making, and continued investment in the face of negative feedback.

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The study of escalation of commitment and hysteresis is important to social and organizational psychology because of its relevance in organizations and to economics because it represents apparent anomalies. The 1986 World Expo held in Vancouver, British Columbia, Canada (Ross & Staw, 1986), the New Coke debacle (Whyte, 1991), the Taurus IT project in the United Kingdom (Drummond, 1997, 1998), and the Vietnam War (Staw, 1976) are just a few prominent examples of escalation situations identified in the literature. Other illustrations of escalation include continued support of nonproductive employees (Bazerman, Beekun, & Schoorman, 1982; Drummond, 1994a; Staw & Huang, 1995), problem bank loans (Staw, Barsade, & Koput, 1997), and persistent use of unsuccessful strategies (Tang, 1988).

A reason for escalation's enduring hold on researchers may be due to its apparent violation of rationality assumptions, with escalation viewed as erroneous decisions that are irrational according to economic principles (Garland, Sandefur, & Rogers, 1990; Staw, 1976; Staw & Ross, 1989). Traditional investment theory holds that financial investment should occur when the value of a resource (investment) exceeds the long-run average cost of staying in the economic market and that investment should cease when its value falls below average variable cost (Dixit, 1989a, 1992; Dixit & Pindyck, 1994; Marshall, 1898/1949). In the past, if investment did not obey these "laws of rationality" then, according to traditional economic theory, such decisions were irrational (Ingersoll & Ross, 1992). According to expected utility theory, individuals and firms show preference for conditions of profit over those of nonprofit and should consistently display this preference by exiting a

situation as soon as feedback indicates that the situation is nonprofitable (Camerer, 1995).

In contrast, Bowen's (1987) equivocality theory of escalation proposes that in escalation situations, decision makers are not necessarily making erroneous decisions but instead are responding as best they can to highly uncertain information. Escalation is seen as an attempt to, or a by-product of attempts to, make sense of a highly conflicting and confusing environment. A growing line of research drawing from economics and psychology suggests that continued investment under failure may not always be irrational but rather an adaptation to difficult decision dilemmas (Drummond, 1998; Goltz, 1992, 1993, 1999; Hantula & Crowell, 1994; Hantula & Bragger, 1999; Ingersoll & Ross, 1992). Delays to exit decisions under nonprofitable circumstances may be adaptive under conditions of equivocality; investors may delay entrance or exit in investment situations because conditions may quickly change (Busby & Pitts, 1995; Dixit, 1989a, 1992; George & Morisset, 1993; Hubbard, 1994; Pindyck, 1993; Price, 1995). Continued investment may occur until uncertainty is reduced or until investing is so overwhelmingly unprofitable that it overrides any level of uncertainty. If failure is foregone, an investor can only lose by delaying an exit decision, but in a world fraught with equivocality, there is value in waiting because the worth of the investment may change in the future (Bartolini, 1992; Cukierman, 1980; Ingersoll & Ross, 1992). Effects of equivocality become more pronounced when there are sunk and exit costs associated with entering and exiting situations (Bernanke, 1983; Campa, 1993; Cukierman, 1980; Dixit, 1992; Episcopos, 1995; Garland & Newport, 1991), when decisions to exit an investment situation cannot be easily reversed (Henry, 1974a, 1974b; Ramani & Richard, 1993), or when a project appears close to completion (Garland & Conlon, 1998). With higher transaction costs of entering and exiting an investment and increased levels of irreversibility, continued investment in nonprofitable situations is more adaptive in an equivocal world. The passage of time allows decision makers to gather more information about the investment situation; the more equivocality is involved, the more valuable information becomes. Such equivocality also makes any information, whether it is predictive or prescriptive, more valuable to the decision maker. Hence, in a very real sense, one may be dealing less with escalation and more with a search for information.

Bragger, Bragger, Hantula, and Kirnan (1998) synthesized theory from economics and psychology to test effects of feedback equivocality (operationalized as variability and absence of patterning) and availability of information on exit decisions in a failing venture. A pharmaceutical marketing microworld (DiFonzo, Hantula, & Bordia, 1998) was used in which participants played the role of vice president for marketing, half of the participants received feedback that was relatively low in equivocality, and half received feedback that was substantially higher in equivocality. Half of the participants in each equivocality condition had the opportunity to purchase additional information about their investment. Participants receiving feedback that was higher in equivocality delayed exit decisions longer, invested more often, and invested more resources than did those receiving feedback that was lower in equivocality. Participants with no opportunity to purchase information delayed exit decisions longer, invested more often, and invested more resources than did those who had the opportunity to purchase information. These results are consistent with predictions from theory in the economics of uncertainty (Cukierman, 1980; Dixit, 1992) as well as research in organizational psychology (DiFonzo & Bordia, 1997; Goltz, 1992, 1993; Hantula & Crowell, 1994).

According to this line of thinking, the organizational world is a place of great uncertainty, and exposure to this world teaches individuals to continue to invest under conditions that may not be clearly profitable (Chi & Nystrom, 1995; McCain, 1986). Indeed, past research in psychology has found that previous experience with a variable reinforcement schedule in an investment simulation engenders escalation, whereas experience with continuous or a fixed schedule of returns does not (Goltz, 1992, 1993; Hantula & Crowell, 1994). Goltz (1992) suggested that decision makers generalize from stimuli associated with past experiences to new experiences and behave accordingly. However, research investigating feedback history on financial decision making has focused on the history of feedback given to participants who are investing in one scenario over the course of one laboratory session, and the effects may be somewhat attributable to momentum (Goltz, 1999). Further, financial decision making in organizations occurs over days, months, and even years. If, as is suggested by past research, decision makers learn to continue to invest in uncertain situations from a history of feedback, then it is likely that prior decision-making experience in a more successful but still uncertain scenario that is remote in time from a current decision-making experience will result in a greater delay to exit on later exposure to a less profitable situation. Thus, in the present study we examined possible history effects in a systematic replication and extension of Bragger et al.'s (1998) study.

Hypotheses

Hypothesis 1: Participants who receive relatively uncertain feedback will reinvest more resources and invest in more trials than will participants who receive relatively certain feedback, replicating Bragger et al. (1998).

Hypothesis 2: Participants with the opportunity to purchase information regarding their investment will exit sooner and invest fewer resources than will those participants with no opportunity to purchase such information, replicating Bragger et al. (1998).

Hypothesis 3: Given the opportunity to purchase information about their investments, participants who purchase a greater amount of information will delay exit decisions less and invest fewer resources than will participants who purchase less information, replicating Bragger et al. (1998).

Hypothesis 4: Participants who complete a more profitable but similar financial decision-making scenario prior to participating in the failing scenario will invest in more trials and invest more resources in the failing scenario than will those participants who do not have such prior experience.

Hypothesis 5: Participants who complete a more profitable but similar financial decision-making scenario will invest more resources and invest in more trials in the second failing decision-making scenario than will these same participants in the first decision-making scenario.

Method

Participants

Students ($N = 136$) who were enrolled in undergraduate psychology courses participated as an extra credit option and for the opportunity to earn $20 for having the highest profits.

Apparatus

A microworld (DiFonzo et al. 1998) simulation written in Delphi programming language implemented two different investment scenarios on Pentium class computers.

Scenario

The failing scenario in which all participants worked was the same as that used by Bragger et al. (1998). Participants assumed the role of a vice president of marketing for an American pharmaceutical company that had the opportunity to invest in the marketing of a new product. Participants could continue to invest in the marketing of the product until they decided to quit or until they expended their entire budget. The decision to exit was irreversible. Once participants decided not to invest, the experiment ended. About half of the participants took part in a similar but more profitable financial decision-making scenario about 6 weeks prior to participating in the failing scenario in which they assumed the role of vice president of marketing for a computer software company that was trying to increase its sales.

Procedure

After instructions and a sample investment opportunity were presented, participants began to invest in the marketing of the product. If participants chose to invest at each opportunity, they were asked how much they wanted to invest (up to $10,000 in multiples of $1,000) by entering the amount into the computer. The feedback was the amount that profits were above costs or that costs were above profits in dollars and a time-series graph indicating net costs or profits. In the initial scenario (for those participants who invested in two scenarios), feedback was variable with a mean profit of $400. After their fifth and after their last investment opportunities, participants were asked to fill out questionnaires that checked the manipulation of perceived uncertainty and responsibility.

Independent Variables

Prior experience. All participants were exposed to the second failing financial decision-making scenario. About half were randomly chosen to also participate in the more profitable decision-making scenario prior to the failing investment to determine the effect of previous exposure to uncertainty, resulting in a more profitable outcome. Participants took part in the second failing scenario about 6 weeks after their participation in the first scenario.

Uncertainty. Participants were randomly assigned to either a high or low uncertainty condition. Variance of the financial feedback that participants received was manipulated to be either high or low by using the same values from Bragger et al.'s (1998) study, as displayed in the Appendix. Feedback was identical for the first two investment opportunities for all participants and indicated that profits were above costs.

In the failing scenario, mean costs were above profits. The variability of the 12 feedback points was determined to be about twice as large for the uncertain condition ($SD = $ $4,915) as for the relatively certain condition ($SD = $ $1,844). In the failing scenario, mean costs were $5,000 above profits for both conditions. If participants continued to invest for more than 14 opportunities (the first 2 identical feedback statements and the 12 manipulated feedback statements), the set of 12 points was repeatedly generated in a random order until participants ran out of funds or decided to exit the scenario (with the mean remaining at −$5,000).

In the prior experience scenario, the financial feedback that investors received following the first two investments was programmed into the computer in a particular order for the high and low uncertainty conditions so that mean profits were slightly above costs, on average, for all conditions. If participants continued to invest for more than 14 opportunities (the first 2 identical feedback statements and the 12 manipulated feedback statements), the set of 12 points was repeatedly generated in a random order until participants ran out of funds or decided to exit the scenario (with mean profits remaining at $400).

Information acquisition. Participants were randomly assigned to either an information available or an information not available condition. In the information available condition, participants were asked at each investment opportunity if they wanted to purchase information summarizing past and present financial conditions as well as qualitative information about the future financial market that could affect them. The cost of the information was $3,000 in both scenarios and was deducted from the maximum amount of resources they could invest each month and from the total resources they were able to invest. The information provided in the information available condition was similar in both scenarios except that the qualitative feedback reflected the nature of the computer software industry presented in the initial scenario.

Dependent Measures

The dependent variables were the number of times invested and the total amount invested.

Analyses

As has been operationalized in the literature, we measured escalation (Bragger et al., 1998; Hantula & Bragger, 1999; Moon, 2001a, 2001b; Staw, 1976) by comparing investment between conditions. A 2 (uncertainty level) × 2 (information acquisition) × 2 (experience in a previous investment scenario) analysis of variance tested the effects of the independent variables on total investment, and effect size r (Rosenthal & Rosnow, 1991) reported the main and interaction effects. In addition, we conducted survival analyses to determine if the three independent variables affected investment persistence in the experiment by trial. In survival analysis, a hazard rate indicates the number of participants who start to invest in a particular investment period but who withdraw before the next opportunity (Bragger et al., 1998; McCain, 1986). A cumulative survival rate indicates what proportion of participants remain in the situation in progressive trials. Analysis of survival scores produces a chi-square statistic testing the null hypothesis that the subgroups are part of the same survival distribution (SPSS, Inc., 1999). The phi coefficient was reported as a measure of effect size (Rosenthal & Rosnow, 1991). To assess whether more information decreased the likelihood of investment persistence, we conducted a correlation between the percentage of times participants in the information acquisition condition purchased information and the amount invested. To determine whether participants increased investment from the initial scenario to the second failing scenario, a one-tailed paired t test was conducted, and effect size r (Rosenthal & Rosnow, 1991) was reported. A second survival analysis also determined whether participants who took part in both scenarios invested in more trials during the second scenario.

Perception Measures

Perception measures from Bragger et al. (1998) were presented offline to all participants after the fifth and last investments to determine whether

participants felt responsible for the decisions they had made and to check the uncertainty manipulations.

Results

Manipulation Checks

Perceived responsibility was above the midpoint for all conditions for the mid- and end-experiment assessments in both sections of the experiment, and there were no differences in perceived responsibility for participants in the relatively certain and relatively uncertain groups or for participants with or without experience in a previous decision-making scenario. Participants in the uncertain condition perceived more uncertainty than did participants in the lower uncertainty condition in the mid- and end-manipulation checks, but there were no differences in perceived uncertainty between participants who had experience in a previous decision-making scenario and those who did not.

Dependent Variables

Focused tests and survival analyses were used to test the hypotheses. Means and standard deviations for dependent variables are reported in Table 1, and Figure 1 shows total investment for all conditions.

Uncertainty effects. Participants who received relatively uncertain feedback invested more resources per trial than did participants who received relatively certain feedback, $F(1, 128) = 4.8$, $p = .03$, $r = .19$. Survival analysis indicated that the median

Table 1
Means and Standard Deviations for Dependent Variables

Condition	Dollars invested, including information costs	No. of trials invested
Relatively certain, information, experience		
M	37,150	11.7
SD	35,678	9.9
Relatively certain, information, no experience		
M	27,895	11.8
SD	27,408	10.8
Relatively uncertain, information, experience		
M	62,333	17.3
SD	35,678	13.5
Relatively uncertain, information, no experience		
M	37,063	10.6
SD	34,774	8.0
Relatively certain, no information, experience		
M	72,786	21.3
SD	35,555	11.9
Relatively certain, no information, no experience		
M	37,157	11.8
SD	39,612	13.2
Relatively uncertain, no information, experience		
M	67,333	17.3
SD	37,961	9.1
Relatively uncertain, no information, no experience		
M	66,095	17.2
SD	38,064	12.4
Relatively certain		
M	41,639	13.6
SD	36,083	11.9
Relatively uncertain		
M	58,421	15.6
SD	38,048	11.1
Information available		
M	39,015	12.4
SD	32,788	10.5
Information not available		
M	59,754	16.6
SD	39,781	12.1
Prior experience		
M	57,704	16.3
SD	36,556	11.3
No prior experience		
M	42,893	13.0
SD	37,781	11.5
Overall		
M	49,536	14.5
SD	37,829	11.5

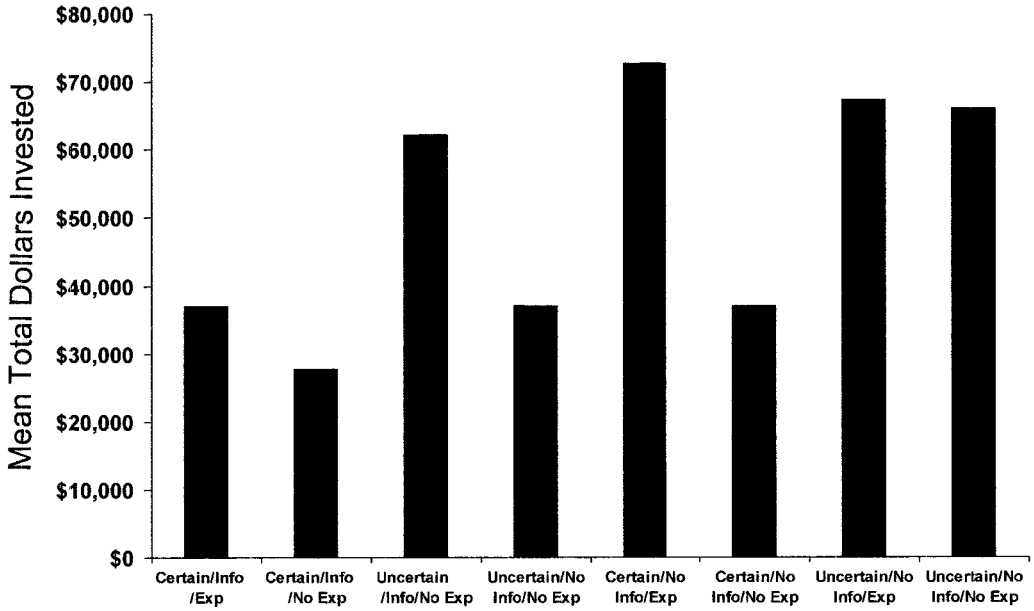

Figure 1. Mean total investment including the cost of information for all conditions. Info = information; Exp = experience.

number of investment trials for the high uncertainty condition (15 trials) was not significantly higher than the median number of investment trials for the low uncertainty condition (11.15 trials), although there was a small-to-medium effect size for this analysis ($\phi = .13$).

Information effects. Participants with no opportunity to purchase information invested more resources per trial than did participants with the opportunity to purchase information, $F(1, 128) = 11.6$, $p = .001$, $r = .29$. Survival analysis indicated that the median number of investment trials for the information available manipulation was 9.83 trials, significantly lower than the median number of investment trials for the information not available condition of 15.23 trials, $\chi^2(1, N = 136) = 4.56$, $p = .03$, $\phi = .18$. A significant negative correlation was found between the percentage of opportunities in which information was purchased and total funds invested, $r(66) = -.44$, $p = .00$.

Prior experience effects. Participants with previous experience in a more profitable scenario invested more during failure than did those without prior experience, $F(1, 128) = 7.51$, $p = .01$, $r = .24$. As can be seen in the top panel of Figure 2, the median number of trials invested in the prior experience condition was 14.46 trials, whereas the median number of trials invested in the no prior experience condition was 10.75 trials, a statistically significant difference, $\chi^2(1, N = 136) = 4.07$, $p = .04$, $\phi = .17$.

Within-group analyses. Only participants who were in the prior experience manipulation condition and who participated in both of the investment scenarios were included in this analysis. Seven participants who were in the prior experience manipulation did not complete the second scenario, reducing the number who participated in both scenarios to a total of 61. Because hypotheses predicted the direction of the differences, a one-tailed paired *t* test was conducted, showing that those who participated in the initial decision-making scenario significantly increased their total investment from the initial scenario ($M = \$45{,}103$) to the second failing scenario ($M = \$57{,}704$), $t(60) = 1.88$, $p = .032$, $r = .24$, and, as can be seen in the bottom panel of Figure 2, invested in fewer trials during the initial scenario ($Mdn = 11.25$) than they invested in the failing scenario ($Mdn = 14.46$), $\chi^2(1, N = 61) = 3.81$, $p = .05$, $\phi = .18$.

Discussion

Participants receiving equivocal feedback on their decisions invested more money and invested across more opportunities; those who could purchase information invested fewer resources and exited sooner than did participants who did not have the opportunity to purchase information, and there was an inverse linear relationship between the percentage of opportunities in which participants purchased information (for those able to purchase information) and total resources invested. Prior experience in a more successful venture led to later increased investing when participants were faced with failure, even above that invested in a preceding, succeeding scenario. These results not only replicate the equivocality, information, and hysteresis effects of Bragger et al. (1998) but also extend this research to show that earlier success can sow the seeds of future failure.

Experience in earlier decision-making situations may teach decision makers how to invest in the future (Chi & Nystrom, 1995; McCain, 1986), a line of reasoning that these history effects, found 6 weeks after the initial success experience, support. The present results, along with those of Bragger et al. (1998), Goltz (1992, 1993), Hantula and Bragger (1999), and Hantula and Crowell (1994), specify that, in particular, it is a variable history of returns earlier in an investment situation that can teach decision makers to continue to invest when feedback from an investment turns negative. Previous persistence in similar successful situations

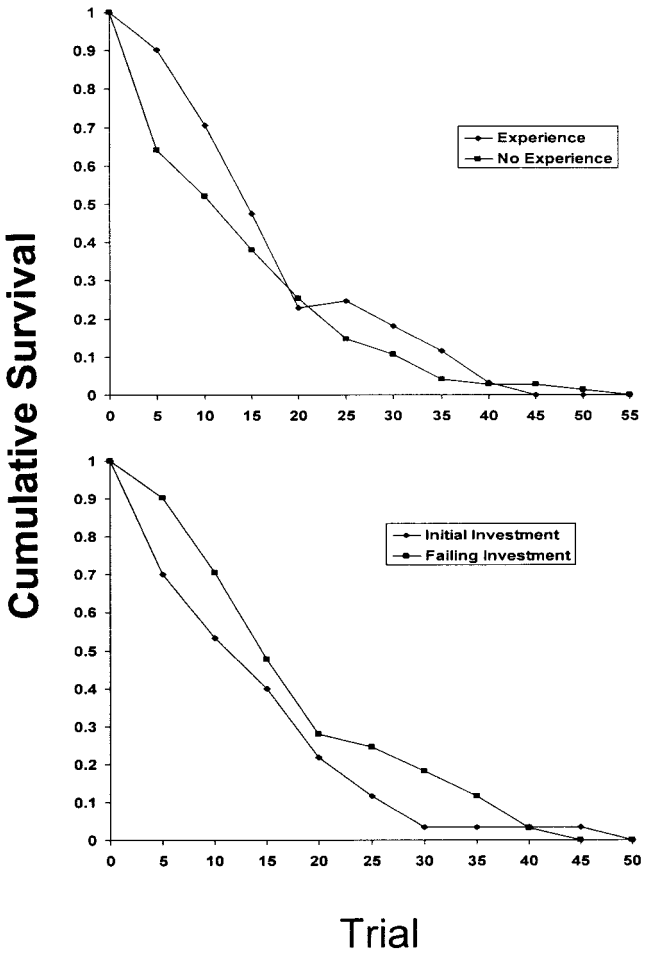

Figure 2. Cumulative survival of participants who had and did not have experience in a prior investment scenario (top panel) and cumulative survival of participants who invested in both scenarios in the initial investment scenario and in the second failing investment scenario (bottom panel).

is reinforced; the extent to which a subsequent situation resembles that which went before should contribute to any escalation and persistence effects. The fact that history effects were found after a period of weeks (rather than in-session) in the present study suggests that the increased investing in the second scenario is less an issue of momentum (Goltz, 1999) and more an issue of learning and generalization. Indeed, Garland et al. (1990) found larger effects in a well-drilling escalation scenario with professional petroleum geologists (who presumably had met with past successes in this venture) than with university students (who had no experience), which is consistent with the learning and generalization account of escalation presented herein. Assessment of the manipulation checks indicated that perceived responsibility and perceived uncertainty did not differ between participants who had prior experience in an initial decision-making scenario and those who did not, suggesting that these factors are not causing the differences found.

Equivocality engenders escalation and information search. The present study joins a growing body of research and theory in questioning the degree to which a failure of rationality is an issue in escalation and hysteresis (Bowen, 1987; Bragger et al., 1998; Busby & Pitts, 1995; Dixit, 1989a, 1992; Drummond, 1998; George & Morisset, 1993; Goltz, 1992, 1993, 1999; Hantula & Bragger, 1999; Hantula & Crowell, 1994; Hubbard, 1994; Ingersoll & Ross, 1992; Pindyck, 1993; Price, 1995). The data and learning perspective of escalation presented herein run counter to an account of escalation as necessarily irrational behavior. Instead, to the degree that learning is akin to adaptation, escalation may result from rational responses to an uncertain world in which decision makers are poised on the precipice of the present, peering into an unknowable future with only an imperfect past to guide them as they try to make sense of the conflicting, competing, and confusing information surrounding them. However, in a stock market simulation study without an explicit failure phase, DiFonzo and Bordia (1997) found that investors strayed farther from rational decision making when they had access to useless or random information than when they had no information at all, raising questions regarding whether the credibility and the nature of information sources, type of information (Conlon & Parks, 1987), and the ease in accessing information will moderate effects of information on decision making in success versus failure situations.

The present research was conducted to bridge methodological gaps between experimental organizational research and experimental economics by addressing issues of external validity and realism important in organizations and issues of internal validity important in eliminating plausible rival hypotheses (Camerer, 1995; Roth, 1995). Participants worked in an interactive microworld environment (DiFonzo et al., 1998), invested as many or as few times as they wished, and received feedback on their decisions until they had invested all of these resources. This dynamic methodology is more psychologically engaging and has improved external validity over escalation studies that feature static scenarios and allow participants to invest only once (e.g., Arkes & Blumer, 1985; Bazerman et al., 1982; Moon, 2001a, 2001b; Staw, 1976). External validity was also increased by providing participants with real financial incentives to make the most profitable decisions and by building a systematic replication of Bragger et al. (1998) into the procedure. Replication is of critical importance in organizational research (Easley, Madden, & Dunn, 2000), especially so in the case of escalation with the numerous failures to replicate Staw's (1976) original self-justification effects, even when using the same materials (e.g., Armstrong, Coviello, & Sanfranek, 1993; Goltz, 1993; McCain, 1986; Singer & Singer, 1985; Staw & Fox, 1977). Although the current research used an undergraduate population, as is common with much laboratory research on decision making, results from various escalation experiments have shown similar results whether participants were undergraduate students or more experienced masters of business administration students (Armstrong et al., 1993) or professionals in their field (Garland et al., 1990).

Experimental studies of Bowen's (1987) and Dixit's (1992) hypotheses, such as the current research, Bragger et al. (1998), and Hantula and Bragger (1999), have advanced an interdisciplinary synthesis of theory and method escalation of commitment in social and organizational psychology and of hysteresis in economics. Combined with research demonstrating how decision making during financial failure may result from learning that occurs from decision makers' history of prior decision-making experiences

(Chi & Nystrom, 1995; Goltz, 1992, 1993, 1999; Hantula & Crowell, 1994; McCain, 1986), these studies show how interplay between psychology and economics can provide new answers to puzzling questions (Beil, 1996; Lea, 1978; Lunt, 1996). However, not addressed in this study were the potential terminological conflicts between these fields. The term *uncertainty* is used in economics to describe highly variable data regarding an investment (e.g., Dixit, 1989a, 1989b); *equivocality* is used to describe feedback for which multiple positive and negative interpretations may be constructed (Bowen, 1987) or a lack of pattern or predictability in feedback (Hantula & Bragger, 1999). Conceptually, they are nearly identical and, in fact, are often used synonymously in the organizational literature (e.g., Bowen, 1987; Bragger et al., 1998; Drummond, 1997; Hantula & Bragger, 1999).

Further studies using the current microworld methodology (DiFonzo et al., 1998) to investigate other factors that may affect escalation and persistence of commitment situations in conjunction with other methodologies, such as post hoc case analysis (Drummond, 1994a, 1994b, 1995; Staw et al., 1997; Staw & Huang, 1995) and in-depth interviewing and content analysis of reports of escalation and persistence of commitment (Lind, Kutcher, Bragger, & Hantula, 1999), are likely to untangle the uncertainty around escalation and increase understanding of the phenomenon that has piqued the interest of economists and social and organizational psychologists for more than 2 decades.

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(*Appendix follows*)

Appendix

Feedback Data, Descriptive Statistics, and Autocorrelation Through Lag 4 by Condition

	Uncertainty level	
Variable	Low	High
Investment period		
1	$6,000	$6,000
2	$2,000	$2,000
3	−$5,200	−$500
4	−$6,500	−$9,000
5	−$4,900	$1,700
6	$400	−$2,000
7	−$6,200	−$9,600
8	−$5,400	−$8,000
9	−$5,000	−$1,000
10	−$6,100	−$11,700
11	−$4,600	$600
12	−$5,100	−$10,000
13	−$4,800	−$1,500
14	−$6,700	−$9,000
M	−$5,000	−$5,000
SD	$1,844	$4,915
Autocorrelations		
Lag 1	−.07 (.70)	.00 (.99)
Lag 2	−.06 (.93)	.23 (.61)
Lag 3	−.10 (.95)	−.02 (.80)
Lag 4	−.07 (.98)	.27 (.63)

Note. Reproduced from Bragger et al., 1998. *P* values are in parentheses.

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