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Individual and organizational differences in organizational commitment and escalation of commitment

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INDIVIDUAL AND ORGANIZATIONAL DIFFERENCES IN ORGANIZATIONAL
COMMITMENT AND ESCALATION OF COMMITMENT

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of Psychology

by

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Abstract

The present study extended the literature on employee commitment and escalation bias to include individual and organizational difference factors. Escalation bias refers to the tendency for a decision-maker to become overly committed to the decision focus (e.g., the organization, supervisor, an ongoing project) even in light of negative feedback regarding the person's or project's performance (Moon, 2001; Staw, 1976). An escalation of commitment to a losing course of action is viewed as risky and often costly behavior to organizations. The main purpose of the present study was to identify factors that may predispose persons to escalate their commitment. While using the organization as the commitment focus, the study analyzed individual-level organizational commitment type, moderators of the commitment – escalation of commitment relationship, including openness to experience, resistance to change, and sensation-seeking behaviors, and decision rationale as a relationship mediator. While there was no main effect linking organizational commitment to escalation of commitment or mediation effects, openness to experience and resistance to change were significant moderators of the commitment – escalation of commitment relationship, with the interaction dependent on the type of commitment displayed. The findings from this research may provide organizations insight into hiring, training, and other human resource decisions. Suggestions for future research on individual and organizational difference factors related to commitment and escalation bias are discussed.

Introduction

Employee commitment has become an increasingly popular topic in the research literature as organizations seek methods of increasing employee retention and performance (Mathieu & Zajac, 1990). Towards this end, some researchers have found commitment to be a better predictor of turnover than job satisfaction (Koch & Steers, 1976), and that a high level of commitment leads to better performance than does low commitment among employees (Mowday, Porter, & Dubin, 1974). Commitment has also shown to be positively related to job satisfaction (Mowday, Porter, & Steers, 1982), to motivation (Mowday, Steers, & Porter, 1979), and attendance (Steers & Rhodes, 1978). Despite the benefits found for high levels of employee commitment, much research has also warned of the negative effects of too much commitment called, “escalated commitment,” or becoming overly committed to a course of action after receiving negative feedback on the person’s or project’s performance (Staw, 1976; Whyte, 1993). Escalating commitment to a losing course of action is viewed as risky behavior and can be very costly to organizations in the form of wasted monetary, time, and human resources. Although much has been written about commitment and the escalation of commitment, very little is known about the relationship between these two variables.

Although commitment and escalated commitment are constructs that have been greatly researched in organizational literature, no studies as yet have analyzed the relationship between employee commitment and escalation of commitment, and very little research has examined individual or organizational differences that predict escalation. To address these research needs, this study measures the relationships between commitment type and escalated commitment, explores the rationales that drive commitment decisions, and analyzes the effects of individual and organizational differences on organizational commitment relationships within the service organization environment.

To explore the role of organizational commitment in relation to escalated commitment (referred to as the commitment – escalated commitment relationship throughout this text), this paper first reviews the existing conceptualizations of organizational commitment, including the tri-dimensional

model that will be used in this study. Next, the literature on escalation bias and escalation rationales will be discussed, along with a review of individual differences and organizational characteristics thought to influence the commitment – escalated commitment relationship. Finally, this study’s proposed hypotheses, methods and analyses used for testing them are described, followed by a discussion of the results, study limitations, and implications for future research.

Contributions of the Present Study

By analyzing the commitment – escalated commitment relationship within the context of a service organization, this study contributes to the broader scientific understanding of commitment by integrating two literatures: organizational commitment and escalation of commitment. Second, this study analyzes participant rationales as a mechanism for explaining and differentiating various theories of escalation. A third benefit was to identify individual difference factors associated with the commitment – escalated commitment relationship, an area that has been under-explored.

Organizational Commitment

Organizational commitment has been defined as “a psychological link between the employee and his or her organization that makes it less likely that the employee will voluntarily leave the organization” (Allen & Meyer, 1996, p. 252). Low organizational commitment has been shown to be much more costly to organizations than the simple financial costs associated with poor performance. Reciprocal commitment between employees and employers has been greatly affected by the sweeping downsizing practices in the past two decades. For example, between 1980 and 1989, General Motors laid off over 150,000 employees, and in 1989, during a two-month period, RJR Nabisco, Sears, Campbell’s Soup, Kodak, and Chrysler collectively laid off 13,000 workers (Wagner III & Hollenbeck, 1998). In a study of U.S. workers which asked if employees are more or less loyal to their companies today as compared with 10 years ago, 63% of respondents said less loyal, and 50% said they would likely change employers within the next five years (Wagner III & Hollenbeck). Thus, while organizations can reap many benefits from high levels of employee commitment, many

employees may be disillusioned with previous management practices, and may be reducing their levels of organizational commitment (Reichheld, 1996), warranting a new look at this construct.

Commitment has previously been conceptualized in the literature as either attitudinal or calculative, and has stressed affective, obligation, and perceived costs themes, with the most common of these being affective (Steers, 1977; Meyer & Allen, 1987; Allen & Meyer, 1990; Meyer & Herscovitch, 2001). Examples of affective definitions of organizational commitment are “the attachment of an individual’s fund of affectivity and emotion to the group” (Kanter, 1968, p. 507), and “the relative strength of an individual’s identification with and involvement in a particular organization” (Mowday et al., 1979, p. 226). Commitment has also been viewed as one’s responsibility or obligation to the organization. One such definition states commitment is the “totality of internalized normative pressures to act in a way which meets organizational goals and interests”, and that employees remain committed because they see it as “the right and moral thing to do” (Weiner, 1982, p.421). Finally, commitment that stresses perceived costs includes Becker’s (1960) side-bets theory, or the tendency to “engage in consistent lines of activity,” with the recognition of the costs of discontinuing the activity (or lost side-bets; p.33). Kanter (1968), similarly, defined ‘cognitive-continuance commitment’ as occurring when there is a “profit associated with continued participation and a cost associated with leaving” (p. 504).

Based on the previous conceptualizations of commitment, Meyer and Allen (1987) developed a three-component model of organizational commitment. The three dimensions of commitment within this model are labeled ‘affective’, ‘normative’, and ‘continuance’. Affective commitment is viewed as an identification with, involvement in, and emotional attachment to the organization. Employees remain with the organization because they *want* to do so. Normative commitment is seen as commitment based on a sense of obligation to the organization. Employees remain because they feel they *ought* to do so. Lastly, continuance commitment is based on the employee’s recognition of the

costs associated with leaving the organization. Employees remain with an organization because they *have* to do so.

Since the development of this three-component model, commitment is now well recognized as a multidimensional construct (Meyer et al., 2002). There are now many known antecedents, correlates, and consequences of commitment that have been shown to vary across the three dimensions (Mathieu & Zajac, 1990; Meyer et al., 2002). The research has also shown numerous foci of employee commitment, meaning employees may feel committed to a variety of organizational aspects, including the organization itself, their supervisor or work team, a project, or the work itself. Recent researchers have shown differential employee commitment to one's profession, unions, occupations, supervisors, top management or leaders, coworkers or teams, customers, and goals, as well as to organizations (Gouldner, 1958; Gordon, Beauvais, & Ladd, 1984; Mowday et al., 1982; Reichers, 1986; Locke, Latham, & Erez, 1988; Becker, 1992; Meyer, Allen, & Smith, 1993; Clugston, Howell, & Dorfman, 2000). The current study is mainly concerned with the commitment – escalated commitment relationship among organization members, therefore only commitment to the *organization* is considered.

Meyer et al's (2002) three-component organizational commitment framework is one of the most well developed in the literature. Therefore, it is the framework adopted for this study. Despite the volume of organizational commitment literature, no research to date explores the three-component framework in relation to escalation of commitment. The next sections of this paper will discuss escalation of commitment, how it relates to organizational commitment, and rationales for escalatory behaviors. (Figure 1 depicts the overall hypothesized model.)

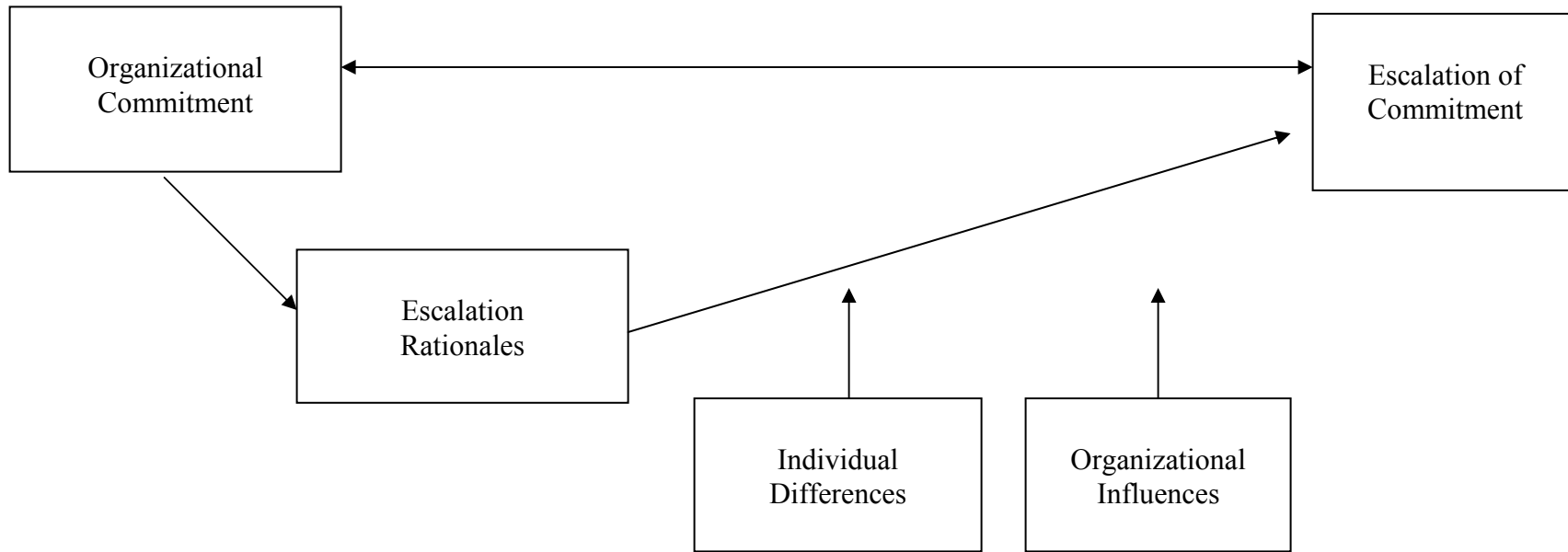


Figure 1: Hypothesized Model of Commitment – Escalation of Commitment Relationship

Escalation of Commitment

While low levels of employee commitment can be very costly to organizations, over-commitment can also be detrimental. Escalation bias refers to the tendency for a decision-maker to become overly committed to a decision even in light of negative feedback regarding the person's or project's performance (Moon, 2001; Staw, 1976). Historically, escalation bias research explored individual and group decisions within the context of sunk-costs in financial decisions (Garland, 1990; Staw, 1976; Whyte, 1993). More recently, escalation bias has been examined in hiring contexts and performance evaluations (Bazerman, Beekun, & Schoorman, 1982; Schoorman, 1988), and has resulted in the tendency of appraisers to evaluate a project (or an employee) more favorably if they took part in the project initiation (or hiring) decision than those who were not part of the initial decision, despite negative performance feedback. In other words, when individuals are *responsible* for a project initiation decision, they tend to increase their commitment to the project by subsequently allocating more resources to the project than someone not responsible for the initial decision.

Escalation of commitment to a losing course of action can be seen in a host of naturally occurring situations, including gambling (McGlothlin, 1956), waiting at a bus stop (Brockner, Shaw, & Rubin, 1979), and making political decisions (Dietz-Uhler, 1996). In addition to introducing bias in personnel decisions (Bazerman et al., 1982; Schoorman, 1988), escalation bias has received a great deal of attention with regard to financial decisions (e.g., Garland, 1990; Moon, 2001; Schaubroeck & Williams, 1993a). Most escalation research has focused on participants making initial financial commitments to a project, and then later making a decision to either allocate more funds or to abandon it (Schaubroeck & Williams, 1993a, 1993b; Staw, 1976).

Staw's (1976) seminal work on escalated commitment of individuals in financial contexts tests the presence of escalation of commitment in the context of financial decision-making. In this study, business school students read a fictional scenario describing the 'Adams & Smith Company', a large technologically-oriented firm whose profitability has been declining over preceding years. The case

states that 10 million dollars must be allocated toward one of the company's two largest divisions. Acting as company Vice President, participants make a funding decision then receive a second scenario describing the company five years later (including financial data for the past five years). A second round of funding allocations are to be made, this time, however, they could divide the funds as they wished between the two divisions. Staw manipulated decision consequences in the experiment such that in the second part of the study one half of the subjects were given positive feedback (i.e., that the division they allocated funds to performed better than the unselected division in the past five years), while one half of the subjects received negative feedback (i.e., that the division they chose had continued to decline in profitability). Responsibility was also manipulated such that one half of the subjects were assigned 'high responsibility', meaning they made two sequential investment decisions, as described above. In the 'low responsibility' condition, subjects were given only one scenario wherein the initial fund allocation decision had already been made, feedback was given, and these subjects made the second investment decision only.

Results showed that, as predicted, persons in the high responsibility condition allocated significantly more funds than did those in the low responsibility condition, and participants in the negative feedback condition allocated significantly more funds than did those in the positive feedback condition. Additionally, there was an interaction between responsibility and decision consequence such that those participants in the high responsibility – negative feedback condition allocated funds to a greater degree than did participants in any of the other three conditions. Staw attributes the interaction of these two conditions as evidence of the self-justification theory of escalation of commitment. That is, in order to justify prior behavior, decision-makers may increase their commitment even in the face of negative consequences – risking additional negative consequences – to justify prior behavior, or the rationality of the original action. The present study deviates from Staw's (1976) work by making all participants responsible for their decisions (i.e., "high responsibility condition") and giving all participants negative feedback. Only negative feedback is necessary

because allocating more resources in light of positive feedback is seen as a correct decision rather than negative escalatory behavior.

A similar study to that of Staw's (1976) was conducted by Garland (1990), who was interested in assessing escalation behaviors due to the sunk-costs rationale rather than self-justification effects. Sunk-costs rationale is shown when decision-makers violate the tenet of economic theory that costs already incurred toward a project should not be considered when making future resource allocation decisions. Many decision-makers, however, repeatedly "throw good money after bad" (Garland, p. 728), or erroneously consider 'sunk costs' when making allocation decisions.

In Garland's study, participants read a single scenario describing them as President of an airplane manufacturing company who has already spent \$1, \$3, \$5, \$7 or \$9 million of a \$10 million budget to develop a 'radar scrambling device'. Participants are told the project is 10%, 30%, 50%, 70% or 90% complete, respectively, and that another firm has begun marketing a similar radar scrambling device that is smaller and easier to operate. Participants were asked to make decisions with regard to whether they would use the remaining budget to complete the project, if they would use the next \$1 million to continue the project, or if they used the remaining budget, how likely would it be the company would realize a profit. Results of this study showed interaction effects such that as sunk costs increased, the reported likelihood of allocating all remaining funds as well as of allocating the next \$1 million showed a corresponding – and almost identical – increase. Perceptions of the likelihood of the project being successful did not interact with sunk costs, however, demonstrating null effects for differences in incremental costs and for perceived benefits as rationale for an escalation of commitment in this study. Similar to Garland's study, the present study gave feedback on the percentage of the project that is complete (all participants received the same feedback, holding level of completion constant), and sunk costs varied by allowing participants to choose how much money and time they wished to allocate toward the project out of a set budget.

Escalation Rationales

Numerous reasons explaining why individuals may escalate their commitment toward a course of action have been explored in the literature. Prospect theory offers a compelling rationale; it suggests that when sunk costs have been incurred toward a losing course of action, and these costs still retain economic value or have not been fully deflated, the decision-maker will frame subsequent decisions as a choice between losses (Whyte, 1993). As abandoning a project will be a certain loss, escalation will be viewed as possibly increasing losses in addition to a chance at avoiding them, and will occur in the hopes that losses will be evaded. A desire to avoid wastefulness (Arkes & Blumer, 1985), need to demonstrate consistency (Staw, 1981), and approach-avoidance conflicts (Rubin & Brockner, 1975) are also rationales that have been offered for escalation of commitment effects. Three of the most well researched reasons for escalation are project justification, project completion, and sunk-costs rationales. Sunk-costs rationales refer to the consideration of the amount of time, effort, or money already allocated to a project (Garland, 1990; Schaubroeck & Williams, 1993a; Staw, 1976). Project completion effects refer to an increasing unwillingness to abandon a project as it nears completion (Boehne & Paese, 2000; Garland & Conlon, 1998; Moon, 2001). Justification processes result when individuals choose to reinvest in a failing course of action in order to “turn the situation around,” in hopes of proving to themselves or others that their previous decisions were correct and that they are competent (Schaubroeck & Williams, 1993b; Whyte, 1993). This study explored the comparative fit of these three psychological theories in explaining the influence of commitment rationale on escalated commitment. This study also proposed the mediating effect of commitment rationale on the commitment – escalated commitment relationship, depicted in Figure 2.

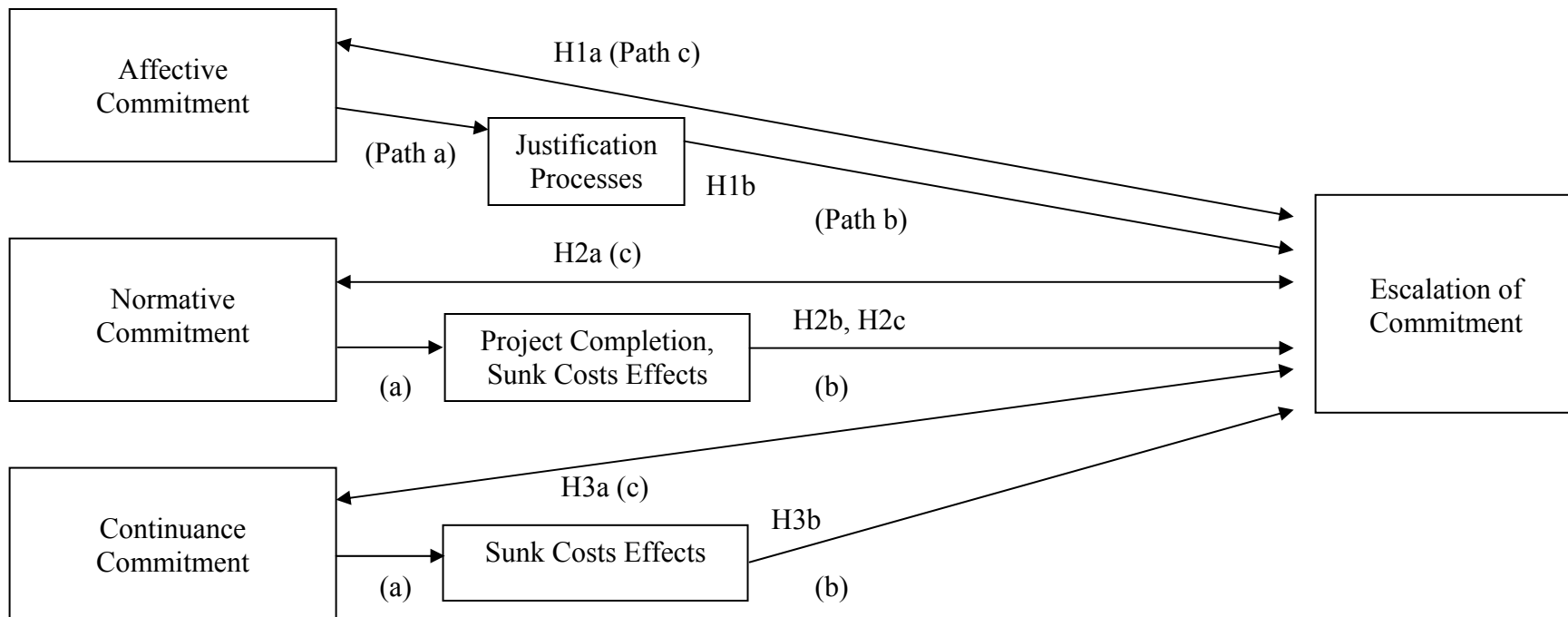


Figure 2: Hypothesized Mediators of the Commitment – Escalation of Commitment Relationship

Justification Processes. Self-justification is when individuals choose to reinvest in a failing course of action in order to “turn the situation around,” in hopes of proving to themselves or others that their previous decisions were correct and that they are competent (Schaubroeck & Williams, 1993b; Whyte, 1993; Festinger, 1957; Caldwell & O’Reilly, 1982; Staw, 1976, 1981). Schoorman and Holahan (1996) stated that justification effects may become stronger with the receipt of negative feedback as this may invoke decision-makers to either defend themselves against a perceived judgment error or to make the prior choice appear rational by increasing commitment to the failing action. One example of this process is the U.S. involvement in the Vietnam War. In this situation, denying or disguising the negative consequences of policy-maker decisions was only possible for a limited amount of time. After these consequences were freely admitted, it still would have been possible to recoup initial investments and further losses. However, by escalating commitment to the war, policy makers saw a chance to prove the initial decision to go to war was correct, and so they increased commitment in the hopes of protecting themselves from the psychological costs of failure (Staw & Ross, 1978).

In the present study, it is theorized that justification effects are more likely to occur when a person is affectively committed to the organization. If someone desires to be in and wants to stay with an organization, it will be more important for this person to prove to themselves and others that they are competent than someone higher in normative or continuance commitment to the organization. This may lead these persons to overly commit to decisions that they believe to be correct, despite negative feedback (i.e., escalate their commitment), due to a desire to achieve social acceptance or a need to be perceived as an integral part of the organization. It should be noted that multiple rationales can be operating at the same time, but for those persons whose dominant form of commitment is affective, the strongest rationale displayed is expected to be self-justification effects.

Hypothesis 1a: Affective commitment and escalation of commitment will be positively correlated.

Hypothesis 1b: Justification processes will mediate the relationship between affective commitment and escalation of commitment.

Project Completion and Sunk-Costs Effects. A second rationale previously discussed in the escalation literature is that of project completion effects, which occur due to an increasing unwillingness to abandon a project as it nears completion (Boehne & Paese, 2000; Garland & Conlon, 1998; Moon, 2001). Garland and Conlon argue that what may begin as profit maximization (leading to an escalated commitment of resources) may be replaced by a desire to complete a project as its completion nears. Indeed, research on motivation has long shown that individuals are motivated to complete projects or tasks they have initiated (Garland & Conlon). For example, Ryan (1970) described early research by Lewin (1926) on task tension, which stated that a person's acceptance of a task for any reason led to an independent motive to complete the task, possibly due to frustration in leaving the task incomplete (Katz & Kahn, 1966). This was also shown by Ross and Staw (1993) in their analysis of the Shoreham nuclear power plant wherein the authors noted that most of the project expenditures occurred when the plant was 80% complete.

Another decision-making bias is that of sunk costs effects. This bias occurs when the decision-maker considers the amount of time, effort, or money already allocated to a project when making further decisions (Garland, 1990; Schaubroeck & Williams, 1993a; Staw, 1976). The more resources that have been previously invested, the more likely resources will continue to be allocated toward the project (Garland & Conlon, 1998). As Garland and Conlon (1998) demonstrated, sunk costs may be the initial motivator in escalatory behaviors until the project nears completion, at which point the goal of finishing the project substitutes for the profit maximization goal. In the present study, level of project completion was not manipulated, thus, as both processes may be working together to lead to an escalation of commitment in the beginning stages of resource allocation decisions (as shown by Moon, 2001), it is theorized that both project completion effects and sunk costs will affect escalation in some situations. Specifically, these rationales will be demonstrated to a greater degree by persons

experiencing normative commitment toward their organization. If employees remain with an organization because they feel they ought to, then they may be more likely to desire to complete projects or other work or erroneously consider costs already incurred when making future commitments out of a sense of duty to the organization or one's peers. As normative commitment is based on a sense of obligation to the company, persons higher in this type of commitment should feel more pressure to maintain harmony and adhere to company norms due to possible social and interpersonal outcomes associated with discontinuing the chosen course of action (e.g., violating group harmony; Kameda & Sugimori, 1993). Given this type of commitment, one's willingness to discard initial investments could be perceived as de-valuing other's investments in the organization as well. Therefore, adhering to a course of action might be perceived as "honoring the group" or keeping harmony with the group. These two rationales will be stronger than justification effects as it will be less important for decision-makers to 'prove themselves' under conditions of normative commitment and more important to simply fulfill their duties and maintain their position and relationships.

Hypothesis 2a: Normative commitment and escalation of commitment will be positively correlated.

Hypothesis 2b: Project completion effects will mediate the relationship between normative commitment and escalation of commitment.

Hypothesis 2c: Sunk costs effects will mediate the relationship between normative commitment and escalation of commitment.

Finally, some decision-makers may frame subsequent decisions as a choice between losses. As abandoning a project will be a certain loss, escalation will be viewed as possibly increasing losses in addition to a chance at avoiding them, and will occur in the hopes that losses will be evaded (Kahneman & Tversky, 1979; Whyte, 1993; Schaubroeck & Davis, 1994). This may be viewed as the strongest escalation situation as any resources left at all to be used will result in continued commitment. Persons with a continuance form of commitment to their organization are those most

likely to use this form of the sunk costs rationale. This is due to these persons not *wanting* to stay with an organization or feeling they *ought* to, but feeling they *have* to, which may lead them to display heightened risky behavior because they feel they have little to lose.

Hypothesis 3a: Continuance commitment and escalation of commitment will be positively correlated.

Hypothesis 3b: Sunk Costs will mediate the relationship between continuance commitment and escalation of commitment.

Hypothesis 4: Persons with a continuance form of commitment to their organization will escalate to a greater degree than persons affectively or normatively committed to the organization.

Individual Differences

Similar to the gap in the literature regarding different forms of commitment and differential rationale effects, individual and organizational differences in escalation behaviors have been largely ignored by previous research. As both individual employee and organizational characteristics exert unique and important influences on an organizational system, this study will explore various characteristics believed to affect the commitment – escalated commitment relationship (see Figures 3 and 4).

With regard to individual differences among organizational members, a few studies have attempted to include personality factors as they relate to investment decisions and an escalation of commitment. For example, Schaubroeck and Williams (1993a) recognized that oftentimes individuals demonstrate a tendency to respond differently to the same events, suggesting “systematic differences in orientation toward the events” (p. 1304). The authors described persons high in control orientation as those who attempt to regulate their behavior by either complying with real or imagined controls, or by rebelling against these controls and doing the opposite. Control oriented persons see negative feedback as a threat and thus respond with defiance, and these persons were shown to be those most

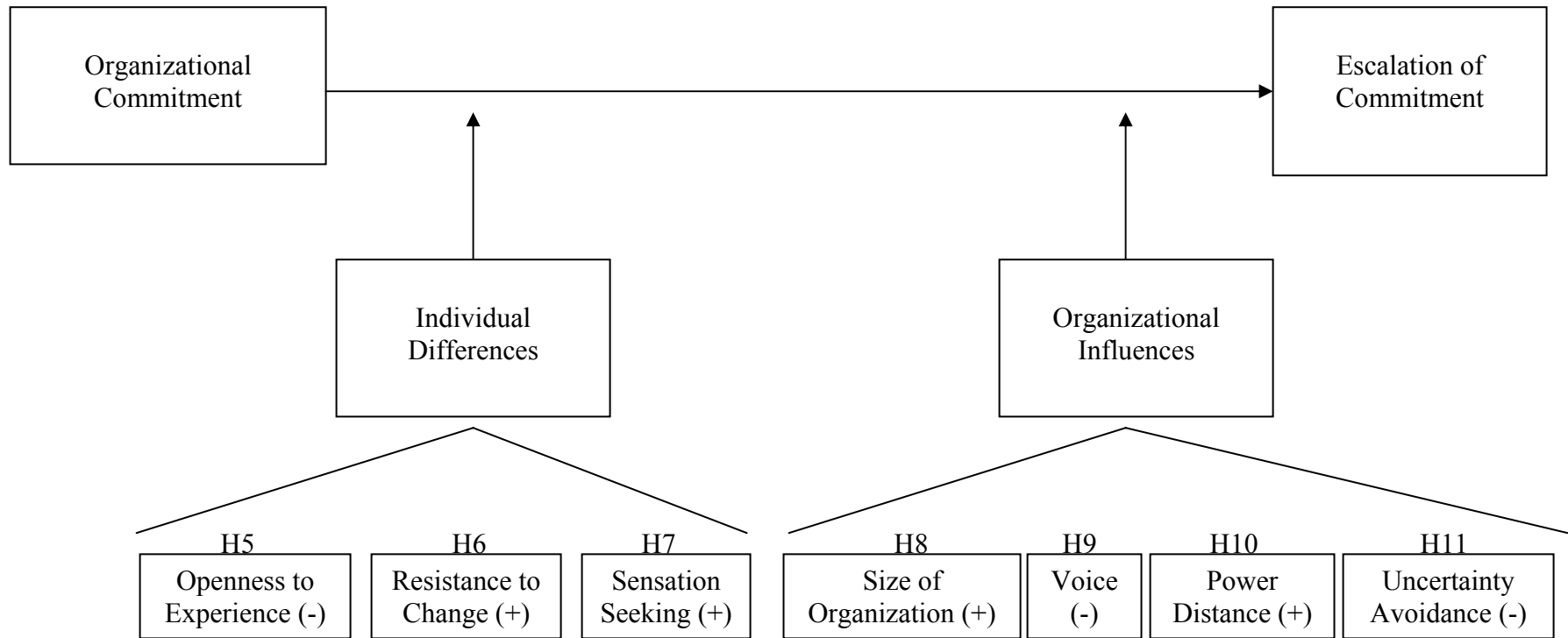


Figure 3: Hypothesized Moderators of the Commitment – Escalation of Commitment Relationship

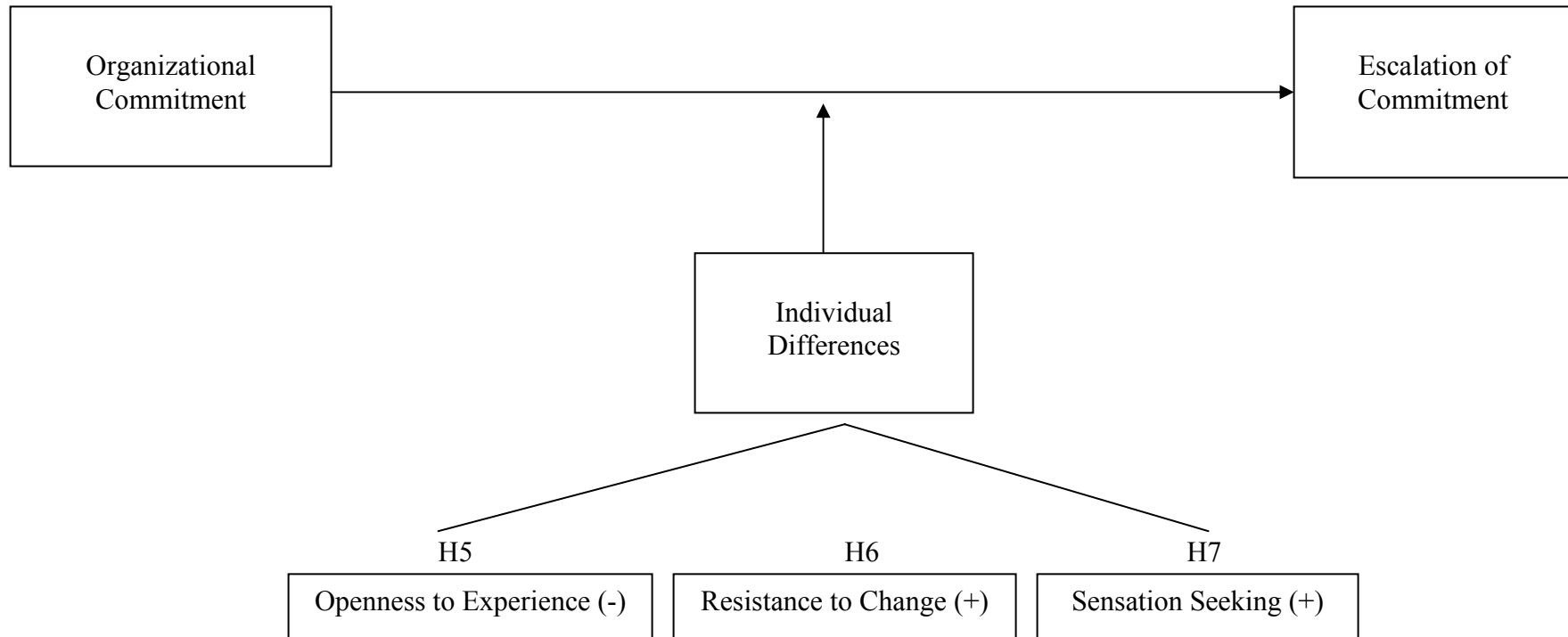


Figure 4: Tested Moderators of the Commitment – Escalation of Commitment Relationship

likely to reinvest in a failing course of action. The authors also described persons high in impersonal orientation, meaning they believe their behavior is beyond their control. Impersonally oriented persons see negative feedback as a blow to their efficacy and respond by blindly following the advice of the person supplying the feedback. This personality type was shown to be negatively correlated with reinvestment. In a separate study, Schaubroeck and Williams (1993b) also showed that persons demonstrating Type A behavior patterns were significantly more likely to escalate commitment to a course of action if they were responsible for the initial decision, but not if the project decision had been made for them. Lastly, escalation has also been found to be associated with other personality variables including tolerance of ambiguity, risk-taking, and Machiavellianism (Cary, Hills & Katcher, 1980), locus of control, and repression-sensitization (Singer & Singer, 1986). The following individual difference factors are proposed as moderators of the commitment – escalation relationship: openness to change, resistance to change, and sensation seeking.

Openness to Experience. Openness refers to one's level of curiosity, daringness, tolerance, and desire to fulfill personal pleasures and lead a varied life (Glazer, Daniel & Short, 2004; Judge, Thoresen, Pucik & Welbourne, 1999; Vittengl et al., 2004). It is one factor in the Big Five model of personality, a well-supported theory of personality which also includes the traits of neuroticism, extraversion, conscientiousness, and agreeableness (John & Srivastava, 1999). In a study comparing values cross-culturally and their effects on commitment, Glazer et al. (2004) concluded that values such as openness to experience very likely influence the organizational commitment of employees, which may be dependent on the values endorsed by one's national culture. In three of the four countries studied, which included the US, nurses who rated high in openness showed significant negative correlations with affective commitment. This was as predicted by the authors who stated that employees who value openness place more importance on personal gains, variety and change needs than on the organization itself. These authors also found a significant negative correlation between openness and continuance commitment for two of the four countries studied. They stated that these

employees would likely not stay with an organization that does not provide opportunities for employee growth and independence. As long as they see other job options available without a great loss in benefits, employees high in openness will likely leave the organization if growth and autonomy needs are not being met.

In a second study by Judge et al. (1999), the researchers analyzed the possibility of dispositional traits influencing manager responses to organizational change. As persons high in openness to experience show tendencies toward inquisitiveness and tolerance when confronted with and in seeking out novel situations, the authors hypothesized that these persons would show greater coping abilities with organizational change than persons low in openness as they would be less likely to see change as stressful. In analyzing the data from the seven dispositional factors studied, the authors reduced these to two factors: positive self-concept (including locus of control, generalized self-efficacy, self-esteem, and positive affectivity traits) and risk tolerance (including openness to experience, tolerance for ambiguity, and low risk aversion). Findings of this study showed that both factors were positively related to coping with organizational change.

A similar concept to that of openness to experience is that of openness to change, which refers to one's predisposition to welcome or avoid change. Miller, Johnson, and Grau (1994) stated openness to organizational change consisted of 1) a willingness to support the change, and 2) a positive affect about possible consequences of the change. These authors further suggested that high levels of openness to change is critical in increasing employee cooperation as well as deterring change resistant behaviors such as hostility, restricting production, and a lack of cooperation with management. Stevens, Beyer, and Trice (1978) specifically looked at attitude toward change as it relates to organizational commitment. These authors found that positive attitudes toward change (or an openness to change) were negatively related to organizational commitment, or more specifically, a likelihood of leaving if workload or role conflict increased. They argued that a person with a positive attitude toward change would likely incur fewer personal costs associated with leaving an organization in

response to increasing pressures. In the escalation paradigm, persons more open to change should likewise incur fewer costs associated with abandoning a project or decreasing commitment to it. As discussed in the previous studies, persons with higher levels of openness to experience should be more capable of coping with change, and even welcoming it or seeking out change. Thus, these persons should be more likely to change their course of action in decision making to decrease commitment in the face of negative feedback (as this would require changing their prior decisions), and therefore less likely to exhibit an escalation bias.

Hypothesis 5a: Openness to experience will interact with affective commitment to affect escalation of commitment such that there will be a greater negative relationship between affective commitment and escalation of commitment to the extent that organizations also exhibit higher levels of openness to experience.

Hypothesis 5b: Openness to experience will interact with normative commitment to affect escalation of commitment such that there will be a greater negative relationship between normative commitment and escalation of commitment to the extent that organizations also exhibit higher levels of openness to experience.

Hypothesis 5c: Openness to experience will interact with continuance commitment to affect escalation of commitment such that there will be a greater negative relationship between continuance commitment and escalation of commitment to the extent that organizations also exhibit higher levels of openness to experience.

Resistance to Change. A related, but distinct concept to openness to change is resistance to change, which refers to “an individual’s tendency to resist or avoid making changes, to devalue change generally, and to find change aversive across diverse contexts and types of change” (Oreg, 2003, p. 680). Although not previously tested in the context of escalating commitment, persons resistant to making a change should also be more likely to exhibit an escalation bias, as decreasing investment in a project – whether chosen individually or not – requires a change in behavior.

Hypothesis 6a: Resistance to change will interact with affective commitment to affect escalation of commitment such that there will be a greater positive relationship between affective commitment and escalation of commitment to the extent that organizations also exhibit higher levels of resistance to change.

Hypothesis 6b: Resistance to change will interact with normative commitment to affect escalation of commitment such that there will be a greater positive relationship between normative commitment and escalation of commitment to the extent that organizations also exhibit higher levels of resistance to change.

Hypothesis 6c: Resistance to change will interact with continuance commitment to affect escalation of commitment such that there will be a greater positive relationship between continuance commitment and escalation of commitment to the extent that organizations also exhibit higher levels of resistance to change.

Sensation Seeking. Finally, some persons may be predisposed to risk taking or sensation seeking behavior. As defined by Zuckerman (1979), sensation seeking is the “need for varied, novel, and complex sensations and experiences and the willingness to take physical risks for the sake of such experiences.” These persons, in searching for novel and intense experiences, have been shown to take risks in sports (Zuckerman, 1983a), in driving too fast, recklessly, or while intoxicated (Zuckerman & Neeb, 1980; Donovan, Queisser, Salzberg & Umlauf, 1985), use illegal drugs (Zuckerman, 1983b), make larger gambling bets (Dickerson, Hinchy & Fabre, 1987), as well as make riskier financial investments (in simulations; Harlow & Brown, 1990). The belief is that for high sensation seekers, the intense reward effects associated with these activities outweigh the risks (Horvath & Zuckerman, 1993). As escalation is viewed as risky behavior, persons higher on this variable should be more likely to exhibit an escalation bias.

Hypothesis 7a: Sensation seeking will interact with affective commitment to affect escalation of commitment such that there will be a greater positive relationship between affective

commitment and escalation of commitment to the extent that organizations also exhibit higher levels of sensation seeking.

Hypothesis 7b: Sensation seeking will interact with normative commitment to affect escalation of commitment such that there will be a greater positive relationship between normative commitment and escalation of commitment to the extent that organizations also exhibit higher levels of sensation seeking.

Hypothesis 7c: Sensation seeking will interact with continuance commitment to affect escalation of commitment such that there will be a greater positive relationship between continuance commitment and escalation of commitment to the extent that organizations also exhibit higher levels of sensation seeking.

Organizational Influences

One organization-level variable to consider is that of climate. Lewin, Lippit, and White (1939) first described climate as a shared perception among organization employees regarding their work entity (i.e., organization, division, department, work group). Climate has further been described by Campbell, Dunnette, Lawler, and Weick (1970) as “a set of attributes specific to a particular organization that may be induced from the way that organization deals with its members and its environment... The crucial elements are the individual’s perceptions of the relevant stimuli, constraints, and reinforcement contingencies that govern his job behavior” (p. 390). Waters, Roach, and Batlis (1974) compared 22 separate climate scales found in organizational literature, covering a range of climate dimensions including ‘consideration’, ‘structure’, ‘responsibility’, ‘reward’, ‘warmth’, ‘support’, and ‘identity’, as examples. James and McIntyre (1996) conducted statistical analyses of climate research and developed four basic dimensions: 1) role stress and lack of harmony, 2) job challenge and autonomy, 3) leadership facilitation and support, and 4) work group cooperation, friendliness, and warmth.

Within the climate concept, several sub themes have emerged. One is organizational justice, referring to the perceived fairness in the workplace by employees. One dimension of justice is ‘distributive justice’, or the perceived fairness of outcomes (e.g., pay, promotions). The second dimension of justice is ‘procedural justice’, or the extent to which procedures used to make allocation decisions are seen as fair (Daly & Geyer, 1994). Justice research has shown that in so long as the procedures used to make resource allocation decisions are deemed fair, employees are likely to accept the outcomes of those decisions. In fact, research has shown that employees’ perceptions of procedural fairness have significant effects on their job satisfaction as well as organizational commitment (McFarlin & Sweeney, 1992; Lowe & Vodanovich, 1995).

Voice. A variable which has evolved from the justice literature is that of voice, seen as an antecedent to procedural fairness. Voice is the extent to which employees feel they expressed their views to decision makers prior to a final decision being made (Daly & Geyer, 1994). Voice is thus a form of participation, which increases employee perceptions of fairness (Wagner III & Hollenbeck, 1998). Voice might also increase the amount and flow of information exchanged within an organization, making decision makers more aware of potential obstacles and climate attitudes about certain decision points. Thus, in organizations that portray a climate of support wherein employees perceive a high value placed on member voice, more accurate decision-making will be possible due to more outlets for decision information and persons with whom to discuss decisions.

Hypothesis 8a: Voice will interact with affective commitment to affect escalation of commitment such that there will be a greater negative relationship between affective commitment and escalation of commitment to the extent that organizations also exhibit higher levels of voice.

Hypothesis 8b: Voice will interact with normative commitment to affect escalation of commitment such that there will be a greater negative relationship between normative

commitment and escalation of commitment to the extent that organizations also exhibit higher levels of voice.

Hypothesis 8c: Voice will interact with continuance commitment to affect escalation of commitment such that there will be a greater negative relationship between continuance commitment and escalation of commitment to the extent that organizations also exhibit higher levels of voice.

Power Distance and Uncertainty Avoidance. From the climate literature, the concept of organizational culture was developed due to an increasing awareness that the climate concept failed to capture many of the broader aspects of organizations (Landy & Conte, 2004). Culture refers to “the shared beliefs and values created and communicated by the managers and leaders of an organization to employees” (Landy & Conte, p. 524). The current perspective on these two variables is that they are distinct, yet overlapping concepts. Climate can be viewed as the context wherein action occurs – similar to Campbell et al.’s (1970) definition, while culture is the intended and inferred meaning of those actions (Landy & Conte).

Hofstede has done extensive research in the area of organizational culture and cross-cultural comparisons. His Value Survey Module (VSM; 1980, 1994) remains one of the most popular measurement methods of cultural values, and provides a framework from which to compare organizational cultures within this study. The VSM includes four main dimensions: 1) power distance, or the extent to which a society accepts the power hierarchy and inequality as legitimate; 2) uncertainty avoidance, or a culture’s level of tolerance for uncertainty or ambiguity, and the extent to which they need to take action to reduce the uncertainty; 3) masculinity versus femininity, meaning the acceptance of assertiveness, aggression, advancement, recognition, and earnings as work goals; and 4) individualism versus collectivism, which is the amount of emotional independence a person has from their organization, or the emphasis placed on being part of the collective or group membership

(Randall, 1993).

Randall (1993) utilized Hofstede's four cultural dimensions in her review of cultural commitment spanning 1971 to 1993. In this study, Randall hypothesized effects each of the four dimensions would have on a culture's level of affective commitment. In reviewing 27 articles measuring organizational commitment in various countries, Randall found that collectivist countries had lower levels of affective commitment (counter to predictions), and that countries lower in power distance had higher levels of commitment than high power distance countries. The results for uncertainty avoidance were somewhat contrary to expectation, as the two countries highest in this dimension (Japan and South Korea) scored substantially lower in commitment than did Canada, a low uncertainty-avoidance culture. Finally, results for the masculinity-femininity dimension were unclear, with countries scoring high and low on this dimension reporting similar levels of commitment. All results were said to be tentative as there were so few countries to compare.

More than just looking at commitment, Greer and Stephens (2001) considered the effects of culture on escalation of commitment in looking at differential effects of escalation between U.S. and Mexican decision-makers. The authors identified cultural differences in decision-making between the two populations, such as centralized decision-making and a heightened power distance in the Mexican business environment, which they theorized may lead to increased escalation tendencies. The researchers suggested that high power distance would lead to increased escalation, stating that in these types of organizations, perceptions may exist that mistakes will not be tolerated or forgiven, intensifying self-justification effects, and that cultures lower in uncertainty avoidance (or risk aversion) would display higher levels of escalation as they would be more comfortable with risky behavior. The authors' findings support the above culture (Mexican) escalated more and with a greater magnitude than the low power distance, high uncertainty avoidance culture (U.S.).

Although the research linking organizational culture to escalation of commitment is sparse, some effects can be hypothesized. First, as shown by Greer and Stephens (2001), and shown with affective commitment by Randall (1993), power distance may influence escalation behaviors such that

organizations with higher levels of power distance will escalate more than lower power distance cultures. Also, cultures lower in uncertainty avoidance will escalate more than cultures high on this dimension.

Hypothesis 9a: Power distance will interact with affective commitment to affect escalation of commitment such that there will be a greater positive relationship between affective commitment and escalation of commitment to the extent that organizations also exhibit higher levels of power distance.

Hypothesis 9b: Power distance will interact with normative commitment to affect escalation of commitment such that there will be a greater positive relationship between normative commitment and escalation of commitment to the extent that organizations also exhibit higher levels of power distance.

Hypothesis 9c: Power distance will interact with continuance commitment to affect escalation of commitment such that there will be a greater positive relationship between continuance commitment and escalation of commitment to the extent that organizations also exhibit higher levels of power distance.

Hypothesis 10a: Uncertainty avoidance will interact with affective commitment to affect escalation of commitment such that there will be a greater negative relationship between affective commitment and escalation of commitment to the extent that organizations also exhibit higher levels of uncertainty avoidance.

Hypothesis 10b: Uncertainty avoidance will interact with normative commitment to affect escalation of commitment such that there will be a greater negative relationship between normative commitment and escalation of commitment to the extent that organizations also exhibit higher levels of uncertainty avoidance.

Hypothesis 10c: Uncertainty avoidance will interact with continuance commitment to affect escalation of commitment such that there will be a greater negative relationship between

continuance commitment and escalation of commitment to the extent that organizations also exhibit higher levels of uncertainty avoidance.

Size. As decisions are rarely made “in a box”, it is important to consider the influence of the organizational context on decision-making. One such influence is the size of the organization. Research on groups and teams has consistently shown that as size increases, group effectiveness decreases (Janis, 1971; Wagner III & Hollenbeck, 1998; Karau & Williams, 2001). Individuals may increase their commitment to a previously chosen course of action because group membership may allow persons to feel less responsible for decision outcomes, leading to riskier decision-making. Also, a social-value interpretation of escalation of commitment suggests there is greater social value associated with risk than with caution (escalating being riskier than not escalating), which is the main determinant of risky behaviors in teams (Jones & Roelofsma, 2000; Zaleska & Kogan, 1971). Similar to self-justification effects, an increase in escalation behaviors by groups may also be due to the condition of psychological entrapment, or an increase in commitment to a chosen course of action in order to justify prior investments (Kameda & Sugimori, 1993). Kameda and Sugimori argued that group entrapment is distinct from individual entrapment because in groups there is more invested than just physical costs of time and money, such as social and interpersonal outcomes associated with discontinuing the chosen course of action (e.g., group members “saving face,” maintaining harmony). As discussed, group size may affect the likelihood of escalating commitment such that in larger organizations, members may feel more pressure to justify their behaviors and may be able to diffuse the responsibility of a poor decision outcome, leading to riskier decision-making.

Hypothesis 11a: Organizational size will interact with affective commitment to affect escalation of commitment such that there will be a greater positive relationship between affective commitment and escalation of commitment to the extent that organizations also exhibit higher levels of organizational size.

Hypothesis 11b: Organizational size will interact with normative commitment to affect escalation of commitment such that there will be a greater positive relationship between normative commitment and escalation of commitment to the extent that organizations also exhibit higher levels of organizational size.

Hypothesis 11c: Organizational size will interact with continuance commitment to affect escalation of commitment such that there will be a greater positive relationship between continuance commitment and escalation of commitment to the extent that organizations also exhibit higher levels of organizational size.

Recent meta-analyses have found consistent negative correlations with commitment and withdrawal cognitions, turnover, and absenteeism, and links between various types of commitment with job performance, organizational citizenship behaviors, stress, and work-family conflict (Mathieu & Zajac, 1990; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). Also, there are implications for organizational members related to their commitment, as greater commitment may make them eligible to receive more extrinsic (e.g., benefits, wages, promotions) and intrinsic (e.g., job satisfaction, better coworker relationships) rewards (Mowday et al., 1982). Despite the clear importance of commitment among organizational members, much is still unknown about the relationship between commitment and escalated commitment, and when member commitment becomes harmful. The proposed hypotheses extend existing knowledge of organizational commitment by exploring its relationships with escalated commitment, psychological theories of escalation rationales to predict decision-making behavior, and individual and organizational difference variables. All hypotheses and results are presented in Appendix A.

Method

Participants

There were 457 participants in this study. To be considered a group for the organization-level analyses, at least three persons from each organization were required to participate, thus eliminating groups with less than three participants from group-level analyses. This left 25 groups and 443 participants for group analyses. All participants were Louisiana State University (LSU) students between the ages of 18 and 26 ($M = 20.05$). The sample consisted of 140 males (30.6%) and 317 females (69.4%), was predominantly Caucasian (95.4%), and consisted of 204 participants (44.6%) holding or having once held an office in their organization. See Table 1 for more sample descriptives.

All participants were active members of extracurricular fraternal organizations governed by Panhellenic and Intrafraternity Councils. At the time of the study, there were 11 sororities at LSU with 10 of these averaging 209 members and one major-specific sorority with 22 members, there were 19 fraternities ranging in size from 13 to 149 members, with an average of 66 members, and there were six active African American sororities and fraternities on campus ranging in size from 5 to 25 members, averaging 13 members for a total sample size of 3,473 of members with available contact information. See Table 2 for membership and participation information for those organizations included in the group analyses. Participants were compensated for their involvement as described in the procedures.

The sample was a good fit for this study's research design in that it assessed organizational attitudes and decision behaviors from active members of an intact group, while previous studies relied on attitudinal responses regarding hypothetical membership. The structures of these organizations also have characteristics for good research design, such as each of these organizations share similar governing structures, with members in each holding the same governing positions such as President, Vice President, Treasurer, and Recruitment Chair, as examples. In addition to structure, each organization shares similar goals related to fund-raising for philanthropic activities, and recruitment.

Table 1

Sample Descriptives (N = 457 participants)

	Total of N	Percentage of Total
Gender		
Male	140	30.6%
Female	317	69.4%
Race		
Caucasian	436	95.4%
Black	7	1.5%
Hispanic	8	1.8%
American Indian	1	.2%
Asian	2	.4%
Other	1	.2%
Age ($M = 20.05$)		
18	35	7.7%
19	128	28.0%
20	126	27.6%
21	94	20.6%
22 and over	57	12.4%
Ever held an office in organization		
Yes	204	44.6%
No	252	55.1%
Hours per week involved with organization ($M = 5.04$)		
1-2	65	14.2%
3-4	181	39.6%
5-6	106	23.2%
7-8	35	7.7%
9-10	30	6.6%
11-12 or more	34	7.4%
Version of survey completed		
Money scenario first (version 1)	243	53.2%
Time scenario first (version 2)	214	46.8%

Table 2

Organization Descriptives (N = 25 organizations)

Organization	Member Participants	Organization Size	% of Members Participated
Acacia	16	90	17.78
Delta Chi	4	31	12.90
Delta Kappa Epsilon	4	31	12.90
Kappa Alpha Order	5	74	6.76
Kappa Sigma	10	148	6.76
Lambda Chi Alpha	11	130	8.46
Phi Gamma Delta	4	111	3.60
Phi Kappa Psi	8	77	10.39
Pi Kappa Alpha	3	47	6.38
Pi Kappa Phi	12	78	15.38
Sigma Chi	7	145	4.83
Sigma Alpha Epsilon	7	51	13.73
Sigma Phi Epsilon	16	91	17.58
Tau Kappa Epsilon	3	15	20.00
Theta Xi	7	41	17.07
Phi Delta Theta	9	39	23.08
Zeta Tau Alpha	50	230	21.74
Delta Delta Delta	28	218	12.84
Delta Gamma	41	210	19.52
Delta Zeta	42	191	21.99
Kappa Alpha Theta	38	204	18.63
Kappa Delta	40	216	18.52
Kappa Kappa Gamma	24	214	11.21
Phi Mu	36	204	17.65
Pi Beta Phi	18	196	9.18
<i>Total</i>	443	3082	14.37

Design

The present study incorporated a repeated measures design, wherein participants were asked to make an initial resource allocation decision then were given opportunities to continue or discontinue allocating resources. An implied factor of escalation of commitment is that of *responsibility*. As responsibility is inherent to most definitions of escalation, it was created in this study by first allowing each participant to choose one of three projects they would like to invest in, and then having the

participant make future allocation decisions on the project they chose. Thus, each participant was responsible for choosing the project and making resource investment decisions.

Stimulus Materials

The scenarios and questions used in this study were based on those previously used by Staw (1976) and Whyte (1991), using a different context. Each scenario was intended to provide a realistic context for the population being sampled from which to elicit an escalation dilemma. Like previous studies have done, participants were first given information regarding three projects identified in interviews conducted with organizational leaders as being current and active topics of discussion within the constituency. They included issues of Greek Week participation, transportation, and housing. For the purposes of this study, each participant was asked to assume a role in the decision-making process by chairing a committee of one of these projects, and then asked to make resource allocations toward various organizational projects. Two scenarios, one with three waves of decision-making and the other with four waves of decision-making, were provided (see Appendix B for a breakdown of the decision points). To control for possible order effects, approximately half of the participants were given the money allocation scenario first followed by the time allocation scenario (N = 243), while the remaining participants were given the time allocation scenario first followed by the money allocation scenario (N = 214).

In the money allocation scenario, following the first two monetary allocations negative feedback was given about the performance of all three projects over the last three months with regards to project setbacks, unexpected expenses, percentage of the project that is complete, and if the project is on schedule or falling behind. After the last monetary allocation at the end of this scenario, participants were given positive feedback stating their project and the others were a success. The participants repeated this process in the second scenario they were given, continuing to chair their previously chosen committee. In the time allocation scenario, participants were given one positive feedback as well as two negative feedbacks, this time allocating member *time* instead of *monetary*

resources after each point of feedback. The inclusion of this scenario was to ascertain differences in escalation behavior when considering the resources involved, employee time or company funds. Positive feedback was included in this scenario so that it appeared different from the previous scenario and so participants could avoid a sense of learned helplessness (i.e., it doesn't matter what decision they make if they think the project will always do poorly). The final feedback was again positive with regards to all three projects. See Appendix C for the scenarios.

Procedure

Participants were first recruited in person by announcing the study in various popular classes on campus and through members of the Panhellenic and Intrafraternity Councils at their sorority and fraternity meetings (with permission from the National Panhellenic Conference), then were recruited via electronic mail and by posting the study through the Psychology Department's extra credit research opportunity website. They were informed that a decision-making study was underway that could help the Greek organizations make future decisions about philanthropic and organization-improvement activities that were currently being discussed, while providing a valuable service to the LSU research community. Participants were also informed that organization-level responses from the study about resource decisions would be provided to assist their organizations in their fundraising decisions.

Following initial in-person recruitment efforts, all Greek organization members were sent an electronic invitation via e-mail providing them a hyperlinked address to the questionnaire website (see Appendix D for the invitation letter). Participants were able to access this questionnaire from any computer with World Wide Web access and they could complete it at a time convenient to them. For those members who chose to participate, upon following the link provided the study was explained in more detail and consent was given by having participants choose to agree or decline to do the study. The link that they followed was personalized, with a unique identifier embedded in the URL that associated a randomly assigned experiment number to each participant. By using the assigned experiment number, individually identifying information such as names and social security numbers

was not collected and/or deleted from any intact dataset, thereby preserving confidentiality.

Participants who did not choose at this time to participate were later sent a reminder e-mail regarding the study and containing their personalized link.

After providing consent electronically to participate in the study, participants first filled out the biographical and demographical questionnaire (see Appendix E), then the organizational commitment scale (see Appendix F), and were then asked to complete the decision-making task. Two fictional scenarios describing three potential projects the Greeks may collectively work on in the upcoming years were provided. Participants were asked to choose on which project committee they would like to sit, the Greek Week Committee (chosen by 43.5% of participants), the Housing Committee (40.3%), or the Greek Transportation Committee (16.2%). All participants were then given more detail about the project they chose and were asked to make a series of decisions regarding resource allocations to various realistic organizational considerations. In the money allocation scenario, the participants were asked to distribute a limited quantity of money (\$10,000 at each allocation point) to three project needs, including the project for which s/he serves as committee chair. After making the initial monetary allocation decisions toward all three projects, negative feedback was given and funds were again allocated toward all three project. Participants once again received negative feedback about their project's performance and asked one last time to allocate funds to all three projects. After these decisions were made, participants were given positive feedback stating their project and the others were a success.

Participants were randomly assigned to complete the money allocation or time allocation scenario first, and all were assigned the uncompleted scenario second. After receiving positive feedback regarding all three projects from the first scenario, the second scenario was then introduced which corresponded with the project they initially chose. That is, participants remained on the committee they initially chose. In this scenario, participants were given more detail about their project and told that now funding (or human resources in the form of member' time) was in place their help

was needed to allocate human resources (or money) toward the projects. In the time allocation scenario, after making initial allocation decisions, participants then received positive feedback about all three projects' performance over the last three months and were asked to again allocate volunteer hours toward all projects. Then, as in the money allocation scenario, participants received feedback containing information on the performance of the three projects over a period of time with regards to project setbacks, unexpected expenses, percentage of project complete, and if the project was on schedule or falling behind, with feedback on their chosen project being negative. Participants again made decisions regarding how many volunteer hours to allocate to each project at this time. Before making final allocation decisions, participants were again given negative feedback on their project's performance and were then asked to allocate volunteer hours one last time. They were then given positive feedback stating their project and the others were a success. At the end of the session, participants completed various survey items (described below and found in Appendix F), answering questions related to their respective organization's culture and climate, as well as three personality measures.

Participants were either given extra credit or research learning points for psychology classes, or had their name entered in a raffle to win a cash prize in exchange for their voluntary participation. Also, as participants were told in the scenarios they read that there is an optimal decision to be made when allocating resources and that those participants who made the highest quality decisions would have more chances to win in a prize drawing, all participants were entered into a raffle to win LSU memorabilia.

Pilot Test

This study was piloted with a sample of 35 undergraduate students at LSU who were not members of a Greek organization and who received extra credit in their psychology courses for participation. The participants received the same decision-making materials as were to be used in the actual study, but were asked to imagine they were members of a fictional student organization, or to

use an organization to which they belonged as their referent. The study was piloted in the computer lab in the psychology department so that feedback regarding the survey's usability and the time it takes to complete the survey could be gained. The pilot test was also used to improve the clarity and readability of the scenarios and survey items. Finally, pilot results were used to statistically determine whether Zuckerman's (1994) Sensation Seeking Scale (40 items) could be abbreviated while maintaining adequate measures of reliability.

Results of the pilot test led to forcing participants to answer the commitment rationale items in which they were asked to rate the importance of and rank order the rationale items. Many pilot test participants did not answer these questions at all or did not answer them accurately as they did not take the time to read and understand the instructions (as they stated in their feedback). Thus, the instructions for these items were also clarified and abbreviated. The instructions for the decision-making scenarios and the scenarios themselves were also shortened, and many formatting changes were made to the survey pages to make them more readable. Finally, as the pilot test showed that it only took participants on average 30 minutes to complete the entire survey, as 35 participants was too few to yield usable reliability data on Zuckerman's (1994) Sensation Seeking Scale, and as this scale has been highly used in much research with all 40 items, demonstrating its consistency across many samples and time, this scale was left intact.

Measures

The measures that were used in this study included two conceptualizations of one dependent variable – escalation of commitment of money and of time, one scale with three subscales assessing the independent variable of organizational commitment, three mediating variables which provided rationales for organizational commitment, three individual-level moderators, and four organizational-level moderators. All measures are described below and items may be found in Appendices D and E.

Individual-Level Variables

Organizational Commitment. Organizational commitment is a link between the employee and his or her organization that makes it unlikely the employee will voluntarily leave the organization (Allen & Meyer, 1996). It was measured with Allen and Meyer's (1990) Affective, Continuance, and Normative Commitment Scales (ACS, CCS, and NCS, respectively). Each of these scales consists of eight items, rated on a 7-point scale of agreement (1 = *strongly disagree* to 7 = *strongly agree*). An example item is, "I do not feel a strong sense of belonging to my organization" (affective commitment). A factor analysis was done which showed three items to be inconsistent with the three proposed factors. Two of the three items referenced the ease of which persons can move from one organization to another (which is not actually allowed in the Greek system), and one referred to being an 'organization man' or 'organization woman', which also did not fit this sample as well as it would employees at a typical company. These three items were removed, resulting in an internal consistency reliability estimate of $\alpha = .85$ (ACS), $.70$ (CCS), and $.63$ (NCS), and an overall scale reliability of $\alpha = .82$.

Escalation of Commitment. Escalation of commitment is the tendency for a decision-maker to become overly committed to a decision despite negative feedback regarding the person's or project's performance (Moon, 2001; Staw, 1976). To date, there is little consensus on the development of the escalated commitment measure. For instance, there are no established parameters for how much feedback needs to be given or how many decisions need to be made to show escalation. Therefore the following decisions were made with regard to measuring the construct. The number of decision-making instances published in previous literature has generally been only one or two (see Garland, 1990; Tan & Yates, 2002; Schaubroeck & Williams, 1993; Staw, 1976; Whyte, 1991). As it should take one decision instance to garner commitment, in the present study each participant made two or three additional resource allocation decisions per scenario to gauge escalation of commitment. Of the two scenarios presented, participants made resource allocation decisions regarding the allocation of

money in one scenario and the allocation of member (or employee) time in the other scenario.

Escalated commitment was considered to be present with the allocation of the same amount or more resources (i.e., maintained or increased commitment to a losing course of action by investing the same or more time or money) in the last decision-making instance within each scenario following receiving negative feedback twice consecutively. If after receiving negative feedback the second time the participant allocated fewer resources, this was viewed as no escalation or de-escalation. Finally, rather than using a dichotomous measure of escalation (e.g., escalation versus no escalation), a more discriminating interval scale measure of escalated commitment was used for the analyses. In other words, rather than simply looking at whether participants escalated their commitment or not, the amount of resources committed were considered.

Escalation Rationales. Escalation rationales analyzed in this study include justification effects, project completion effects, and sunk costs effects. Self-justification is when individuals choose to reinvest in a failing course of action in hopes of proving to themselves or others that their previous decisions were correct and that they are competent (Schaubroeck & Williams, 1993b; Whyte, 1993; Festinger, 1957; Caldwell & O'Reilly, 1982; Staw, 1976, 1981). Project completion effects occur due to an increasing unwillingness to abandon a project as it nears completion (Boehne & Paese, 2000; Garland & Conlon, 1998; Moon, 2001). Lastly, sunk costs effects occur when the decision-maker erroneously considers the amount of time, effort, or money already allocated to a project when making further decisions (Garland, 1990; Schaubroeck & Williams, 1993a; Staw, 1976). These three commitment rationales were measured after each set of resource allocation decisions were made. This was done by giving participants a list of decision rationales and asking participants to rate and rank order all items that influenced their decisions. As more than one rationale could be influencing decisions at a decision point, continuous data for the rationales displayed after the final allocation decision in each scenario was used (the same allocation decision used to assess the presence of escalated commitment). Example items included, "I am concerned about the amount of money that

has already been spent on my project,” (sunk costs rationale), “I want to see my project to completion,” (project completion rationale), and “I want to avoid making a poor decision for my peers in the organization” (justification rationale). The eight items used to assess commitment rationales were factor analyzed to determine their appropriateness for use in their assigned rationalizations. The factor analysis showed two items to be unstable. One of these was meant to assess project completion effects and stated, “I want to see my project to completion”, and the other item was meant to assess justification effects and read, “I want my project to be successful.” Once these items were removed, results showed there were two factors remaining with three items assessing the sunk costs rationale (the average loading being .79 for money and .77 for time for this factor) and three items assessing the justification rationale (the average loading being .82 for money and .83 for time this factor). The amount of variance explained by the two-factor model for money was 68.58% and for time was 68.72%. In addition to the factor analysis results, a review of the wording of the unstable items was also done. For example, the statement, “I want my project to be successful” could apply to all three rationales. Given these considerations, the project completion rationale was not tested in further analyses. The remaining items demonstrated internal reliabilities of .74 (sunk costs for escalation of money), .80 (justification for escalation of money), .71 (sunk costs for escalation of time), and .81 (justification for escalation of time).

Openness to Experience. Openness to experience refers to one’s level of curiosity, daringness, tolerance, and desire to fulfill personal pleasures and lead a varied life (Glazer, Daniel & Short, 2004; Judge, Thoresen, Pucik & Welbourne, 1999; Vittengl et al., 2004). It was measured with Saucier’s (1994) shortened version of Goldberg’s (1992) Big Five personality measure. The scale contains eight adjectives (e.g., “complex”, “creative”), and participants were asked to indicate the extent to which they agreed that the adjective described them on a 7-point Likert Scale (1 = strongly disagree to 7 = strongly agree). This scale demonstrated an internal reliability of .74.

Resistance to Change. Resistance to change is one's tendency to resist or avoid making changes, devalue change, and find change aversive across contexts and types of change (Oreg, 2003). It was measured with Oreg's (2003) Resistance to Change scale. Oreg's scale consists of 17 items, each rated on a 6-point Likert scale (1 = *strongly disagree* to 6 = *strongly agree*). A sample item is, "When things don't go according to plans, it stresses me out." This scale demonstrated an internal reliability of .85.

Sensation Seeking. Sensation seeking refers to one's need for varied and novel sensations and experiences, and the willingness to take physical risks for the sake of these experiences (Zuckerman, 1979). It was measured with Zuckerman's (1994) Sensation Seeking Scale Form V (SSS-V). This scale consists of 40 items with each item containing two choices wherein participants were asked to choose which of the two statements most described their likes or feelings. An example item is, "A. I like "wild" uninhibited parties," or "B. I prefer quiet parties with good conversation." This scale demonstrated an internal reliability of .76.

Organizational-Level Variables

Voice. Voice is the extent to which employees feel they expressed their views to decision makers prior to a final decision being made (Daly & Geyer, 1994). It was initially measured with three items previously developed by Avery and Quinones (2004). An example item is, "This organization offers employees ways to express their grievances and complaints." The three items were rated on a 4-point scale of agreement (1 = *strongly disagree* to 4 = *strongly agree*). A reliability analysis showed one item greatly reduced the overall scale reliability and this item was removed. The two remaining items demonstrated an internal reliability of .72.

Power Distance. Power distance is the extent to which a society accepts as legitimate the power hierarchy (Randall, 1993). It was measured with Hofstede's (1994) Values Survey Module (VSM). An example item of power distance is, "An organization structure in which certain subordinates have

two bosses should be avoided at all costs.” These items were rated on 5-point Likert scales with varying scale categories. This scale demonstrated an internal reliability of .50.

Uncertainty Avoidance. Uncertainty avoidance, or a culture’s level of tolerance for uncertainty or ambiguity, and the extent to which they need to take action to reduce uncertainty (Randall, 1993), was also measured with Hofstede’s (1994) Values Survey Module (VSM). An example item of uncertainty avoidance is, “Competition between employees usually does more harm than good.” All items were rated on 5-point Likert scales with varying scale categories. This scale demonstrated an internal reliability of .23.

Size. The size of the organization was measured through extant records of group membership. Size was also measured as a control variable. In addition, demographic and background data such as questions on race (white versus black sororities and fraternities), gender (sororities versus fraternities), age, tenure in organization, and the members’ weekly time commitment to their organization were also collected from the participants.

Results

Preliminary Analysis

Before hypothesis testing could begin, some preliminary analyses were first conducted. The vast majority of participants did escalate their commitment with both monetary and time resources (84.90% and 86.84%, respectively), and so the amount of resources committed were considered (interval data) rather than simply looking at whether participants escalated their commitment or not (data). As money and time are two different but valuable resources for organizations, to utilize the information embedded in the more complex interval scale, and to maximize the likelihood of detecting unique relationship patterns between money and time resources, these two resources were analyzed separately for all analyses, employing the interval escalation measures. Correlations between the two dependent variables and the individual- and group-level independent variables are presented in Tables 3 and 4.

Also, as two different versions of the survey were used with the intent of counteracting any effects based on the order of the scenarios presented, a test for order effects had to be conducted. Multiple t-tests were computed to ascertain mean differences between version 1 of the survey (money scenario presented first, followed by the time scenario) and version 2 (time scenario presented first, followed by the money scenario) for each of the hypothesized variables, followed by re-testing of the hypotheses where significant differences were found (affecting only the sensation seeking variable). Results showed that order effects did not affect the pattern of relationships demonstrated in the study and discussed below.

Finally, as this study was interested in both individual- and organization-level effects, it was necessary to demonstrate sufficient within-group agreement and between-group differences to justify aggregating individual scale responses to the organization-level. The first test used to gauge within-group agreement was Rwg, a measure of interrater agreement. Results of the test of Rwg for each organization can be seen in Table 5. All groups demonstrated an acceptable level of Rwg at .70 or higher for all variables (Bliese, 2000), reflecting high levels of within-group agreement. The next step

Table 3

Descriptive Statistics and Correlations between Escalation of Commitment of Money and Time and Individual-Level Variables (N = 457 participants)

Variable	α	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Money Escalation		790.46	1581.65	–											
2. Time Escalation		1.80	3.28	–	–										
3. Justification Rationale – money		1.80	.69	.01	.00	–									
4. Sunk Costs Rationale – money		1.71	.64	.03	-.03	.38**	–								
5. Justification Rationale – time		1.81	.68	-.01	-.00	.80**	.39**	–							
6. Sunk Costs Rationale – time		1.65	.63	-.02	-.02	.37**	.70**	.45**	–						
7. Organizational Commitment	.82	4.72	.74	.04	-.03	-.11*	-.14*	-.13**	-.14**	–					
8. Affective Commitment	.85	5.51	1.03	.06	-.01	-.06	-.05	-.10*	-.06	.80**	–				
9. Normative Commitment	.63	4.88	.91	.05	-.02	-.09*	-.15**	-.09	-.16**	.69**	.38**	–			
10. Continuance Commitment	.72	3.67	1.05	-.02	-.04	-.09	-.13**	-.10*	-.12**	.72**	.28**	.28**	–		
11. Openness to Experience	.74	5.35	.77	.10*	.04	-.19**	-.11*	-.19**	-.16**	.07	.04	.11*	.03	–	
12. Resistance to Change	.85	3.08	.62	.00	-.14**	.08	.06	.08	.08	.25**	.11*	.26**	.20**	-.09	–
13. Sensation Seeking	.76	19.12	5.70	.02	.01	-.01	-.02	.00	-.00	-.08	-.03	-.09	-.07	.10*	-.26**

* $p < .05$. ** $p < .01$.

Table 4

Descriptive Statistics and Correlations between Escalation of Commitment of Money and Time and Organization-Level Variables (N = 25 organizations)

Variable	α	M	SD	1	2	3	4	5	6	7	8	9
1. Money Escalation		772.09	487.94	–								
2. Time Escalation		1.57	1.29	–	–							
3. Organizational Commitment	.82	3.95	.12	-.17	.09	–						
4. Affective Commitment	.85	5.62	.32	.53**	.13	-.17	–					
5. Normative Commitment	.63	4.99	.34	.22	.18	.60**	.45*	–				
6. Continuance Commitment	.72	3.61	.27	-.47*	.33	.32	-.25	-.02	–			
7. Voice	.72	3.18	.22	.03	-.21	-.19	.39	-.01	-.07	–		
8. Power Distance	.50	-17.19	15.92	.30	.17	.03	.00	.06	-.03	-.36	–	
9. Uncertainty Avoidance	.07	34.51	25.98	.02	.43*	.21	.16	.38	.11	-.39	.15	–
10. Size	–	123	73.98	-.31	.06	-.19	-.58**	-.58**	.14	-.35	.16	-.20

* $p < .05$. ** $p < .01$.

for justifying aggregation is to calculate ICC1 (intraclass correlations), a measure of the agreement among ratings from members of the same group. This test differs from Rwg in that instead of comparing the observed item variance across group members to the variance that might be expected from random error, ICC1 contrasts within versus between variability among group responses. To test ICC values, multiple one-way ANOVAs were first computed with the organization as the independent variable ($N = 24$) and the organization-level variable of interest as the dependent variable (i.e., the three types of commitment and voice, power distance, and uncertainty avoidance). None of these ANOVAs were significant. ICC1 and ICC2 values were then computed for each of these variables. According to James (1982), the acceptable level for ICC1 is .00 to .50 with a median of .12. Referring to Table 5, ICC1 measures show the amount of within-group agreement to be small for all variables (- .01 – .03). The last test, ICC2, measures between-group disagreement in proportion to within-group agreement on the variables of interest, or whether groups can be differentiated from each other on the variables assessed. Unlike ICC1, ICC2 utilizes an average per-group sample size, increasing as the per-group sample size increases. This test also utilizes the conventional .70 reliability level (James), and again, as can be seen in Table 6, ICC2 levels are low across variables (-.16 – .32). Collectively, these results suggest that while within-group agreement may be high, it is comparable to the amount of agreement between groups. Therefore, these indices do not support aggregating individual-level responses at the organization-level.

Tests of Hypotheses

For the following hypotheses, tests were conducted twice, once to detect significant effects using escalation of monetary commitment, and again to test for effects related to escalation of time commitment. For the purpose of testing hypotheses 1a, 2a and 3a, separate bivariate correlation analyses were implemented to test for significant relationships between commitment type and escalation of commitment. The correlation analysis used to determine if a significant relationship exists between affective commitment and escalated commitment of money showed no significant

Table 5

Scale Aggregation: Reliability and Intraclass Correlations (ICC)

Scale	α	ICC1, ICC2	Rwg Average, % organizations above .80
1. Organizational Commitment	.82	-.01, -.16	.99, 100%
2. Affective Commitment	.85	-.01, -.16	.96, 100%
3. Normative Commitment	.63	.03, .32 ⁺	.96, 100%
4. Continuance Commitment	.72	.00, .00	.94, 96%
5. Voice	.72	.00, .05	.84, 72%
6. Power Distance	.50	.02, .31 ⁺	.98, 100%
7. Uncertainty Avoidance	.07	.01, .20	.96, 100%

Note:

- Average number of responding members per organization, $k = 17.2$, $N = 25$ organizations
- (+) marginal significance at alpha .10
- “% organizations above .80” represents the percent of organizations exhibiting a Rwg of .80 or higher. For example, 100% of participating organizations had an Rwg of .80 or higher for the Organizational Commitment scale.

relationship, $r(451) = .06$, *ns*, and similar effects were found with regard to time, $r(450) = -.01$, *ns*.

There was no support for hypothesis 1a. A second set of bivariate correlations was examined to determine if a relationship exists between normative commitment and escalation of commitment, resulting in no significant findings for escalation of money, $r(451) = .05$, *ns*, and for escalation of time, $r(450) = -.02$, *ns*. These results show no support for hypothesis 2a. Finally, correlations were conducted to test the relationship between continuance commitment and escalation of commitment. These analyses were not significant, $r(451) = -.02$, *ns*. Similarly, the correlation between continuance commitment and escalated commitment of time was not significant, $r(450) = -.04$, *ns*. These tests show no support for hypotheses 3a.

Baron and Kenny (1986) outline a commonly used approach to test for mediation effects (MacKinnon, Lockwood, Hoffman, West & Sheets, 2002). There are four steps to this approach required to show that mediation exists. The first step is to show a direct relationship between the predictor (organizational commitment) and outcome (escalation of commitment) variables. The

second step is to demonstrate a relationship between the predictor and the mediator variable (organizational commitment and commitment rationales). The third step is to establish a relationship between the mediator and the outcome variable (commitment rationale and escalation of commitment). In the last step, a relationship between the predictor and outcome variable must be established while controlling for the mediator. If all other steps have been met and the relationship between the predictor and outcome variables becomes zero after controlling for the mediator, then a completely mediated model results. If this relationship is significantly smaller but greater than zero, then the mediator partially mediates the model.

The Baron and Kenny (1986) approach is one of a number of statistical techniques for testing mediation effects. In a simulation study conducted by MacKinnon et al. (2002), the causal procedure typically used and described above was compared with 13 other statistical tests. Results showed that while Type I errors are unlikely to be committed with the causal methods for determining mediation, these procedures were most likely to miss real effects due to low power unless the sample size is large (e.g., $N = 1,000$). The product of coefficients methods, which divide the estimate of the mediator variable by its standard error and compare this value to a standard normal distribution, had the opposite problem: these tests showed higher power than the causal methods to find real differences, but Type I error rates were too low, thus less accurate. In the current study, results of the causal method will be reported, as will two commonly used product of coefficient procedures, Sobel (1982) and Goodman I (1960).

To test for mediation effects, multiple regression analyses tested the commitment – escalation of commitment relationship using two hypothesized mediators. Although the bivariate correlations tested in hypotheses 1a, 2a and 3a were not significant, all four steps of the mediation tests were still conducted. Overall, the mediation hypotheses were not supported, but many direct effects were found. These results are presented in Figures 5 through 11, and in Tables 6 and 7.

Table 6

Hierarchical Regression Analyses testing Mediator Effects of Commitment Rationales on the Relationship Between Commitment and Escalation of Money

Predictor	B	SE	β	<i>t</i>	R	R ²	F
<i>Hypothesis 1b</i>							
Testing Step 1 (Path c) Outcome: escalation Predictor: affective commitment	90.39	72.48	.06	1.25			
Testing Step 2 (Path a) Outcome: justification rationale Predictor: affective commitment	-.04	.03	-.06	-1.25			
Testing Step 3 (Path b) Outcome: escalation Predictor: justification rationale	19.83	108.12	.01	.18			
Testing Step 4 (Paths b and c) Outcome: escalation Mediator: justification rationale Predictor: affective commitment	30.87 91.60	109.28 72.68	.01 .06	.28 1.26	.06	.00	.82
<i>Hypothesis 2c</i>							
Testing Step 1 (Path c) Outcome: escalation Predictor: normative commitment	84.20	82.20	.05	1.02			
Testing Step 2 (Path a) Outcome: sunk costs rationale Predictor: normative commitment	-.10	.03	-.15	-3.12**			
Testing Step 3 (Path b) Outcome: escalation Predictor: sunk costs rationale	74.01	116.01	.03	.64			
Testing Step 4 (Paths b and c) Outcome: escalation Mediator: sunk costs rationale Predictor: normative commitment	97.91 94.19	118.45 83.11	.04 .05	.83 1.13	.06	.00	.87
<i>Hypothesis 3b</i>							
Testing Step 1 (Path c) Outcome: escalation Predictor: continuance commitment	-27.62	71.15	-.02	-.39			
Testing Step 2 (Path a) Outcome: sunk costs rationale Predictor: continuance commitment	-.08	.03	-.13	-2.87**			
Testing Step 3 (Path b) Outcome: escalation Predictor: sunk costs rationale	74.01	116.01	.03	.64			
Testing Step 4 (Paths b and c) Outcome: escalation Mediator: sunk costs rationale Predictor: continuance commitment	73.61 -21.64	118.41 71.85	.03 -.01	.62 -3.30	.04	.00	.27

** $p < .01$.

Table 7

Hierarchical Regression Analyses testing Mediator Effects of Commitment Rationales on the Relationship Between Commitment and Escalation of Time

Predictor	B	SE	β	<i>t</i>	R	R ²	F
<i>Hypothesis 1b</i>							
Testing Step 1 (Path c) Outcome: escalation Predictor: affective commitment	-.04	.15	-.01	-.24			
Testing Step 2 (Path a) Outcome: justification rationale Predictor: affective commitment	-.07	.03	-.10	-2.15*			
Testing Step 3 (Path b) Outcome: escalation Predictor: justification rationale	-.02	.24	-.00	-.08			
Testing Step 4 (Paths b and c) Outcome: escalation Mediator: justification rationale Predictor: affective commitment	-.04 -.04	.23 .15	-.01 -.01	-.16 -.25	.01	.00	.04
<i>Hypothesis 2c</i>							
Testing Step 1 (Path c) Outcome: escalation Predictor: normative commitment	-.07	.17	-.02	-.43			
Testing Step 2 (Path a) Outcome: sunk costs rationale Predictor: normative commitment	-.11	.03	-.16	-3.46**			
Testing Step 3 (Path b) Outcome: escalation Predictor: sunk costs rationale	-.11	.24	-.02	-.46			
Testing Step 4 (Paths b and c) Outcome: escalation Mediator: sunk costs rationale Predictor: normative commitment	-.16 -.09	.25 .17	-.03 -.03	-.65 -.53	.04	.00	.30
<i>Hypothesis 3b</i>							
Testing Step 1 (Path c) Outcome: escalation Predictor: continuance commitment	-.13	.15	-.04	-.85			
Testing Step 2 (Path a) Outcome: sunk costs rationale Predictor: continuance commitment	-.07	.03	-.12	-2.63**			
Testing Step 3 (Path b) Outcome: escalation Predictor: sunk costs rationale	-.11	.24	-.02	-.46			
Testing Step 4 (Paths b and c) Outcome: escalation Mediator: sunk costs rationale Predictor: continuance commitment	-.17 -.14	.25 .15	-.03 -.04	-.68 -.93	.05	.00	.59

** $p < .01$.

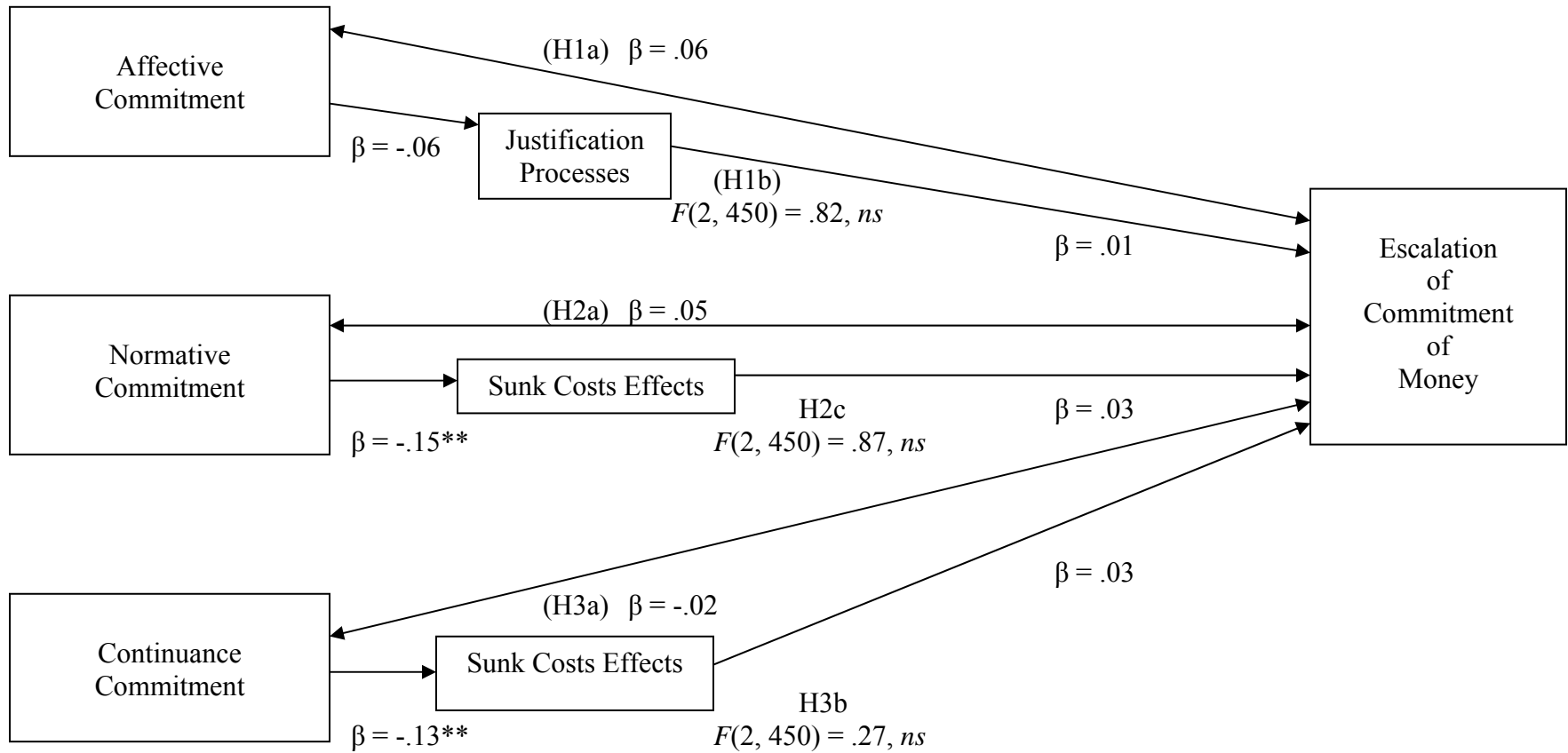


Figure 5: Tested Mediators of the Commitment – Escalation of Commitment of Money Relationship

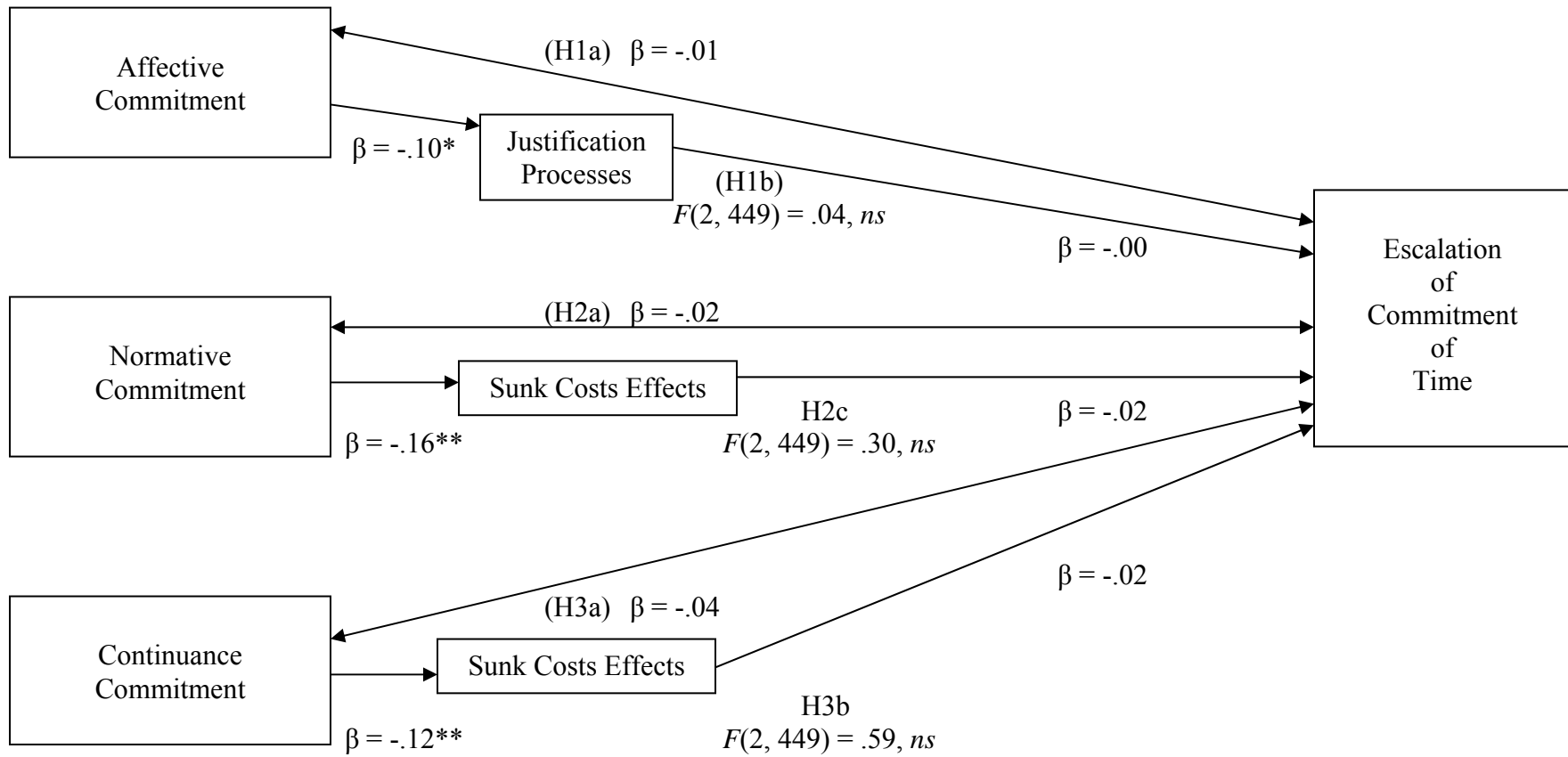
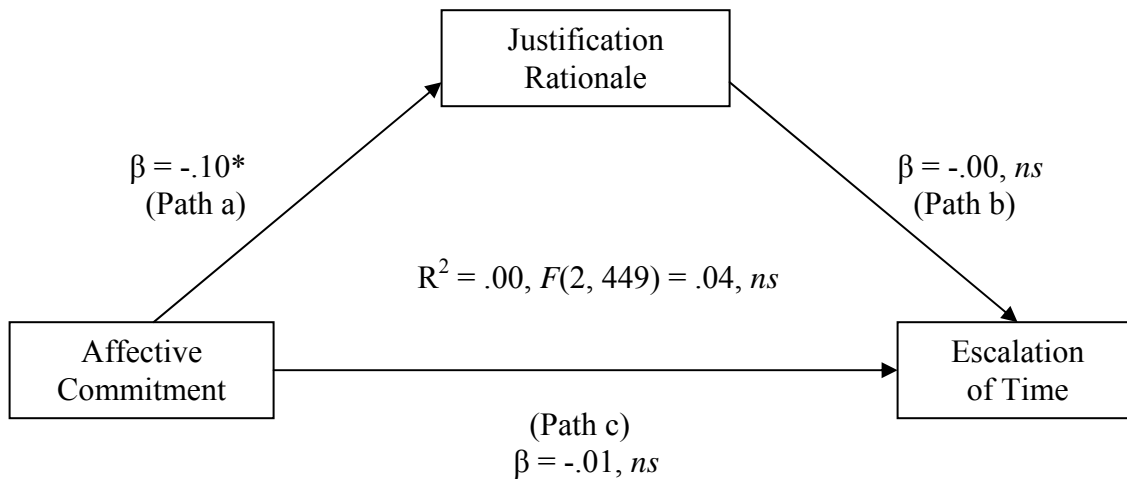
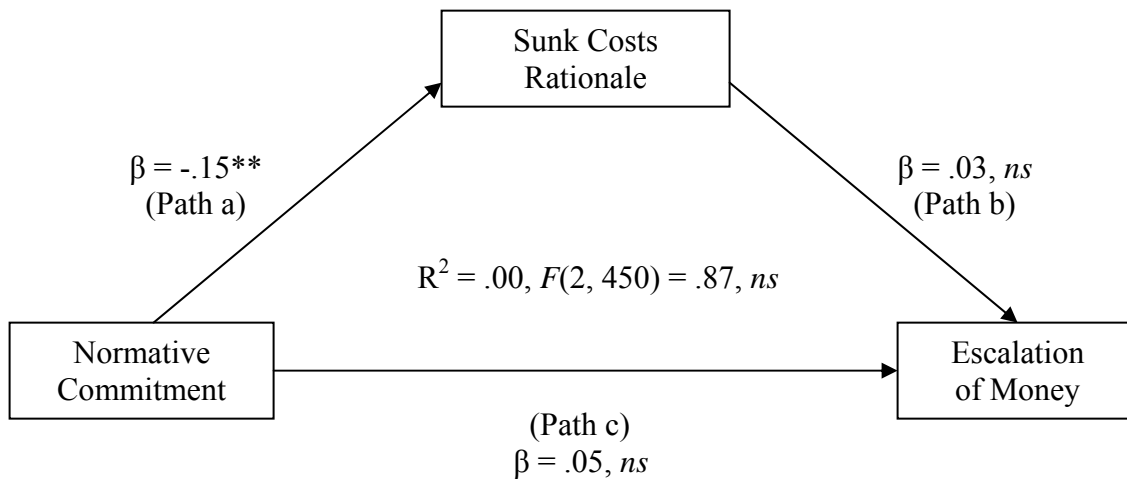


Figure 6: Tested Mediators of the Commitment – Escalation of Commitment of Time Relationship



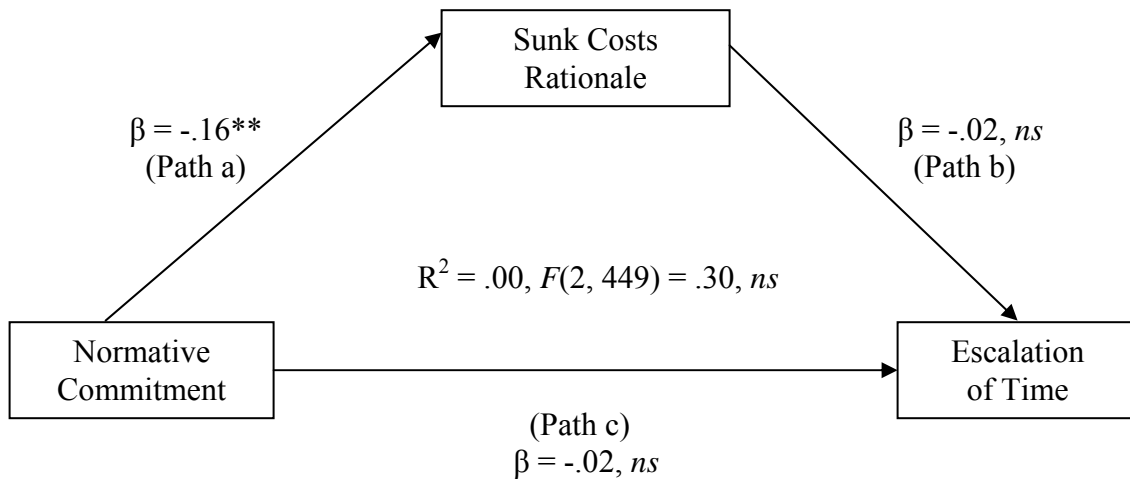
* $p < .05$.

Figure 7: Hypothesis 1b – Justification as Mediator of Affective Commitment and Escalation of Time



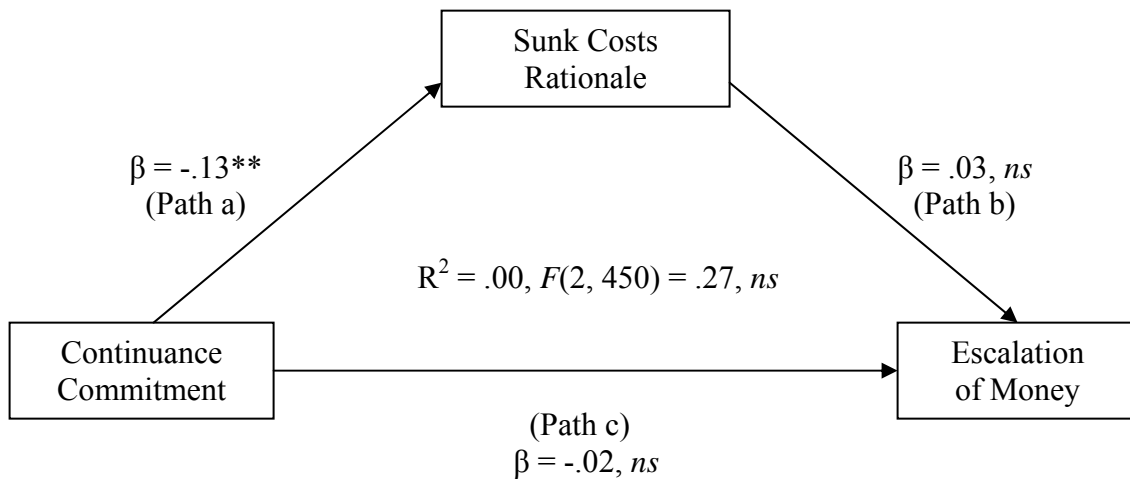
** $p < .01$.

Figure 8: Hypothesis 2c – Sunk Costs as Mediator of Normative Commitment and Escalation of Money



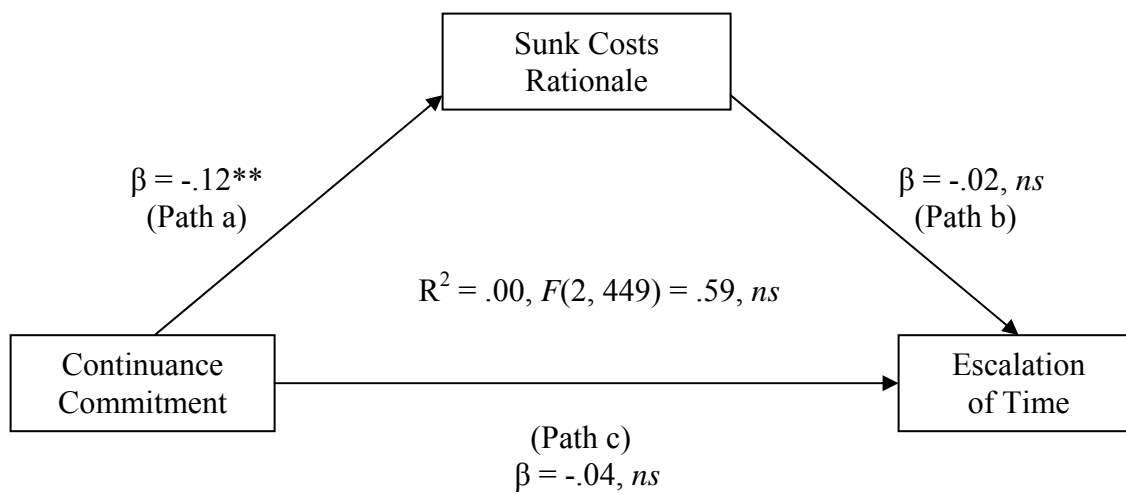
$**p < .01.$

Figure 9: Hypothesis 2c – Sunk Costs as Mediator of Normative Commitment and Escalation of Time



$**p < .01.$

Figure 10: Hypothesis 3b – Sunk Costs as Mediator of Continuance Commitment and Escalation of Money



$**p < .01$.

Figure 11: Hypothesis 3b – Sunk Costs as Mediator of Continuance Commitment and Escalation of Time

The first mediation analysis examined possible mediator effects of the justification rationale on the relationship between affective commitment and escalation of money. Using the Baron and Kenny (1986) approach, Step 1 showed that affective commitment did not significantly predict escalation of money, $\beta = .06, ns$. Step 2 showed no significant relationship between affective commitment and justification processes, $\beta = -.06, ns$. Step 3 showed no significant relationship between justification and escalation of money, $\beta = .01, ns$. In the last step (Step 4), the relationship between affective commitment and escalation of money was again tested, this time controlling for the mediating effect of justification processes. Results of this test showed this relationship was still not significant, $\beta = .06, ns$. Sobel tests used to examine the indirect effects of justification processes on the affective commitment – escalation of money relationship showed the total effect that was mediated to be -1.34% ($z = -.28, ns$). Similarly, the Goodman test also showed no effect of the mediator, $z = -.22, ns$. Results of this mediation analysis show no support for hypothesis 1b.

The second mediation analysis examined the same predictor and mediator variables, but with escalation of time as the dependent variable. Step 1 showed affective commitment did not significantly predict escalation of time, $\beta = -.01, ns$. Step 2, however, showed affective commitment

did significantly predict justification processes, $\beta = -.10, p < .05$. Step 3 showed no significant relationship between justification processes and escalation of time, $\beta = -.00, ns$. In Step 4, the relationship between affective commitment and escalation of time was again tested while controlling for the effect of justification processes. Results of this test showed this relationship was still not significant, $\beta = -.01, ns$. Sobel tests used to examine the indirect effects of justification processes on the affective commitment – escalation of time relationship showed the total effect that was mediated to be -6.77% ($z = .16, ns$). Similarly, the Goodman test also showed no effect of the mediator, $z = .14, ns$. Overall, results of this mediation analysis show hypothesis 1b is not supported.

The next mediation analysis examined possible mediator effects of the sunk costs rationale on the relationship between normative commitment and escalation of money. Step 1 showed normative commitment did not significantly predict escalation of money, $\beta = .05, ns$. Step 2 did show a significant relationship between normative commitment and sunk costs rationale, $\beta = -.15, p < .01$. In Step 3, results yielded no significant relationship between sunk costs and escalation of money, $\beta = .03, ns$. Similarly, in Step 4 results showed the relationship between normative commitment and escalation of money while controlling for sunk costs was still not significant, $\beta = .05, ns$. Sobel tests used to examine the indirect effects of sunk costs on this relationship showed the total effect that was mediated to be -11.87% ($z = -.80, ns$). The Goodman test also showed no effect of the mediator, $z = -.76, ns$. The results of this mediation analysis show no support for hypothesis 2c.

A fourth mediation analysis examined possible mediator effects of the sunk costs rationale on the relationship between normative commitment and escalation of time. Step 1 showed normative commitment did not significantly predict escalation of time, $\beta = -.02, ns$. Step 2 showed a significant relationship between normative commitment and sunk costs rationale, $\beta = -.16, p < .01$. Step 3 showed no significant relationship between sunk costs rationale and escalation of time, $\beta = -.02, ns$. Finally, in Step 4, the relationship between normative commitment and escalation of time was still not significant when controlling for the sunk costs rationale, $\beta = -.03, ns$. Sobel tests used to examine potential

mediator effects of the sunk costs rationale on this relationship showed the total effect that was mediated to be -24.49% ($z = .64, ns$). The Goodman test also showed no effect of the mediator, $z = .62, ns$. These results show hypothesis 2c is not supported.

The next mediation analysis again examined possible mediator effects of the sunk costs rationale, but this time on the relationship between continuance commitment and escalation of money. Step 1 showed continuance commitment did not significantly predict escalation of money, $\beta = -.02, ns$. Step 2 showed a significant relationship between continuance commitment and sunk costs rationale, $\beta = -.13, p < .01$. Step 3 showed no significant relationship between sunk costs and escalation of money, $\beta = .03, ns$. Step 4 considered the relationship between continuance commitment and escalation of money while controlling for the effect of the sunk costs rationale. Results showed this relationship was still not significant, $\beta = -.01, ns$. Sobel tests used to examine the indirect effects of sunk costs rationale on the above relationship showed the total effect that was mediated to be 21.65% ($z = -.61, ns$). The Goodman test also showed no effect of the mediator, $z = -.58, ns$. The results of this mediation analysis show no support for hypothesis 3b.

The final mediation analysis examined possible mediator effects of the sunk costs rationale on the relationship between continuance commitment and escalation of time. Step 1 showed continuance commitment did not significantly predict escalation of time, $\beta = -.04, ns$. Step 2, however, showed a significant relationship between continuance commitment and sunk costs rationale, $\beta = -.12, p < .01$. Step 3 showed no significant relationship between sunk costs and escalation of time, $\beta = -.02, ns$. In Step 4, the relationship between continuance commitment and escalation of time was again tested while controlling for the effect of the sunk costs rationale, with results showing this relationship was still not significant, $\beta = -.04, ns$. Sobel tests used to examine the indirect effects of sunk costs rationale on this relationship showed the total effect that was mediated to be -9.86% ($z = .66, ns$). The Goodman test also showed no effect of the mediator, $z = .62, ns$. Overall, these results show no support for

hypothesis 3b.

Hypothesis 4 states that persons high in continuance commitment will escalate to a greater degree than persons affectively or normatively committed to the organization. Two separate one-way Analyses of Variance (ANOVAs) were used to compare the three different types of commitment to degree of escalation. The first ANOVA was conducted on the escalation of money variable, showing no significant effect of type of commitment on escalated commitment of money, $F(2, 441) = .06, ns$. The second ANOVA examined the time escalation variable, again showing no significant effect of type of commitment on escalated commitment of time, $F(2, 440) = 1.50, ns$. These analyses show no support for hypothesis 4.

Per the procedures outlined by Baron and Kenny (1986), Cohen and Cohen (1983), and Aguinis and Pierce (1999), a series of hierarchical linear regressions were run to detect individual difference influences using moderated multiple regression (MMR) analyses. As the commitment subscales are correlated (see Table 3), the variables used in the MMR analyses were first centered around their means and these centered variables were used in all moderated regression equations. Additionally, organizational size was entered in the first step of all analyses as a control variable. Of the 18 MMR analyses done, three showed significant interactions and one showed a marginally significant interaction. Many direct effects were also found. The results of all analyses will be discussed below and are displayed in Tables 8 and 9. The hypothesized and tested models and results are graphically depicted in Figures 3 and 4, and significant interactions are depicted in Figures 12-15.

All of the MMR regression models were structured similarly. In the first, size was entered in step one, then affective commitment and openness to experience were entered in step two, with these same variables along with their product term being entered in step three to ascertain any interactive effects. Results showed that while there was a marginally significant main effect for openness to experience on escalation of money, $\beta = .09, p < .10$, openness to experience did not significantly moderate the affective commitment – escalation of money relationship, $\beta = -.04, ns$, showing no support for hypothesis 5a. Applying the MMR structure described above, the second MMR analysis entered

Table 8

Moderated Multiple Regression Analyses between Escalation of Money (M = 791.04, SD = 1587.71) and Individual-Level Variables

Models	Mean	SD	ΔR^2	R^2 total	F	β
Overall Model (Hypothesis 5a)				.02	2.01 ⁺	
Step 1			.01			
Organizational Size	94.91	79.34				-.07
Step 2			.01 ⁺			
Affective Commitment	5.51	1.03				.05
Openness to Experience	5.35	.77				.09*
Step 3			.00			
Affective Commitment						.05
Openness to Experience						.09 ⁺
Interaction Term						-.04
Overall Model (Hypothesis 5b)				.02	2.72*	
Step 1			.01			
Organizational Size	94.91	79.34				-.07
Step 2			.01			
Normative Commitment	4.88	.91				.03
Openness to Experience	5.35	.77				.09*
Step 3			.01*			
Normative Commitment						.03
Openness to Experience						.10*
Interaction Term						-.10*
Overall Model (Hypothesis 5c)				.02	1.70	
Step 1			.01			
Organizational Size	94.91	79.34				-.07
Step 2			.01			
Continuance Commitment	3.67	1.05				-.02
Openness to Experience	5.35	.77				.10*
Step 3			.00			
Continuance Commitment						-.02
Openness to Experience						.10*
Interaction Term						-.03

* $p < .05$. ** $p < .01$. ⁺ $p < .10$. ⁺⁺ $p = .10$. β = standardized Beta.

Table 8 (continued)

	Mean	SD	ΔR^2	R^2 total	F	β
Overall Model (Hypothesis 6a)				.02	2.46*	
Step 1			.01			
Organizational Size	94.91	79.34				-.07
Step 2			.00			
Affective Commitment	5.51	1.03				.05
Resistance to Change	3.08	.62				-.01
Step 3			.01*			
Affective Commitment						.08
Resistance to Change						-.01
Interaction Term						.12*
Overall Model (Hypothesis 6b)				.02	1.96 ⁺⁺	
Step 1			.01			
Organizational Size	94.91	79.34				-.07
Step 2			.00			
Normative Commitment	4.88	.91				.04
Resistance to Change	3.08	.62				-.01
Step 3			.01*			
Normative Commitment						.05
Resistance to Change						-.01
Interaction Term						.11*
Overall Model (Hypothesis 6c)				.01	.67	
Step 1			.01			
Organizational Size	94.91	79.34				-.07
Step 2			.00			
Continuance Commitment	3.67	1.05				-.02
Resistance to Change	3.08	.62				.00
Step 3			.00			
Continuance Commitment						-.02
Resistance to Change						-.00
Interaction Term						-.03

* $p < .05$. ** $p < .01$. ⁺ $p < .10$. ⁺⁺ $p = .10$. β = standardized Beta.

Table 8 (continued)

	Mean	SD	ΔR^2	R^2 total	F	β
Overall Model (Hypothesis 7a)				.01	1.30	
Step 1			.01			
Organizational Size	94.91	79.34				-.07
Step 2			.00			
Affective Commitment	5.51	1.03				.05
Sensation Seeking	19.12	5.70				.00
Step 3			.00			
Affective Commitment						.05
Sensation Seeking						.01
Interaction Term						-.06
Overall Model (Hypothesis 7b)				.01	.72	
Step 1			.01			
Organizational Size	94.91	79.34				-.07
Step 2			.00			
Normative Commitment	4.88	.91				.04
Sensation Seeking	19.12	5.70				.00
Step 3			.00			
Normative Commitment						.04
Sensation Seeking						.00
Interaction Term						.02
Overall Model (Hypothesis 7c)				.01	.59	
Step 1			.01			
Organizational Size	94.91	79.34				-.07
Step 2			.00			
Continuance Commitment	3.67	1.05				
Sensation Seeking	19.12	5.70				-.00
Step 3			.00			
Continuance Commitment						-.02
Sensation Seeking						-.00
Interaction Term						.01

* $p < .05$. ** $p < .01$. + $p < .10$. ++ $p = .10$. β = standardized Beta.

Table 9

Moderated Multiple Regression Analyses between Escalation of Time (M = 1.79, SD = 3.29) and Individual-Level Variables

Models	Mean	SD	ΔR^2	R^2 total	F	β
Overall Model (Hypothesis 5a)				.00	.32	
Step 1			.00			
Organizational Size	94.91	79.34				.03
Step 2			.00			
Affective Commitment	5.51	1.03				-.01
Openness to Experience	5.35	.77				.04
Step 3			.00			
Affective Commitment						-.01
Openness to Experience						.04
Interaction Term						.01
Overall Model (Hypothesis 5b)				.00	.37	
Step 1			.00			
Organizational Size	94.91	79.34				.03
Step 2			.00			
Normative Commitment	4.88	.91				-.02
Openness to Experience	5.35	.77				.04
Step 3			.00			
Normative Commitment						-.02
Openness to Experience						.05
Interaction Term						-.02
Overall Model (Hypothesis 5c)				.01	.57	
Step 1			.00			
Organizational Size	94.91	79.34				.03
Step 2			.00			
Continuance Commitment	3.67	1.05				-.04
Openness to Experience	5.35	.77				.04
Step 3			.00			
Continuance Commitment						-.04
Openness to Experience						.04
Interaction Term						.03

* $p < .05$. ** $p < .01$. + $p < .10$. ++ $p = .10$. β = standardized Beta.

Table 9 (continued)

	Mean	SD	ΔR^2	R^2 total	F	β
Overall Model (Hypothesis 6a)				.02	2.12 ⁺	
Step 1			.00			
Organizational Size	94.91	79.34				.03
Step 2			.02*			
Affective Commitment	5.51	1.03				.01
Resistance to Change	3.08	.62				-.13**
Step 3			.00			
Affective Commitment						.01
Resistance to Change						-.13**
Interaction Term						.02
Overall Model (Hypothesis 6b)				.03	3.05*	
Step 1			.00			
Organizational Size	94.91	79.34				.03
Step 2			.02*			
Normative Commitment	4.88	.91				.02
Resistance to Change	3.08	.62				-.14**
Step 3			.01 ⁺			
Normative Commitment						.03
Resistance to Change						-.13**
Interaction Term						.09 ⁺
Overall Model (Hypothesis 6c)				.02	2.22 ⁺	
Step 1			.00			
Organizational Size	94.91	79.34				.03
Step 2			.02*			
Continuance Commitment	3.67	1.05				-.01
Resistance to Change	3.08	.62				-.13**
Step 3			.00			
Continuance Commitment						-.01
Resistance to Change						-.13**
Interaction Term						.03

* $p < .05$. ** $p < .01$. ⁺ $p < .10$. ⁺⁺ $p = .10$. β = standardized Beta.

Table 9 (continued)

	Mean	SD	ΔR^2	R^2 total	F	β
Overall Model (Hypothesis 7a)				.00	.28	
Step 1			.00			
Organizational Size	94.91	79.34				.03
Step 2			.00			
Affective Commitment	5.51	1.03				-.01
Sensation Seeking	19.12	5.70				.01
Step 3			.00			
Affective Commitment						-.01
Sensation Seeking						.01
Interaction Term						.04
Overall Model (Hypothesis 7b)				.01	.63	
Step 1			.00			
Organizational Size	94.91	79.34				.03
Step 2			.00			
Normative Commitment	4.88	.91				-.01
Sensation Seeking	19.12	5.70				.01
Step 3			.00			
Normative Commitment						-.02
Sensation Seeking						.00
Interaction Term						.07
Overall Model (Hypothesis 7c)				.00	.31	
Step 1			.00			
Organizational Size	94.91	79.34				.03
Step 2			.00			
Continuance Commitment	3.67	1.05				-.04
Sensation Seeking	19.12	5.70				.01
Step 3			.00			
Continuance Commitment						-.04
Sensation Seeking						.01
Interaction Term						.00

* $p < .05$. ** $p < .01$. + $p < .10$. ++ $p = .10$. β = standardized Beta.

normative commitment and openness to experience in step two with these variables and their product term being entered in step three. Results showed there was a significant main effect for openness to experience on escalation of money, $\beta = .10$, $p < .05$, and a significant interaction, showing openness to experience significantly affects the commitment – escalation of money relationship, $\beta = -.10$, $p < .05$. When openness to experience is high, low organizational commitment results in higher levels of escalation than when organizational commitment is high. A simple slope analysis revealed that

organizational commitment predicts escalation when openness to experience is high, $\beta = .72, p < .05$, and also when openness to experience is low, $\beta = .55, p < .05$. By plotting the simple slopes of the regression line linking commitment and escalation of money, results reveal that at low levels of openness to experience, increasing normative commitment results in an increase in escalation, while at high levels of openness, increasing normative commitment results in a decrease in escalation of funds, thus supporting hypothesis 5b (see Figure 12). A third MMR analysis was done with this moderator variable with continuance commitment and openness to experience entered in the second step, and these variables and their product term entered in the final step. Similar to the first MMR analysis, there is a main effect for openness to experience on escalation of money, $\beta = .10, p < .05$, but not a significant interaction, showing openness to experience does not moderate the continuance commitment – escalation of money relationship, $\beta = -.03, ns$. These results show that hypothesis 5c is not supported.

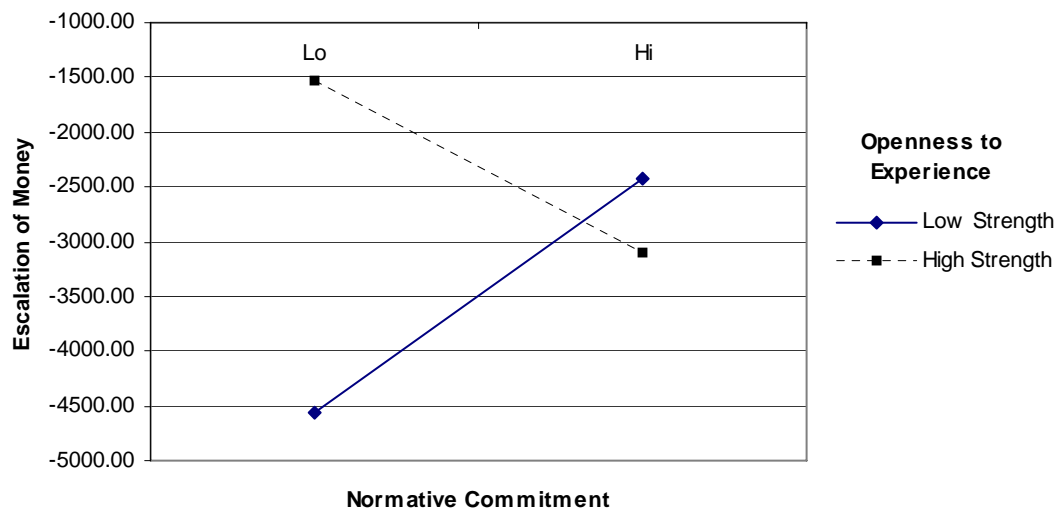


Figure 12. Normative Commitment × Openness to Experience Interaction on Escalation of Money

In the next three MMR analyses, size was again entered in step one, with the three types of commitment entered in step two in each separate regression along with resistance to change as the moderating variable, with the same variables being entered at step three along with the product term of

each. The first of this set of regressions resulted in a significant interaction, showing resistance to change does moderate the affective commitment – escalation of money relationship, $\beta = .12, p < .05$. A simple slope analysis revealed that organizational commitment negatively predicts escalation when resistance to change is high, $\beta = -.56, p < .05$, and also when resistance to change is low, $\beta = -.34, p < .05$. By again plotting the simple slopes of the regression line linking commitment and escalation of money, results showed that at low levels of resistance to change, increasing affective commitment results in a decrease in escalation, while at high levels of resistance, increasing affective commitment results in an increase in escalation of funds, thus showing support for hypothesis 6a (see Figure 13). In the second analysis now dealing with normative commitment, results showed that resistance to change did significantly moderate the normative commitment – escalation of commitment relationship, $\beta = .11, p < .05$. A simple slope analysis revealed that organizational commitment negatively predicts escalation when resistance to change is high, $\beta = -.49, p = .05$, but only marginally predicts escalation when resistance to change is low, $\beta = -.31, p < .10$. Plotting the simple slopes of the regression line revealed that at low levels of resistance to change, as normative commitment increases escalation of money decreases, while at high levels of resistance to change, as normative commitment increases, escalation increases, thus showing support for hypothesis 6b (see Figure 14). The last of this set of analyses showed no significant effect of resistance to change on the continuance commitment – escalation of money relationship, $\beta = -.03, ns$, showing no support for hypothesis 6c.

In the last three MMR analyses dealing with escalation of money as the criterion, the three types of commitment were again entered in step two in each separate regression along with sensation seeking as the moderating variable. Results showed no significant effect of sensation seeking as a moderator for the affective commitment – escalation of money relationship, $\beta = -.06, ns$, for the normative commitment – escalation relationship, $\beta = .02, ns$, or for the continuance commitment – escalation relationship, $\beta = .01, ns$. These results show no support for hypothesis 7.

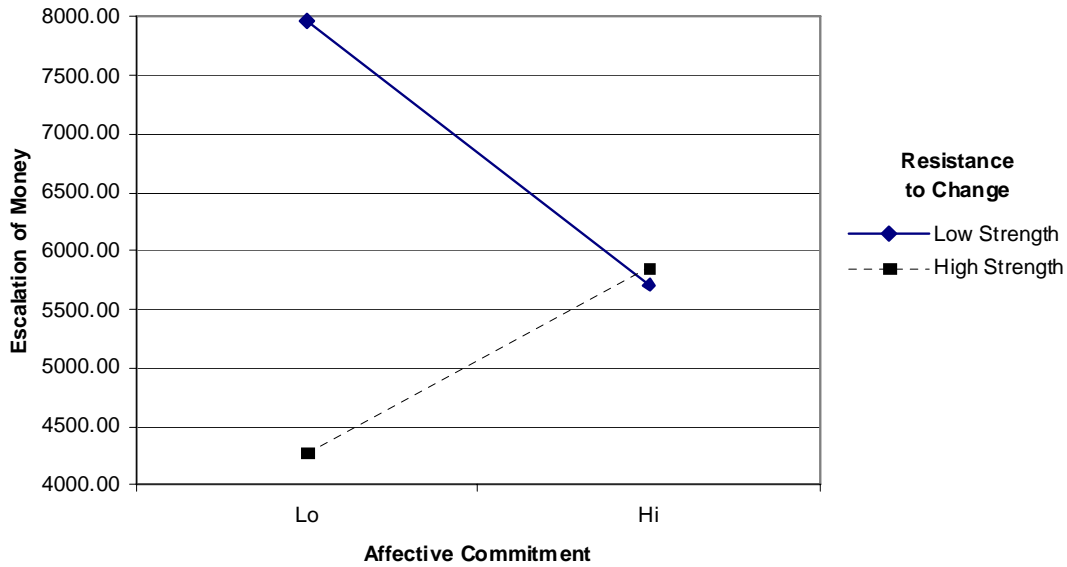


Figure 13. Affective Commitment × Resistance to Change Interaction on Escalation of Money

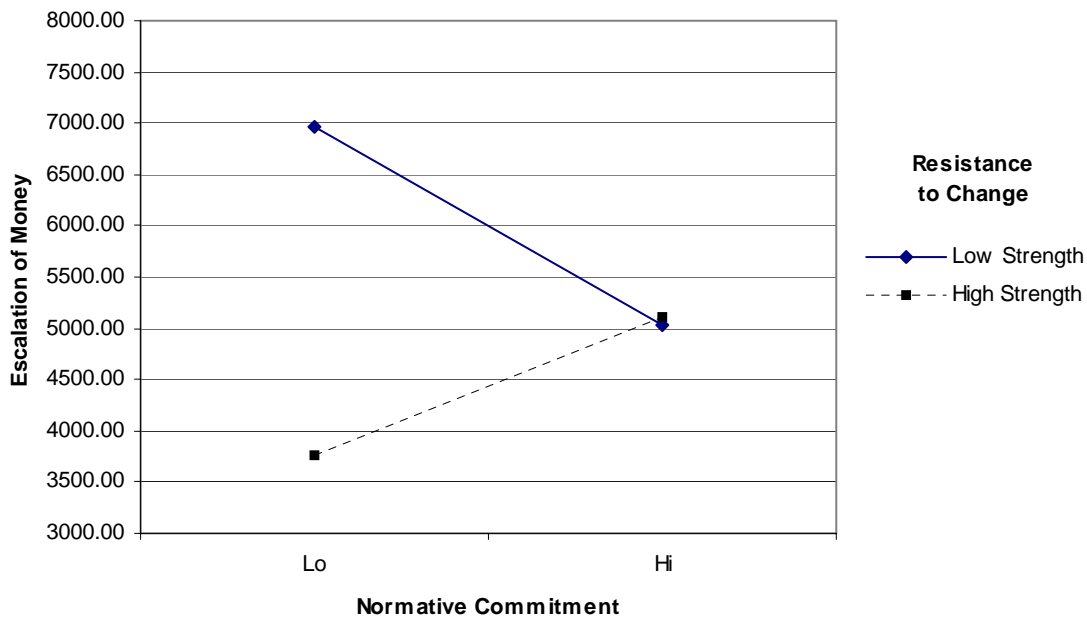


Figure 14. Normative Commitment × Resistance to Change Interaction on Escalation of Money

The next nine MMR analyses follow the same structure of the previous MMR analyses, but with escalation of time entered as the criterion variable. The first three again have one of the three types of commitment and openness to experience entered in the second step of each of the three regressions, and the type of commitment, openness to experience, and their product term entered in step three.

Results showed no support for any of these regressions, meaning openness to experience did not significantly moderate the affective commitment – escalation of time relationship, $\beta = .01$, *ns*, the normative commitment – escalation relationship, $\beta = -.02$, *ns*, or the continuance commitment – escalation relationship, $\beta = .03$, *ns*. These results show no support for hypothesis 5 with escalation of commitment of time as the dependent variable.

The next set of MMR analyses dealing with resistance to change as the moderating variable proved more fruitful. With affective commitment and resistance to change entered in step two, results showed a significant main effect of resistance to change on escalation of time, $\beta = -.13$, $p < .01$, but not a significant interaction, $\beta = .02$, *ns*, showing no support for hypothesis 6a. In the second analysis with normative commitment now entered in step two, there was a significant main effect again of resistance to change, $\beta = -.13$, $p < .01$, and a marginally significant effect of the moderator term, $\beta = .09$, $p < .10$. A simple slope analysis was done which revealed that organizational commitment negatively predicts escalation when resistance to change is high with marginal significance, $\beta = -.45$, $p < .10$, and also when resistance to change is low with marginal significance, $\beta = -.29$, $p < .10$. Plots of the simple slopes of the regression line linking commitment and escalation of time revealed that at high levels of resistance to change, as normative commitment increases, there is an increase in escalation of commitment, however, at low levels of resistance to change, as normative commitment increases, escalation of commitment decreases (see Figure 15). This result shows marginal support for hypothesis 6b for escalation of time. In the third analysis, with continuance commitment now entered in step two as the moderating term, results again showed a significant main effect of resistance to change on escalation of time, $\beta = -.13$, $p < .01$, but no significant effect of the moderator on the continuance commitment – escalation relationship, $\beta = .03$, *ns*, showing no support for hypothesis 6c.

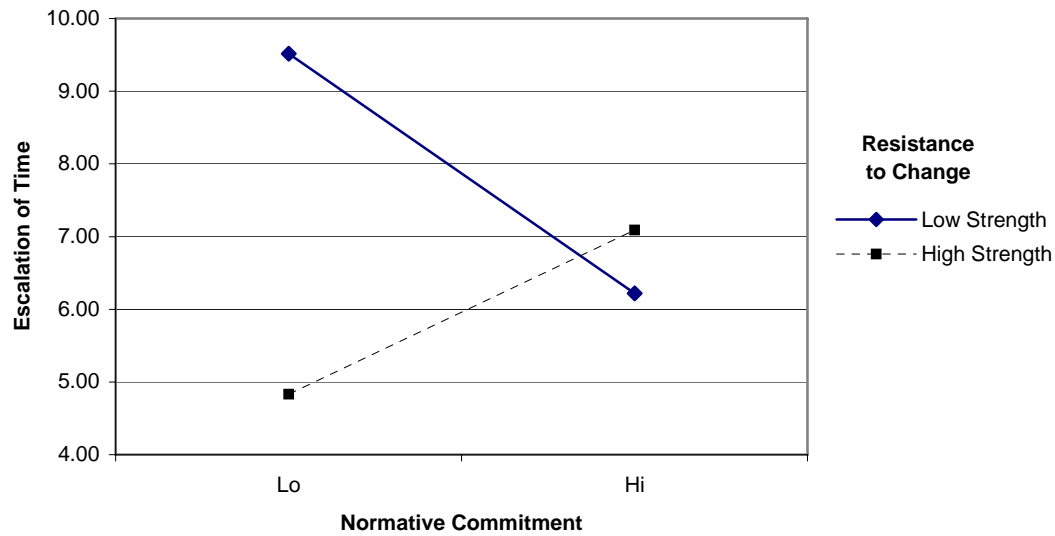


Figure 15. Normative Commitment × Resistance to Change Interaction on Escalation of Time

In the last set of MMR analyses, sensation seeking was tested as the moderator. Results showed no significant effect of sensation seeking as a moderator for the affective commitment – escalation of time relationship, $\beta = .04$, *ns*, for the normative commitment – escalation relationship, $\beta = .07$, *ns*, or for the continuance commitment – escalation relationship, $\beta = .00$, *ns*. As with escalation of money, these results show no support for hypothesis 7 with escalation of time.

Discussion

Much previous research has analyzed employee commitment, conceptualized various types of commitment, and analyzed the relationship between commitment and many organizational outcomes such as job performance and absenteeism (e.g., Meyer & Allen, 1987; Mowday, Porter, & Dubin, 1974; Steers & Rhodes, 1978). Additionally, much research has studied the effects of too much commitment, or escalated commitment, the often detrimental, even deadly outcomes of escalated commitment, and the rationales behind this type of flawed decision making (e.g., Schaubroeck & Williams, 1993b; Staw, 1976; Staw & Ross, 1978). However, no study to my knowledge has attempted to link organizational commitment to escalation of commitment.

This study used previous research and existing theory to test direct and indirect relationships between organizational commitment and escalation of commitment. Overall, there was little support found for the hypotheses, with the exception being for some of the moderator hypotheses. One reason may be that even though these are both semantically referring to the same concept, commitment in the context of “a psychological link between the employee and his or her organization” (Allen & Meyer, 1996, p. 252) may be a theoretically distinct concept from escalation of commitment to the organization in terms of an employee’s devotion to a project or decision. Also, this study measured member commitment to their student organization in order to determine if organizational commitment could be linked to escalated commitment to a project within that organization. Indeed, none of these correlations were significant, which may be a result of measuring two different foci of commitment (i.e., the organization and the project). Additionally, the overwhelming majority of participants did escalate both money and time resources to the failing projects (84.90% and 86.84%, respectively). The fact that almost everyone who participated escalated their commitment supports the fidelity of the scenarios presented, but makes it difficult to discern differences between persons based on individual difference factors as they relate to the escalation variables.

Despite these possible reasons for poor results in this study, many interesting findings were revealed. For instance, although no mediation effects were found, there were numerous direct effects found between the three types of commitment and the rationales for escalating commitment. It was hypothesized that affective commitment to the organization would be associated with justification rationale. Results showed that this relationship was significant, but that the justification rationale decreased with regard to escalation of time. It was also expected that persons displaying normative and continuance commitment to the organization would be more likely to apply sunk costs rationale in decision making, however these findings also exhibited negative relationships for both time and money escalation measures. In addition, direct effects were also found between normative commitment and justification rationale (money, $\beta = -.09, p < .05$; time, $\beta = -.09, p < .10$), and between continuance commitment and justification rationale (money, $\beta = -.09, p = .05$; time, $\beta = -.10, p < .05$). Although these direct effects did not provide support for the proposed hypothesis, they provide interesting insight into the relationships among commitment rationales, escalation of commitment, and organizational commitment. These findings show that as commitment to the organization increases, the mean for the rationales decreases. Thus, members with low levels of organizational commitment appear to place import on their reasons for escalating their commitment to the project, particularly with regard to normative and continuance organizational commitment. Members with high levels of commitment, however, do not appear to rely on these rationales. These persons may be using rationales not tested in this study, or at high levels of commitment, emotions could be driving decisions rather than rationale.

The moderators tested also showed many interesting findings. The moderator with the strongest results was resistance to change. This study proposed that persons high in resistance to change would be more likely to escalate their commitment to the project and deescalating would be seen as having to make a change in their decision making strategy. Results showed resistance to change was significantly correlated with all three types of commitment. That is, as commitment to the

organization increased, members' resistance to change also increased. This could be problematic for organizations who may be striving to increase commitment among organization members or who already have highly committed employees as commitment may come at the expense of not only successful decision-making, but of employees being resistant to numerous organizational changes. Additionally, resistance to change was unexpectedly negatively correlated with escalation of time (and had no relationship to escalation of money). This may be some good news for organizations as being resistant to change meant participants were less likely to escalate their commitment of time resources toward the failing project (e.g., as resistance to change increased, fewer time resources were committed to the project). As a moderator, results showed that resistance to change had little effect on escalation of money at high levels of affective and normative commitment, or on escalation of time at high levels of normative commitment. Yet, at low levels of commitment, low levels of resistance to change resulted in significantly higher escalation of money (for affective and normative commitment) and time (for normative commitment) than at high levels of resistance to change. It may be that rather than decreasing resources to the project (deescalating) being seen as making a change in decision-making, increasing funds to the failing project was seen as a change, making it a more likely outcome from persons scoring low on resistance to change. Also, new research has conceptualized resistance to organizational change as a tridimensional construct, consisting of affective, behavioral, and cognitive components (Oreg, 2006). Thus, it may be that how organizational members feel or think about change is different from their actual behavior.

Similar to resistance to change, openness to experience was, unexpectedly, significantly correlated with escalation of money. Although persons high in openness to experience should be more able to cope with and even seek out change (Judge, Thoresen, Pucik & Welbourne, 1999), making it easier for them to deescalate their commitment to the project, these persons are also higher in daringness and less risk averse (Judge et al.; Glazer, Daniel & Short, 2004), which may be why they were more likely to escalate their monetary commitment to the project. Additionally, openness to

experience significantly interacted with normative commitment and escalation of money. As with the previous moderator discussed, differences in monetary commitment based on openness to experience were found at low levels of organizational commitment, with persons low in normative commitment and high in openness to experience escalating significantly more than those low in commitment.

One interesting commonality between all of the significant moderator effects is that personality appears to have an effect on escalatory behaviors only at low levels of organizational commitment, not in persons high in commitment. These results may parallel with other research on personality in organizations, such as that on leadership behaviors being made irrelevant by characteristics of the situation. Research in this arena has found that personality becomes diffused as the organization becomes more formalized and inflexible (Wagner & Hollenbeck, 2005). That is to say that the more structure and rules around one's job, the less room for personality to affect how one does his or her job. In the current study, it may be that as commitment increases to the organization, commitment is what guides behavior rather than personality influences.

One final note on the moderator analyses is that there were no findings for the sensation-seeking variable, a scale that has been enthusiastically used in past research. Indeed, sensation seeking has even been found to be related to risky financial investment decisions (Harlow & Brown, 1990). However, these decisions were made in simulations describing one's own money. It may be the payoff of sensation seeking behavior (i.e., novel and intense experiences; Zuckerman, 1979) is mitigated by (or not present at all due to) the expenditure of a group's resources rather than one's own resources toward a failing project, at least in the context of a service organization.

Limitations

The main limitation of this study was the sample used. While the overall sample size was sufficient for the analyses used, the response rate of the sample was only 14.37%, despite repeated attempts to garner involvement. Additionally, a commonly used rule for aggregating responses at the group-level is the presence of 50 groups with at least 50 participants from each group (considered a small sample size), which this study also does not meet (Hox, 1998; Hox & Maas, 2001). In addition to not meeting the above criteria, the group sizes are unbalanced which is more problematic as the degree of imbalance increases, especially with low ICC levels, both being problematic with the current study (Hox & Maas; Snijders & Bosker, 1993). Given these limitations, organization-level hypotheses could not be tested.

Secondly, although the power distance and uncertainty avoidance measures of organizational culture were not tested as hypothesized, they proved to still be problematic measures. The indices of internal reliability were very low for both measures, which may be due to these measures not being used as they were intended when developed (although the decision to use these measures was guided by the literature as they were used as has been done in previous studies). These measures were intended to be used on similar organizations within different countries or at the country level with diverse organizational membership (so, at the regional or national level). As already described, the organizations used in this study were chosen because they were very similar, but they were also selected from the same university and have very similar membership makeup, and there was not enough disagreement between groups on the variables tested to justify aggregating responses to the organization level. Despite these measures being previously used in commitment research, given these sample limitations it may have been more appropriate to measure a specific type of organizational culture (e.g., a collaboration culture, knowledge culture, safety culture), or to include similar organizations from other regions or countries.

Additionally, the organizations used in this study are a special type of organization and results cannot be generalized to non-service oriented organizations. That said, benefits of using intact organizations are that they are so similar in structure, goals, and membership that it was unnecessary to control for possible organizational confounds other than size. Also, the scenarios were realistic and applicable, and worked very well as escalation simulations.

A final limitation of this study was that it likely was premature to hypothesize full mediation of the escalation rationale variables without first demonstrating relationships between the commitment and escalation variables, a novel goal of this study. Also, the rationale variable of project completion effects was unable to be tested as a mediator as it was proposed. This researcher could have conducted a content validity analysis with subject matter experts as a means of testing the rationale statements prior to the study. Additionally, many other rationales have been proposed for escalating commitment as discussed previously. Other rationales may show stronger effects with this type of escalation scenario or sample.

Implications for Future Research

Research into individual differences with regards to escalation of commitment has not met with great success, but as there were novel findings in this study, this query should continue. Resistance to change yielded many interesting findings in the current study as a dispositional variable, and has recently been conceptualized as being multidimensional (Oreg, 2006). Future research might test Oreg's model in the realm of escalation of commitment. Future endeavors might also attempt to replicate findings presented here with regards to openness to experience or the other Big Five personality constructs, or to test openness to change more specifically. Also, the current study showed no findings for the variable of sensation seeking, despite its relationship to many other variables found in previous literature. Future research on escalation of commitment might attempt to discern differences in decision making depending on one's own versus one's organization's resources, and whether these decisions are affected by dispositional traits such as sensation seeking.

Secondly, research thus far using the three-component framework of commitment has focused on for-profit organizations. However, many organizations such as those used in this study are non-profit or service-based. Future research on organizational commitment should be extended to the various other types of organizations in existence.

An interesting finding with the present sample was that although the majority of organization members were highest in affective commitment to their organization, there seemed to be a stronger impact on escalation by those normatively committed to the organization versus those high in affective or continuance commitment. This also may speak to the sample used being service organizations, however may be a function of many other variables such as the sample being college students, their low organizational tenure compared to the variance in tenure you would expect in non-student organizations, or their participation in this organization being on a part-time basis rather than a full-time job. If future research could show if similar organizations or organizations made up of similar organizational members display the same effects on escalation with those normatively committed

versus other types of commitment, then these findings could guide practice on how companies should measure, garner, and promote commitment to the organization, especially among those members in charge of large budgets or who routinely make financial decisions on behalf of the organization.

Finally, although group responses could not be reliably tested in this study, one might expect an increase in escalation behaviors by groups due to the condition of *psychological entrapment*, or an increase in commitment to a chosen course of action in order to justify prior investments (Kameda & Sugimori, 1993). Kameda and Sugimori argued that groups are distinct from the aggregate of individuals because in groups there is more invested than just the physical costs of time and money, such as the social and interpersonal outcomes associated with continuing or discontinuing the chosen course of action. As the trend in organizations is toward teamwork (Brannick, Salas, & Prince, 1997), future research may look at differences in escalatory behaviors among individual decision-makers and decisions made by teams.

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Appendix A

Summary of Hypotheses

1. a) Affective commitment and escalation of commitment will be positively correlated (not supported); b) Justification processes will mediate the relationship between affective commitment and escalation of commitment (not supported).
2. a) Normative commitment and escalation of commitment will be positively correlated (not supported); b) Project completion effects will mediate the relationship between normative commitment and escalation of commitment (not tested); c) Sunk costs effects will mediate the relationship between normative commitment and escalation of commitment (not supported).
3. a) Continuance commitment and escalation of commitment will be positively correlated (not supported); b) Sunk Costs will mediate the relationship between continuance commitment and escalation of commitment (not supported).
4. Persons with a continuance form of commitment to their organization will escalate to a greater degree than persons affectively or normatively committed to the organization (not supported).
5. a) Openness to experience will interact with affective commitment to affect escalation of commitment such that there will be a greater negative relationship between affective commitment and escalation of commitment to the extent that organizations also exhibit higher levels of openness to experience (not supported); b) Openness to experience will interact with normative commitment to affect escalation of commitment such that there will be a greater negative relationship between normative commitment and escalation of commitment to the extent that organizations also exhibit higher levels of openness to experience (supported for money); c) Openness to experience will interact with continuance commitment to affect escalation of commitment such that there will be a greater negative relationship between continuance commitment and escalation of commitment to the extent that organizations also exhibit higher levels of openness to experience (not supported).

6. a) Resistance to change will interact with affective commitment to affect escalation of commitment such that there will be a greater positive relationship between affective commitment and escalation of commitment to the extent that organizations also exhibit higher levels of resistance to change (supported for money); b) Resistance to change will interact with normative commitment to affect escalation of commitment such that there will be a greater positive relationship between normative commitment and escalation of commitment to the extent that organizations also exhibit higher levels of resistance to change (supported for money and marginally supported for time); c) Resistance to change will interact with continuance commitment to affect escalation of commitment such that there will be a greater positive relationship between continuance commitment and escalation of commitment to the extent that organizations also exhibit higher levels of resistance to change (not supported).
7. a) Sensation seeking will interact with affective commitment to affect escalation of commitment such that there will be a greater positive relationship between affective commitment and escalation of commitment to the extent that organizations also exhibit higher levels of sensation seeking (not supported); b) Sensation seeking will interact with normative commitment to affect escalation of commitment such that there will be a greater positive relationship between normative commitment and escalation of commitment to the extent that organizations also exhibit higher levels of sensation seeking (not supported); c) Sensation seeking will interact with continuance commitment to affect escalation of commitment such that there will be a greater positive relationship between continuance commitment and escalation of commitment to the extent that organizations also exhibit higher levels of sensation seeking (not supported).
8. a) Voice will interact with affective commitment to affect escalation of commitment such that there will be a greater negative relationship between affective commitment and escalation of commitment to the extent that organizations also exhibit higher levels of voice; b) Voice will interact with normative commitment to affect escalation of commitment such that there will be a

greater negative relationship between normative commitment and escalation of commitment to the extent that organizations also exhibit higher levels of voice; c) Voice will interact with continuance commitment to affect escalation of commitment such that there will be a greater negative relationship between continuance commitment and escalation of commitment to the extent that organizations also exhibit higher levels of voice. (This set of hypotheses was not tested due to group-level effects not being present.)

9. a) Power distance will interact with affective commitment to affect escalation of commitment such that there will be a greater positive relationship between affective commitment and escalation of commitment to the extent that organizations also exhibit higher levels of power distance; b) Power distance will interact with normative commitment to affect escalation of commitment such that there will be a greater positive relationship between normative commitment and escalation of commitment to the extent that organizations also exhibit higher levels of power distance; c) Power distance will interact with continuance commitment to affect escalation of commitment such that there will be a greater positive relationship between continuance commitment and escalation of commitment to the extent that organizations also exhibit higher levels of power distance. (This set of hypotheses was not tested due to group-level effects not being present.)

10. a) Uncertainty avoidance will interact with affective commitment to affect escalation of commitment such that there will be a greater negative relationship between affective commitment and escalation of commitment to the extent that organizations also exhibit higher levels of uncertainty avoidance; b) Uncertainty avoidance will interact with normative commitment to affect escalation of commitment such that there will be a greater negative relationship between normative commitment and escalation of commitment to the extent that organizations also exhibit higher levels of uncertainty avoidance; c) Uncertainty avoidance will interact with continuance commitment to affect escalation of commitment such that there will be a greater negative relationship between continuance commitment and escalation of commitment to the extent that

organizations also exhibit higher levels of uncertainty avoidance. (This set of hypotheses was not tested due to group-level effects not being present.)

11. a) Organizational size will interact with affective commitment to affect escalation of commitment such that there will be a greater positive relationship between affective commitment and escalation of commitment to the extent that organizations also exhibit higher levels of organizational size; b) Organizational size will interact with normative commitment to affect escalation of commitment such that there will be a greater positive relationship between normative commitment and escalation of commitment to the extent that organizations also exhibit higher levels of organizational size; c) Organizational size will interact with continuance commitment to affect escalation of commitment such that there will be a greater positive relationship between continuance commitment and escalation of commitment to the extent that organizations also exhibit higher levels of organizational size. (This set of hypotheses was not tested due to group-level effects not being present.)

Appendix B

Summary of Decision Points

Choose Committee	Greek Week, Housing Renovation, Greek Transportation
Money Scenario	
1. Allocate Money	\$10,000 to three projects <i>Receive Negative Feedback on Chosen Project</i>
2. Allocate Money	\$10,000 to three projects <i>Receive Negative Feedback on Chosen Project</i>
3. Allocate Money	\$10,000 to three projects <i>Receive Positive Feedback on All Projects</i>
Time Scenario	
1. Allocate Volunteer Hours	25 hours to three projects <i>Receive Positive Feedback on All Projects</i>
2. Allocate Volunteer Hours	25 hours to three projects <i>Receive Negative Feedback on Chosen Project</i>
3. Allocate Volunteer Hours	25 hours to three projects <i>Receive Negative Feedback on Chosen Project</i>
4. Allocate Volunteer Hours	25 hours to three projects <i>Receive Positive Feedback on All Projects</i>

Appendix C1

First Set of Scenarios

Directions, Time 1

In the following scenarios, you will be asked to make decisions regarding your sorority's/fraternity's donation of time and money toward service projects. You will be given feedback reports and asked to make a series of decisions. Feedback based on these decisions will be 1) shared with your organization and could potentially aid future project decisions, and 2) used to assess your decision-making ability. There is an optimal decision (or "correct" solution) based on answers from a panel of decision-making experts. Your answer will be compared to the optimal decision. The higher the quality of your decisions, the more chances you will have to win the prize drawing.

You are being asked to take part in a committee within your organization to make decisions regarding the allocation of time and money resources. The three committees are as follows:

- Greek Week Committee, which will plan the Habitat for Humanity home building project,
- Housing Committee, which will determine how to spend funds to make chapter house renovations,
- Greek Transportation Committee, which will make decisions regarding purchasing and maintaining an on-campus bus for travel to and from sorority and fraternity houses.

Each committee will meet three times to make decisions. Please choose which committee you would like to sit on:

1. Greek Week Committee
2. Housing Committee
3. Greek Transportation Committee

(Participants will be directed to the scenario corresponding with their committee decision. After making all resource allocation decisions for this scenario, a second set of directions will be given.)

Scenario 1

Greek Week, Time 1:

The Greek Week Committee has decided to build a home for Habitat for Humanity. A portion of organizational funds should be donated to Greek Week for the building of the house. If there are additional funds left over, then more than one home could be built. However if not enough funds are raised, then the project will fail and all monetary investments could be lost.

As Greek Week Committee Chair, you will be meeting with other committee chairs across the organization to decide how much money should be allocated toward Greek Week and two other projects being considered. There is a limited pool of \$10,000 for the organization to use on all projects throughout the year, including the housing renovations and transportations. Whatever resources are used toward Greek Week means less will be available for use toward the other projects (that is, the money must be split three ways). You must decide how much money will be allocated toward each project.

Remember you will be rated on:

- The quality of your decision,
- The success of the Greek Week project, and
- The success of the organization as a whole. (While you want Greek Week to be successful, the organization does not want any projects to fail.)

1. Of the total pool of \$10,000, how much money do you want to allocate toward each of the three projects being considered?

\$_____ Greek Week \$_____ House Renovation \$_____ Transportation

Greek Week, Time 2:

It has been three months and it is time for your committee to reconvene. Please read the progress report below, and review the outcomes of decisions made at the last meeting.

Quarterly Report on All Projects, Phase 1

Date: September 1, 2006

Purpose: Project Update

Project	Feedback	Percent of Phase 1 Completed	Project Timeline
Greek Week	<ul style="list-style-type: none">• Not enough funds to build one house• Building supplies cost more than expected	30%	Behind Schedule
Housing Renovation	<ul style="list-style-type: none">• Structural damage found to some of the houses• Many of the needed remodeling supplies have been secured at a discount	50%	On Schedule
Greek Transportation	<ul style="list-style-type: none">• Cost of new buses more than expected• University will provide drivers at no charge	50%	On Schedule

At this second meeting, more funds have been made available for the ongoing projects. Once again you are being asked to allocate resources. Recall that you are being rated on:

- The quality of your decision,
- The success of the Greek Week project, and
- The success of the organization as a whole. (While you want Greek Week to be successful, the organization does not want any projects to fail.)

2. Of a second pool of \$10,000, how much money do you now wish to allocate toward each of the three projects?

\$_____ Greek Week \$_____ House Renovation \$_____ Transportation

3. Please **rate** how important each of the following items were in influencing your decisions, and **rank** all items according to influence using each rank only once (1 being MOST important):

- a. I am concerned about the amount of money that has already been spent on my project.
- b. I am concerned about the amount of time that has already been spent on my project (3 months).
- c. I want to see my project to completion.
- d. I want to avoid making a poor decision for my peers in the organization.
- e. I want to appear competent in my decision-making abilities.
- f. I want to appear consistent in the decisions I have made.
- g. I want my project to be successful.
- h. I am concerned about the percentage of my project that is already complete.
- i. Other _____

Greek Week, Time 3

Three more months have passed and now Greek Week is only a few months away. Please read the progress report below.

Quarterly Report 2 on All Projects, Phase 1

Date: December 1, 2006

Purpose: Project Update

Project	Feedback	Percent of Phase 1 Completed	Project Timeline
Greek Week	<ul style="list-style-type: none"> • Not enough funds to build one house • Many of the needed building supplies were donated 	75%	Behind Schedule
Housing Renovation	<ul style="list-style-type: none"> • Structural damage fixed • Remodeling supplies have arrived 	90%	On Schedule
Greek Transportation	<ul style="list-style-type: none"> • Gently used buses found • Drivers allocated to project 	90%	On Schedule

Congratulations for doing a good job on such a challenging task. This is the final meeting to allocate funds before Greek Week begins, and unfortunately, your organization still needs to do more work to complete the project. Once again you are being asked to make decisions. Recall that you are being rated on:

- The quality of your decision,

- The success of the Greek Week project, and
- The success of the organization as a whole. (While you want Greek Week to be successful, the organization does not want any projects to fail.)

4. Of another pool of \$10,000, how much money do you want to allocate toward each of the three projects?

\$ _____ Greek Week \$ _____ House Renovation \$ _____ Transportation

5. Please **rate** how important each of the following items were in influencing your decisions, and **rank** all items according to influence using each rank only once (1 being MOST important):

- I am concerned about the amount of money that has already been spent on my project.
- I am concerned about the amount of time that has already been spent on my project (6 months).
- I want to see my project to completion.
- I want to avoid making a poor decision for my peers in the organization.
- I want to appear competent in my decision-making abilities.
- I want to appear consistent in the decisions I have made.
- I want my project to be successful.
- I am concerned about the percentage of my project that is already complete.
- Other _____

Final Feedback for Greek Week Project

Thank you for helping to allocate funds for your committee in the previous project. Overall, the fund-raising and financial resource allocations for your project and the other two projects were a success (see progress report below).

Quarterly Report 3 on All Projects, Phase 1

Date: March 1, 2007

Purpose: Project Update

Project	Feedback	Percent of Phase 1 Completed	Project Timeline
Greek Week	<ul style="list-style-type: none"> • Funds needed to build home have been raised • Needed building supplies were secured or donated and have arrived 	100%	On Schedule
Housing Renovation	<ul style="list-style-type: none"> • Structural damage has been fixed • Remodeling supplies have arrived 	100%	On Schedule
Greek Transportation	<ul style="list-style-type: none"> • Gently used buses found • Drivers allocated to project 	100%	On Schedule

Scenario 2

Housing Renovation, Time 1

The advisors of Greek Affairs have asked for your help in making decisions to invest funds toward the upkeep and remodeling of all LSU sorority and fraternity houses. This would include new carpet and flooring, paint, fixtures, and new furniture where needed, as well as other upgrades and maintenance needs that may be required.

As Housing Committee Chair, you will be meeting with other committee chairs across the organization to decide how much money should be allocated toward the housing renovation and two other projects being considered. There is a limited pool of \$10,000 for the organization to use on all projects throughout the year, including Greek Week and the transportation project. Whatever resources are used toward the renovation project means less will be available for use toward the other projects (that is, the money must be split three ways). You must decide how much money will be allocated toward each project.

Remember you will be rated on:

- The quality of your decision,
- The success of the housing renovation project, and
- The success of the organization as a whole. (While you want the housing renovations to be successful, the organization does not want any projects to fail.)

1. Of the total pool of \$10,000, how much money do you want to allocate toward each of the three projects being considered?

\$_____ Greek Week \$_____ House Renovation \$_____ Transportation

Housing Renovation, Time 2

It has been three months and it is time for your committee to reconvene. Please read the progress report below, and review the outcomes of decisions made at the last meeting.

Quarterly Report on All Projects, Phase 1

Date: September 1, 2006

Purpose: Project Update

Project	Feedback	Percent of Phase 1 Completed	Project Timeline
Housing Renovation	<ul style="list-style-type: none">• Structural damage found with many of the houses• Remodeling supplies more expensive than expected	30%	Behind Schedule
Greek Week	<ul style="list-style-type: none">• Not all funds have arrived	50%	On Schedule

	<ul style="list-style-type: none"> • Many of the needed building supplies have been donated 		
Greek Transportation	<ul style="list-style-type: none"> • Cost of new buses more than expected • University will provide drivers at no charge 	50%	On Schedule

At this second meeting, more funds have been made available for the ongoing projects. Once again you are being asked to allocate resources. Recall that you are being rated on:

- The quality of your decision,
- The success of the housing renovation project, and
- The success of the organization as a whole. (While you want the housing renovations to be successful, the organization does not want any projects to fail.)

2. Of a second pool of \$10,000, how much money do you now wish to allocate toward each of the three projects?

\$_____ Greek Week \$_____ House Renovation \$_____ Transportation

3. Please **rate** how important each of the following items were in influencing your decisions, and **rank** all items according to influence using each rank only once (1 being MOST important):

- I am concerned about the amount of money that has already been spent on my project.
- I am concerned about the amount of time that has already been spent on my project (3 months).
- I want to see my project to completion.
- I want to avoid making a poor decision for my peers in the organization.
- I want to appear competent in my decision-making abilities.
- I want to appear consistent in the decisions I have made.
- I want my project to be successful.
- I am concerned about the percentage of my project that is already complete.
- Other _____

Housing Renovation, Time 3

Three more months have passed and it is time for your committee to reconvene one last time. Please read the progress report below.

Quarterly Report 2 on All Projects, Phase 1

Date: December 1, 2006

Purpose: Project Update

Project	Feedback	Percent of Phase 1 Completed	Project Timeline
Housing Renovation	<ul style="list-style-type: none"> Most of the structural damage has been fixed Remodeling supplies more expensive than expected and still not secured 	75%	Behind Schedule
Greek Week	<ul style="list-style-type: none"> Many of the funds have arrived Many of the needed building supplies were donated and have arrived 	90%	On Schedule
Greek Transportation	<ul style="list-style-type: none"> Gently used buses found Drivers allocated to project 	90%	On Schedule

Congratulations for doing a good job on such a challenging task. This is the final meeting to allocate funds toward the renovation project, and unfortunately, your organization still needs to do more work to complete the project. Once again you are being asked to make decisions. Recall that you are being rated on:

- The quality of your decision,
- The success of the housing renovation project, and
- The success of the organization as a whole. (While you want the housing renovations to be successful, the organization does not want any projects to fail.)

4. Of another pool of \$10,000, how much money do you want to allocate toward each of the three projects?

\$_____ Greek Week \$_____ House Renovation \$_____ Transportation

5. Please **rate** how important each of the following items were in influencing your decisions, and **rank** all items according to influence using each rank only once (1 being MOST important):

- I am concerned about the amount of money that has already been spent on my project.
- I am concerned about the amount of time that has already been spent on my project (6 months).
- I want to see my project to completion.
- I want to avoid making a poor decision for my peers in the organization.
- I want to appear competent in my decision-making abilities.
- I want to appear consistent in the decisions I have made.
- I want my project to be successful.
- I am concerned about the percentage of my project that is already complete.
- Other _____

Final Feedback for Housing Renovation Project

Thank you for helping to allocate funds for your committee in the previous project. Overall, the fundraising and financial resource allocations for your project and the other two projects were a success (see progress report below).

Quarterly Report 3 on All Projects, Phase 1

Date: March 1, 2007

Purpose: Project Update

Project	Feedback	Percent of Phase 1 Completed	Project Timeline
Housing Renovation	<ul style="list-style-type: none">Structural damage has been fixedRemodeling supplies secured and have arrived	100%	On Schedule
Greek Week	<ul style="list-style-type: none">Funds needed to build home have been raisedNeeded building supplies were secured or donated and have arrived	100%	On Schedule
Greek Transportation	<ul style="list-style-type: none">Gently used buses foundDrivers allocated to project	100%	On Schedule

Scenario 3

Transportation, Time 1

The Transportation Committee has decided for the Greek community to pool funds and purchase four buses to be used solely for transporting Greek members throughout campus. This project would also entail paying drivers to operate the buses during weekdays.

As the Transportation Committee Chair, you will be meeting with other committee chairs across the organization to decide how much money should be allocated toward the transportation project and two other projects being considered. There is a limited pool of \$10,000 for the organization to use on all projects throughout the year, including Greek Week and the housing renovations. Whatever resources are used toward the transportation project means less will be available for use toward the other projects (that is, the money must be split three ways). You must decide how much money will be allocated toward each project.

Remember you will be rated on:

- The quality of your decision,
- The success of the transportation project, and
- The success of the organization as a whole. (While you want the transportation project to be successful, the organization does not want any projects to fail.)

1. Of the total pool of \$10,000, how much money do you want to allocate toward each of the three projects being considered?

\$_____ Greek Week \$_____ House Renovation \$_____ Transportation

Transportation, Time 2

It has been three months and it is time for your committee to reconvene. Please read the progress report below, and review the outcomes of decisions made at the last meeting.

Quarterly Report on All Projects, Phase 1

Date: September 1, 2006

Purpose: Project Update

Project	Feedback	Percent of Phase 1 Completed	Project Timeline
Greek Transportation	<ul style="list-style-type: none"> • Cost of a new bus more than expected • Difficulty finding drivers 	30%	Behind Schedule
Greek Week	<ul style="list-style-type: none"> • Not all funds have arrived • Many of the needed building supplies have been donated 	50%	On Schedule
Housing Renovation	<ul style="list-style-type: none"> • Structural damage found to some of the houses • Many of the needed remodeling supplies have been secured at a discount 	50%	On Schedule

At this second meeting, more funds have been made available for the ongoing projects. Once again you are being asked to allocate resources. Recall that you are being rated on:

- The quality of your decision,
- The success of the transportation project, and
- The success of the organization as a whole. (While you want the transportation project to be successful, the organization does not want any projects to fail.)

2. Of a second pool of \$10,000, how much money do you now wish to allocate toward each of the three projects?

\$_____ Greek Week \$_____ House Renovation \$_____ Transportation

3. Please **rate** how important each of the following items were in influencing your decisions, and **rank** all items according to influence using each rank only once (1 being MOST important):

- a. I am concerned about the amount of money that has already been spent on my project.
- b. I am concerned about the amount of time that has already been spent on my project (3 months).
- c. I want to see my project to completion.
- d. I want to avoid making a poor decision for my peers in the organization.
- e. I want to appear competent in my decision-making abilities.
- f. I want to appear consistent in the decisions I have made.
- g. I want my project to be successful.
- h. I am concerned about the percentage of my project that is already complete.
- i. Other _____

Transportation, Time 3

Three more months have passed and it is time again for your committee to reconvene one last time. Please read the progress report below.

Quarterly Report 2 on All Projects, Phase 1

Date: December 1, 2006

Purpose: Project Update

Project	Feedback	Percent of Phase 1 Completed	Project Timeline
Greek Transportation	<ul style="list-style-type: none"> • Unexpected maintenance, insurance, and gas expenses • Not as many Greeks using buses as anticipated • Gently used buses found • University will provide drivers at no charge 	75%	Behind Schedule
Greek Week	<ul style="list-style-type: none"> • Many of the funds have arrived • Many of the needed building supplies were donated and have arrived 	90%	On Schedule
Housing Renovation	<ul style="list-style-type: none"> • Structural damage fixed • Remodeling supplies have been secured 	90%	On Schedule

Congratulations for doing a good job on such a challenging task. This is the final meeting to allocate funds toward the transportation project, and unfortunately, your organization still needs more money to complete the project. Once again you are being asked to make decisions. Recall that you are being rated on:

- The quality of your decision,
- The success of the transportation project, and

- The success of the organization as a whole. (While you want the transportation project to be successful, the organization does not want any projects to fail.)

4. Of another pool of \$10,000, how much money do you want to allocate toward each of the three projects?

\$_____ Greek Week \$_____ House Renovation \$_____ Transportation

5. Please **rate** how important each of the following items were in influencing your decisions, and **rank** all items according to influence using each rank only once (1 being MOST important):

- I am concerned about the amount of money that has already been spent on my project.
- I am concerned about the amount of time that has already been spent on my project (6 months).
- I want to see my project to completion.
- I want to avoid making a poor decision for my peers in the organization.
- I want to appear competent in my decision-making abilities.
- I want to appear consistent in the decisions I have made.
- I want my project to be successful.
- I am concerned about the percentage of my project that is already complete.
- Other _____

Final Feedback for Transportation Project

Thank you for helping to allocate funds for your committee in the previous project. Overall, the fund-raising and financial resource allocations for your project and the other two projects were a success (see progress report below).

Quarterly Report 3 on All Projects, Phase 1

Date: March 1, 2007

Purpose: Project Update

Project	Feedback	Percent of Phase 1 Completed	Project Timeline
Greek Transportation	<ul style="list-style-type: none"> • Funds raised for needed maintenance, insurance, and gas expenses • Gently used buses found • University will provide drivers at no charge 	100%	On Schedule
Greek Week	<ul style="list-style-type: none"> • Funds needed to build home have been raised • Needed building supplies were secured or donated and have arrived 	100%	On Schedule

Housing Renovation	<ul style="list-style-type: none">• Structural damage has been fixed• Remodeling supplies secured and have arrived	100%	On Schedule
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Appendix C2

Second Set of Scenarios

Directions, Phase 2

With the financial resources allocated to the projects, we are now ready to begin planning how much time should be spent to put some or all of the projects into action. In the following scenarios, you will again be given some information on the three projects being considered by the advisors of Greek Affairs and asked to make decisions on what you personally think should be done. You are on the same committee and this time you will be asked to allocate time and volunteer hours rather than funds toward planning and executing your project. You will be given feedback reports and asked to make a series of decisions.

Recall that there is an optimal decision based on answers from a panel of experts. The higher the quality of your decisions the more chances you will have to win the prize drawing.

Scenario 1

Greek Week, Time 1

In planning Greek Week, there has been some concern over Greek members not participating in the fund-raising or home building. As the Greek Week Committee Chair, you are in charge of deciding how many membership hours should be contributed to achieve your project goals and those of the other projects. Whatever resources are used toward Greek Week means less will be available for use toward the other projects (that is, the members' time must be split three ways).

Remember you will be rated on:

- The quality of your decision,
- The success of Greek Week, and
- The success of the organization as a whole. (While you want Greek Week to be successful, the organization does not want any projects to fail.)

1. Each Greek member has been asked to volunteer 25 hours of their time over the course of each semester (including summer) toward ongoing projects. Out of a pool of 25 hours per member, what is the average number of hours per member that should be spent on planning, fund-raising, and working on each project?

_____ Greek Week _____ House Renovation _____ Transportation

Greek Week, Time 2

It has been three months and it is time for your committee to reconvene. Please read progress report below.

Quarterly Report on All Projects, Phase 2

Date: June 1, 2006
 Purpose: Project Update

Project	Feedback	Percent of Phase 2 Completed	Project Timeline
Greek Week	<ul style="list-style-type: none"> • Some funds have been raised to build a house • Family selected for home • Planning begun to determine necessary supplies 	30%	On Schedule
Housing Renovation	<ul style="list-style-type: none"> • Planning begun to determine the remodeling needs of each house • Many of the needed remodeling supplies have been secured at a discount 	30%	On Schedule
Greek Transportation	<ul style="list-style-type: none"> • Some new and used buses have been found for possible use • University will provide drivers at no charge 	30%	On Schedule

In the last scenario you allocated membership hours toward the Greek Week project as well as the other two projects. At this point in time, the Greek Week project is doing well. Funds that have been raised thus far are coming in, at least one family in need of a home has been selected to benefit from the project, and planning has begun to determine what are the necessary supplies to rebuild the home. As it is now three months later, membership volunteer hours (25 per member) must again be allocated toward the three projects. Recall that you are being rated on:

- The quality of your decision,
 - The success of Greek Week, and
 - The success of the organization as a whole. (While you want Greek Week to be successful, the organization does not want any projects to fail.)
2. Out of a second pool of 25 hours per member, what is the average number of hours per member that should be spent on planning, fund-raising, and working on each project?
- _____ Greek Week _____ House Renovation _____ Transportation
3. Please **rate** how important each of the following items were in influencing your decisions, and **rank** all items according to influence using each rank only once (1 being MOST important):

- a. I am concerned about the amount of money that has already been spent on my project.
- b. I am concerned about the amount of time that has already been spent on my project (3 months).
- c. I want to see my project to completion.
- d. I want to avoid making a poor decision for my peers in the organization.
- e. I want to appear competent in my decision-making abilities.
- f. I want to appear consistent in the decisions I have made.
- g. I want my project to be successful.
- h. I am concerned about the percentage of my project that is already complete.
- i. Other _____

Greek Week, Time 3

Three more months have passed and it is time for your committee to reconvene. Please read progress report below.

Quarterly Report 2 on All Projects, Phase 2

Date: September 1, 2006

Purpose: Project Update

Project	Feedback	Percent of Phase 2 Completed	Project Timeline
Greek Week	<ul style="list-style-type: none"> • Not enough funds raised to build one house • Building supplies cost more than expected • Family selected for home 	55%	Behind Schedule
Housing Renovation	<ul style="list-style-type: none"> • Structural damage found to some of the houses • Many of the needed remodeling supplies have been secured at a discount 	70%	On Schedule
Greek Transportation	<ul style="list-style-type: none"> • Cost of new buses more than expected • University will provide drivers at no charge 	70%	On Schedule

At this point in the project, unfortunately, not enough time has been spent working on Greek Week and it is behind schedule. Also, as not enough funds have been raised, more time may need to be spent fund-raising. Once again you are being asked to make decisions. Recall that you are being rated on:

- The quality of your decision,
- The success of Greek Week, and
- The success of the organization as a whole. (While you want Greek Week to be successful, the organization does not want any projects to fail.)

4. Out of a pool of 25 hours per member this semester, what is the average number of hours per member that should be spent on planning, fund-raising, and working on each project?

_____ Greek Week _____ House Renovation _____ Transportation

5. Please **rate** how important each of the following items were in influencing your decisions, and **rank** all items according to influence using each rank only once (1 being MOST important):

- a. I am concerned about the amount of money that has already been spent on my project.
- b. I am concerned about the amount of time that has already been spent on my project (6 months).
- c. I want to see my project to completion.
- d. I want to avoid making a poor decision for my peers in the organization.
- e. I want to appear competent in my decision-making abilities.
- f. I want to appear consistent in the decisions I have made.
- g. I want my project to be successful.
- h. I am concerned about the percentage of my project that is already complete.
- i. Other _____

Greek Week, Time 4

It has been another three months and now Greek Week is only a few months away. Please read progress report below.

Quarterly Report 3 on All Projects, Phase 2

Date: December 1, 2006

Purpose: Project Update

Project	Feedback	Percent of Phase 2 Completed	Project Timeline
Greek Week	<ul style="list-style-type: none"> • Not enough funds raised to build one house • Many of the needed building supplies were donated • Family selected for home 	75%	Behind Schedule
Housing Renovation	<ul style="list-style-type: none"> • Structural damage fixed • Remodeling supplies have arrived 	90%	On Schedule
Greek Transportation	<ul style="list-style-type: none"> • Gently used buses found • Drivers allocated to project • Routes to use in transporting students being planned 	90%	On Schedule

This is the final meeting to allocate member time before Greek Week begins. Once again you are being asked to make decisions. Recall that you are being rated on:

- The quality of your decision,
- The success of the Greek Week project, and
- The success of the organization as a whole. (While you want Greek Week to be successful, the organization does not want any projects to fail.)

6. Out of a final pool of 25 hours per member this semester, what is the average number of hours per member that should be spent on planning, fund-raising, and working on each project?

_____ Greek Week _____ House Renovation _____ Transportation

7. Please **rate** how important each of the following items were in influencing your decisions, and **rank** all items according to influence using each rank only once (1 being MOST important):

- I am concerned about the amount of money that has already been spent on my project.
- I am concerned about the amount of time that has already been spent on my project (9 months).
- I want to see my project to completion.
- I want to avoid making a poor decision for my peers in the organization.
- I want to appear competent in my decision-making abilities.
- I want to appear consistent in the decisions I have made.
- I want my project to be successful.
- I am concerned about the percentage of my project that is already complete.
- Other _____

Final Feedback for Greek Week Project

Thank you for helping to allocate resources for your committee in the previous project. Again, your project was a success as were the other two projects (see progress report below). With the funding and volunteers in place, we can now complete the projects. Thank you again for your help.

Quarterly Report 4 on All Projects, Phase 2

Date: March 1, 2007

Purpose: Project Update

Project	Feedback	Percent of Phase 2 Completed	Project Timeline
Greek Week	<ul style="list-style-type: none"> • Funds needed to build home have been raised • Needed building supplies were secured or donated and have arrived • Family selected for home 	100%	On Schedule
Housing Renovation	<ul style="list-style-type: none"> • Structural damage has been fixed • Remodeling supplies secured and have arrived 	100%	On Schedule

Greek Transportation	<ul style="list-style-type: none"> Gently used buses found Drivers allocated to project Routes to use in transporting students planned 	100%	On Schedule
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Scenario 2

Housing Renovation, Time 1

In planning the housing renovation project, there has been some concern over Greek members not participating in determining which houses need repairs, or in helping to remodel the home. As the Housing Committee Chair, you are in charge of deciding how many membership hours should be contributed to achieve your project goals and those of the other projects. Whatever resources are used toward the renovation project means less will be available for use toward the other projects (that is, the members' time must be split three ways).

Remember you will be rated on:

- The quality of your decision,
- The success of the housing renovation project, and
- The success of the organization as a whole. (While you want the housing renovation project to be successful, the organization does not want any projects to fail.)

- Each Greek member has been asked to volunteer 25 hours of their time over the course of each semester (including summer) toward ongoing projects. Out of a pool of 25 hours per member, what is the average number of hours per member that should be spent on planning, fund-raising, and working on each project?

_____ Greek Week _____ House Renovation _____ Transportation

Housing Renovation, Time 2

It has been three months and it is time for your committee to reconvene. Please read the progress report below.

Quarterly Report on All Projects, Phase 2

Date: June 1, 2006
Purpose: Project Update

Project	Feedback	Percent of Phase 2 Completed	Project Timeline
Housing Renovation	<ul style="list-style-type: none"> Planning begun to determine the remodeling needs of each house 	30%	On Schedule

	<ul style="list-style-type: none"> • Many of the needed remodeling supplies have been secured at a discount 		
Greek Week	<ul style="list-style-type: none"> • Some funds have been raised to build a house • Family selected for home • Planning begun to determine necessary supplies 	30%	On Schedule
Greek Transportation	<ul style="list-style-type: none"> • Some new and used buses have been found for possible use • University will provide drivers at no charge 	30%	On Schedule

In the last scenario you allocated membership hours toward the housing renovation project as well as the other two projects. At this point in time, the renovation project is doing well. Some funds have been raised by members to aid in the renovations, some new furniture has been donated, and planning has begun to determine what are the necessary supplies to remodel the homes. As it is now three months later, membership volunteer hours (25 per member) must again be allocated toward the three projects. Recall that you are being rated on:

- The quality of your decision,
- The success of the housing renovations, and
- The success of the organization as a whole. (While you want the housing renovations to be successful, the organization does not want any projects to fail.)

2. Out of a pool of 25 hours per member, what is the average number of hours per member that should be spent on planning, fund-raising, and working on each project?

_____ Greek Week _____ House Renovation _____ Transportation

3. Please **rate** how important each of the following items were in influencing your decisions, and **rank** all items according to influence using each rank only once (1 being MOST important):

- I am concerned about the amount of money that has already been spent on my project.
- I am concerned about the amount of time that has already been spent on my project (3 months).
- I want to see my project to completion.
- I want to avoid making a poor decision for my peers in the organization.
- I want to appear competent in my decision-making abilities.
- I want to appear consistent in the decisions I have made.
- I want my project to be successful.
- I am concerned about the percentage of my project that is already complete.
- Other _____

Housing Renovation, Time 3

Three more months have passed and it is time for your committee to reconvene. Please read progress report below.

Quarterly Report 2 on All Projects, Phase 2

Date: September 1, 2006

Purpose: Project Update

Project	Feedback	Percent of Phase 2 Completed	Project Timeline
Housing Renovation	<ul style="list-style-type: none">Structural damage found with many of the housesRemodeling supplies more expensive than expected	55%	Behind Schedule
Greek Week	<ul style="list-style-type: none">Not all funds have arrivedMany of the needed building supplies have been donatedFamily selected for home	70%	On Schedule
Greek Transportation	<ul style="list-style-type: none">Cost of new buses more than expectedUniversity will provide drivers at no charge	70%	On Schedule

At this point in the project, unfortunately, not enough time has been spent working on the housing renovation project or making the renovations and it is behind schedule. Once again you are being asked to make decisions. Recall that you are being rated on:

- The quality of your decision,
- The success of the housing renovations, and
- The success of the organization as a whole. (While you want the housing renovations to be successful, the organization does not want any projects to fail.)

4. Out of a pool of 25 hours per member this semester, what is the average number of hours per member that should be spent on planning, fund-raising, and working on each project?

_____ Greek Week _____ House Renovation _____ Transportation

5. Please **rate** how important each of the following items were in influencing your decisions, and **rank** all items according to influence using each rank only once (1 being MOST important):

- I am concerned about the amount of money that has already been spent on my project.
- I am concerned about the amount of time that has already been spent on my project (6 months).
- I want to see my project to completion.

- d. I want to avoid making a poor decision for my peers in the organization.
- e. I want to appear competent in my decision-making abilities.
- f. I want to appear consistent in the decisions I have made.
- g. I want my project to be successful.
- h. I am concerned about the percentage of my project that is already complete.
- i. Other _____

Housing Renovation, Time 4

It has been another three months and it is time once more for your committee to meet. Please read progress report below.

Quarterly Report 3 on All Projects, Phase 2

Date: December 1, 2006

Purpose: Project Update

Project	Feedback	Percent of Phase 2 Completed	Project Timeline
Housing Renovation	<ul style="list-style-type: none"> • Most of the structural damage has been fixed • Remodeling supplies more expensive than expected and still not secured 	75%	Behind Schedule
Greek Week	<ul style="list-style-type: none"> • Many of the funds have arrived • Many of the needed building supplies were donated and have arrived • Family selected for home 	90%	On Schedule
Greek Transportation	<ul style="list-style-type: none"> • Gently used buses found • Drivers allocated to project • Routes to use in transporting students being planned 	90%	On Schedule

This is the final meeting to allocate member time toward the renovation project. This project has begun, but the repairs and remodeling are taking longer than previously thought, so your decisions may need to be reanalyzed. Recall that you are being rated on:

- The quality of your decision,
- The success of the housing renovations, and
- The success of the organization as a whole. (While you want the housing renovations to be successful, the organization does not want any projects to fail.)

6. Out of a final pool of 25 hours per member this semester, what is the average number of hours per member that should be spent on planning, fund-raising, and working on each project?

_____ Greek Week _____ House Renovation _____ Transportation

7. Please **rate** how important each of the following items were in influencing your decisions, and **rank** all items according to influence using each rank only once (1 being MOST important):

- a. I am concerned about the amount of money that has already been spent on my project.
- b. I am concerned about the amount of time that has already been spent on my project (9 months).
- c. I want to see my project to completion.
- d. I want to avoid making a poor decision for my peers in the organization.
- e. I want to appear competent in my decision-making abilities.
- f. I want to appear consistent in the decisions I have made.
- g. I want my project to be successful.
- h. I am concerned about the percentage of my project that is already complete.
- i. Other _____

Final Feedback for Housing Renovation Project

Thank you for helping to allocate resources for your committee in the previous project. Again, your project was a success as were the other two projects (see progress report below). With the funding and volunteers in place, we can now complete the projects. Thank you again for your help.

Quarterly Report 4 on All Projects, Phase 2

Date: March 1, 2007

Purpose: Project Update

Project	Feedback	Percent of Phase 2 Completed	Project Timeline
Housing Renovation	<ul style="list-style-type: none"> • Structural damage has been fixed • Remodeling supplies secured and have arrived 	100%	On Schedule
Greek Week	<ul style="list-style-type: none"> • Funds needed to build home have been raised • Needed building supplies were secured or donated and have arrived • Family selected for home 	100%	On Schedule
Greek Transportation	<ul style="list-style-type: none"> • Gently used buses found • Drivers allocated to project • Routes to use in transporting students planned 	100%	On Schedule

Scenario 3

Transportation, Time 1

In planning the transportation project, it is now necessary to determine how many members from each organization plans to use the buses, when the buses are most needed, and to scout bus routes. As the Greek Transportation Committee Chair, you are in charge of deciding how many membership hours should be contributed to achieve your project goals and those of the other projects. Whatever resources are used toward the transportation project means less will be available for use toward the other projects (that is, the members' time must be split three ways).

Remember you will be rated on:

- The quality of your decision,
- The success of the transportation project, and
- The success of the organization as a whole. (While you want the transportation project to be successful, the organization does not want any projects to fail.)

1. Each Greek member has been asked to volunteer 25 hours of their time over the course of each semester (including summer) toward ongoing projects. Out of a pool of 25 hours per member, what is the average number of hours per member that should be spent on planning, fund-raising, and working on each project?

_____ Greek Week _____ House Renovation _____ Transportation

Transportation, Time 2

It has been three months and it is time for your committee to reconvene. Please read progress report below.

Quarterly Report on All Projects, Phase 2

Date: June 1, 2006

Purpose: Project Update

Project	Feedback	Percent of Phase 2 Completed	Project Timeline
Greek Transportation	<ul style="list-style-type: none">• Some new and used buses have been found for possible use• Routes to use in transporting students being planned	30%	On Schedule
Greek Week	<ul style="list-style-type: none">• Some funds have been raised to build a house	30%	On Schedule

	<ul style="list-style-type: none"> • Family selected for home • Planning begun to determine necessary supplies 		
Housing Renovation	<ul style="list-style-type: none"> • Planning begun to determine the remodeling needs of each house • Many of the needed remodeling supplies have been secured at a discount 	30%	On Schedule

In the last scenario you allocated membership hours toward the transportation project as well as the other two projects. At this point in time, the transportation project is doing well. Funds that have been raised thus far are coming in, some estimates for new buses have been gathered, and planning has begun to determine what are the necessary routes the buses will need to take throughout campus. As it is now three months later, membership volunteer hours (25 per member) must again be allocated toward the three projects. Recall that you are being rated on:

- The quality of your decision,
- The success of the transportation project, and
- The success of the organization as a whole. (While you want the transportation project to be successful, the organization does not want any projects to fail.)

2. Out of a pool of 25 hours per member, what is the average number of hours per member that should be spent on planning, fund-raising, and working on each project?

_____ Greek Week _____ House Renovation _____ Transportation

3. Please **rate** how important each of the following items were in influencing your decisions, and **rank** all items according to influence using each rank only once (1 being MOST important):

- I am concerned about the amount of money that has already been spent on my project.
- I am concerned about the amount of time that has already been spent on my project (3 months).
- I want to see my project to completion.
- I want to avoid making a poor decision for my peers in the organization.
- I want to appear competent in my decision-making abilities.
- I want to appear consistent in the decisions I have made.
- I want my project to be successful.
- I am concerned about the percentage of my project that is already complete.
- Other _____

Transportation, Time 3

Three more months have passed and it is time for your committee to reconvene. Please read progress report below.

Quarterly Report 2 on All Projects, Phase 2

Date: September 1, 2006

Purpose: Project Update

Project	Feedback	Percent of Phase 2 Completed	Project Timeline
Greek Transportation	<ul style="list-style-type: none"> • Cost of new buses more than expected • Difficulty finding drivers • Routes to use in transporting students being planned 	55%	Behind Schedule
Greek Week	<ul style="list-style-type: none"> • Not all funds have arrived • Many of the needed building supplies have been donated • Family selected for home 	70%	On Schedule
Housing Renovation	<ul style="list-style-type: none"> • Structural damage found to some of the houses • Many of the needed remodeling supplies have been secured at a discount 	70%	On Schedule

At this point in the project, unfortunately, not enough time has been spent working on the transportation project and it is behind schedule to begin transporting students. Once again you are being asked to make decisions. Recall that you are being rated on:

- The quality of your decision,
- The success of the transportation project, and
- The success of the organization as a whole. (While you want the transportation project to be successful, the organization does not want any projects to fail.)

4. Out of a pool of 25 hours per member this semester, what is the average number of hours per member that should be spent on planning, fund-raising, and working on each project?

_____ Greek Week _____ House Renovation _____ Transportation

5. Please **rate** how important each of the following items were in influencing your decisions, and **rank** all items according to influence using each rank only once (1 being MOST important):

- a. I am concerned about the amount of money that has already been spent on my project.
- b. I am concerned about the amount of time that has already been spent on my project (6 months).
- c. I want to see my project to completion.
- d. I want to avoid making a poor decision for my peers in the organization.
- e. I want to appear competent in my decision-making abilities.

- f. I want to appear consistent in the decisions I have made.
- g. I want my project to be successful.
- h. I am concerned about the percentage of my project that is already complete.
- i. Other _____

Transportation, Time 4

It has been another three months and it is time once more for your committee to meet. Please read progress report below.

Quarterly Report 3 on All Projects, Phase 2

Date: December 1, 2006

Purpose: Project Update

Project	Feedback	Percent of Phase 2 Completed	Project Timeline
Greek Transportation	<ul style="list-style-type: none"> • Unexpected maintenance, insurance, and gas expenses • Routes needed not yet planned • Gently used buses found • University will provide drivers at no charge 	75%	Behind Schedule
Greek Week	<ul style="list-style-type: none"> • Many of the funds have arrived • Many of the needed building supplies were donated and have arrived • Family selected for home 	90%	On Schedule
Housing Renovation	<ul style="list-style-type: none"> • Structural damage fixed • Remodeling supplies have been secured 	90%	On Schedule

This is the final meeting to allocate member time toward the transportation project. The project has begun, but the project planning has been taking longer than previously thought, so your decisions may need to be reanalyzed. Recall that you are being rated on:

- The quality of your decision,
- The success of the transportation project, and
- The success of the organization as a whole. (While you want the transportation project to be successful, the organization does not want any projects to fail.)

6. Out of a final pool of 25 hours per member this semester, what is the average number of hours per member that should be spent on planning, fund-raising, and working on each project?

_____ Greek Week _____ House Renovation _____ Transportation

7. Please **rate** how important each of the following items were in influencing your decisions, and **rank** all items according to influence using each rank only once (1 being MOST important):

- a. I am concerned about the amount of money that has already been spent on my project.
- b. I am concerned about the amount of time that has already been spent on my project (9 months).
- c. I want to see my project to completion.
- d. I want to avoid making a poor decision for my peers in the organization.
- e. I want to appear competent in my decision-making abilities.
- f. I want to appear consistent in the decisions I have made.
- g. I want my project to be successful.
- h. I am concerned about the percentage of my project that is already complete.
- i. Other _____

Final Feedback for Transportation Project

Thank you for helping to allocate resources for your committee in the previous project. Again, your project was a success as were the other two projects (see progress report below). With the funding and volunteers in place, we can now complete the projects. Thank you again for your help.

Quarterly Report 4 on All Projects, Phase 2

Date: March 1, 2007

Purpose: Project Update

Project	Feedback	Percent of Phase 2 Completed	Project Timeline
Greek Transportation	<ul style="list-style-type: none"> • Funds raised for needed maintenance, insurance, and gas expenses • Routes to use in transporting students planned • Gently used buses found • University will provide drivers at no charge 	100%	On Schedule
Greek Week	<ul style="list-style-type: none"> • Funds needed to build home have been raised • Needed building supplies were secured or donated and have arrived • Family selected for home 	100%	On Schedule
Housing Renovation	<ul style="list-style-type: none"> • Structural damage has been fixed • Remodeling supplies secured and have arrived 	100%	On Schedule

Appendix D

Invitation Letter

Dear ,

You are invited to participate in a confidential online study about organizational decision-making that can help the Greek organizations make future decisions about philanthropic and organization-improvement activities. Results from this study will help to improve resource allocations among Greek organizations as well as aid the LSU research community. This survey is optional, but worth **2 extra credit or research learning points** for a psychology course or your name entered into a drawing for a cash prize, as well as your name being entered in a prize drawing for LSU memorabilia for those who choose to complete it (should only take approximately 30 minutes).

To access this survey click on the link below:

<http://drrizzuto.psyc.lsu.edu/greek1.htm>

This web address is assigned to you personally. Please do not use the links provided in other students' email messages. This will interfere with my ability to record your extra credit points and enter your name in the drawing.

This survey will remain posted until **5pm Friday, September 15**, at which time it will be removed from the web and you will no longer be able to obtain credit for this opportunity. Remember, **to obtain extra credit or research points, you must sign up for this experiment in PAWS (#007B, Organizational Decision Making)** prior to September 15. If you have any problems accessing the website, have questions about the survey, or are unsure if you are eligible, please contact me at mruss1@lsu.edu.

Thank you for your participation,

Molly Russ

Appendix E

Demographic and Background Information

What is your gender? Male Female

What is your race? Caucasian
 Black
 Hispanic
 American Indian
 Indian
 Asian
 Other

What is your age? years

What is (are) your major(s)? _____

How long have you been a member of your sorority or fraternity (in years)?

1 semester or less 2 3 4 5 6 7 8 or more

Do you now hold or have you ever held an office in your sorority or fraternity? Yes No

What office(s) have you held for your sorority or fraternity, if any? _____

How many hours per week on average do you spend on activities related to your organization?

0 1 2 3 4 5 6 7 8 9 10 11 12 or more

Do you intend to remain in your organization until graduation (or receiving alumni status)?

Yes No

How many full-time jobs (i.e., 30-40 hours per week) have you ever held (circle one)?

0 1 2 3 4 5 6 or more

How many part-time jobs have you ever held (circle one)?

0 1 2 3 4 5 6 or more

Have you ever held a managerial position on a job? Yes No

Have you ever had any experience evaluating a project's performance? Yes No

If you answered yes, please describe.

Have you ever had any experience making resource allocation decisions such as those made in this study? Yes No

If you answered yes, please describe.

Appendix F

Measures

Commitment Rationales

Sunk Costs Effects

1. I am concerned about the amount of money that has already been spent on my project.
2. I am concerned about the amount of time that has already been spent on my project.
3. I am concerned about the percentage of my project that is already complete.

Justification Processes

1. I want to avoid making a poor decision for my peers in the organization.
2. I want to appear competent in my decision-making abilities.
3. I want to appear consistent in the decisions I have made.
4. I want my project to be successful. (Item removed)

Project Completion Effects

1. I want to see my project to completion. (Item removed)

Commitment (Allen & Meyer, 1990)

Affective

1. I would be very happy to spend the rest of my college career with this organization.
2. I enjoy discussing my organization with people outside it.
3. I really feel as if this organization's problems are my own.
4. I think that I could easily become as attached to another organization as I am to this one.
5. I do not feel like 'part of the family' at my organization.
6. I do not feel 'emotionally attached' to this organization.
7. This organization has a great deal of personal meaning for me.
8. I do not feel a strong sense of belonging to my organization.

Normative

1. I think that people these days move from organization to organization too often. (Item removed)
2. I do not believe that a person must always be loyal to his or her organization.
3. Jumping from organization to organization does not seem at all unethical to me.
4. One of the major reasons I continue to remain with this organization is that I believe that loyalty is important and therefore feel a sense of moral obligation to remain.
5. If I got another offer from a better organization elsewhere I would not feel it was right to leave my organization.
6. I was taught to believe in the value of remaining loyal to one organization.
7. Things were better in the days when people stayed with one organization for most of their careers.

8. I do not think that wanting to be an ‘organization man’ or ‘organization woman’ is sensible anymore. (Item removed)

Continuance

1. I am not afraid of what might happen if I quit my organization without having another one lined up.
2. It would be very hard for me to leave my organization right now, even if I wanted to.
3. Too much in my life would be disrupted if I decided I wanted to leave my organization now.
4. It wouldn’t be too costly for me to leave my organization now. (Item removed)
5. Right now, staying with my organization is a matter of necessity as much as desire.
6. I feel that I have too few options to consider leaving this organization.
7. One of the few serious consequences of leaving this organization would be the scarcity of available alternatives.
8. One of the major reasons I continue to remain in this organization is that leaving would require considerable personal sacrifice – another organization may not match the overall benefits I have here.

Openness to Experience (Saucier, 1994)

Indicate the extent to which you agree that the following adjectives describes you:

1. _____ Complex
2. _____ Creative
3. _____ Deep
4. _____ Imaginative
5. _____ Intellectual
6. _____ Philosophical
7. _____ Uncreative
8. _____ Unintellectual

Resistance to Change (Oreg, 2003)

1. I generally consider changes to be a negative thing.
2. I’ll take a routine day over a day full of unexpected events any time.
3. I like to do the same old things rather than try new and different ones.
4. Whenever my life forms a stable routine, I look for ways to change it.
5. I’d rather be bored than surprised.
6. If I were to be informed that there’s going to be a significant change regarding the way things are done in the sorority or fraternity, I would probably feel stressed.
7. When I am informed of a change of plans, I tense up a bit.
8. When things don’t go according to plans, it stresses me out.
9. If my sorority or fraternity changed the criteria for evaluating current members, it would probably make me feel uncomfortable even if I thought I’d do just as well without having to do any extra work.
10. Changing plans seems like a real hassle to me.
11. Often, I feel a bit uncomfortable even about changes that may potentially improve my life.

12. When someone pressures me to change something, I tend to resist it even if I think the change may ultimately benefit me.
13. I sometimes find myself avoiding changes that I know will be good for me.
14. I often change my mind.
15. Once I've come to a conclusion, I'm not likely to change my mind.
16. I don't change my mind easily.
17. My views are very consistent over time.

Sensation seeking (Zuckerman, 1994)

1. A. I like "wild" uninhibited parties.
B. I prefer quiet parties with good conversation.
2. A. There are some movies I enjoy seeing a second or even third time.
B. I can't stand watching a movie that I've seen before.
3. A. I often wish I could be a mountain climber.
B. I can't understand people who risk their necks climbing mountains.
4. A. I dislike all body odors.
B. I like some of the earthy body smells.
5. A. I get bored seeing the same old faces.
B. I like the comfortable familiarity of everyday friends.
6. A. I like to explore a strange city or section of town by myself, even if it means getting lost.
B. I prefer a guide when I am in a place I don't know well.
7. A. I dislike people who do or say things just to shock or upset others.
B. When you can predict almost everything a person will do and say he or she must be a bore.
8. A. I usually don't enjoy a movie or play where I can predict what will happen in advance.
B. I don't mind watching a movie or play where I can predict what will happen in advance.
9. A. I have tried marijuana or would like to.
B. I would never smoke marijuana.
10. A. I would not like to try any drug which might produce strange and dangerous effects on me.
B. I would like to try some of the drugs that produce hallucinations.
11. A. A sensible person avoids activities that are dangerous.
B. I sometimes like to do things that are a little frightening.
12. A. I dislike "swingers" (people who are uninhibited and free about sex).
B. I enjoy the company of real "swingers."
13. A. I find that stimulants make me uncomfortable.
B. I often like to get high (drinking liquor or smoking marijuana).
14. A. I like to try new foods that I have never tasted before.
B. I order the dishes with which I am familiar so as to avoid disappointment and unpleasantness.
15. A. I enjoy looking at home movies, videos, or travel slides.
B. Looking at someone's home movies, videos, or travel slides bores me tremendously.
16. A. I would like to take up the sport of water skiing.
B. I would not like to take up water skiing.
17. A. I would like to try surfboard riding.
B. I would not like to try surfboard riding.
18. A. I would like to take off on a trip with no preplanned or definite routes, or timetable.
B. When I go on a trip I like to plan my route and timetable fairly carefully.
19. A. I prefer the "down to earth" kinds of people as friends.
B. I would like to make friends in some of the "far-out" groups like artists or "punks."

20. A. I would not like to learn to fly an airplane.
B. I would like to learn to fly an airplane.
21. A. I prefer the surface of the water to the depths.
B. I would like to go scuba diving.
22. A. I would like to meet some persons who are homosexual (men or women).
B. I stay away from anyone I suspect of being “gay” or “lesbian.”
23. A. I would like to try parachute jumping.
B. I would never want to try jumping out of a plane, with or without a parachute.
24. A. I prefer friends who are excitingly unpredictable.
B. I prefer friends who are reliable and predictable.
25. A. I am not interested in experience for its own sake.
B. I like to have new and exciting experiences and sensations even if they are a little frightening, unconventional, or illegal.
26. A. The essence of good art is in its clarity, symmetry of form, and harmony of colors.
B. I often find beauty in the “clashing” colors and irregular forms of modern paintings.
27. A. I enjoy spending time in the familiar surroundings of home.
B. I get very restless if I have to stay around home for any length of time.
28. A. I like to dive off the high board.
B. I don’t like the feeling I get standing on the high board (or I don’t go near it at all).
29. A. I like to date persons who are physically exciting.
B. I like to date persons who share my values.
30. A. Heavy drinking usually ruins a party because some people get loud and boisterous.
B. Keeping the drinks full is the key to a good party.
31. A. The worst social sin is to be rude.
B. The worst social sin is to be a bore.
32. A. A person should have considerable sexual experience before marriage.
B. It’s better if two married persons begin their sexual experience with each other.
33. A. Even if I had the money, I would not care to associate with flighty rich persons in the “jet set.”
B. I could conceive of myself seeking pleasures around the world with the “jet set.”
34. A. I like people who are sharp and witty even if they do sometimes insult others.
B. I dislike people who have their fun at the expense of hurting the feelings of others.
35. A. There is altogether too much portrayal of sex in movies.
B. I enjoy watching many of the “sexy” scenes in movies.
36. A. I feel best after taking a couple of drinks.
B. Something is wrong with people who need liquor to feel good.
37. A. People should dress according to some standard of taste, neatness, and style.
B. People should dress in individual ways even if the effects are sometimes strange.
38. A. Sailing long distances in small sailing crafts is foolhardy.
B. I would like to sail a long distance in a small but seaworthy sailing craft.
39. A. I have no patience with dull or boring persons.
B. I find something interesting in almost every person I talk to.
40. A. Skiing down a high mountain slope is a good way to end up on crutches.
B. I think I would enjoy the sensations of skiing very fast down a high mountain slope.

Voice (Avery & Quinones, 2004)

1. This sorority or fraternity offers members ways to express their grievances and complaints.
2. The leadership of this sorority or fraternity pays attention to member grievances and complaints.
3. Voicing my opinion about my role in the sorority or fraternity is important to me. (Item removed)

Power Distance (Hofstede, 1994)

Please think of an ideal organization, disregarding your present sorority or fraternity. In choosing an ideal organization, how important would it be to you to...(please circle one answer in each line across):

- 1 = of utmost importance
- 2 = very important
- 3 = of moderate importance
- 4 = of little importance
- 5 = of very little or no importance

1. Have a good working relationship with a top leader (or direct superior).
1 2 3 4 5
2. Be consulted by a top leader (or direct Superior) in his/her decisions.
1 2 3 4 5
3. How frequently, in your experience, are members afraid to express disagreement with their superiors?
 1. very seldom
 2. seldom
 3. sometimes
 4. frequently
 5. very frequently
4. A sorority or fraternity structure in which members have two leaders should be avoided at all costs.
1 2 3 4 5
 - 1. strongly agree
 - 2. agree
 - 3. undecided
 - 4. disagree
 - 5. strongly disagree

Uncertainty Avoidance (Hofstede, 1994)

1. How often do you feel nervous or tense in your sorority or fraternity?
 1. never
 2. seldom
 3. sometimes
 4. usually
 5. always

To what extent do you agree or disagree with each of the following statements? (please circle one answer in each line across):

- 1 = strongly disagree
2 = disagree
3 = undecided
4 = agree
5 = strongly agree

2. One can be a good leader without having precise answers to most questions that members may raise about their work or organization. 1 2 3 4 5
3. Competition between organization members usually does more harm than good. 1 2 3 4 5
4. An organization's rules should not be broken – not even when the employee thinks it is in the organization's best interest. 1 2 3 4 5

Vita

The author was born in Naperville, Illinois, and moved to Texas when she was young. She attended the University of North Texas from 1994 to 1997. Upon graduating with her Bachelor of Arts degree, she worked in Arizona and Texas before becoming a graduate student in Louisiana State University's industrial-organizational psychology program, obtaining her Master of Arts degree in industrial-organizational psychology in 2004. She has a diverse research background as a social scientist, but also has applied experience including many consulting projects, both independently and as part of a practicum team. These projects include conducting an employee needs analysis for a world-renowned biomedical research institute, guiding structured interviews as part of a needs analysis in the non-profit sector, facilitating group action meetings for a city-wide growth initiative, designing a performance appraisal system, developing, delivering and evaluating a training system, and conducting a job analysis and creating a job description as a selection tool for software engineers. She currently works in the private sector in the area of employee selection. The degree of Doctor of Philosophy will be conferred at the 2007 Fall Commencement ceremony.