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Factors Affecting Entrapment:

Justification Needs, Face Concerns, and Personal Networks

Abstract

This study explores the link between the entrapment bias and the concept of face (self- and other-positive) and internal and external justification processes. It examines how face-saving concerns and justification needs moderate the entrapment bias in accountability condition (i.e., presence of constituencies and reporting requirements). In addition, this research looks at whether the size and influence of personal networks is associated with face-saving behaviors that, in turn, affect entrapment. The research also explores whether overall face concerns have an effect on internal and external self-justification.

Participants were 236 undergraduate communication majors enrolled in a large East Coast university, who were assigned to one of the four conditions: (1) constituency, reporting; (2) constituency, no reporting; (3) no constituency; reporting; (4) no constituency; no reporting.

The current investigation did not support the findings from previous studies that suggest that justification processes and face concerns lead to entrapment. This study found that only internal self-justification and other-positive face concerns are related to entrapment, but instead of contributing to entrapment, these aspects prevent individuals from becoming entrapped. Personal networks were demonstrated to have positive effect on both self- and other-positive face concerns, providing empirical support for the value of using personal networks as a predictor of face goals. However, personal networks did not contribute to entrapment.

Overall, this study identifies processes and conditions (e.g., concern for other-positive face, internal self-justification, reporting requirement, no direct observation by constituency, keeping clear record of performance success or failure) that may prevent the entrapment bias from occurring. Implications of this research are discussed as well as directions for future research.

Factors Affecting Entrapment Bias:

Justification Needs, Face Concerns, and Personal Networks

The entrapment bias occurs when people assume that the more resources are expended, the closer they are to attaining their desired goal (Rubin, Kim, & Peretz, 1990). This phenomenon is referred to as sunk cost (Arkes & Blumer, 1985), entrapment or entrapment bias (Brockner, 1977), concord fallacy (Arkes & Ayton, 1999), and escalation of commitment (Staw, 1976, 1981). These terms are used often interchangeably.

This study examines the link between the entrapment bias, the concept of face, which is the desire to create and sustain positive identity in front of others (Goffman, 1955), and internal and external justification processes. Because negotiation often involves the presence of other people that may observe the process (i.e., constituency) and influence negotiators' performance (Gelfand & Realo, 1999), this study explores how face-saving concerns and justification needs moderate the entrapment bias in the presence of constituencies. In addition, this research examines whether the size and influence of personal networks is associated with face-saving behaviors that in turn may affect entrapment.

Entrapment Bias

Brockner (1992) defines escalation as “the tendency for decision makers to persist with failing courses of action” (p. 39). Fox and Hoffman (2002) outline five common characteristics that all escalation situations share. First, an individual is engaged in a goal-directed activity (e.g., problem-solving). Second, some type of resources (e.g., money, time, effort, or emotion) has been expended to achieve the goal. Third, expenditures have not brought the desired results. Fourth, a decision has to be made whether to continue or quit investing in the same course of

action. And fifth, future prospects seem unlikely for making gains or even covering losses by continuing in the same path, yet the person continues the original course of action.

A number of explanations have been provided for the escalation of commitment, including theoretical frameworks such as self-justification, prospect theory, decision dilemma and persistence. Brockner (1992) argued that none of these explanations could explain the escalation phenomena in its entirety. All of them provide explanations of entrapment in some circumstances. However, because the self-justification explanation is the framework that has received the most support in past research (Arkes & Blumer, 1985; Brockner & Rubin, 1985; Staw, 1976, 1981; Staw & Ross, 1987), the current study focuses on the self-justification explanation of escalation as it relates to the desire to save face and the need to justify one's actions.

Self-Justification

Self-justification has been systematically explored in compliance-gaining research. According to Kelman (1961), compliance can occur when a person accepts influence from another individual or from a group in hopes to achieve a favorable reaction from others. The individual is willing to be influenced because he or she wants to receive certain awards or avoid punishment that the other individual or group controls. Overall, a review of self-justification research illustrates that there are five conditions that could lead to an entrapment bias: negative consequences (i.e., failure of the original decision), commitment to behavior, perceived degree of freedom in commitment to this behavior, responsibility for the negative consequences, and desire for goal completion (Brehm & Cohen, 1962; Cooper, 1971; Eagley & Chaiken, 1993; Festinger & Carlsmith, 1959; Rubin & Brockner, 1975; Scheier & Carver, 1980; Staw, 1976; Zimbardo, Weisenberg, Firestone, & Levy, 1965;).

But three gaps and weaknesses in the study of the entrapment can be identified that the current research addresses. First, only a few studies examine the presence of an external audience and its potential to affect entrapment. Second, no studies have examined cultural variables and their potential influence on the commitment to the failing course of action. Third, no studies have analyzed cognitive processes involved in an escalation of commitment. This research addresses these three gaps: audience effect, cultural variables (i.e., types of face concern and personal networks), and cognitive processes (i.e., internal and external justification needs).

Entrapment and Negotiation, Accountability and Constituency

Entrapment is a cognitive bias that can directly affect negotiation (Neale & Bazerman, 1985). Neale and Bazerman suggest that escalation is likely to lead negotiators “to stand firm on their initial offers through the course of successive negotiations” (p. 48). One reason for development of rigid negotiation positions is the presence of an external audience or constituency. A constituency can exert normative influence, which can lead to entrapment bias (Gelfand & Realo, 1999). A number of studies suggest that accountability to a constituency can contribute significantly to entrapment (Fox & Staw, 1979; Staw & Hoang, 1995). Staw (1981) attributes this effect to external justification.

Lewicki, Saunders, and Minton (1985) maintain that the individual’s desire for consistency is often amplified by a desire to save face and maintain an illusion that he or she is in control in front of an audience. Goffman (1955, 1959) introduced the concept of face or the desire to create and sustain positive identities in the eyes of significant others. He argued that people will try to prevent loss of face even if they have to incur costs. Facework is communication aimed at enhancing or repairing face that has been damaged.

Brown and Levinson (1987) discuss two types of face: negative face and positive face. Negative face relates to an individual's need to maintain his or her autonomy, whereas positive face is conceptualized as the need to seek inclusion or approval from others. Ting-Toomey (1988) notes that people are concerned about positive and negative face for both themselves and for others. Self-face is the concern for one's own image and autonomy, whereas other-face is the concern for another person or people's image and autonomy.

Given the small number of studies related to, but not directly testing, face-saving behavior in the entrapment situation, further investigation is needed regarding how the desire to save face, especially in the presence of constituency, can lead to entrapment. The current research examines the effect of face on entrapment. Some scholars (e.g., White, Tynan, Galinsky, & Thompson, 2004) have indicated that concerns for positive face are more important to negotiators than the desire to avoid imposition (concern for negative face), this study focuses primarily on concern for self- and other-positive face.

Personal Networks

Network analysis continues to gain attention as a way to examine social structures (Emirbayer & Goodwin, 1994). According to Valente (1995), networks are patterns of support, advice, friendship, and communication that are shared by members of a social system. Personal networks include an individual, people in contact with the individual, social relationships between the individual and other people, and social relationships between the people in contact with the individual.

The study of personal networks benefits are useful for sociological as well as communication research. Over the past decades, individualism-collectivism and independent and interdependent self-construal have become prominent as explanations for differences in types of

relationships. Both sets of constructs have been widely used to explain the relationship between individuals and their relevant others (Hofstede, 1980; Markus & Kitayama, 1991). However, Fiske (2002) has criticized individualism-collectivism research, and Levine et al. (2003) offered criticism of the independent and interdependent self-construals pointing out that both sets of constructs have significant operationalization and measurement drawbacks. In place of these constructs, Massett (1999) suggested that personal networks may provide a more accurate representation of relevant others. She outlined three advantages of using personal networks as a framework for examining individuals' differences. First, personal networks allow for more accurate representation of one's social interactions with relevant others within a society. Second, having individuals identify their own set of significant others can reduce the problems associated with arbitrary definitions of groups. Third, examination of personal networks provides insight into quality and frequency of communication among individuals in a given society or culture.

Given a plausible relationship between self-construals and networks (Massett, 1999), and taking into consideration that self-construals have an effect on face concerns (Oetzel & Ting-Toomey, 2003; Ting-Toomey, 1988), the strength and influence of personal networks are expected to affect face concerns. In addition, as the previous section established a connection between face concerns and entrapment, an indirect relationship may exist between personal networks and entrapment bias with face concerns moderating this relationship. Thus, the size of an individual's network along with the strength of ties within the network (Granovetter, 1973) is expected to affect face concerns and entrapment bias.

This research predicts that the range and strength of one's personal networks will affect face-saving behavior, which in turn will affect the entrapment bias. The greater the size of the network and the stronger the ties in the network, the more the individual should be concerned

with protecting self-positive face because of his or her desire to look good to the members of the network and to maintain his or her inclusion in that network. In addition, individuals with stronger ties and larger personal networks are expected to be more concerned with protecting other-positive face, because they may feel more compelled to protect other parties' interests. Further, individuals with larger, strong-tie personal networks are expected to be more prone to entrapment in the presence of a constituency, because members of the constituency are likely to be members of the negotiator's professional network. Therefore, the negotiator may feel that his or her reputation, as well as reputation of the constituency, are at stake and persist with a failing course of action. Along the same lines of reasoning, these individuals are also more likely to feel more compelled to justify their behavior than individuals with smaller, loose tie networks.

Summary of Research Hypotheses

Based on the rationale provided in the literature review, this research tests the following hypotheses:

Hypothesis 1 (H1): Entrapment will be more likely when a constituency is present.

Hypothesis 2a (H2a): Justification would be greater when respondents are required to report their behavior.

Hypothesis 2b (H2b): When individuals have to report their behavior, they will have greater need for internal and external self-justifications leading to entrapment.

Hypothesis 3 (H3): Presence of constituency is likely to lead to greater internal and external justification.

Hypothesis 4 (H4): Individuals with greater self- and other-positive face concerns will be more likely to become entrapped.

Hypothesis 5 (H5): Concern for saving face will be greater when the individuals have to report their behavior.

Hypothesis 6 (H6): Overall other- and self-positive face concerns that an individual has will lead to greater need to justify one's actions in a scenario leading to entrapment.

Hypothesis 7 (H7): Concerns for saving face will be greater when constituency is present.

Hypothesis 8 (H8): Individuals with more expansive and strong ties in their personal networks will be more concerned with their self-positive face.

Hypothesis H9a (H9a): When participants have expansive personal networks, entrapment will be positively associated with protecting the constituency's positive face.

Hypothesis 9b (H9b): In the presence of constituency, individuals with larger, strong-tie personal networks will be more prone to entrapment than the individuals with smaller, weak-tie networks.

Hypothesis 10 (H10): In the presence of constituency, individuals with larger personal networks and strong ties would report greater justification for making their decisions.

Figure 1 provides a visual representation of study hypotheses and relationships among study variables. Circles represent constructs that incorporate more than one variable. For example, personal networks are comprised of the size of the network and influence of network members have on the person or tie strength.

Method

Respondents in the study were 236 undergraduate communication majors enrolled in a large East Coast university. The study sample consisted of 236 undergraduate students majoring in communication enrolled in a large East Coast university ($N = 236$). The overwhelming majority of the participants (97.4%) were full-time undergraduate students. The remaining 2.6%

were part-time undergraduate students. Of the participating students 2.5% were freshmen, 33.9% were sophomores, 39.4% were juniors, and 23.7% were seniors. Ethnic composition of the sample was as follows: White, non-Hispanic or Caucasian (64.4%), African American or Black (14%), Hispanic (6.4%), Asian or Asian-American (6.8%). In addition, 6.8% of the respondents reported their ethnicity as “Other.” Participants were between 17 and 33 years old ($M = 20.3$ years, $SD = 1.86$, median = 20). Female participants constituted 80.9% of the sample and male participants constituted the remaining 19.1%. Such an imbalance in female to male student ratio is not unusual as this is a growing trend in communication classes, where the majority of majors are female. A slight majority of the participants (53%) reported being employed. The most often-cited categories of employment were sales, administrative/clerical (e.g., secretary, administrative assistant, account clerk), and service industry (e.g., waiter, nanny, chef) positions.

Participants were assigned to one of four experimental conditions: (1) constituency, reporting; (2) constituency, no reporting; (3) no constituency; reporting; (4) no constituency; no reporting. Two female undergraduate students were recruited to help the researcher and act as the “confederate constituency” in conditions in which constituency was present. Data were collected between June and December 2004.

Procedures

Participants volunteered to take part in the experiment. They received extra credit in their communication courses for their participation. In addition to extra credit, each participant received ten raffle tickets for four raffle drawings; each drawing was worth \$50. Each ticket was worth \$1. Participants were not allowed to purchase tickets outside of the study. When the study was completed, the researcher administered one lottery and awarded \$50 to the winner.

The prospective participants were told that if they would like to receive extra credit for the class, one option available to them was to participate in an experiment investigating an individual's luck and decision-making processes. An alternative written assignment was offered to those students who wanted extra credit but did not want to participate in research.

Participants received an informed consent form and a number of questionnaires that they were asked to fill out prior to arriving at the experimental laboratory. The questionnaires included questions regarding demographic information, personal networks, network influence, and a face scale. Upon arriving at the lab, participants received instructions about the experiment. Next, they read and signed another informed consent form and completed pre-task questionnaires including the manipulation check and luck scale. After finishing the experiment, participants completed a series of post-task questionnaires, including the outcome narrative, an entrapment scale, and face scale (identical to the one they completed prior to participating in the research study). Finally, after turning in their post-task questionnaires, participants read a debriefing form and received explanations about the study from the researcher.

Task Description

The experiment instructions explained that the task would consist of drawing ping-pong balls out of a box that contained 100 ping-pong balls, of which 90 were white and 10 were red, and that the participant's luck would be measured by the number of red balls he or she drew from the box. In fact, no red balls were in the box. The participants were told that the goal of the task is to draw five out of the ten red balls that are mixed in with white balls. The participants were informed that they could make up to 20 attempts to draw five red balls. It was also emphasized that the experiment was structured so that only drawing five red balls counted as a successful completion of the task; in other words, drawing one, two, three, or four red balls constituted

failure to complete the task. All of the participants started the experiment with ten raffle tickets. The participants were told that if they successfully completed the task (i.e., drew 5 red balls) they would receive an additional 20 raffle tickets, bringing the total number of raffle tickets to 30. However, because there were no red balls to draw, it was impossible for anyone to receive 30 tickets.

Constituency

Half of the participants were told that they would be working on their own (no constituency). In the *no constituency condition*, the respondents were told that after they received instructions, they would be escorted into the experiment room where they would perform the drawing task. They received a pay-off sheet reflecting potential gains and losses. The pay-off sheet detailed that for every white ball drawn, the participant would lose one raffle ticket of the ten tickets he or she started with, and for every red ball drawn he or she would win two raffle tickets. Each participant was informed that if he or she were to “get in the negative,” he or she would have to pay for the number of negative points accumulated, such that one point was worth one dollar. Because the participants started with ten raffle tickets each and could make up to 20 draws, the maximum penalty possible was \$10. However, no money was actually collected in the end. The participants were also informed that regardless of how many points he or she lost, if all 5 red balls were drawn by the end of the task, the person would receive 20 raffle tickets with no penalties. For example, if the respondent had negative points at the time of drawing all 5 balls, she or he would not have to pay and would receive all 20 raffle tickets for successfully completing the task.

The other half of the participants were told that they would be working in groups of three participants (constituency condition). These groups actually consisted of two confederates

(constituency) and one participant. By the time the participant arrived at the lab, the confederates were already waiting. The researcher pretended that she did not know them and took down their names and classes they were enrolled in along with the participant's information for the purposes of providing this information to his or her instructor to notify the instructor that the student should receive extra credit for participating in the study.

In the *constituency condition*, the participants were told that, although they were working as a group, only one person would be performing the task, and that person would be decided by number drawing. The participants in the constituency condition were told that the experimenter was interested in investigating “how an individual's luck affects groups; particularly, because there have been studies that have shown that not only individuals could be lucky, but also groups.”

Each participant in the constituency condition was instructed in front of the confederates that for every round in which the participant failed to draw a red ball the constituency would lose one raffle ticket per person and the participant would also lose one raffle ticket. But for every round in which the participant did draw a red ball the constituency would win two tickets each and the participant would win two tickets. If the participant was “in the negative,” losing more raffle tickets than the number held by each person, the number of points that the constituency would lose would be the same as the number of points lost by the participant. For example, if the participant drew eleven white balls—that is, one negative point—he or she would lose \$1, and each member of the constituency would also lose \$1. The maximum penalty for each member of the constituency and the participant was \$10.

Furthermore, to meet the requirement that the constituency control rewards, the participants were instructed that, at the conclusion of the task, the constituency would determine

an amount (from \$0 to \$5) to be awarded to the participant for his or her performance. This award was to be in addition to the extra credit that all participants would receive regardless of their performance. The experimenter told the participants that she would pay him or her the amount indicated by the constituency. Modeling after the procedures used by Organ (1971), the participant was told that the constituency would also receive compensation but the amount was not specified so that decisions about how much to award would not be biased.

Reporting

In each accountability condition, half of the participants were asked to report on their performance in the task (reporting condition). The other half of the participants were told that after they finished the experimental task they would complete some questionnaires and would be free to go (no reporting condition). Thus, prior to the experiment, half of the *constituency condition* participants were informed that they would report in person either to the constituency (one-fourth of the participants) and half of the *no constituency condition* participants were informed that they would report in to the researcher (one-fourth of the participants) at the end of the task. All participants were asked to write a paragraph justifying his or her strategy and statements he or she would use to explain the success or failure in performing the task (outcome narrative). Respondents in the reporting condition were told that they would have to complete the outcome narrative before facing the constituency or the researcher. In fact, the participants did not have to report to the constituency or researcher. As soon as the respondents completed the post-experimental questionnaires they were debriefed by the researcher and were free to go.

The information packet for the *reporting/constituency* condition read as follows:

As a group representative you will perform the drawing task on behalf of your group. At the conclusion of the task, you will write a short essay (one or two paragraphs)

summarizing the outcome of the task and explaining your strategy and the results. You will use this essay to report to the group members after you are finished with the drawing. After the explanation is presented to the group members, they will carefully weigh the information and decide how much money to award you for your performance.

The information packet for the *reporting/no constituency* condition read as follows:

You are to perform the experimental task on your own. At the conclusion of the task, you will write a short essay (one or two paragraphs) summarizing the outcome of the task and explaining your strategy and the results. You will use this essay to report to the researcher after you are finished with the drawing.

In the *no reporting/constituency* condition, each participant was told that the experimenter would inform the group members of the outcomes of the task and the group members would make a decision regarding the monetary reward to be received by the participant. In the *no reporting/no constituency condition*, the respondent was told that after completion of the task and the post-experimental questionnaires the participant would receive a debriefing and would be free to go.

The statements produced by the participants were collected by the experimenter and analyzed for the types of messages most often used by the respondents in an attempt to explain their behavior.

Entrapment

The primary dependent variable in this study was the entrapment bias. In this study, the entrapment bias was conceived of as a participant's commitment to continuing the task. It was operationalized by the number of drawing rounds (the greater number of rounds, the greater the entrapment bias) the participant chose to conduct.

Luck

Although unrelated to the theoretical rationale of this research, participants were asked to respond to a series of questions on their beliefs about luck and how lucky they feel. Luck was measured because it was used in the method to foil the nature of the study; that is, participants were told that the study is about luck as a justification to have them draw balls from a box and to not to bias the outcomes. Two scales were adopted and slightly modified to measure luck: Belief in Good Luck (BIGL), a 12-item-scale developed by Darke and Freedman (1997), and a questionnaire developed by Wohl and Enzle (2002).

Manipulation Checks

Manipulations were checked through questions in the information packet provided prior to performing the experimental task. After reading the materials, the participants were asked questions to evaluate their understanding of the instructions.

The two experimental manipulations, reporting (Yes/No) and constituency (Yes/No), were checked using an independent-samples *t*-test. The *t*-test was performed on items designed to show meaningful differences based on the assigned conditions. Question one (“Will you be evaluated?”) compared the difference between the conditions in which the participants had to report in person to either constituency or the researcher ($M = 1.07$, $SD = .26$) with the conditions with no reporting ($M = 1.38$, $SD = .49$). Results indicated a significant difference between these two conditions ($t[231] = 6.17$, $p < .01$). In addition, significant differences were found for the reporting ($M = 4.96$, $SD = 1.43$) versus no reporting ($M = 4.28$, $SD = 1.75$) conditions on the following question: “How closely do you believe your actions will be examined?” ($t[233] = 3.25$, $p < .01$). Results showed that participants in the no reporting conditions ($M = 3.36$, $SD = 1.78$) indicated significantly lower agreement with the statement that they would have to justify their

outcomes and strategy in comparison to those in reporting conditions ($M = 4.90$, $SD = 1.48$; $t[232] = 7.14$, $p < .01$). For the constituency ($M = 1.05$, $SD = .22$) versus no constituency conditions ($M = 1.39$, $SD = .49$), the one item used to compare the conditions (“Will you be evaluated?”) showed a significant difference between the conditions ($t[231] = 6.70$, $p < .01$).

Results

Test of the Hypotheses

A series of ANOVAs and multiple regressions were used to test the hypotheses. Table 2 provides a correlation matrix for the relationship between variables measured in this study. The first hypothesis 1 (H1), which posited that entrapment will be more likely when a constituency is present, was not supported ($F[1, 235] = .07$, n.s.).

Hypothesis 2a (H2a), which posited that justification would be greater when respondents are required to report their behavior, was partially supported. Two ANOVAs were performed with reporting conditions dichotomized (i.e., reporting yes or no) as the independent variable, and internal and external justification, derived from the entrapment scale, as the dependent variables. The results indicated no significant effect for internal self-justification ($F[1, 228] = .45$, n.s.). However, a significant main effect was found for external self-justification ($F[1, 228] = 22.11$, $p < .01$).

Hypothesis 2 (H2b), which posited that when individuals have to report their behavior they will have greater need for internal and external self-justifications that will lead to entrapment, was partially supported. Only cases in which reporting was required were selected ($n = 116$). A regression analysis was performed with internal and external self-justification, derived from the entrapment scale, as independent variables, and the total number of draws representing entrapment as the dependent variable. The results showed that the overall analysis

was significant ($F[2, 110] = 7.30, p < .01$). However, consistent with the finding presented above, only the effect of internal justification was significant, with a negative relationship to entrapment ($t[110] = 3.47, \beta = -1.94, p < .01$). That is, among the individuals who had to report their behavior, the greater need for internal self-justification led to lower levels of entrapment. The external justification had no effect on entrapment ($t[110] = .46, n.s.$).

Hypothesis 3 (H3), which posited that the presence of constituency is likely to lead to greater internal and external justification, was not supported (internal justification: $F[1, 228] = .83, n.s.$; external justification: $F[1, 228] = 1.83, n.s.$).

Hypothesis 4 (H4), which posited that individuals with greater self- and other-positive face concerns will be more likely to become entrapped, was partially supported. The results showed that other-positive face goals were negatively associated with entrapment ($F[1, 228] = 9.20, p < .01; \beta = -1.03$). That is, the results indicated that the individuals were less likely to get entrapped if they had significant concerns for other-positive face. However, self-positive face goals did not affect entrapment ($F[1, 168] = .35, n.s.$).

Hypothesis 5 (H5), which posited that concern for saving face will be greater when the individuals have to report their behavior, was partially supported. Two ANOVAs were performed with reporting conditions dichotomized (yes/no) as the independent variable and self- and other-positive face, derived from the entrapment scale, as dependent variables. In self-positive face analysis, only constituency present and reporting conditions (i.e., conditions 1, 2, and 3) were used, because, in the control condition, the participants should have not experienced any threats to self-positive face. The results revealed a reliable main effect across experimental conditions ($F[1, 168] = 4.30, p < .05$), such that concern for saving self-positive face was greater when individuals had to report their behavior. However, a similar two-way ANOVA with

reporting conditions dichotomized (yes/no) as the independent variable and other-positive face as the dependent variable, using participants in all of the conditions, demonstrated no significant main effect ($F[1, 228] = .53, n.s.$)

Hypothesis 6 (H6), which posited that other- and self-positive face concerns will lead to a greater need to justify one's actions in a scenario leading to entrapment, was partially supported. The results indicated that face concerns did not affect internal justification (self-positive face: $F[1, 226] = .48, n.s.$; other-positive face: $F[1, 225] = .96, n.s.$). However, the relationships between external self-justification and other- and self-positive face were significant (other-positive face: $F[1, 225] = 9.08, p < .01$; self-positive face: $F[1, 226] = 5.67, p < .05$). Both, other- and self-positive face concerns had a positive effect on external justification ($\beta = .20$ and $\beta = .16$, respectively). More specifically, the greater concern one had for protecting either self- or other-positive face, the more important it was to the person to appear rational to others.

Hypothesis 7 (H7), which posited that concerns for saving face will be greater when constituency is present, was supported. The results of an ANOVA, with constituency present versus not present as the independent variable and self-positive face as the dependent variable, were significant ($F[1, 168] = 22.23, p < .01$). A similar test with other-positive face, derived from the entrapment scale, as the dependent variable was also significant ($F[1, 228] = 46.96, p < .01$). That is, the presence of constituency led to greater self- and other-positive face concerns.

Hypothesis 8 (H8), which posited that individuals with more expansive and strong ties in their personal networks will be more concerned with their self-positive face, was supported. Results of the regression indicated that the size and influence of a person's network had a positive effect on self-positive face ($F[1, 167] = 4.02, p < .05; \beta = .003$). That is, the greater the size and stronger the influence of a person's network, the greater the self-positive face concerns.

Hypothesis 9a (H9a), which posited that when participants have expansive personal networks, entrapment will be positively associated with protecting the constituency's positive face, was not supported ($F[1, 58] = 1.73$, n.s.), with no effect on other-positive face goals ($t[58] = 1.31$, n.s.). To further examine the relationship between network size and influence and face, additional regression analyses were performed using network influence, network size (all members combined) and networks multiplied by influence as independent variables and overall face concerns (self- and other-positive and self- and other-negative) measured *prior* to participating in the experiment as dependent variables. The results indicated that network size, network influence, and interaction of size and influence affected only self-positive face concerns. More specifically, the greater the influence of the network on an individual, the greater were his or her self-positive face concerns ($F[1, 232] = 7.03$, $p < .01$; $\beta = .17$). The larger the size of an individual's network, the greater were his or her self-positive face concerns ($F[1, 232] = 3.61$, $p < .06$; $\beta = .12$). The greater the size of the networks and the network's influence, the greater were the individual's self-positive face concerns ($F[1, 232] = 3.76$, $p < .05$; $\beta = .13$).

Hypothesis 9b (H9b) posited that in the presence of constituency, individuals with larger, strong-tie personal networks will be more prone to entrapment than the individuals with smaller, weak-tie networks. This hypothesis was not supported; the size and strength of the personal network did not affect entrapment ($F[1, 114] = 1.59$, n.s.)

Hypothesis 10 (H10) posited that In the presence of constituency, individuals with larger personal networks and strong ties would report greater justification for making their decisions. This hypothesis was not supported. Network size and network influence affected neither internal justification ($F[1, 112] = .68$, n.s.) nor external justification ($F[1, 112] = 1.75$, n.s.).

Figure 2 summarizes the significant relationships found in the study.

Discussion

This research addressed three gaps in the theoretical study of entrapment. First, because few social factors contributing to entrapment have been explored (Brockner et al., 1982; Brockner, Rubin, & Lang, 1981; Fox & Staw, 1979; Staw & Hoang, 1995), this study was designed to contribute to existing research on entrapment by examining how the presence of audience, or constituency, affects entrapment, and to introduce personal networks as a social explanation for why some people may be more or less prone to becoming entrapped. Second, this study examined face concerns and how they moderate the entrapment bias. Finally, because previous studies did not directly measure cognitive processes affecting entrapment, this study examined the effect of the need for internal and external self-justification on entrapment.

This study is unique in that it combines the elements essential to simulating entrapment within self-justification perspective and measures processes previously suggested to contribute to entrapment. The results indicate two paths linking conditions required for entrapment to occur to two of the four cognitive processes examined in this study. Presence of constituency influenced other-positive face concerns, which in turn negatively influenced the likelihood of entrapment. Also, the reporting requirement influenced the need for internal self-justification needs, which negatively influenced the likelihood of entrapment. The relationship between the processes and entrapment were negative: Concerns for other-positive face and internal self-justification led to a decrease in entrapment, not to its increase, as previous studies would have suggested. Therefore, a primary contribution of this research is that it identified processes that may prevent entrapment.

Overall, because none of the elements essential to simulating entrapment within the self-justification paradigm contributed positively to entrapment, these findings provide support for the need to identify another framework for examining entrapment. Perhaps one of the alternative

perspectives is to view conflict-escalation as a goal-driven activity, as suggested by Fox and Hoffman (2002). Fox and Hoffman argued that escalation behavior is a specific instance of the broader and more encompassing phenomenon of persistence, a behavioral tendency that arises in all goal-directed activities. These scholars propose that escalation should be viewed as a continuation of the same psychological motivating forces that govern the inception and maintenance of all forms of goal-directed behavior. According to Fox and Hoffman, persistence is measured by the total number of trials the person continues to make prior to stopping or changing a course of action. They argued that people often do not stop their efforts after a single incidence of failure; they stop after multiple failures or learning that the goal cannot be attained. Future research is needed to examine whether escalation as a goal-driven activity can provide a viable explanation of the phenomenon.

Future research should also consider the relationship between attribution theory and the likelihood of entrapment. For example, McCain (1986) argued that persisting with a chosen course of action in the face of other plausible alternatives results from an individual making an attribution that the previous failure was or was not caused by some unstable factors. If the same decision fails repeatedly, its failure could be attributed to stable causes. Results of McCain's study indicated that escalation tends to diminish at a fairly constant rate following initial trials. Results of the present study substantiated McCain's findings in that many participants cited either luck or difficulty of the task as explanations for their decision to stop the experimental task. Both reasons are attributable to external, unstable factors.

One reason that the present research found that neither internal self-justification nor concern for other-positive face led to entrapment may be that the diagnostic value of repeated failures could not be ignored by participants as it was mounting in direct proportion to sunk cost.

That is, similar to the results from the study conducted by Garland, Sandefur, and Rogers (1990), this study was structured in such a way that the participants could not ignore their failure to complete the task because they were asked to track and record their gains and losses on a separate sheet, which served as a constant reminder of their success or failure. Because there were no red balls in the box, success was improbable. Thus, with each additional draw, a participant's situation worsened. This line of reasoning is consistent with Staw and Ross (1978), who asserted that one of the major factors contributing to withdrawal from a failing course of action is that the "objective situation increasingly worsens over time, making it economically clear that persistence is more costly than withdrawal" (p. 69). If the impossibility of ignoring the failure is an explanation for these findings, then the present research provides empirical support for ways to reduce escalation. For one, providing explicit data regarding the low (or no) return rate if one continues with a chosen course of action seems to reduce the likelihood of entrapment (Heath, 1995; Fox & Hoffman, 2002). In addition to instructing the participants to track their performance, the design of the current study also allowed the participants to stop the experimental task at any time, a feature that, compounded by a tracking requirement, could have contributed to preventing entrapment. Future research could compare conditions in which participants record or do not record their successes or failures to examine whether ongoing tracking of an individual's performance on a task reduces the likelihood of entrapment.

In this study, the role of constituency indirectly influenced participants' decisions to stop with the experimental task due to concerns about protecting other-positive face. Future studies should investigate the conditions under which planning a strategy with the members of constituency would indeed lead to preventing entrapment. Also, setting limits before outcomes are known (Brockner & Rubin, 1985) or setting a *stopping rule* prior to making the initial

commitment (Boulding, Morgan, & Staelin, 1992) can reduce the likelihood of entrapment, “possibly reflecting the role of limits as psychological contracts that bind decision makers to behave in a manner consistent with their goals” (Brockner & Rubin, 1985, p. 85).

Support of the hypothesis that size and influence of individuals’ personal networks affect face-saving behavior suggests a number of implications for future research, especially cross-cultural research, which often includes measures or assumptions about relational types as predictors of behavior. In particular, in light of recent criticism of the individualism-collectivism and independent-interdependent self-construal paradigms (Fiske, 2002; Levine et al., 2003), the results of the present study suggest that personal networks may be helpful for gaining insight into social relationships. This study showed that networks could be considered a plausible alternative for operationalizing particular aspects of relationships. Both individualism-collectivism and independent-interdependent self-construals measures rely on self-reports about individuals’ psychological orientation using arbitrary definitions of relevant others. By allowing individuals to nominate people who were relevant to them and asking them to report quality and frequency of communication with these people, this study moved away from psychological reporting and examined structural features of relationships (i.e., how large are the individuals’ actual networks and how important are relationships in these networks?). In addition, an original measure of the strength of influence of a network on an individual was developed. This research used the interaction between size and influence of networks, and found this measure to predict other-positive face goals. This measure should be validated in future research using networks to understand communication. Personal networks can provide a more specific and informative way to operationalize differences in social relationships with relevant others than individualism-collectivism and independent-interdependent self-construals. Although the results of this study

indicate no direct relationship between personal networks and entrapment, further research examining entrapment in intercultural settings should be conducted to explore relationships between networks, self- and other-positive face concerns, and entrapment.

Implications

This research has several practical implications for minimizing entrapment during a negotiation or conflict situation. The results indicate that, in the constituency-present conditions, the participants become less entrapped because of the concern for other-positive face. One plausible explanation for this finding is that the constituency was not physically present when participants performed the task, because in the presence of constituency, individuals tend to be more competitive and often less successful (Klimoski & Asch, 1974; Lamm & Kogan, 1971; Neale, 1984; Organ, 1971). Therefore, from the practitioners' point of view, limiting the physical presence of constituency during a negotiation or in a conflict situation may lead to more effective outcomes. The results indicate that the reporting requirement prevents entrapment; however, it increases concerns for self-positive face. To this end, the constituency should try to minimize these concerns by providing encouraging feedback. The results also suggest that keeping an explicit track record of success or failure may also contribute to de-biasing effect. Thus, constituency should instruct the negotiator to keep a record of his or her successes and failures.

Limitations and Direction for Future Research

This research has several limitations related to the participant sample, experimental design and manipulations, and personal network measures that should be noted. Although college students were participants in this study (Ashton & Kramer, 1980; Sears, 1986), the study addresses several theoretical issues, so the use of college students is not problematic in addressing those questions. However, generalizability may be somewhat limited, especially

because the majority of the sample (80.90%) was female. As mentioned earlier, such sample composition may have affected the results of the study in that women may be more context and relationship-oriented than men (Kolb & Williams, 2000), which may result in less likelihood for women to become entrapped than men. Future studies should compare male and female performance in a comparable study.

This study addressed some of the past limitations in entrapment research regarding constituency by introducing a physically-present constituency that interacted with the participants, which is different from past studies that have employed a paper constituency or passive observers. Although this approach provides some insight into the influence of a physically-present constituency, the limitation of this approach is that the confederates were not able to form a long-term relationship with the participant, given that they spent only 10 to 15 minutes together. Results should be compared to similar situations in which an individual represents a group with which he or she has longer relationships. Still, regardless of the fact that the individuals were not intimately familiar with members of the constituency and did not have a real relationship with them, the results of this study suggest that the concerns for constituency needs (i.e., other-positive face) deterred the participants from getting entrapped.

Another limitation of this research is the operationalization of entrapment (i.e., the number of balls drawn by participants). Because the box did not contain any red balls, some participants may have withdrawn from the task because they consistently drew only white balls. Although none of the participants guessed the true nature of the study, as evidenced by a few verbal comments made to the researcher after completing the experimental task, some did guess that there were no red balls in the box. Future studies may incorporate *bait for success* (e.g., red balls in a smaller number than needed to win) in the design. In addition, that participants were

told the study was about luck may have affected the final results, although no significant relationship was found between luck and any of the measured variables in this study.

Nonetheless, individuals' beliefs regarding how lucky or unlucky they are may have prevented those who believe that they are unlucky from pursuing the task and encouraged those who believe that they are lucky to continue with the task.

Another potential limitation of the study is the manipulation of entrapment using raffle tickets and dollars lost. A penalty of \$1 may not have been perceived as a serious one. However, past studies employing dollar auction method, in which individuals compete against each other in bidding for \$1 bill, have suggested that dollar amount is not what drives people to pay more than \$1 for a dollar; it is the desire to win that drives them to overbid (Brockner, 1977). Nonetheless, future research could examine the effect of the value being sunk into persistence.

Finally, although the implications for negotiation and conflict management are provided, the simulation in this experiment did not involve negotiation or conflict. In fact, most past studies of entrapment did not use simulations either. However, scholars interpret findings from these past studies to be applicable to negotiation context (e.g., Bazerman, 1986; Neale & Bazerman, 1985). Future studies should employ negotiation scenarios when examining entrapment to identify how the presence of a counterpart could affect entrapment.

The context for generating the networks spanned a wide variety of everyday activities, from borrowing money to making health decisions, but did not focus on any area in particular. If participants were asked about their work or health networks, a different set of individuals may have been nominated. Further, the type of network activated is likely to vary from one situation to another. For example, in a family setting, a person is likely to be much more concerned about

family and friends, whereas in a work setting, the person may be more concerned about the opinion of colleagues than of family members.

One of the key contributions of this study is that it demonstrates a relationship between individuals' networks and face concerns. However, future studies are needed to explore whether the relationship exists in other, non-entrapment related contexts and the implications of this relationship for communication. With further development, personal networks could become an alternative description of individuals' relationships with relevant others usually assumed in measures of individualism-collectivism and independent-interdependent self-construals. Future cross-cultural comparisons should examine individuals from traditionally individualistic or independent self-construal cultures and from traditionally interdependent or collectivistic cultures to identify whether behaviors predicted by individualism-collectivism could be also predicted by the size and strength of personal networks.

Overall, this research demonstrated the negative relationship between other-positive face, internal self-justification, and the entrapment bias. The presence of constituency and requirement for reporting were shown to affect positive-face concerns and justification processes, respectively, suggesting that both are essential for entrapment to occur through indirect processes of other-positive face and internal justification. In addition, this research demonstrated that size and influence of personal networks are positively associated with face-saving behaviors.

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Table 1

Scale Reliability Coefficients

Scale	Cronbach's α
Influence scale	0.82
Face scale	
Self-positive face	0.73
Other-positive face	0.75
Self-negative face	0.71
Other-negative face	0.91
Belief in good luck	0.88
Entrapment bias scale	
Internal self-justification	0.67
External self-justification	0.83
Other-positive face	0.91
Self-positive face (only conditions I, II and III)	0.80

Table 2

Correlation Matrix: Independent and Dependent Variables

	Total number of draws	Constituency (present or not)	Reporting (yes or no)	Overall face concern: Other negative face	Overall face concern: Self negative face	Overall face concern: Other positive face scale	Overall face concern: Self positive face scale
Constituency (present or not)	0.02						
Reporting (yes or no)	0.13*	0.01					
Overall face concern: Other negative face	-0.01	0.01	0.06				
Overall face concern: Self negative face	0.04	0.02	0.01	0.47**			
Overall face concern: Other positive face scale	-0.10	0.10	-0.12	0.26**	0.33**		
Overall face concern: Self positive face scale	0.07	0.02	0.04	0.15*	0.30**	0.34**	
Network size multiplied by strength of network influence	-0.03	0.01	0.05	0.07	0.06	0.03	0.13
Luck	0.07	0.08	-0.03	0.07	0.08	0.13*	0.02
Entrapment scale: Internal justification	-0.23**	0.06	-0.04	0.05	0.08	0.07	0.05
Entrapment scale: External justification	-0.23**	0.09	-0.30**	0.10	0.10	0.20**	0.16*
Entrapment scale: Other Positive Face	-0.20**	-0.41**	-0.05	0.07	0.04	0.13*	0.25**
Entrapment scale: Self positive face (Conditions 1,2 and 3)	-0.05	0.34**	-0.16*	0.12	0.20**	0.30**	0.24**

	Network size multiplied by strength of network influence	Luck	Entrapment scale: Internal justification	Entrapment scale: External justification	Entrapment scale: Other Positive Face
Luck	0.03				
Entrapment scale: Internal justification	0.10	0.17*			
Entrapment scale: External justification	0.13	0.06	0.50**		
Entrapment scale: Other Positive Face	0.13	0.09	0.31**	0.42**	
Entrapment scale: Self positive face (Conditions 1,2 and 3)	0.15*	0.15*	0.41**	0.60**	0.33**

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Figure Captions

Figure 1. Research Hypotheses.

Figure 2. Research Findings.



