

CHARISMATIC LEADERSHIP IN CRISIS SITUATIONS A Laboratory Investigation of Stress and Crisis

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Charismatic leaders are often thought to emerge in times of crisis. This study examined the effects of evaluation stress and situational crisis on task performance and ratings of charismatic behavior, as assessed by outside coders on Conger and Kanungo's C-K Scale. Fifty-five three-member groups were randomly assigned a leader and asked to complete a project-planning task. Half of the groups were randomly assigned to a stress condition, and all groups underwent a midsession crisis intervention. Results showed that leaders in the stress condition were perceived as significantly more charismatic than leaders in the no-stress condition, although ratings converged after the crisis manipulation.

Keywords: leadership; groups; stress; charisma; crisis

Since charismatic leadership theory began, there has been a shift in the perception of what charisma is and how it develops. The word *charisma*, derived from the Greek word for *gift*, was used by the Christian church to describe gifts from God, *charismata*, used for

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prophecy and healing (Conger & Kanungo, 1994). As Barnes (1978) notes, many great religious leaders, including Muhammad, Buddha, Calvin, Confucius, and Jesus Christ, have been described as charismatic. Weber (1947) expanded the definition to include any leader who derives his or her power from particularly exceptional personal traits. Whereas an emphasis on the fantastic and mystical was appropriate for the church, the shift to secular charismatic leadership revolutionized the perception of authority figures from rational and law oriented to innovative and progressive in social change (Conger & Kanungo, 1994). Thus began the transition of charisma to the political sphere, where the mark of a good politician became his or her unwillingness to accept the status quo, and promises to change the system. Schlesinger (1962) called this the "cult of the activist presidency," in which militant behavior was respected in the American political leader (Wendt & Light, 1974). Finally, the term transitioned to business leaders with the work of Bass (1985), Bennis and Nanus (1985), Peters and Waterman (1982), and Tichy and Devanna (1986).

Despite the interest in the topic, however, empirical research has yielded few characteristics that consistently predict charismatic leadership across situations. Thus, the research on charisma shifted from trait and behavioral approaches to contingency theories, redefining charismatic leadership as an attribution, and considering the importance of situational factors in the likelihood of this attribution (Conger & Kanungo, 1987). Most notably, research has investigated the role of stress or crisis as influential factors in the attribution of charisma (Halverson, Holladay, Kazama, & Quiñones, in press; Hamblin, 1958; Hunt, Boal, & Dodge, 1999; Pillai, 1996; Pillai & Meindl, 1998; Roberts & Bradley, 1988). However, the extant research has not demonstrated whether crisis changes leader behavior or changes follower perceptions of that behavior. Furthermore, no study to the authors' knowledge has investigated the boundary conditions for the relationship between charismatic leadership and performance under crisis. The current study tests the extent to which crisis affects leader behavior rather than follower perceptions. We also propose that crisis can be detrimental to leader behavior if it occurs in an already stressful leadership situa-

tion. In stressful situations, crisis may push leaders beyond an optimal level of stress (eustress) into distress, resulting in poor leader behavior. We test this paradigm, using a laboratory study in which we manipulate leader stress before introducing a crisis and then measure the outcomes of performance and ratings of charisma. In doing so, we offer a contingency model of leadership, exploring the relationship between situational stressors and charismatic leader behavior.

CHARISMATIC LEADERSHIP

Charismatic leadership has received a great deal of attention from researchers, possibly because of its positive association with performance (Baum, Locke, & Kirkpatrick, 1998; Fuller, Patterson, Hester, & Stringer, 1996; Howell & Frost, 1989; Kirkpatrick & Locke, 1996; Masi & Cooke, 2000; Waldman, Bass, & Yammarino, 1990). Since the 1980s, the study of charismatic and transformational leadership has become one of the primary areas of leadership research (Chemers, 2000). Today there are three predominant theories of charismatic leadership: those of House and colleagues, Bass and colleagues, and Conger and Kanungo. Whereas the models of Bass (1985) and House (1977) focus on the follower outcomes associated with charismatic/transformational leadership, the Conger and Kanungo (1987, 1988) model focuses on the specific leader behaviors that will lead to attributions of charisma (Conger, 1999).

The Conger and Kanungo (1987, 1988) model is particularly useful for experimental research because of its focus on observable leader behaviors. Specifically, they propose that there are eight leader behaviors that should lead to perceptions of charisma: acts as an agent of radical change, strives to change the status quo, makes realistic assessments of environmental opportunities and constraints, sensitive to followers' needs and expectations, formulates idealized future vision, provides strong articulation, incurs personal risk, and engages in unconventional behavior (Conger & Kanungo, 1992). Furthermore, they suggest that there are three stages to the charis-

matic leadership process. In the first stage, the leader evaluates the situation by assessing the environment and follower needs. In the second stage, the leader formulates and conveys appropriate goals to the followers. In the third stage, the leader builds personal trust and demonstrates how the goal can be achieved. Charismatic leaders exhibit the behaviors mentioned above across these three stages.

LEADERSHIP AND CRISIS

Crisis has been an inherent part of charismatic leadership since Weber's (1947) original conceptualization of charismatic authority, and a great deal of research and theory has linked charisma to crisis. For example, House, Spangler, and Woycke (1991) found that the number of crises faced by American presidents was related to ratings of their charisma. Conger (1999) said, "Context is not the key determinant, but rather the leader and context influence one another—the relative weight of each influence varying from situation to situation" (p. 166). As Bryman (1993) suggests, there are at least two reasons why charismatic leadership should be associated with crisis. The first (and the focus of this article) is that a crisis provides charismatic leaders with the opportunity to display charismatic behavior. Yukl (1999) suggests that the uncertainty and ambiguity of the situation itself contributes to an increase in the leader's ability to be charismatic. The existence of a problem gives the leader the opportunity to be innovative and deviate from the status quo in creating a solution for the problem. Moreover, a tumultuous situation provides the leader with a cause for which he or she can build support from the followers. For example, Bligh, Kohles, and Meindl (in press) found that after the crisis of 9/11, President Bush was more charismatic in terms of his use of charismatic language.

The second explanation, and the focus of the majority of previous research, is that crisis changes followers' needs and attitudes, causing them to attribute charisma to their leader. Kets de Vries (1988) viewed charismatic leadership in crisis from a psychoana-

lytic perspective, suggesting that followers become more attached to their leader in times of crisis because the leader offers them direction and security. Insofar as crisis situations make individuals feel more insecure, dependent, and stressed, they become more susceptible to the influence of charismatic leaders (Kets de Vries, 1988; Shamir, House, & Arthur, 1993). Moreover, Shamir and Howell (1999) suggest that when followers are faced with stress and ambiguity, they are forced to look for social rather than situational cues, and therefore are more likely to turn to their leader. In support of this notion, Seltzer and Numerof (1988) found that working with a considerate leader was associated with lower levels of burnout in the workplace.

Furthermore, the majority of experimental research has focused on the effects of crisis on follower perceptions. Halverson et al. (in press) demonstrated that the existence of an organizational crisis led to greater attributions of charisma, legitimacy, and followers' intentions to reciprocate self-sacrificial behavior, even when leader behavior was held constant. Similarly, Hunt et al. (1999) found that crisis-responsive leaders were rated better than leaders who were not in a crisis situation, but that ratings of this leader deteriorated after the crisis had abated. Other research suggests that followers in crisis are more easily influenced by their leader (Hamblin, 1958), attribute greater levels of charisma to their leader (Pillai, 1996), and are more likely to choose a leader based on his or her charisma (Pillai & Meindl, 1998). Followers are also more likely to acquiesce to their leader under stress (Foushee & Helmreich, 1988) and are more receptive to information provided by others under stress (Driskell & Salas, 1991).

DIFFERING LEVELS OF STRESS

Although previous work has demonstrated an overall positive relationship between crisis and charismatic leadership, no research to the authors' knowledge has explored the boundary condition for this relationship. That is, can too much stress have negative effects on leadership outcomes? Driskell, Salas, and Johnston (1999), for example, found that high levels of stress hurt team performance by

leading to a decrease in team perspective. Furthermore, if we consider leader behavior in response to stress or crisis rather than follower perceptions, there is reason to believe that extremely high levels of stress would result in a decrease in charisma. Social facilitation theory (Zajonc, 1965), suggests that as stress (arousal) increases, the ability to concentrate on a task, especially a novel task, decreases and simple or well-learned responses tend to be elicited. Thus, whereas low levels of stress may provide just enough arousal to encourage good performance, the occurrence of a crisis in an already stressful situation might create a level of arousal that would interfere with the leader's ability. Conversely, if a leader were not already under stress, then he or she would be better equipped to deal with the stress elicited by a crisis situation, and the crisis would provide enough arousal to motivate the leader and group.

THE CURRENT STUDY

The current study tests the effect of stress and crisis on leader behavior, as measured by outside coders. The use of coders offers a context-free understanding of leader behavior under stress and crisis. That is, because the coders are not a part of the leadership simulation, their ratings should not be influenced by the crisis itself. Furthermore, by using outside coders, we are able to take ratings of leader behavior at Time 1 and Time 2, without interrupting the flow of the session.

Hypothesis 1: Precrisis, leaders in the stress condition will exhibit a greater level of charismatic behavior (as measured by outside coders) and have higher performance than will leaders in the no-stress condition.

Hypothesis 2: Postcrisis, leaders in the stress condition will experience a decline in charismatic behavior (as measured by outside coders) and a decline in performance.

Hypothesis 3: Postcrisis, leaders in the no-stress condition will experience an increase in charismatic behavior (as measured by outside coders) and an increase in performance.

METHOD

PARTICIPANTS AND SETTING

The sample was drawn from the entering freshmen class at a small private liberal arts college. Slightly more than 65% or 168 students, consisting of 84 men and 84 women, participated out of the 253 students in the freshman class.

PROCEDURE: STRESS MANIPULATION, TASK, AND CRISIS INTERVENTION

Participants were assembled in groups of three in a large waiting room where they received consent forms and filled out premeasures. A leader was randomly assigned to each group, and each group was randomly assigned to either the control or experimental condition. The leader received task instructions in a separate experimental room.

Stress manipulation. Stress was induced by telling the leader that he or she would have to give an oral report to faculty in the psychology department about the group processes used and their strategy for completing the task. Also, the leaders in the stress condition were told that they were being videotaped and that experts in the career services center at the college would be viewing the tape to rate their leadership ability. Leaders in the control condition were told that they were being taped for data collection purposes only and may or may not be used. They were not told that they would have to give a report. This stress manipulation was shown to be effective in previous studies (Hoyt, Watson, & Murphy, 1997; Hoyt, Murphy, Halverson, & Watson, 2003).

Task. The Project Planning Task (Human Synergistics, 1985) has been used in other, similar experiments involving group interactions (Murphy, 1992). The task was modified for the current study in three ways. Normally, all participants are asked to rank the items individually and then collaborate with the group to determine

a final ranking. We eliminated the individual portion of the task. Second, the items were printed out on note cards rather than presented in a list format, so that they could be physically manipulated on the table. Both of these changes were made to increase the extent to which the group interacted with one another. Finally, 5 of the 20 items were removed so they could be added in later for the crisis intervention. Activities on the cards included "Find qualified people to fill the positions" and "Measure progress toward and/or deviation from the project's goals."

The project-planning task was chosen because of its unstructured nature and because it allows for disagreement on answers. A task with a more easily defined "correct" answer would not have provided the leader with the same ambiguity, a situational trait often associated with charismatic leadership. Moreover, the task itself was designed with ambiguity, such that the specific nature of the project they were planning was left ambiguous. The task also offered an opportunity for all group members to contribute equally, as there was little room for one to be an expert on the process of project planning.

Crisis intervention. The groups were given 15 minutes to rank order 15 activities in a project-planning task. The original answers were recorded as Time 1 performance, and each group was asked to complete the project-planning task a second time, incorporating 5 additional cards. The groups were given 5 minutes to complete this task. These 5 cards were carefully separated out from the original list of 20 tasks to ensure that they did not interrupt one's ability to configure the original 15 tasks. A similar crisis intervention, in which the experimenter reenters the room and asks the group to reconfigure the list of tasks, was used by Hunt et al. (1999) and fits the definition of crisis provided by Jick and Murray (1982).

All groups were subjected to the crisis intervention, which was intended to increase the levels of stress in the control group to a moderate stress, or eustress, and increase levels of stress in the experimental group to a high stress, or distress. All group members completed posttask questionnaires once they had finished the second phase of the task.

Task performance scoring Time 1 and Time 2. Task performance was measured both pre- (15 activities) and postcrisis (20 activities). Scores were calculated by subtracting the ranking for each activity from the correct ranking and summing the resulting absolute difference scores. This sum was the group's performance, where a lower score indicates a better score because it is closer to the expert rank ordering of activities. The pre- and postcrisis performance scores were standardized by converting them to *z* scores, and the scores were reversed so a higher score indicates a better score.

INSTRUMENTS

State Anxiety: Pre- and posttask. The State Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1968, 1970) was used to evaluate the leader's feelings of apprehension, tension, nervousness, and worry both before and after working on the task. Each question is scored on a 4-point Likert-type scale ranging from *not at all* to *very much so*. For this sample, the Cronbach's alpha for the entire scale both pretask and posttask was .91.

CODING CHARISMA: TRAINING PROCEDURES AND MEASURE

All of the group interactions were videotaped using a small wall-mounted video camera. These videotapes were used for the charisma coding procedures. Six research assistants were employed to code the leaders' level of charisma using Conger and Kanungo's (1994) (C-K) scale. The 25-item scale was modified to eliminate questions that were not applicable to a laboratory study, resulting in 13 items, assessing the four dimensions of "vision and articulation"; "environmental sensitivity"; "unconventional behavior"; and "sensitivity to member needs." In addition, the wording was modified slightly to make it applicable to the third-party outside coders. The C-K Scale has shown adequate validity in measuring charisma and is highly correlated with other such measures (Anderson & Wanberg, 1991; Conger & Kanungo, 1994). Answers are recorded on a 6-point Likert-type scale ranging from *very uncharacteristic* (1) to *very characteristic* (6). Sample items

included “The leader shows concern for the group members’ needs and feelings” and “The leader used a somewhat ‘nontraditional’ method for completing the task.”

All coders were asked to familiarize themselves with the questions before viewing any of the tapes so they would know what behaviors to look for while watching the groups. The coders were also given a list of viewing procedures, such as only monitoring the leader’s behavior and avoiding watching the way in which the followers reacted to the leader. The coders were instructed not to watch any of the interactions that occurred before or after the task. In addition, before viewing the taped group interactions, the coders were trained as to what constitutes a high or low score on each of the leader behaviors on the C-K Scale. To do this, a more in-depth description of each question was given, and an anchor segment of low- and high-scoring leaders was viewed to gain consistency across raters. Additional in-depth descriptions of the questions were also provided.

Three coders completed the C-K Scale twice for each group: once after the first 15 minutes of the group’s interaction (before crisis intervention) and once after the final 5 minutes of the group’s interaction (after crisis intervention). All coders were blind to the condition (stress, no-stress). Ratings on the C-K Scale were standardized, using z scores, to compare the ratings from Time 1 and Time 2. The scale reliability across the three ranged from $\alpha = .89$ to $\alpha = .92$ with an average reliability of $\alpha = .91$, suggesting that the 13-item scale had an adequate level of reliability. The interrater reliability between the three individual raters was Cronbach’s $\alpha = .84$.

RESULTS

PRELIMINARY DATA SCREENING AND MANIPULATION CHECK

All scales underwent reliability analysis, and all data were examined for outliers. No outliers were found. Intercorrelations of all of the variables are presented in Table 1. To assess the effects of the stress intervention, a repeated measures MANOVA was con-

ducted with pre- and postcrisis state anxiety as the within-groups variable and stress condition as the between-subjects variable. There was only a main effect for time across stress conditions, with leaders reporting more state anxiety post-crisis, Wilks's $\lambda = .51$, $F(1, 51) = 48.32$, $p < .05$. Because there were no differences between conditions, these analyses raised concerns that the stress manipulation was not as strong as it was intended it to be. We examined the effects of the stress manipulation at Time 1 (when the manipulation took place) and focused on the negative subcomponent, as suggested by Kendall, Finch, Auerbach, Hooke, and Mikulka (1976). This stronger test of the manipulation revealed that at Time 1, people in the stress condition reported higher anxiety than did people in the no-stress condition, $t(52) = 1.66$, $p = .05$.

As a second test of the stress manipulation, three undergraduate students, not previously affiliated with the study, were paid to rate all of the participants on nonverbal behavior. The coders were blind to the condition and they rated all leaders on nonverbal behaviors that should be associated with calmness (maintaining eye contact, object-focused gestures, parallel gestures, positive facial expressions, confidence, and appearance of boredom) and behaviors that should be associated with nervousness (verbal disfluencies in terms of "ahs" and "uhs," laughs, head touching, hand-to-hand touching, body touching, posture shifts, and head nods). The individual behaviors were standardized, using z scores, and a total score was created by subtracting all of the nervous nonverbal behaviors from the calm ones. A univariate ANOVA demonstrated that persons in the control condition demonstrated more calm nonverbal behavior than did those in the experimental condition, $F(1, 52) = 4.83$, $p < .05$. Therefore, we feel confident that the stress manipulation was successful, despite the weak findings on the state anxiety measure.

VALIDITY OF THE CODER RATINGS

Furthermore, a test of the validity of the outside coders' ratings was conducted. Although we felt that followers' ratings of their

TABLE 1: Intercorrelations Between Dependent Variables

	<i>Charisma</i>		<i>Performance</i>	
	<i>Time 1</i>	<i>Time 2</i>	<i>Time 1</i>	<i>Time 2</i>
Charisma Time 1	1			
Charisma Time 2	.84***	1		
Performance Time 1	.06	.14	1	
Performance Time 2	.07	.08	.85***	1

*** $p < .001$.

leader were confounded with the manipulation, it is important to establish that the outside coders' ratings were somewhat related to the followers' ratings of their leader behavior. To test this relationship, hierarchical linear modeling (HLM) was used to test the relationship between the outside coders' ratings and the follower ratings. Recent reviews have demonstrated the value of HLM in both leadership (Castro, 2002) and small group (Pollack, 1998) research. In short, HLM allows us to investigate followers' perceptions of their leader, while accounting for the fact that the followers are nested within one group with only one leader. The HLM analysis demonstrated that follower ratings were related to the outside coders' ratings at both Time 1, $\gamma = .09$, $t(108) = 3.09$, $p < .01$, and Time 2, $\gamma = .11$, $t(108) = 3.42$, $p < .001$. The relationship between the follower ratings and the outside coder ratings was greater at Time 2, which is consistent with the fact that follower ratings were only taken at Time 2 (the end of the experiment). Based on these analyses, we were confident that the outside coders' ratings were a valid measure of leader behavior.

TEST OF HYPOTHESES

To test Hypotheses 1 through 3, a $2 \times 2 \times 2$ repeated measures MANOVA was conducted with time (precrisis, postcrisis) and outcome (charisma ratings, performance) as the within-subjects variables, and condition (stress, no stress) as the between-subjects variable. The ANOVA revealed only one significant effect, which was the expected time by condition interaction, Wilks's $\lambda = .92$, $F(1, 53) = 4.56$, $p = .04$, $\eta^2 = .08$. An examination of the means showed

that at Time 1, leaders in the experimental condition performed better across the behavioral ratings and task performance ($M = .09$, $SE = .13$) than did those in the control condition ($M = -.13$, $SE = .15$). At Time 2, performance among leaders in the experimental condition decreased ($M = .01$, $SE = .13$), whereas performance among leaders in the control condition increased ($M = -.01$, $SE = .16$). Hypotheses 1 through 3 were all supported (see Table 2 and Figure 1).

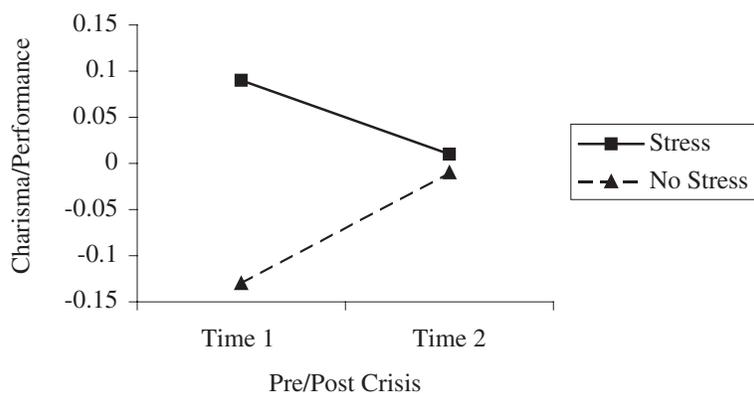
DISCUSSION

The primary objective of this study was to investigate the effects of crisis on leaders' behavior under differential levels of stress. There were two main contributions of the current study. First, we demonstrated that there are some boundaries to the well-established relationship between crisis and charismatic leadership. In doing so, we answer a call in the leadership literature for more research that incorporates situational factors to enhance the understanding of charismatic leadership (Chemers, 2002; Conger, 1999; Gardner & Avolio, 1998). As expected, leaders exposed to stress before the crisis intervention exhibited greater levels of charismatic behavior and better task performance than did leaders in the no-stress condition. When the crisis was introduced, leaders in the stress condition experienced a decrease in charismatic behavior and task performance, whereas those in the no-stress condition experienced an increase in these outcomes.

These findings are consistent with the Yerkes Dodson model of arousal, which suggests that low levels of arousal can be beneficial, and high levels detrimental. Furthermore, past research has found that stress may affect leaders' performance because of ineffective decision making or the use of inappropriate leader behavior (Bass, 1998). Fiedler's cognitive resource theory of leadership (Fiedler, 1994; Fiedler & Garcia, 1987) suggests that stress interferes with the ability to use particular cognitive resources, such as intelligence, while enhancing the ability to use knowledge gained through leadership experience. This interference can lead to poor

TABLE 2: MANOVA Results for the Effects of Time, Condition, and Outcome (Performance or Ratings of Charisma)

	Wilks's λ	F	η^2
Time	1.00	.12	.00
Time \times Condition	.92	4.56*	.08
Outcome	1.00	.07	.00
Outcome \times Condition	.96	2.46	.04
Time \times Outcome	1.00	.00	.00
Time \times Outcome \times Condition	1.00	.01	.00
Condition	—	.39	.01

* $p < .05$.**Figure 1: Leadership Performance Pre- and Postcrisis for the Stress and No-Stress Conditions**

leader behavior, such as a decrease in the leader's ability to articulate his or her thoughts effectively (Gibson, Fiedler, & Barrett, 1993), which is an important component of charismatic leadership. The current study suggests that charismatic leader behavior may become more difficult to exhibit in very demanding situations. Only through increased experience in different crisis situations might a leader be able to counteract the debilitating effects of stress. Increased experience is a way to secure specific skills that are required during stressful situations and a way to learn specific coping methods for handling one's behavior.

The second contribution is related to our focus on leader behavior, rather than follower perceptions. Previous theory suggests crisis may be associated with charismatic leadership by causing an increase in leader charismatic behavior and/or causing an increase in followers' needs (Bryman, 1993). Yet the majority of research has tested the effects of crisis on followers (Halverson et al., in press; Hamblin, 1958; Hunt et al., 1999; Pillai, 1996; Pillai & Meindl, 1998). These studies suggest that the mere existence of a crisis causes followers to attribute greater levels of charisma to their leader, regardless of leader behavior. Our research provides a rigorous test of the hypothesis that stress and crisis also influence leader behavior.

However, using outside coders provided the benefit of a rational description of charismatic behavior, at the cost of the emotional ratings of charismatic leader–follower relationships. Particularly in light of follower-centered theories of charismatic leadership (cf. Meindl, 1995), there is a question as to whether leader behavior can be determined without considering followers' perspectives. As this study was limited in time and used ad hoc groups, the formation of a relationship between the leader and followers is unlikely. Yet, the coding and description of charismatic leader behavior is quite feasible in such groups, and our findings fill a gap in extant literature by demonstrating the effects of crisis on leaders' behavior. Furthermore, the results of our validity check demonstrated that the outside coders' ratings were highly related to the followers' ratings, and this was particularly true of the outside coders' ratings at Time 2, which is when the followers completed the rating form.

As is the case with any study, the current study had some limitations. The first concern is that the stress manipulation may not have been as strong as intended, as evidenced by the weak findings of the manipulation check. Considering the findings on cognitive resources theory (Fiedler & Garcia, 1987) and self-efficacy for leadership (Murphy, Chemers, Macaulay, & Kohles, 2004), it is evident that leaders cannot always assess their own levels of stress. In one study, McLeod, Hoehn-Saric, and Stefan (1986) found that patients' responses on the State-Trait Anxiety Inventory were uncorrelated with physiological measures of stress, suggesting that patients

were unable to assess their level of anxiety. Furthermore, there is evidence that the State-Trait Anxiety Inventory is susceptible to socially desirable responding (Johnson, Dabbs, & Leventhal, 1970). It is possible that the participants in our sample felt pressure to report no adverse effects in the stress condition because they knew they were being evaluated for leadership potential. Yet, the findings and the results of the second manipulation check clearly show that the stress manipulation affected the leaders in this study.

As with most research that uses college students, the applicability of the current study to a wider population is of concern. Along with the normal concerns related to using a homogeneous population, Fuller et al. (1996) suggest that student populations may have a greater preference for powerful leaders than does the general public. This is of particular relevance to research dealing with leadership, and specifically charismatic leadership. We suggest that future studies employ more varied populations. In his research, however, Locke (1986) found high levels of similarity between laboratory and field research, across a wide variety of organizational behavioral topics.

However, as noted by Mook (1983), laboratory experiments provide insight on what can happen in various situations, rather than what does happen. Commentaries by Wofford (1999) and Brown and Lord (1999) recognize the positive benefits of laboratory research on leadership. Wofford (1999) said that laboratory studies are "free from nuisance variables such as performance, organizational culture, and other styles of leadership," (p. 525). Considering the complex nature of the experiment, we believe that the benefits this laboratory study provided, in terms of experimental control, outweigh the costs in external validity.

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