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ABSTRACT

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WORKING PAPER SERIES

# Perceived Control as an Antidote to the Negative Effects of Layoffs on Survivors' Organizational Commitment and Job Performance

By

**Joel Brockner**

Phillip Hettleman Professor of Business – Columbia University

**Gretchen M. Spreitzer**

Professor of Management and Organizations

**Aneil Mishra**

Associate Professor – Wake Forest University

**Wayne Hochwarter**

Associate Professor – Florida State University

**Lewis Pepper**

Assistant Professor – Boston University

**Janice Weinberg**

Associate Professor – Boston University

LEADING IN THOUGHT AND ACTION



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Joel Brockner

Columbia University

Gretchen Spreitzer

University of Michigan

Aneil Mishra

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Wayne Hochwarter

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### Abstract

Two field studies tested the hypothesis that high perceived control may serve as an antidote to the negative effects of layoffs on the employees who are not laid off (survivors). In Study 1 some participants witnessed the layoffs of fellow employees but others did not. In Study 2, all participants survived a layoff, but they varied in the extent to which they experienced the post-layoff environment as threatening to their well-being. Conceptually analogous results emerged across the two studies. Study 1 showed that the negative impact of layoffs on survivors' organizational commitment was reduced when perceived control was relatively high. Study 2 showed that the tendency for survivors' job performance to be adversely affected by high threat to their well-being was reduced when perceived control was relatively high. Perceived control was more strongly related to employees' organizational commitment in the presence than in the absence of layoffs, and to survivors' job performance when they experienced the post-layoff environment as more threatening. These findings account for additional variance in the reactions of layoff survivors and identify when perceived control will be more versus less strongly related to employees' work attitudes and behaviors. Practical implications for the management of organizational downsizings are discussed.\*

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Layoffs are pervasive in contemporary organizations. The rationale underlying organizations' decision to downsize is straightforward: by reducing costs, executives hope to improve firm profitability. And yet studies show that the effects of layoffs on organizational performance are mixed at best, often, though not always, failing to produce the desired improvements (e.g., Cascio, 1993). Other studies have examined the work attitudes and behaviors of the "survivors," the remaining employees who were not laid off. Here, too, the reactions have been found to be quite varied. Whereas many layoff survivors react negatively, in the form of reduced organizational commitment or job performance, a smaller percentage of survivors are either unaffected or may actually respond more positively (Mishra, Spreitzer, and Mishra, 1998).

Studies conducted at the individual level of analysis have identified some of the factors that account for the variability in survivors' reactions. For example, survivors have been shown to respond more negatively when (1) the layoffs were perceived to be handled unfairly (e.g., Brockner et al., 1994), (2) trust in management was relatively low (Spreitzer and Mishra, 2002), (3) survivors were more psychologically close to the people who were laid off (Brockner et al., 1987), and (4) the threat of future layoffs was relatively high (Brockner et al., 1993). In all of these studies, however, much of the variance in survivors' reactions was left unexplained, suggesting the need for further theory and research to elucidate the determinants of survivors' reactions. Accordingly, one purpose of the present studies is to provide further insight into the factors affecting survivors' reactions to layoffs. In particular, the present studies were guided by the notion that layoffs may be a source of considerable stress for the employees who remain.

## STRESS AND PERCEIVED CONTROL AMID LAYOFFS

The present studies were based on much prior theory and research suggesting that high levels of stress have an adverse effect on employees' attitudes and behaviors. Exchange theory (Homans, 1961), for example, provides one framework that helps to account for the harmful effects on employees of work stress. Built on the principle of reciprocity, exchange theory posits that people will "give back" commensurately with what they perceive they have received, or failed to have received, from the other party in the relationship. Thus, the more that employees experience stress in the workplace, the more likely they may be to conclude that the organization is not treating them well, by contributing to their experience of stress. As a result, people may reciprocate by exhibiting more negative attitudes (e.g., reduced organizational commitment) and behaviors (e.g., lower job performance; Jamal, 1984).

According to Lazarus and Folkman (1984), the level of stress that people experience depends on their assessments of the degree of threat to their physical and/or psychological well-being in their environments (i.e., primary appraisal) and their beliefs about the likelihood of being able to counteract the negative consequences of the threats in their environments (i.e., secondary appraisal). Stress is jointly and interactively determined by people's primary appraisal, which refers to the perception of threat and their secondary appraisal, which refers to the perception of control. Stress is experienced most intensely when people encounter stimuli that they perceive to threaten their well-being, particularly when they believe that they will be unable to counteract the harmful effects of the threatening stimuli.

Lazarus and Folkman's (1984) framework suggests that the employees who remain may experience the post-layoff work environment as quite stressful, with perceptions of both high threat and low control. For example, layoffs create uncertainty, leaving survivors to wonder and worry about whether more layoffs are in the offing and what their longer-term career prospects may be, even if they were to survive future rounds of layoffs (e.g., Greenhalgh and Rosenblatt, 1984). In addition, because workers tend to disappear more quickly than the work they used to do survivors often feel overextended by their post-layoff job responsibilities (Kozlowski, et al., 1993; Mishra, Spreitzer, & Mishra, 1998). Furthermore, and consistent with the threat-rigidity hypothesis (Staw, Sandelands, and Dutton, 1981), downsizing organizations may threaten the surviving workforce by introducing restrictions that limit their freedom. For example, activities that previously were left to employees' discretion may now have to be approved by more centralized decision-making bodies. In short, the presence of these and other threats along with survivors' perceptions of being unable to control or counteract these threats, elicits high levels of stress, which, in turn are likely to be associated with reductions in important work attitudes (e.g., organizational commitment) and behaviors (e.g., job performance).

It is somewhat ironic that layoffs may impose high levels of stress on survivors. Precisely when downsizing organizations depend on their remaining employees to focus on meeting organizational objectives, the high stress that often accompanies layoffs may make it more difficult for the survivors to do so. One of the challenges downsizing organizations face, therefore, is to mitigate the potentially harmful effects of layoff-induced stress on survivors. In short, for both theoretical and practical reasons, it is crucial to identify factors that influence survivors' experience of stress and hence their attitudinal and behavioral reactions to layoffs.

Research conducted outside of the layoff context has shown that employees who perceive themselves to have less control over their work environments exhibit greater stress, as measured by coronary heart disease symptoms (Marmot et al., 1997). In a conceptual paper, Mishra and Spreitzer (1998) suggested that layoff survivors' perceptions of control influence their experience of stress and hence their work attitudes and behaviors, but the effects of perceived control on survivors have received very little empirical scrutiny (see Spreitzer and Mishra, 2002, for a rare exception). The present studies are designed to redress this state of affairs and, in doing so, help to account for more of the variability in survivors' reactions to layoffs.

### **Perceived Control**

Organizational psychologists have conceptualized perceived control in two related but distinct ways that are not mutually exclusive (Spector, 1986; Greenberger et al., 1989). One conception, the "self-determination" framework, suggests that people's sense of control depends on whether they perceive their behavior to be self-determined versus coerced, or to use DeCharms' (1968) terminology, whether they see themselves as "origins" (who initiate behavior) versus "pawns" (who simply react to their environments). To the extent that survivors perceive that they have high levels of discretion over or input into their work activities, they are likely to experience a high degree of perceived control.

A second conception, the "impact" framework, suggests that perceived control depends on how much people believe that important outcomes are contingent upon, rather than independent of, their behavior (Rotter, 1966). To the extent that they believe that their behavior influences

important outcomes, they are likely to experience a high degree of perceived control. For example, people are likely to believe that their behavior influences important outcomes if they see themselves as having high levels of ability to perform the task at hand or if they see themselves as being able to influence (i.e., “having the ear of”) those parties who control important outcomes (Seligman, 1998).

Perceived control is therefore reflected in employees’ perceptions of self-determination and impact and was treated as such in the present studies. Moreover, employees’ perceived control results from dispositional and situational factors (although it is beyond the scope of the present studies to evaluate the relative influence of dispositional and situational factors on perceived control). Some employees are dispositionally more likely to perceive control than others (e.g., Rotter, 1966), and some post-layoff work environments are likely to be more control-promoting than others (Mishra, Spreitzer, and Mishra, 1998).

### **The Present Studies**

Lazarus and Folkman’s (1984) conceptualization of stress suggests that the perceived threat to well-being and perceived control in the post-layoff work environment will interactively combine to influence employees’ work attitudes (e.g., organizational commitment) and behaviors (e.g., job performance). Layoff survivors’ are expected to respond most negatively when perceived threat is relatively high and perceived control is relatively low. Moreover, the form of the predicted interactive relationship between perceived threat and perceived control can be described in two different ways. Whereas both depictions of the interactive relationship are consistent with the Lazarus-Folkman framework, each one has important but somewhat different

theoretical implications. First, in designing our studies, we expected perceived control to moderate the effect of threat to well-being on survivors' organizational commitment and job performance. We expected high perceived control to reduce the extent to which high threat to well-being would have an adverse effect on survivors' organizational commitment and job performance, relative to when perceived control was low. Employees perceive that they have high control when they believe that they have the resources (physical and/or psychological) to counteract the potentially harmful effects of the source of threat, thereby minimizing their impact. In contrast, employees perceive that they have low control when they believe that they are unable to counteract the threat in their environments, making them more susceptible to being adversely influenced by the threat. If perceived control is found to moderate the effect of threat on layoff survivors in the ways described above, it would suggest that perceived control could be added to the growing list of factors (e.g., fairness, trust in management) that account for some of the variability in survivors' reactions.

Second, we also expected threat to well-being to moderate the relationship between perceived control and survivors' organizational commitment and job performance. We expected the positive relationship between perceived control and survivors' organizational commitment and job performance to be more pronounced when threat to well-being was high rather than low. The greater the threat to well-being, the more likely are survivors to assign importance to perceiving themselves as able to counteract the harmful effects associated with the threat. For example, if people believe that they have more to lose as a result of the threat they will assign greater importance to perceiving that they have control, that is, believing that they can do something to prevent the loss. Assigning greater importance to perceiving control, they are more likely in turn

to be influenced by the extent to which they perceive themselves to have control, relative to when they are less threatened by the layoffs. If such findings were to emerge, it would extend the results of previous studies that have examined the effects of perceived control. Whereas previous research (e.g., Spector, 1986; Greenberger et al., 1989) has shown the positive effects of high perceived control on employees' attitudes (e.g., satisfaction) and behaviors (e.g., performance), relatively few studies have delineated when perceived control will be more versus less strongly related to employees' attitudes and behaviors.

The present research consisted of two field studies that examined the joint effects on employees of (1) the perceived degree of threat to their well-being in the post-layoff work environment and (2) their perceived level of control. Study 1 consisted of two groups of employees in a single organization; one group had survived an organizational downsizing, whereas no downsizing had occurred in the other group. All participants in Study 2 were survivors of a layoff that had occurred in their organization, but participants varied in the extent to which they experienced the post-layoff environment as threatening to their well-being. Perceived control was an additional independent variable in both studies.

Two different, albeit important dependent variables were assessed in the two studies.

Organizational commitment was the dependent variable in Study 1, whereas job performance was the dependent variable in Study 2. We expected that the tendency for employees to respond less favorably to layoffs (in Study 1) or to layoffs eliciting greater threat to well-being (in Study 2) would be less pronounced when perceived control was relatively high. In Study 1, higher levels of perceived control should reduce the negative effect of the layoffs on employees'

organizational commitment. In Study 2, greater perceived control should reduce the extent to which high levels of threat have an adverse effect on survivors' job performance. To state the predicted findings differently, the positive effects of high perceived control should be more likely to emerge in work environments that are perceived to be more threatening to employees' well-being. Thus, in Study 1, perceived control should be more positively related to employees' organizational commitment in the presence than in the absence of a layoff. In Study 2, perceived control should bear a more positive relationship with the job performance of survivors who judged their post-layoff work environments as more threatening to their well-being than of survivors who felt less threatened.

### **STUDY 1**

Participants in Study 1 were drawn from two sites in the same organization, one in which a layoff had taken place and the other in which no layoff had occurred. All participants completed a measure of perceived control. The dependent variable was organizational commitment.

Organizational commitment reflects the psychological attachment of an employee to his or her organization (Mowday, Porter, and Steers, 1982). We focused on the affective (rather than the continuance) component of organizational commitment (Meyer, Allen, and Smith, 1993), for two reasons. First, affective commitment has been shown to relate to important organizationally relevant outcomes (e.g., job performance; Meyer et al., 1989) and personally relevant outcomes (e.g., individual well-being; Mathieu and Zajac, 1990). Second, the affective component of commitment has been emphasized in previous research on layoff survivors (e.g., Brockner et al., 1994), thereby enabling the present findings to be related more related to previous research.

**Hypothesis 1:** Perceived control and the presence of layoffs are expected to interact with another to influence employees' organizational commitment, so that the tendency for layoffs to have an adverse effect on organizational commitment will be less pronounced when perceived control is relatively high. To state the interaction effect differently, perceived control will be more positively related to organizational commitment in the presence than in the absence of layoffs.

## **Method**

**Sample and data collection.** We sought two sites that had been similar to one another before the downsizing announcement to ensure a more meaningful comparison. Thus, two plants from the same division of an aerospace organization headquartered in Southern California were selected. Because both were from the same unit of the same organization, the firms had similar human resource management practices, products, and technology. Both sites were unionized, and neither had a history of poor labor relations. Both were located in the southwestern part of the United States, but were not physically proximate. The two sites made similar electronics products.

The two sites also had similar employee attitudes before the surveys were administered. T-tests of employee attitudes from an annual employee survey conducted by the company one month before our survey was administered indicated no significant differences between the two sites in terms of quality of work life, satisfaction with working conditions, or overall satisfaction. Given that satisfaction is related to organizational commitment (Mathieu and Zajac's 1990 meta-analysis results uncovered a weighted average correlation of .53), it is quite plausible that the two sites also had similar levels of commitment prior to the downsizing.

All employees were given the opportunity to complete the survey. At one site, a downsizing announcement was made one month before surveys were distributed. At the time of the downsizing, approximately 10 percent of the site's contract workers were laid off. Those laid off were chosen based on top management's assessment that their responsibilities were redundant. Contract employees had worked at the firm for many years, often as part of teams composed of regular employees. Their work content was indistinguishable from that of regular employees. Regular (non-contract) employees were told that regular employees were going to be laid off within the next year. At the time the survey was distributed, the specific regular employees who were to be laid off had not yet been identified. Thus, the employees who were surveyed could be considered to be survivors of the first round of downsizing.

At the downsizing site, a total of 731 surveys were distributed through the company's internal mail system. All respondents were assured of confidentiality. Surveys were mailed back directly to the researchers using pre-addressed, postage-paid envelopes. A total of 350 surveys were returned, for a response rate of about 48 percent. Analyses conducted on the measures of sex and years of service showed that the characteristics of those responding to the surveys were not significantly different on these dimensions from those who did not return the survey, although respondents were slightly older (43 versus 41 years) than non-respondents. Information on education was gathered only in the survey, so differences between respondents and non-respondents could not be assessed on this dimension.

At the non-downsizing site, 1,772 surveys were distributed using the site's internal mail system prior to the downsizing announcement at the downsizing site, so that there would be no

confounding if these employees heard about the downsizing at that site. The same assurances of confidentiality were provided, and an identical survey return method was used. A total of 787 surveys were returned, for a response rate of approximately 44 percent. A chi-square test showed that the return rates did not differ significantly from one another in the downsizing and non-downsizing sites ( $p > .10$ ). Furthermore, analyses conducted on measures of age, sex, and years of service between those who responded and those who failed to respond yielded no significant differences.

The demographic profiles of the two sites yielded some significant differences. T-tests indicated that respondents from the non-downsizing site were slightly older (45 versus 43 years of age,  $p < .001$ ), had more tenure (14.5 versus 10.0 years,  $p < .001$ ), were more educated (3.83 versus 3.65 on a 7-point scale described below,  $p < .001$ ), and were more likely to be male (80 percent versus 69 percent,  $p < .001$ ). As can be seen in table 1, below, age and tenure were unrelated to the dependent variable of organizational commitment, whereas sex and education were significantly related to organizational commitment. Consequently, sex and education were included as control variables in the subsequent analyses.

**Dependent Variable.** The organizational commitment measure consisted of three items drawn from a shortened version of the organizational commitment scale developed by Mowday, Porter, and Steers (1982) and has been employed in previous research (Spreitzer and Mishra, 2002). The items were “I talk up my company as a great organization to work for,” “I am willing to put in effort beyond what is normally expected,” and “My company really inspires the very best in me in the way of job performance.” In a data set published by Mayer and Schoorman (1998), these

three items were found to be highly related ( $r = .93$ ) to the short form of the Mowday, Porter, and Steers measure of organizational commitment used widely in prior research. The three-item measure of organizational commitment was internally consistent (coefficient alpha = .76). Responses were averaged into an index.

**Independent Variables.** All survey measures were assessed with 7-point Likert scales, with anchors ranging from “very strongly disagree” (1) to “very strongly agree” (7). To measure perceived control, we used the “self-determination” and “impact” subscales from Spreitzer’s (1995) measure of empowerment. The self-determination and impact subscales each consisted of three items. A sample self-determination item was “I have significant autonomy in determining how I do my job,” and a sample impact item was “My impact on what happens in my department is large.” The coefficient alpha for the entire six-item scale was .84. Therefore, participants’ responses were averaged into an index. The two subscales were also significantly related to one another ( $r = .39$ ,  $p < .001$ .)

A dummy variable was created to indicate whether a respondent was employed at the site in which layoffs had or had not occurred.

**Control variables (demographic).** A measure of employees’ education (a seven-category scale, ranging from not completing high school to completing a doctoral degree) was included on the survey. (Education was treated as a continuous variable in subsequent analyses; however, the main results were identical when we treated education as a categorical variable, using a set of dummy-coded variables.) Information on participants’ sex was collected from archival sources.

Education and sex were included as demographic control variables for two reasons. First, significant differences on these dimensions were observed in the layoff versus the no-layoff sites. Second, both factors were significantly related to the dependent variable of organizational commitment in the present study, consistent with the results of previous research. For example, a recent study by Mayer and Schoorman (1998) found, as we did, that level of education was negatively associated with commitment. Whereas length of service (tenure) and age differed between the layoff and no-layoff sites and have been shown to be related to organizational commitment in previous research (Mathieu & Zajac, 1990; Cohen, 1993), they were not included as control variables because they were not significantly related to organizational commitment in Study 1. Subsidiary analyses showed that the regression results described below were virtually identical when age and tenure were controlled for along with sex and education.

**Control variables (psychological).** Several studies have shown that the organizational commitment of layoff survivors is positively related to their trust in management (e.g., Brockner et al., 1997). Hence, all participants completed Mishra and Mishra's (1994) 16-item measure of trust in management (e.g., "I believe that site management communicates honestly with employees"). Responses were made along a 7-point scale, with endpoints labeled "very strongly disagree" (1) and "very strongly agree" (7). The coefficient alpha was .97. Participants' responses to the trust measure were averaged into an index.

Numerous studies also have shown that layoff survivors' organizational commitment depends on the perceived fairness of the layoffs (e.g., Brockner et al., 1994). Perceived fairness, in turn, is based on judgments of procedural, distributive, and interactional justice. Accordingly, we

included separate subscales for each of these three dimensions of justice, adapted from items used by Niehoff and Moorman (1993). Slight wording changes were made to the items to make them relevant to the context of our study. An example of the six-item measure of distributive justice was “The burdens of the downsizing are being shared by all members of the organization” (coefficient alpha = .90). An example of the four-item measure of procedural justice was “The criteria for employee separations are fair and are being applied consistently across employees” (coefficient alpha = .91). An example of the six-item measure of interactional justice was “Site management offered adequate justification for the downsizing decision” (coefficient alpha = .86). Responses to all justice measures were made along 7-point scales, with endpoints labeled “very strongly disagree” (1) and “very strongly agree” (7). Given that all of the justice questions pertained specifically to the downsizing, they were only asked of those participants in the site in which layoffs had taken place.

**Test of Construct Adequacy.** Confirmatory factor analysis was conducted to ensure that the constructs were distinct. A model was specified for three distinct factors of perceived control, organizational commitment, and trust in management. Based on previous research, the two dimensions of perceived control, self-determination and impact were specified, and four dimensions of trust (Mishra and Mishra, 1994) were also specified. Results show strong support for the hypothesized model (root means square error of approximation = .07; root mean square residual = .04; comparative fit index = .98; non-normed fit index = .98). Each item loaded significantly with its intended construct (as evidence by t-values), demonstrating convergent validity. In addition, Anderson and Gerbing (1988) advocated using a chi-square difference test between the unconstrained measurement model and each of N-paired measurement models (in

which one pair of latent variables are correlated at 1.0). Chi-square tests indicated significant differences for each constrained model relative to the initial baseline measurement. Thus, discriminant validity was demonstrated. Further, Anderson and Gerbing (1988) suggested that evidence of construct validity is present if the estimate for each item is twice its standard error. This requirement was satisfied as well.

A confirmatory factor analysis was also conducted on the measures of distributive, procedural, and interactional fairness (the fairness measures were only completed by participants in the site in which layoffs had occurred). Results show good support for the hypothesized model (root means square error of approximation = .11; root mean square residual = .08; comparative fit index = .96; non-normed fit index = .95). Each item loaded significantly with its intended construct (as evidence by t-values), demonstrating convergent validity. In addition, Anderson and Gerbing (1988) advocated using a chi-square difference test between the unconstrained measurement model and each of N-paired measurement models (in which one pair of latent variables is correlated at 1.0). Chi-square tests indicated significant differences for each constrained model relative to the initial baseline measurement. Thus, discriminant validity was demonstrated. Further, Anderson and Gerbing (1988) suggested that evidence of construct validity is present if the estimate for each item is twice its standard error. This requirement was satisfied as well.

## Results

Summary statistics are presented in table 1.

[Insert Table 1 about here]

Test of hypothesis. A hierarchical regression analysis of organizational commitment was conducted. In the first step we simultaneously entered the demographic control variables of sex and level of education. In the second step, we added the control variable of trust in management. In the third step, we added the main effects of downsizing and perceived control. Both variables were centered to reduce the potential for multicollinearity with the interaction term. In the fourth and final step, we entered the interaction between downsizing and perceived control. As shown in table 2 (model 3), both the downsizing and perceived control variables yield significant main effects: organizational commitment is lower (1) in the presence than in the absence of downsizing and (2) when perceived control is relatively low.

[Insert table 2 about here]

Of greater importance, table 2 (model 4) shows that downsizing and perceived control interact to influence employees' organizational commitment ( $p < .02$ ). To illustrate the nature of the interaction, we used the procedures recommended by Aiken and West (1991), in which the predicted values of the relationship between perceived control and organizational commitment were calculated for both the layoff and no-layoff sites at a high level of perceived control (one standard deviation above the mean) and at a low level of perceived control (one standard deviation below the mean). As predicted, and as shown in figure 1, when perceived control is relatively low, organizational commitment is lower in the presence than in the absence of layoffs. When perceived control is relatively high, however, the negative influence of layoffs on employees' organizational commitment is reduced, indeed virtually eliminated.

[Insert figure 1 about here]

To state the interaction effect differently, the positive relationship between perceived control and organizational commitment is significantly higher in the presence than in the absence of layoffs. Simple slope analyses showed that the relationship between perceived control and organizational commitment was positive and significant in both the layoff site,  $b = .50$ , and the no layoff site,  $b = .35$ , but, of course, the significant interaction effect between perceived control and the layoff variable showed that the relationship between perceived control and organizational commitment was significantly more pronounced in the presence than in the absence of layoffs.

**Decomposing perceived control.** Perceived control is based on employees' judgments of self-determination and impact. In further analyses, we examined whether self-determination, impact, or both interacted with the presence or absence of layoffs to influence employees' organizational commitment. First, we reran the analysis shown in table 2 using only the items from the self-determination subscale (coefficient alpha = .76) as the measure of perceived control. Of greatest importance, the interaction between self-determination and the layoff variable did not even approach significance ( $p > .15$ ). Next, we reran the analysis shown in table 2 using only the items from the impact subscale (coefficient alpha = .84) as the measure of perceived control. In this case, the interaction between impact and the layoff variable was significant at the .03 level. Thus, decomposing perceived control into self-determination and impact shows that they do not produce identical results. Rather, impact was more likely than self-determination to interact with the layoff variable to influence employees' organizational commitment.

[Insert table 3 about here]

**Controlling for fairness among layoff survivors.** Employees in the site in which layoffs had occurred had evaluated the fairness of the layoff (on distributive, procedural, and interactional grounds). Accordingly, we conducted an additional hierarchical regression only on those participants from the layoff site. In the first step, we simultaneously entered the demographic control variables. In the second step, we added the measures of distributive, procedural, and interactional justice. On the third step, we added trust in management as a predictor. Finally, perceived control, based on the composite of self-determination and impact, was added to the equation. Table 3, model 2, shows that both distributive and interactional justice are positively related to organizational commitment, replicating previous findings (e.g., Brockner et al., 1994). Correlational analyses (not shown in table 3) showed that each of the fairness dimensions (distributive, procedural, and interactional) was significantly related to trust in management ( $r_s = .72, .65, \text{ and } .61$ , respectively, all  $p$  values  $< .001$ ). Furthermore, consistent with previous findings showing that fairness effects are attributable to trust in management (e.g., Konovsky and Pugh, 1994), table 3, model 3 shows that the effects of the fairness variables are less pronounced when trust is controlled, relative to when it is not. Of greatest importance, however, table 3, model 4 shows that the effect of perceived control on survivors' organizational commitment is highly significant ( $p < .001$ ), above and beyond the effects on commitment of fairness and trust in management.

## **Discussion**

Study 1 offers both conceptual and methodological contributions to the literature on survivors' reactions to layoffs. At the conceptual level, previous research has shown that survivors'

organizational commitment may be accounted for by a host of factors, such as trust in management (Brockner et al., 1997) and perceptions of fairness (Brockner et al., 1994; Spreitzer and Mishra, 2002). Study 1 not only replicated these findings but also showed that perceived control may account for a significant portion of the variance in survivors' organizational commitment beyond that attributable to trust in management and perceptions of fairness. Thus, the results of Study 1 help to further delineate the factors affecting survivors' reactions to organizational downsizings.

At the methodological level, Study 1 is the first to examine the impact of the presence or absence of a layoff on employees in a field setting. Previous research on survivors' reactions has taken one of two forms. In some studies, the effect of the presence or absence of a layoff has been investigated under controlled laboratory conditions (e.g., Brockner, Davy, and Carter, 1985), raising questions about the generalizability of the findings to organizational settings. In many other studies that were conducted in the field, the presence versus absence of layoffs was not an independent variable; rather, all participants had survived layoffs. In these studies, researchers examined the role of various factors (e.g., fairness, trust in management) in accounting for survivors' reactions. Whereas the results of these field studies usefully identified factors that accounted for some of the variability in survivors' reactions, the absence of a no-layoff group in the research design made it difficult to know if these factors were any more or less influential in the presence of layoffs. By including both a layoff and a no-layoff group, Study 1 showed in a field setting that perceived control was more likely to predict employees' organizational commitment in the presence than in the absence of layoffs.

Study 1 also calls attention to a subtle distinction in how organizational psychologists have conceptualized the construct of perceived control. On certain occasions, perceived control has referred to self-determination (e.g., Spector, 1986), the extent to which employees judged themselves to have autonomy in their expression of behavior. In other instances, perceived control has referred to impact (e.g., Greenberger et al., 1989), the extent to which people believed that their actions influenced important outcomes. The results from Study 1 show that the distinction between self-determination and impact as elements of perceived control is empirically (as well as conceptually) meaningful. Impact was more likely than self-determination to interact with the presence or absence of layoffs to influence employees' organizational commitment.

## **STUDY 2**

Study 2 was designed to evaluate further the role of perceived control in accounting for survivors' reactions to layoffs. First, we employed a different dependent variable in Study 2 in an attempt to evaluate the generality of the results of Study 1. Rather than assessing employees' organizational commitment, we measured their job performance. On the independent variable front, the threat to well-being associated with layoffs was operationalized differently than in Study 1. In Study 1, some of the participants witnessed layoffs, whereas others did not. In contrast, all of the participants in Study 2 were working in an environment in which layoffs had occurred; thus, all of them were survivors. We assessed the extent to which they perceived a threat to their well-being in the post-layoff work environment. Perceived control also was operationalized differently than in Study 1. Survivors' perceptions of their ability to influence significant people at work served as the measure of perceived control in Study 2. Perceived

control is derived in part from people's beliefs that their behavior has impact, that they can exert influence over outcomes of importance to them. One likely determinant of how much people experience themselves as having impact, and hence perceiving control, is the extent to which they believe that they can influence significant coworkers.

We expected perceived control to interact with the degree of threat in the post-layoff work environment to influence survivors' job performance. In Study 1, we hypothesized (and found) that the presence of layoffs did not always elicit more negative reactions (in the form of reduced organizational commitment). Rather, it was only when perceived control was relatively low that organizational commitment was lower in the presence than in the absence of the layoffs. In like fashion, in Study 2 we did not expect that high levels of threat would always lead survivors to respond unfavorably (in the form of reduced job performance). Rather, it was only when perceived control was relatively low that we expected survivors' job performance to be adversely affected by higher levels of threat. To state differently the predicted interaction effect between perceived control and threat, we expected perceived control to be more positively related to survivors' job performance when threat was relatively high. The predicted forms of the interaction effect in Study 2 are conceptually analogous to those found in Study 1.

Hypothesis 2: Perceived control and threat to well-being following layoffs are expected to interact with another to influence survivors' job performance, so that threat to well-being will have a less negative relationship with survivors' job performance when perceived control is relatively high. Said differently; perceived control will be more positively related to survivors' job performance when threat to their well-being is high rather than low.

The cross-sectional nature of the research design in Study 1 (in which the independent variables were assessed at the same point in time as the dependent variable) also introduces several important shortcomings. First, the extent to which the independent variables were causally related to the dependent variable is ambiguous at best. Second, it is uncertain whether the independent variables would have similar effects on the dependent variable over a longer period of time. To address these concerns, Study 2 employed a predictive rather than cross-sectional research design. That is, the dependent variable of job performance was assessed at a considerably later point in time than were the independent variables of perceived control and threat to well-being.

All participants in Study 2 had survived a layoff in their organization. One month after the layoffs, they completed a survey that included measures of the independent variables of perceived control (judgments of their ability to influence significant others) and threat to well-being in the post-layoff environment. Six months after the independent variables were assessed, supervisors provided ratings of survivors' job performance. Given the many differences between Studies 1 and 2 in the measurement and operationalization of the independent and dependent variables, convergence in the results will help to establish the reliability of the findings.

## **Method**

**Sample and data collection.** Surveys were distributed to all 220 employees of a financial management firm located in the southeastern United States one month after a layoff in which 25 percent of the workforce was released. Top-level management was responsible for identifying

individuals working on jobs or tasks deemed to be “redundant.” Once this list was compiled, performance scores were used as the basis for layoff decisions. The survey included all control variables (with one exception, described below) and both independent variables. In addition, six months after the survey was completed, we collected supervisors’ performance ratings for each employee. A total of 103 respondents completed surveys, for an overall response rate of 46.8 percent.

The initial sample consisted of 55 women (53.4 percent) and 48 men (46.6 percent). The average age of respondents was approximately 44 years (mean = 44.25, s.d. = 8.31), and organization tenure ranged from 1 to 19 years (mean = 6.54, s.d. = 3.86). All sample demographic characteristics mirrored those of the entire population of 220. For example, the population was 54 percent female and averaged 43.8 years of age.

## **Measures**

**Dependent variable.** Each participant’s direct supervisor appraised his or her performance six months after the survey was completed. Supervisors completed a nine-item measure, including the following sample items: (a) communicates effectively across all levels, (b) contributes to the success and well-being of colleagues, and (c) behaves in a way that supports the Service Profit Chain. A three-point response format was used (1 = needs improvement, 2 = accomplished, 3 = exemplary). Respondents’ performance scores (mean = 2.17) were virtually identical to those of the entire population (mean = 2.15). Because the performance ratings were internally consistent (coefficient alpha = .72), they were averaged into an index.

**Independent variables.** Perceived control was measured with a six-item measure of the extent to which participants perceived themselves as able to influence important others at work (Ferris et al., 2005). Sample items were, “I am good at using my connections and networks to make things happen at work” and “I am good at building relationships with influential people at work.” Respondents used 5-point scales, with endpoints ranging from “strongly disagree” (1) to “strongly agree” (5). The coefficient alpha was .85. Responses were averaged into an index.

Threat to well-being was measured with House and Rizzo’s (1972) six-item scale. Sample items include “I work under a great deal of stress” and “Problems associated with my job have kept me awake at night.” Once again, responses were made along 5-point scales, with endpoints ranging from “strongly disagree” (1) to “strongly agree” (5). The coefficient alpha was .87. Responses were averaged into an index.

**Control variables.** The following factors were included as control variables: (1) participants’ sex, which was shown to be related to the dependent variable in Study 1, (2) participants’ job performance prior to the layoffs, which was expected to be related to their job performance after the layoffs, and (3) three psychological factors that have been shown in prior research to be significantly related to survivors’ reactions (Brockner et al., 1987, 1993), including employees’ trust in management, the perceived threat of further layoffs, and the extent to which survivors felt close to their former coworkers who had lost their jobs (relationships with victims).

Sex was assessed through self-reports on the same survey in which the independent variables were measured. Participants’ prior job performance was based on supervisors’ ratings that were

garnered from participants' records. The prior performance measure consisted of a single item that was scored on a scale ranging from 1 to 4, as follows: (1) Unacceptable (Current performance is unacceptable), (2) Developing (Did not meet several objectives), (3) On Target (Met all significant objectives), and (4) Above Target (Met and exceeded most objectives).

Trust in management consisted of a three-item measure (e.g., "What's best for the organization drives most decisions in this company"). The coefficient alpha for this measure was .91.

Responses to the three items were averaged into an index. Perceived threat of future layoffs was based on a four-item measure (e.g., "I am waiting for the 'next shoe to fall' in that I am wondering if my job will be the next to go"). The coefficient alpha for this measure was .83.

Responses to the four items were averaged into an index. The closeness of participants' relationship with the people who had lost their jobs consisted of a three-item measure used by Mansour-Cole and Scott (1998) (e.g., "I knew many of the employees whose jobs were affected by workforce reductions"). The coefficient alpha for this measure was .70. Responses to the three items were averaged into an index. For all three measures, respondents answered along a 7-point scale, with endpoints labeled "strongly disagree" (1) and "strongly agree" (7).

**Test of Construct Adequacy.** We examined the factor structure of Study 2's constructs (e.g., pre-layoff performance, threat of future layoffs, trust in management, relationship with layoff victims, threat to well-being, perceived control, and post-layoff performance) before conducting the regression analysis. An examination of the modification indices and loadings indicated that two post-layoff performance items ("Promotes and fosters positive growth within people" and "Creates and contributes to a positive work environment") cross-loaded with other constructs,

and they were thus removed. Confirmatory factor analyses were conducted on the remaining scale items (root means square error of approximation = .04; root mean square residual = .08; comparative fit index = .91; non-normed fit index = .90). Cutoff scores for the seven-factor solution indicate reasonable construct adequacy (Jaccard & Wan, 1996; Kelloway, 1998). Further, each item loaded significantly with its intended construct (as evidence by t-values) demonstrating convergent validity. In addition, Anderson and Gerbing (1988) advocated using a chi-square difference test between the unconstrained measurement model and each of N-paired measurement models (in which one pair of latent variables is correlated at 1.0). Chi-square tests indicated significant differences for each constrained model relative to the initial baseline measurement. Thus, discriminant validity was demonstrated. Summary statistics for the variables are presented in table 4.

[Insert table 4 about here]

## **Results and Discussion**

Test of hypothesis. The hypothesis was tested with the use of a hierarchical multiple regression. In the first step, we entered sex and prior job performance simultaneously. In the second step, we added trust in management, threat of future layoffs, and the closeness of survivors' relationships with those who had lost their jobs. In the third step, we added the main effects of perceived control and threat to well-being, and as in Study 1, both variables were centered to reduce the potential for multicollinearity with the interaction term. In the fourth step, we added the interaction between perceived control and threat to well-being. Of greatest importance, and as shown in table 5, the interaction effect was significant at the .01 level. To illustrate the nature of the interaction, we computed the predicted values of the relationship between perceived control and job performance at a high level of threat to well-being (one standard deviation above the

mean) and at a low level of threat to well-being (one standard deviation below the mean). As predicted, and as shown in figure 2, when perceived control was relatively low, threat to well-being was inversely related to job performance. The inverse relationship between threat to well-being and job performance disappeared, however, when perceived control was relatively high.

[Insert table 5 and figure 2 about here]

To state the interaction effect differently, perceived control and job performance were much more positively related to one another when the threat to well-being in the post-layoff environment was relatively high. In fact, simple slope analyses conducted within the high-threat and low-threat conditions showed that when the threat to well-being was relatively high, perceived control was significantly (and positively) related to survivors' job performance,  $b = .25$ ,  $p < .01$ . When the threat to well-being was relatively low, however, perceived control was not significantly related to survivors' job performance,  $b = -.07$ ,  $p > .15$ .

Performance ratings were provided by 35 supervisors, with most of them rating two or three employees. We conducted a number of analyses to evaluate whether differences between raters had any effect on the results of Study 2, most notably the interactive effect of perceived threat and control on job performance. First, we reran the regression analysis, adding rater as a control variable. Two findings are noteworthy. First, the rater effect was non-significant. Second, and of greater importance, the interaction between threat to well-being and perceived control continued to be significant at the .01 level.

We also conducted an analysis to evaluate the extent to which the ratings coming from the same raters were related to (versus independent of) one another. After all, whether or how much

within-supervisor ratings are correlated with each other is an empirical question. Accordingly, we computed the intraclass correlation coefficient (Bartko, 1976), and found it to be nonsignificant (.03), suggesting that within-supervisor ratings were not significantly related to one another. Given that the ratings coming from the same supervisor were highly independent of one another, the regression procedure employed in Study 2 is appropriate.

With the use of a predictive rather than cross-sectional research design, Study 2 exhibited results conceptually analogous to those observed in Study 1. Threat to well-being and perceived control (both assessed six months earlier) interacted to influence survivors' job performance. As in Study 1, high perceived control reduced the extent to which threat to well-being had an adverse influence on survivors' reactions. To state the interaction effect differently, perceived control was more positively related to survivors' work performance when the threat to well-being was relatively high.<sup>1</sup>

## **GENERAL DISCUSSION**

Taken together, the results of both studies strongly suggest that survivors' perceptions of control in the post-layoff work environment influence their reactions to organizational downsizings. Importantly, conceptually analogous results emerged across the two studies in spite of their many procedural and operational differences. Two important, but different, dependent variables were examined (organizational commitment and job performance). Furthermore, threat to well-being was operationalized in very different ways in the two studies. Study 1 was based on the assumption that participants would experience more of a threat to their well-being in the presence than in the absence of a layoff. In Study 2, the degree of threat to well-being that

survivors experienced in the post-layoff work environment was measured directly. As might be expected, the main effects of these different operationalizations of threat to well-being were significant in each study. That is, employees exhibited lower organizational commitment in the presence than in the absence of a layoff and threat to well-being was inversely related to supervisors' ratings of survivors' job performance six months later.

Of greater importance, the moderating influence of perceived control on the relationships between threat to well-being and survivors' reactions also was consistent across studies. Specifically, higher levels of perceived control reduced the adverse influence of the presence of layoffs on organizational commitment in Study 1 and the threat to well-being on job performance in Study 2. The fact that consistent results emerged across such methodologically different studies bodes well for the generalizability and construct validity of the findings.

### **Theoretical Implications**

**Survivors' reactions to job layoffs.** The points of departure for the present research were twofold. On the one hand, previous research on the effects of layoffs on survivors has identified a number of factors that influence their organizational commitment and job performance, such as the fairness with which the layoffs were handled, trust in management, threat of future layoffs, and the closeness of survivors' relationship with those people who had lost their jobs. On the other hand, much of the variance in survivors' reactions remained unexplained in previous research. Hence, further theory and research are sorely needed to account for the work attitudes and behaviors of layoff survivors. Drawing on the stress framework of Lazarus and Folkman (1984), we have illustrated the importance of perceived control (in conjunction with the layoff

variable in Study 1 and the threat variable in Study 2) in shaping survivors' attitudes and behaviors. Importantly, the interaction effects involving perceived control accounted for a significant portion of the variance in survivors' reactions, beyond that attributable to the aforementioned factors (which were statistically controlled). Thus, the present findings contribute to a more complete understanding of the factors affecting survivors' reactions to layoffs.

**Employee involvement.** The present studies also add to our understanding of employee involvement by delineating some of the conditions under which granting employees greater control elicits more positive reactions. The employee involvement literature generally extols the virtues of giving employees greater control in organizational decisionmaking (e.g., Lawler, 1992). For example, both Greenberger et al. (1989) and Spector (1986) presented findings that showed that higher levels of perceived control elicit more favorable work attitudes (e.g., job satisfaction) and behaviors (e.g., job performance). With a few exceptions (e.g., Vroom and Jago, 1988), employee involvement theorists have paid less attention to the theoretically and practically important question of when perceived control is more versus less likely to influence employees' attitudes and behaviors. Study 1 showed that perceived control was more strongly related to organizational commitment in the presence than in the absence of layoffs, whereas Study 2 showed that perceptions of control perceptions had more of an impact on job performance when the threat to well-being was relatively high. One interpretation of these results is that work conditions that heighten the threat to well-being make it more important for employees to perceive that they have control, thereby magnifying the effect of perceived control on their work attitudes (e.g., organizational commitment) and behaviors (e.g., job performance).

Moreover, perceptions of impact rather than self-determination (Study 1) or factors affecting perceived impact (the political skill construct examined in Study 2) may be especially likely to interact with perceived threat to influence employees' attitudes and behaviors.

### **Limitations and Suggestions for Future Research**

In calling attention to the shortcomings of the present research, we are simultaneously offering suggestions for future research. The design of Study 1 calls into question the internal validity of the findings. In Study 1, we examined the reactions of two groups of employees, one in which layoffs had taken place and the other in which they had not, but the layoff variable was not operationalized experimentally in Study 1. Whereas the layoff and no layoff groups in Study 1 did not differ from each other in many ways (e.g., job satisfaction prior to the layoffs), and whereas we controlled for those demographic dimensions in which the two groups were shown to differ (e.g., education), the design of Study 1 reduces our ability to make causal inferences concerning the influence of the layoff variable. The design of Study 2 helped to address threats to internal validity, in that the independent variables were assessed six months prior to the dependent variable. Nevertheless, future investigations on the determinants of survivors' reactions would benefit greatly from the use of research methods that allow researchers to draw causal inferences (e.g., experimental or longitudinal designs).

Second, whereas the results of the two studies were highly consistent with one another, they were not identical. That is, both studies suggested that high perceived control reduced the extent to which threat to well-being was inversely related to employees' work attitudes and behaviors. Moreover, in both studies we found that perceived control was more positively related to the

favorability of employees' attitudes and behavior when the threat to well-being was relatively high. The primary difference in the findings between the two studies was that the main effect of perceived control was significant in Study 1 but not in Study 2. Perhaps perceived control is more closely aligned with attitudes such as organizational commitment than with behaviors such as job performance. After all, other factors such as ability may be more likely to influence job performance than organizational commitment. Alternatively, methodological factors may explain why perceived control was more positively related to the dependent variable in Study 1 than in Study 2. In Study 1, perceived control and the dependent variable of organizational commitment were assessed with common methods and at the same point in time. In Study 2, however, perceived control and the dependent variable of job performance were collected from different sources and six months apart. Either or both of these factors may explain why perceived control was more closely related to the dependent variable in Study 1 than in Study 2. In any event, further research is needed to explain why the results of the two studies were not identical.

Third, the conceptual distinction between self-determination and impact as aspects of perceived control warrants further consideration. Study 1 suggested that impact was more likely than self-determination to interact with threat to well-being to influence survivors' reactions. Further research is needed to evaluate whether impact generally has more of an effect on employees' attitudes and behaviors than self-determination and, if so, why.

Fourth, whereas the present studies provide evidence that threat to well-being and perceived control have a significant effect on survivors, the total amount of variance accounted for in both studies was still rather modest. Consequently, further theory and research on the determinants of

survivors' reactions are still needed. For example, the theory of planned behavior (e.g., Ajzen, 1991) posits that people's behavior is a function of their intentions, which in turn are influenced by a host of factors, including but not limited to their perceptions of control. Future research grounded in the theory of planned behavior may move us toward an even more complete understanding of why layoff survivors respond as they do.

### **Practical Implications**

The present findings also extend previous studies in suggesting how to manage layoffs so as to elicit the most positive (or least negative) reactions among survivors. Whereas downsizing research guided by organizational justice theory highlighted the need for managers to be seen as fair before and during the implementation of layoffs, the present findings illustrate action steps that managers need to take after the layoffs have occurred. Given that survivors are susceptible to experiencing high levels of threat in the aftermath of layoffs, it is particularly important that the management of organizational downsizings include steps that heighten survivors' perceived control. Actions that allow survivors to perceive the impact of their behavior may be particularly beneficial. For example, giving voice to the survivors, either in setting the direction toward which they should be moving or in formulating plans on how to get there, may heighten perceived control. Also, having survivors work on certain activities in which they are likely to succeed may serve as a much-needed antidote for the sense of loss, and associated perceptions of lack of control, that they are likely to experience in the aftermath of layoffs. Furthermore, Study 2 suggests that one vehicle through which survivors may experience a heightened sense of control is by being able to influence important others in the workplace. This finding suggests that

organizational authorities need to be perceived by survivors as accessible in the aftermath of layoffs.

More generally, the present findings also have implications for the question of when managers need to involve employees, or otherwise heighten their sense of perceived control. The results of both studies suggest that managers should be particularly attentive to employees' perceptions of control in the face of threatening organizational events. Thus, involving employees may be beneficial not only in the aftermath of downsizings but also in response to other significant organizational changes (e.g., mergers and acquisitions, divestitures) that increase the degree of importance employees attach to perceiving control (Gopinath and Becker, 2000). Previous contingency models of employee involvement have suggested that employees should be more involved to the extent that they have the ability to provide meaningful input, and successful implementation of the decision depends on their commitment to the decision (e.g., Vroom and Jago, 1988). The present studies add to the list of contingency factors by considering the role of employees' need for perceived control.

Given the ubiquity of organizational downsizings, it is both theoretically and practically important to delineate the factors affecting survivors' work attitudes and behaviors. The present studies illustrate that survivors' perceptions of control play an important role. Managers need to be attuned to how much downsizings (or other significant organizational changes, for that matter), are experienced by employees as a threat to their well-being. The greater the threat to well-being, the more important it is for managers to take action that heightens, maintains, or restores employees' perceived control by creating an environment in which employees believe

that their actions make a difference. Layoffs handled in ways that address survivors' need to perceive that they have control are likely to lead to more positive consequences, for both organizations and employees alike.

## REFERENCES

Aiken, L. S., and S. G. West

1991 *Multiple Regression: Testing and Interpreting Interactions*. Thousand Oaks, CA: Sage.

Ajzen, I.

1991 "The theory of planned behavior." *Organizational Behavior and Human Decision Processes*, 50: 179-211.

Anderson, J. C., and D. W. Gerbing

1988 "Structural equation modeling in practice: A review and recommended two-step approach." *Psychological Bulletin*, 103: 411-423.

Bartko, J.

1976 "On various intraclass correlation reliability coefficients." *Psychological Bulletin*, 83: 762-765.

Brockner, J., J. Davy, and C. Carter

1985 "Layoffs, self-esteem, and survivor guilt: Motivational, affective, and attitudinal consequences." *Organizational Behavior and Human Decision Processes*, 36: 229-244.

Brockner, J., S. Grover, M.N. O'Malley, T. Reed, and M. A. Glynn

1993 "Threat of future layoffs, self-esteem, and survivors' reactions: Evidence from the laboratory and the field." *Strategic Management Journal*, 14: 153-166.

Brockner, J., Grover, S., Reed, T., DeWitt, R., and M. O'Malley

1987 "Survivors' reactions to layoffs: We get by with a little help for our friends."

*Administrative Science Quarterly*, 32: 526-542.

Brockner, J., M. Konovsky, R. Cooper-Schneider, R. Folger, C. Martin, and R.J. Bies

1994 "The interactive effects of procedural justice and outcome negativity on the victims and survivors of job loss." *Academy of Management Journal*, 37: 397-409.

Brockner, J., P. A. Siegel, J. Daly, T.R. Tyler, T. R., and C. Martin

1997 "When trust matters: The moderating effect of outcome favorability." *Administrative Science Quarterly*, 42: 558-583.

Cascio, W. F.

1993 "Downsizing: What do we know? What have we learned?" *Academy of Management Executive*, 7 (1): 95-104.

Cohen, A.

1993 "Age and tenure in relation to organizational commitment: A meta-analysis." *Basic and Applied Social Psychology*, 14: 143-159.

DeCharms, R.

1968 *Personal Causation: The Internal Affective Determinants of Behavior*. New York:

Academic Press.

Ferris, G., D. Treadway, R. Kolodinsky, W. Hochwarter, C. Kacmar, C., and C. Douglas  
2005 "Development and validation of the political skill inventory." *Journal of Management*.

Gopinath, C., and T. E. Becker

2000 "Communication, procedural justice, and employee attitudes: Relationships under  
conditions of divestiture." *Journal of Management*, 26: 63-83.

Greenberger, D.B., S. Strasser, L. L. Cummings, and R.B. Dunham

1989 "The impact of personal control on performance and satisfaction." *Organizational Behavior  
and Human Decision Processes*, 43: 29-51.

Greenhalgh, L., and Z. Rosenblatt

1984 "Job insecurity: Toward conceptual clarity." *Academy of Management Review*, 9: 438-  
448.

Homans, G. C.

1961 *Social Behavior: Its Elementary Forms*. London: Routledge and Kegan Paul.

House, R., and J. Rizzo

1972 "Toward the measurement of organizational practices: Scale development and validation.  
*Journal of Applied Psychology*, 56: 388-396.

Jaccard, J., and C. Wan

1996 LISREL Approaches to Interaction Effects in Multiple Regression. Thousand Oaks, CA: Sage.

Jamal, M.

1984 "Job stress and job performance controversy: An empirical assessment."  
Organizational Behavior and Human Performance, 33: 1-21.

Kelloway, K.

1998 Using LISREL for Structural Equation Modeling. Beverly Hills, CA: Sage.

Konovsky, M., and S. D. Pugh

1994 "Citizenship behavior and social exchange." Academy of Management Journal, 37:  
656-669.

Kozlowski, S. W. J., G. T. Chao, E. M. Smith, and J. Hedlund

1993 "Organizational downsizing: Strategies, interventions, and research implications." In C. L. Cooper and I. T. Robertson (eds.), International Review of Industrial and Organizational Psychology, 8: 263-332. New York: Wiley.

Lawler, E. E.

1992 Employee Involvement and Total Quality Management: Practices and Results in Fortune 500 companies. San Francisco: Jossey-Bass.

Lazarus, R. S., and S. Folkman

1984 *Stress, Appraisal, and Coping*. New York: Springer.

Mansour-Cole, D., and S. Scott

1998 "Hearing it through the grapevine: The influence of source, leader relations, and legitimacy on survivors' fairness perceptions." *Personnel Psychology*, 51: 25-55.

Marmot, M.G., H. Bosma, H. Hemingway, E. Brunner, and S. Stanfeld

1997 "Just the job for heart disease." *Lancet*, 350: 231-232, 235-239.

Mathieu, J. E., and D. M. Zajac

1990 "A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment." *Psychological Bulletin*, 108: 171-194.

Mayer, R. C., and F.D. Schoorman

1998 "Differentiating antecedents of organizational commitment." *Journal of Organizational Behavior*, 19: 15-28.

Meyer, J.P., N. J. Allen, and C. A. Smith

1993 "Commitment to organizations and occupations: Extension and test of a three-component conceptualization." *Journal of Applied Psychology*, 78: 538-551.

Meyer, J. P., S. V. Paunonen, I. R. Gellatly, R. D. Goffin, and D. N. Jackson

1989 "Organizational commitment and job performance: It's the nature of the commitment that counts." *Journal of Applied Psychology*, 74: 152-156.

Mishra, A. K., and K. E. Mishra

1994 "The role of mutual trust in effective downsizing strategies." *Human Resource Management*, 33: 261-279.

Mishra, A. K., and G. M. Spreitzer

1998 "Explaining how survivors respond to downsizing: The roles of trust, empowerment, justice, and work redesign." *Academy of Management Review*, 23: 567-588.

Mishra, K., Spreitzer, G. M., and A. Mishra

1998 "Preserving employee morale during downsizing." *Sloan Management Review*, 39 (2) : 83-95.

Mowday, R. T., L. W. Porter, and R. Steers

1982 *Employee-Organization Linkages: The Psychology of Commitment, Absenteeism, and Turnover*. New York: Academic Press.

Niehoff, B. P., and R. H. Moorman

1993 "Justice as a mediator of the relationship between methods of monitoring and organizational citizenship behavior." *Academy of Management Journal*, 36: 527-556.

Rotter, J.B.

1966 "Generalized expectations for internal versus external control of reinforcement."

Psychological Monographs, 80, No. 1 (Whole Number 609).

Seligman, M.E.P.

1998 *Learned Optimism*, 2d ed. New York: Simon & Schuster.

Spector, P. E.

1986 "Perceived control by employees: A meta-analysis of studies concerning autonomy and participation at work." *Human Relations*, 39: 1005-1016.

Spreitzer, G. M.

1995 "Psychological empowerment in the workplace: Dimensions, measurement and validation."

*Academy of Management Journal*, 18: 1442-1465.

Spreitzer, G.M., and A.K. Mishra

2002 "To stay or to go: Voluntary survivor turnover following an organizational downsizing."

*Journal of Organizational Behavior*, 23: 707-729.

Staw, B., L. Sandelands, and J. E. Dutton

1981 "Threat-rigidity effects in organizational behavior: A multilevel analysis." *Administrative*

*Science Quarterly*, 26: 501-524.

Vroom, V.H., and A. G. Jago

1988 *The New Leadership: Managing Participation in Organizations*. Englewood Cliffs, NJ:

Prentice-Hall.

Table 1  
Descriptive Statistics and Correlations, Study 1

Variable	N	Mean	S.D.	1	2	3	4	5	6	7	8
1. Sex <sup>†</sup>	1067	1.78	.42	-							
2. Service	1067	13.32	8.57	.15**	-						
3. Age	1067	44.66	9.97	.03	.56**	-					
4. Education	1102	3.78	1.32	.14**	-.08**	-.05	-				
5. Trust in management	1125	3.81	1.29	-.05	-.04	.01	.02	(.97)*			
6. Downsizing site <sup>‡</sup>	1134	.31	.46	-.13**	-.25**	-.09**	-.06	.05	-		
7. Perceived control	1133	4.72	1.03	.01	.08**	.07*	-.04	.30**	.01	(.84)	
8. Org. commitment	1133	4.53	1.22	-.07**	-.04	.01	-.15**	.50**	-.09**	.45**	(.76)

\* p < .05; \*\* p < .01.

\* Reliability estimates are in parentheses.

<sup>†</sup> Sex was coded 1 for female and 2 for male.

<sup>‡</sup> Downsizing site was coded 0 for no layoffs and 1 for layoffs.

Table 2  
Results of Regression Analyses for Organizational Commitment, Study 1\*

Variable	Model 1	Model 2	Model 3	Model 4
Sex	-.05 (.09)	-.03 (.08)	-.05 (.07)	-.05 (.07)
Education	-.14** (.03)	-.13** (.03)	-.13** (.02)	-.13** (.02)
Trust in management		.49** (.03)	.40** (.03)	.39** (.03)
Downsizing site (A)			-.13** (.07)	-.13** (.07)
Perceived control (B)			.33** (.03)	.33** (.03)
A x B				.06* (.07)
D.f.	2,1025	3,1024	5,1022	6,1021
$\Delta R^2$		.24**	.12*	.01
Adjusted R <sup>2</sup>	.02	.26	.38	.39
F	12.72**	122.53**	126.07**	106.41**

\* p < .05; \*\* p < .01.

\* Standardized coefficients are presented, with standard errors in parentheses.

Table 3  
Results of Regression Analyses for Organizational Commitment in Layoff Site Only, Study 1\*

Variable	Model 1	Model 2	Model 3	Model 4
Sex	-.07 (.16)	-.02 (.14)	-.02 (.14)	.00 (.13)
Education	-.18** (.06)	-.20** (.06)	-.20** (.06)	-.22** (.05)
Interactive justice		.15* (.07)	.10 (.07)	.10 (.06)
Distributive justice		.34** (.08)	.21** (.09)	.16* (.08)
Procedural justice		.05 (.10)	.00 (.10)	.02 (.09)
Trust in management			.28** (.07)	.18** (.06)
Perceived control				.38** (.06)
D.f.	2,303	5,300	6,299	7,298
$\Delta R^2$		.22	.03*	.13
Adjusted $R^2$	.04	.26	.29	.42
F	6.61*	22.16**	21.87**	32.69**

\*  $p < .05$ ; \*\*  $p < .01$ .

\* Standardized coefficients are presented, with standard errors in parentheses.

Table 4  
Descriptive Statistics and Correlations, Study 2\*

Variable	N	Mean	S.D.	1	2	3	4	5	6	7	8	9	10
1. Age	103	44.25	8.31										
2. Sex (1=female, 2=male)	103	1.46	.52	.08									
3. Tenure	103	6.54	3.86	.25**	.01								
4. Pre-layoff performance	103	3.35	.53	-.13	.06	.35**							
5. Threat of future layoffs	103	4.04	1.43	-.26*	-.10	-.05	-.07	(.83)					
6. Trust in management	103	4.97	1.36	.01	-.07	-.09	.01	-.13	(.91)				
7. Relationship w/ victims	103	4.71	1.18	-.03	-.07	.17	-.01	.11	.20*	(.70)			
8. Threat to well-being	103	2.79	.85	-.04	-.07	.08	.12	.16	-.18	-.02	(.87)		
9. Perceived control	103	3.41	.64	-.15	-.15	.08	.01	-.16	.01	.21*	-.04	(.85)	
10. Performance	103	2.17	.25	-.01	-.07	.12	.56**	-.04	.06	-.01	-.21*	.14	(.72)

\* p < .05; \*\* p < .01.

\*Reliability estimates are in parentheses.

Table 5  
Results of Regression Analyses for Job Performance, Study 2

Variable	Model 1	Model 2	Model 3	Model 4
Sex	-.08 (.04)	-.09 (.04)	-.08 (.04)	-.07 (.04)
Age	-.04 (.01)	-.05 (.01)	-.02 (.01)	.01 (.01)
Tenure	.11 (.01)	.13 (.01)	.12 (.01)	.13 (.01)
Pre-layoff performance	.16** (.03)	.16** (.03)	.17* (.03)	.18* (.03)
Threat of future layoff		-.04 (.01)	.03 (.01)	.01 (.01)
Trust in management		.06 (.01)	.04 (.02)	.04 (.01)
Relationship with victims		-.04 (.02)	-.08 (.02)	-.10 (.02)
Threat to well-being (A)			-.20* (.02)	-.26** (.02)
Perceived control (B)			.17 (.03)	.18 (.03)
A x B				.26** (.04)
D.f.	4, 98	7, 95	9, 93	10, 92
$\Delta R^2$		.01	.02*	.06**
Adjusted $R^2$	.06	.07	.09	.15
F	2.04*	1.82	2.17*	2.45**

\*  $p < .05$ ; \*\*  $p < .01$ .

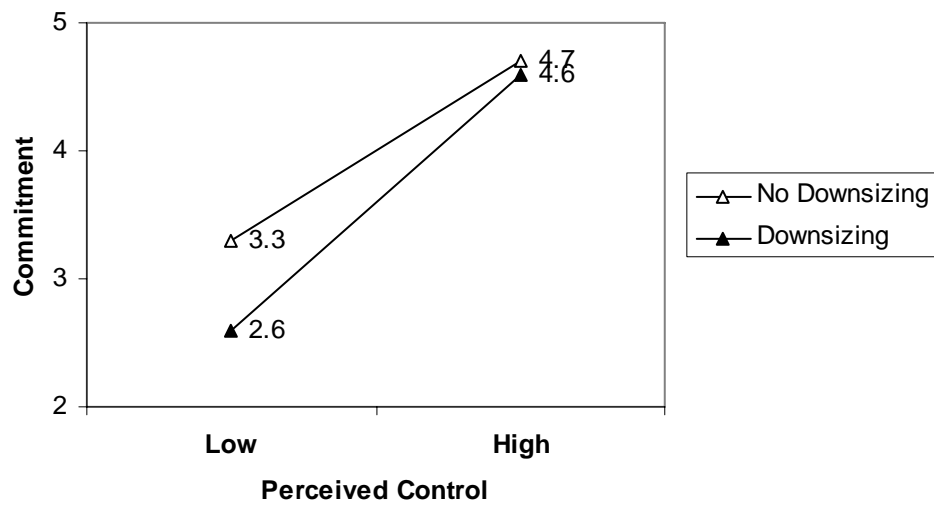


Figure 1. Predicted values of organizational commitment as a function of perceived control and layoffs, Study 1.

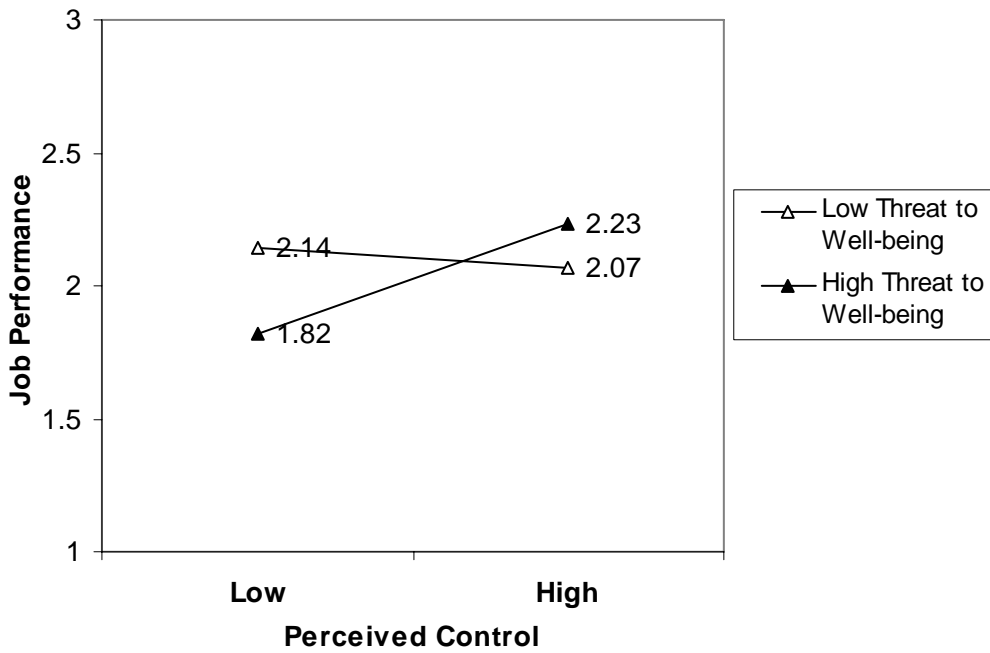


Figure 2. Predicted values of job performance as a function of perceived control and threat to well-being, Study 2.