Cognitive Appraisal as a Mechanism Linking Negative Organizational Shocks and

Intentions to Leave

ABSTRACT

The past two decades have seen a significant rise in both frequency and size of mergers and acquisitions in the U.S., many of which have been associated with considerable interruption of organizational activities and a host of negative outcomes for employees. In this study of 763 U.S. based airline employees, we identify threat appraisal as a key mechanism explaining the relationship between four change related varialbes (quality of change communication, procedural fairness in restructuring, change management history, & anxiety about change) and employee turnover intentions. Results indicate that turnover intentions are influenced by quality of change communication, procedural fairness in restructuring, and anxiety about change as mediated by threat appriasal. We also found that job embeddedness moderated the relationships of quality of change communication and procedural fairness in restructuring with threat appraisal. Our focus on malleable levers of withdrawal offers theoretical and practical insights into how withdrawal can be influenced.

KEYWORDS: Withdrawal, Turnover Intentions, Threat Appraisal, Organizational Shocks

Despite significant resources expended to manage organizational change, it is often associated with considerable interruption of organizational activities and a host of negative

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outcomes for employees. For instance, nearly half of mergers and acquisitions (M&As) fail to meet stated objectives (Seo & Hill, 2005), and research has shown that organizational change often motivates employee withdrawal, illness, and stress (Fugate, Kinicki, & Prussia, 2008; Fried, Teigs, Naughton, & Ashforth, 1996; Newman & Krzystofiak, 1993). However, some employees feel these traumatic effects more than others due to the way in which they interpret change (e.g., Fugate, Prussia, Kinicki, 2012), intimating potential sources for variation across individuals. These fundamental differences can be highly consequential as the likelihood of a merger or acquisition being successful is greatly diminished when key employees decide to leave the organization, especially in knowledge-based organizations where human capital is a particularly valuable asset. It is therefore critically important for academicians and practitioners to understand the factors and processes that employees consider when their organization is involved in M&A activity. This is the overarching goal of the current paper.

In this endeavor, we use appraisal theory to help inform shocks in the unfolding model of turnover (Lee & Mitchell, 1994) and shed light on why employees respond to organizational change in different ways. The unfolding model pioneered the idea that individual voluntary turnover decisions are often driven by shocks: clearly distinguishable, jarring events that enact intrapsychic analyses involved in quitting. Identifying mechanisms that can be used to affect the outcome of these analyses is critical for organizations seeking to optimize employee reactions in favor of the change. To clarify, the unfolding model was developed to help deepen our understanding of voluntary turnover, as previous models of "accumulated dissatisfaction" were insufficient for explaining the variability in voluntary employee exits (Holtom, Mitchell, Lee, & Inderrieden, 2005). We take a similar approach in this paper and introduce appraisal theory to the unfolding model to better understand why some employees intend to quit when confronted with

the same shock (a merger) and others do not. As such, cognitive appraisal applies an individual employee oriented lens to the unfolding model and boosts its explanatory power (cf. Smith & Kirby, 2009).

This is particularly important since the majority of turnover scholarship has focused on stable traits and contextual factors demonstrating little plasticity. For instance, Morrell, Laon-Clarke, and Wilkinson, (2004) examined positive shocks (e.g., pursuing graduate studies) that tend to be expected, personal, and leading to unavoidable turnover. Similarly, Donnelly and Quinn (2006) identified economic factors and gender as moderators between shocks and turnover. While this work has certainly advanced our understanding of the withdrawal process, its focus on variables outside of the control of employees and managers has limited development of the unfolding model. We take a different approach by considering how a negative organizational shock (i.e., an acquisition) affects levers of withdrawal that are malleable and subsequently offer theoretical and practical implications for mitigating some of its potentially deleterious effects.

The announcement of M&As associated with planned downsizing is particularly desirable for studying organizational shocks because they: (1) are common organizational events that affect all employees in a particular context in some way; (2) meet the fundamental requirement of a shock being "sufficiently jarring that it cannot be ignored" (Lee & Mitchell, 1994, p. 60); and (3) reveal individual variation in responses. M&As are particularly important from a withdrawal perspective because they engender a number of negative consequences. For instance, M&As have been associated with reduced control, and increased feelings of threat, separation anxiety, and uncertainty (Astrachan, 2004, Burlew, Pederson, & Bradley, 1994; Schweiger & DeNisi, 1991). More recently, in a study of manufacturing firms, Siegel and

Simons (2010) found a rapid increase in turnover immediately following M&As. Thus, while M&As may be seen as favorable by shareholders, we expect employees to show more variation in attitudes, perceptions, and behaviors.

In general, we propose that a negative organizational shock, such as a merger or acquisition that results in layoffs, will initiate a cognitive appraisal process to evaluate the significance of the change-related shock. Cognitive appraisal represent's an individual's assessment of the meaning of an event for his or her personal well-being (Tomaka, Blascovich, Kelsey, Leitten, 1993; Tomaka, Blascovich, Kibler, & Ernst, 1997). Appraisals therefore are cognitive representations of the interaction between a person and various contextual factors. In the work context, *threat appraisal* represents the extent to which an employee feels that work related benefits, opportunities, and conditions are at risk or may be jeopardized in the future (Fugate, Prussia, & Kinicki, 2012). Therefore, threat appraisals ascribe meaning to events, which precede physiological responses and have the ability to be influenced by mutable organizational processes (e.g., procedural fairness) as well as idiosyncratic perceptions derived from prior experience (e.g., change history).

We argue that employees' change-related cognitions modulate their experience of and reactions to change and proffer threat appraisal as a critical determinant of whether or not a shock will initiate withdrawal. In this effort, we contribute to the literature on major organizational change and M&As in four important ways. First, we examine threat appraisal as a cognitive marker of M&A related shocks and link these to employee turnover intentions. This perspective extends the unfolding model by describing how and why individuals experiencing the same shock may respond quite differently. Second, we expand conceptualizations of how threat appraisal affects turnover intentions in the context of M&As in two ways: one is by

considering a broader set of antecedents to threat appraisals; the other is by considering a key moderator that might help explain when individuals are more or less likely to interpret shocks as threatening. Third, we examine levers (i.e., predictors) of threat appraisal that are controllable by both managers and employees, thereby advancing theoretical and practical insights into how withdrawal can be influenced. Fourth, and more generally, considering both the theoretical and empirical relationships between threat appraisals and organizational shocks makes this study unique and adds to the knowledge provided by existing research that explores the relationship between threat appraisals and withdrawal (e.g., Fugate et al., 2012; Michela & Vena, 2012). We thus fill a notable void in the literature on employee withdrawal by offering a more thorough theoretical explication of this relationship along with an empirical test.

Shocks, Threat Appraisal, and Withdrawal

The process of cognitive appraisal is particularly salient to our discussion of shocks because "differences in appraised situational meaning explain why persons have different emotional responses to the same objective situation" (Tomaka et al., 1997, p. 70). Put differently, considering cognitive appraisal implications for Lee and Mitchell's (1994) unfolding model is necessary if we are to better understand the effect of shocks on intrapsychic processes that give meaning to a situation and subsequently explain incremental variance in withdrawal. Situational meaning, a central aspect of cognitive appraisal theory, refers to how an individual makes sense of, and finds relevance in, ongoing events (Smith & Kirby, 2009; Tomaka et al., 1997). In the context of organizational change, it is this meaning or appraisal of the situation that determines individuals' subsequent reactions, such as withdrawal (Fugate et al., 2012), emotions (Kiefer, 2005), and coping (Scheck & Kinicki, 2000). Research has shown that situational meaning and thus appraisals can be influenced by "manipulating the way a task or situation is framed"

(Tomaka et. al., 1997, p. 70). By understanding how to affect the manner in which a shock (e.g., M&A activity) is appraised, we can further explain why such shocks lead to withdrawal for some but not for others.

Cognitive Appraisal Theory and the Activation of the Withdrawal Process

When major organizational changes such as M&As are perceived as having the potential to make things worse for the employee in the future, then they are appraised as threats. Such threats may be due to potentially losing relationships (e.g., valued coworkers who are either downsized or relocated), opportunities (e.g., one may have anticipated a promotion in the "old" independent company but this is now in jeopardy), and of course employment (e.g., many mergers include job cuts). Among the many potential reactions to such threat appraisals is to withdrawal, and in its most extreme form—quit.

Although psychology and health research has investigated other forms of appraisals (e.g., challenge & harm), and some scholars have variously conceptualized and tested negative appraisals of organizational change (e.g., Fugate et al., 2008; Scheck & Kinicki, 2000), we have particular interest in threat appraisals. This type of appraisal is an indicator of potential loss in the future and thus captures employees' future-oriented concerns. This future orientation allows managers to be proactive in addressing employee concerns and mitigating undesirable reactions, such as the involuntary exit of valued employees. Unfortunately, however, scholarship on threat appraisal and employee withdrawal remains sparse, save few recent examinations (Fugate et al., 2008; Fugate, Harrison, & Kinicki, 2011; Fugate et al., 2012; Michela & Vena, 2012).

Fugate et al. (2008) examined the aggregate effect of perceptions of threat and harm, termed negative appraisals, on employee withdrawal. Results showed that an employees' appraisal of a situation impacts voluntary turnover through a mediated pathway involving

emotions, coping, sick time, and quit intentions. In a similar study, Fugate et al., (2011) found that negative apprasaisals affected turnover through control coping and quit intentions. More recently, Fugate et al., (2012) found negative relationships between threat appraisals and two change related variables: change-related fairness and positive change orientation. They also found threat appraisals to be positively related to absenteeism and intentions to quit, which predicted voluntary turnover. Michela and Vena (2012) provide a dependence-regulation account of withdrawal reactions to major organizational change. The authors found that employees may attempt to devalue or otherwisse withdraw from the employment relationship when facing significant threat, such as M&A activity.

Generally, this work has shown that negative appraisals are related to quit intentions and turnover. However, there are key opportunities to advance our understanding of how these appraisals are formed and how they ultimately lead to employee withdrawal. Utilizing cognitive appraisal theory allows us to provide a new and unique perspective on why employees facing the same situation may respond quite differently. Further, existing organizational change research suggests that there are several important, yet unexamined factors that may contribute to how employees appraise a potentially threatening situation. Identifying these potential mechanisms of withdrawal is particularly important from an organizational perspecive because cognitive appraisals have been shown to be malleable and therefore within the influence of managers. For example, more positive cognitive appraisals have been garnered by manipulating the way in which a situation or task is communicated, increasing procedural fairness, and altering individual expectations of successful outcomes (Lazarus et al., 1965; Tomaka et al., 1997; Feinberg & Aeillo, 2010).

In what follows, we present several person and contextual factors derived from research on organizational change and address their indirect effects on employee turnover intentions through threat appraisals. Specifically, we examine predictors of withdrawal including quality of change communication, procedural fairness in restructuring, change management history, and anxiety about change. These variables were chosen because they allow us to consider both person and contextual factors, and thus are fundamental to appraisal theory, and are specific to the context of organizational change. They also allow for some degree of manipulation or change by management. Moreover, prior scholarship has demonstrated that such factors may be related to the withdrawal process in the context of change (e.g., Rafferty and Restubog, 2010; Seo & Hill, 2005). We attempt to build off of this research by looking at the effects of these change variables on withdrawal through the lens of appraisal theory and examine the extent to which threat appraisal mediates these relationships.

Next, we discuss the possibility that how individuals are situated in the organizational context may affect their interpretation of change as threatening. For instance, turnover research shows that the extent to which individuals are enmeshed in a web of connections that attach them to their organization (i.e. job embeddedness) plays an important role in how employees interpret organizational actions such as human resource practices and newcomer orientation (e.g., Allen, 2006). We contend that this factor may also influence how employees interpret and respond to organizational attempts to manage change during a merger. Therefore, we consider the possibility that job embeddedness moderates the relationships of our change variables with threat appraisal.

Shocks and Predictors of Threat Appraisal

Quality of Change Communication

In a recent study on the impact of M&As on turnover, Rafferty and Restubog (2010) found high quality change communication to be negatively related to withdrawal, with affective commitment to change mediating this relationship. The authors define and measure quality of change communication as the aggregate of two forms of communication: formal and informal. The first is defined as a programmatic approach involving formal activities that convey information hierarchically with the purpose of instilling positive attitudes toward change and employee compliance (Russ, 2008). The second is defined as "informal change communication processes as ad hoc efforts by leaders to communicate with employees about change, which are not carefully designed and standardized by the organization" (Rafferty & Restubog, 2010, p. 1312).

According to cognitive appraisal theory, a threat appraisal is more likely when people feel they do not have the adequate resources to deal with a potential stressor. Given that access to quality information has been established as a vital resource to employees, linked to myriad benefits such as greater mobility (Podolny & Baron, 1997), higher salary (Boxman, De Graaf, & Flap, 1991), and even improved performance ratings (Sparrowe, Liden, Wayne, & Kraimer, 2001), it likely plays an important role in the appraisal process. More specifically, as employees attempt to give meaning to a merger or acquisition by acquiring and synthesizing information, perceptions of low quality change communication will likely increase feelings of inadequate resources and subsequently lead to greater appraisals of threat. On the other hand, perceptions of high quality change communication are expected to reduce feelings of threat by increasing an employee's resource base and promoting the belief that the organization can be trusted. Even when the information being received is unfavorable, employees may feel more secure in knowing that it is an accurate portrayal of the situation. This allows them to devote fewer

cognitive resources to information dissemination and interpretation and to focus more on problem solving.

Therefore, quality of change communication is particularly relevant to our discussion of threat appraisal. It can modulate the way in which one perceives and ascribes meaning to a situation by providing employees with important contextual information about the change. In other words, employees may not be able to control their situation, but high quality change communication can help them to feel that they have adequate resources to endure through the change and it gives them a frame in which to interpret the change. Thus, providing employees with high quality change communication should positively influence employees' appraisals and reactions by informing the meaning they ascribe to the change.

Hypothesis 1a: Quality of change communication will be negatively related to threat appraisal.

Procedural Fairness in Restructuring

Fair treatment is ubiquitous in the employer-employee relations literature and is a burgeoning topic among organizational change scholars (Rodell & Colquitt, 2009). It provides legitimacy to organizational actions, increases trust toward leadership by making future events more controllable and predictable, and is linked with turnover intentions (Lind, 2001; Tyler & Lind, 1992; Van den Bos, 2001a; Lind & Van den Bos, 2002; Thibaut & Walker, 1975, Fugate et al., 2012). Moreover, the way in which one perceives fair treatment plays a prominent role in the appraisal literature. For example, Barsky, Kaplan, & Beal (2011) argued that fairness perceptions affect the appraisal process in such a way that it colors how individuals perceive events. When an event involves low certainty or control, such as when someone perceives unfair treatment, it tends to be associated with appraisals of fear or threat (Smith & Ellsworth, 1985).

The procedural dimension of fairness relates to the procedures and processes involved in decision making and is assessed based on whether these are considered to be unbiased, consistent, accurate, correctable, and open to employee input (Leventhal, 1980; Thibaut & Walker, 1975). The absence of these qualities often promotes feeling of uncertainty. Procedural fairness abates these reactions by giving employees a sense of voice in the decision-making process and by signaling "management respect and value for employees" (Fugate et al., 2012, p. 8). Procedural fairness thus operates as a proxy for trust – an employee's willingness to accept vulnerability based on positive expectations of management intentions and actions (Mayer, Davis, & Schoorman, 1995) – as it is more readily observable and allows for quick judgments based on "whatever fairness information is first gathered or is most interpretable" (Colquitt, Scott, Judge, & Shaw, 2006, p. 112). Accordingly, even following the shock of downsizing associated with M&A activity, an obviously undesirable outcome, employees will likely respond more favorably if the procedures for such reduction in force decisions are perceived as fair.

Hypothesis 1b: Change-related procedural fairness will be negatively related to threat appraisal.

Change Management History

Although change paradigms have generally taken a macro-systems approach (Judge, Thoreson, Pucik, & Welbourne, 1999), there is a growing body of research emphasizing the importance of individual experience with change (e.g., Oreg, Michel, & By, 2012; Rafferty & Restubog, 2010; Stanley, Meyer, & Toplnytsky, 2005; Wanberg & Banas, 2000; Wanous, Reichers, & Austin, 2000). For instance, Stanley et al. (2005) found cynicism about organizational change to antecede resistance to change. Wanous et al. (2000) argued that cynicism is a response to a history of equivocally unsuccessful change attempts. Similarly,

Rafferty and Restubog (2010) held that employees with negative change history experience at their current organization would be more likely to expect a merger to be poorly managed and ultimately unsuccessful. Even within the same organizational context, individual employees can have very different change experiences, and can perceive change very differently.

While the impact of change management history on threat appraisal has not been directly examined in an organizational setting, Gioia and Chittipeddi (1991) found that employees involved in a strategic initiative attempted to ascribe meaning, retrospectively, to events, threats, and opportunities. They searched for patterns of significant meaning based on prior experience and used them to rationalize the on-going situation. In other words, appraisals of threat were dependent upon a subjective assessment of the change event, which was influenced by previous experience. Because cognitive appraisal is based in large part on expected outcomes informed by previous experiences, it is possible that perceptions of positive change management history will drive more favorable estimations of the change.

Hypothesis 1c: Positive perceptions of prior change management history will be

negatively related to threat appraisal.

Anxiety about Change

In a thorough review of the M&A literature, Seo and Hill (2005) found anxiety to be a pervasive characteristic of employees' M&A experience. Indeed, research has shown that even the possibility of an acquisition triggers anxiety in most employees – regardless of whether they are from the acquiring or acquired firm (Cartwright & Cooper, 1993b; Buono & Bowdich, 1989; Emmanouilides & Giovanis, 2006). This is due, in part, to the inevitable changes in working conditions that take place as a result of M&A activity. For instance, employees of newly acquired organizations are often encouraged to "let go" of past affiliations and practices to move

toward new identifications and behaviors (Bridges, 1991). To the extent that employees have become accustomed to the way things are done and hold a positive bias toward members of their own organization (e.g., Turner, 1982), they are likely to be anxious about the change. Even when imposed changes are objectively beneficial (e.g., better equipment, pay, & benefits), employees may still feel anxious until they are able to appraise the situation as non-threatening. As a consequence, stress-laden employees often become preoccupied with how M&A activity will affect aspects of their jobs, identities, and values (Marks & Mirvis, 1992; Ivancevich, Schweiger, & Power, 1987; Sutton, 1987). Therefore, we expect anxiety about change to permeate an individual's change experience with valence and other affect-differentiating details that in turn affect one's appraisal of a situation.

Hypothesis 1d: Anxiety about change will be positively related to threat appraisal.

Threat Appraisal and Turnover Intentions

Turnover intentions represent cognitive withdrawal, an immediate antecedent of turnover (Griffeth, Hom, & Gaertner, 2000). Despite studies linking M&As to withdrawal (e.g., Siegel & Simons, 2010; Rafferty & Restubog, 2010), research on the mediating role of threat appraisal remains limited. However, Fugate et al. (2012), drawing from protection motivation research (e.g., Eppright, Hunt, Tanner, & Franke, 2002) tested a model in which threat appraisal brought on by change was found to significantly relate to both absenteeism and withdrawal behavior. The authors posit that "perceived threats predict intentions to withdraw from a situation and to avoid the source of threats" (Fugate et al., 2012, p. 9). Thus, it is expected that employees perceiving change as more threatening will be more likely to withdraw to some degree – the extent of which may depend upon the intensity of emotion related to the perception that work related benefits, opportunities, and conditions are at risk.

Hypothesis 2a: Threat appraisal will be positively related to turnover intentions.

Hypothesis 2b-e: Threat appraisal will partially mediate the relationships of quality of change communication (2b), procedural fairness in restructuring (2c), change management history (2d), and anxiety about change (2e) with turnover intentions.

Moderator

As noted earlier, we suggest that the manner in which an individual is situated in an organizational context is likely to buffer the stressor-strain relationship and moderate relationships with threat appraisal. In particular, we focus on the extent to which the individual is enmeshed in a web of connections within the organization or job embeddedness. This is a potential moderator that has been shown to play a role in the withdrawal process and may be likely to influence how individuals appraise potential threats.

Job Embeddedness

Job embeddedness describes how individuals can become enmeshed in a web of connections that link them to their organization and influence their decision to stay. It consists of the links an employee has to other people or groups in the organization or community, how the employee fits within the organization or community, and what the employee would be forced to sacrifice upon leaving the organization, both on and off-the-job (Mitchell, Holtom, Lee, Sablynski, & Erez, 2001). Therefore, it is an aggregate multidimensional construct that incorporates both on and off-the-job forces that influence decision making. However, our focus in the current study is on factors that fall within the domain of an organization's control, and as such we focus only on on-the-job aspects of job embeddedness.

Job embeddedness developed, in part, out of Lee and Michell's (1991, 1994) work on the unfolding model. It became clear from early investigations of the unfolding model that there are

multiple ways of leaving and that job satisfaction is only one factor driving this choice (Lee, Mitchell, Wise & Fireman, 1996; Lee, Mitchell, Holtom, McDaniel & Hill, 1999). However, it wasn't entirely clear why employees chose to stay. Mitchell et al's (2001) seminal work on job embeddedness helped address this issue by demonstrating how employees can become stuck in their organization (i.e., via links, fit, and sacrifice) and subsequently stay despite facing undesirable circumstances.

Based on this work, Mitchell and Lee (2001) initiated a review of the unfolding model to determine the extent to which job embeddedness influences whether people initiate and complete the process of leaving and which path they might take. Through this exploratory process, they formed a set of predictions predicated upon the idea that job embeddedness buffers the effects of shocks. Findings supported this notion with highly job embedded employees having fewer thoughts about leaving in response to a shock than their lower embedded counterparts. This research helped to integrate the unfolding model with job embeddedness and demonstrated that fit, links and sacrifice interact with the unfolding process by changing the way individuals perceive shocks, search for alternatives, and evaluate those alternatives.

Over the last 15 years, a number of researchers have demonstrated the utility of job embeddedness as a predictor of important organizational outcomes such as voluntary turnover, absenteeism, positive organizational citizenship behaviors (OCBs), and performance (Allen, 2006; Felps, Mitchell, Hekman, Lee, Holtom, & Harmon, 2009; Lee, Mitchell, Sablynski, Burton, & Holtom, 2004). More recently, Burton, Holtom, Sablynksi, Mitchell, & Lee (2010) found that on-the-job embeddedness helped to reduce the impact of negative shocks on organizational citizenship and overall job performance. The authors suggested that a negative

shock may cause individuals to think about leaving their job, but the effect of that shock should decrease the more one is job embedded.

It is important to note, however, that on-the-job embeddedness has been found to mediate the relationship between negative shocks and withdrawal behaviors (Holtom, Burton, & Crossley, 2012). Although we do expect there are direct effects among embeddeness and an employee's desire to leave, we feel it is more relevant to the current investigation to focus on the interaction of embeddedness with our four change related variables and threat appraisal.

We suggest that there are several ways in which job embeddedness can reduce the negative impact of major organizational change, such as M&As. According to cognitive appraisal theory, a threat appraisal is more likely when employees perceive that they do not have adequate resources to deal with a potential stressor. However, embeddedness implies a central location in a network associated with important resources linked to the embedded employees' social capital. For instance, highly embedded employees tend to have more supportive networks, greater access to information and more power (Brass, 1984; Krackhardt, 1990). Thus, highly embedded employees should feel more secure in their ability to cope with change thereby strengthening the negative relationships of quality of change communication, procedural fairness in restructuring, and change management history with threat appraisal and weakening the positive relationship of anxiety about change with threat appraisal.

More specifically, job embeddedness may strengthen the impact of perceiving quality communication from the organization about change because more embedded employees are likely to have access to additional sources of information that can confirm the veracity of organizational information and thereby increase its credibility and utility. More embedded employees may also feel the effects of fair procedures to a greater extent because they can see

how they impact others within their extensive network and may be particularly concerned with how they affect their close positive ties. With respect to change management history, we posit that, even in cases where previous experiences with change have been less positive, more embedded employees face greater barriers to leaving the organization, and thus are motivated to interpret a change as less threatening in order to reduce cognitive dissonance. Finally, although embedded employees may still feel anxious about pending changes, we suggest that the more extensive resources and social capital associated with embeddedness may mitigate the extent to which more embedded employees associate this anxiety with threat.

Hypothesis 3: Job embeddedness will moderate the relationships of quality of change communication (3a), procedural fairness in restructuring (3b), change management history (3c), and anxiety about change (3d) with threat appraisal.

Methods

Participants and Procedures

Participants for this online survey included 763 employees of a large airline in the mid-south of the United States experiencing a major acquisition of several other airlines. The newly formed organization retained the name and many defining features of the dominant organization. While all employees were encouraged to contribute, participation was voluntary. At 24%, our response rate was deemed acceptable and normal for an Internet based survey (Anderson & Kanuka, 2003). Measures included quality of change communication, procedural fairness in restructuring, change management history, threat appraisal, turnover intentions, anxiety about change, job embeddedness, and job search. At the introduction of the survey, participants were directed to think about the recent acquisitions and restructures when responding. All participants were electronically notified that responses were anonymous and that at no time would they be

made available to company personnel. In line with similar research (e.g., Amiot, Terry, & Callen, 2007), data were obtained approximately four months after the initial changes had begun. Participants were employed at all levels of the organization. Of the sample, 31% had been with the organization less than 3 years, 51.8% less than 5, 76.6% less than 7, 90.1% less than 10, and 100% less than 20.

Measures

    Threat Appraisal was measured with seven items that consider the extent to which an employee perceives the following at risk: job stability, supervisor and coworker relationships, desirability of an individual's job, opportunities at current employer, pay and benefits, and overall working conditions (Fugate et al., 2008). Participants were asked, "Due to the changes, to what extent do you feel each of the following is THREATENED – a possibility that it will get worse in the future?" Coefficient alpha for the seven-item scale was .89.

    Change Management History was measured with eight items from Bordia, Restubog, Jimmieson, and Irmer (2007). Their scale tapped assessments of how the organization has handled previous organizational changes. An example item includes, "In my experience, [past] organizational change has been managed well." The reliability coefficient of the scale was .85.

    Procedural Fairness in Restructuring was measured with fourteen items assessing one's perceived equity with regard to the procedures and processes involved in change related decision making (Mansour-Cole & Scott, 1998). A sample item is, "When decisions are made about job reductions and reassignments, management treats me with kindness and respect." Coefficient alpha for the seven-item scale was .96.

    Quality of Change Communication was measured with five items assessing employee perceptions regarding the timeliness, accuracy, and usefulness of information received about the

transition (Bordia, Hunt, Paulsen, Tourish, & DiFonzo, 2004). An example item is, "The official information I have received about the changes at [my current organization] has been useful." The reliability coefficient of the seven-item scale was .94.

Anxiety about Change was measured with three items that determine the level of concern an employee feels related to the transition (Miller & Monge, 1985). A sample item includes, "I feel anxious about possible changes that might occur at [my organization]." The reliability coefficient of the three-item scale was .87.

Global Job Embeddedness was measured with seven items assessing the extent to which an employee is tied to his or her organization through fit, links, and sacrifice (Crossley, Bennett, Jex, & Burnfield, 2007). A sample item is, "I am tightly connected to this organization." The reliability coefficient of the scale was .91.

Turnover Intentions were measured with three items tapping individual thoughts of and intentions to leave the organization (Hom & Griffeth, 1992). A sample item is, "I intend to leave the organization during the next 12 months." The reliability coefficient of the scale was .93.

Job Search was measured with six items assessing an employee's efforts to find alternative employment (Blau, 1993). Subjects were asked to indicate the frequency with which they carried out each behavioral item within the last six months. A sample item is, "Contacted an employment agency, executive search firm, or state employment service." The reliability coefficient of the scale was .92.

Results

Descriptive Statistics and Preliminary Analyses

Table 1 provides descriptive statistics, reliability coefficients, and correlation coefficients for all variables. Consistent with standards established by Lance, Butts, and Michels (2006) and

Nunnally (1978) our measures show strong internal reliability coefficients with alphas ranging from .85 to .96. Examination of the variance inflation factors (VIF) show that multicollinearity is not a concern with all VIFs below five (Myers, 1990; Vogt, 2007).

We also conducted a confirmatory factor analysis using the sample covariance matrix as input to LISREL 8.8 (Jöreskog and Sörbom 1996). As shown in Table 2, the fit of the proposed measurement model was good (χ^2 = 2633.78, p = .00; df = 1013; RMSEA = .07; NNFI = .97; CFI = .98; SRMR = .06) and significantly better than a one-factor model in which all items loaded on one factor (χ^2 = 8046.31, p = .00; df = 902; RMSEA = .18; NNFI = .89; CFI = .89; SRMR = .12; χ^2 difference test is significant at p < .005). All items in the proposed measurement model loaded highly as expected (.66 - .97) except for three negatively worded items in the change management history scale. Given the potential for confusion with negatively worded items (Spector, 1992; Barnette, 2000) and the relatively lower factor loadings, we omitted the three negatively worded items (retaining five items). The revised measurement model fit well (χ^2 = 2308.79, p = .00; df = 881; RMSEA = .06; NNFI = .98; CFI = .98; SRMR = .05), and the revised change management history scale continued to exhibit good reliability (α = .91). CFA results indicate that a method factor is not heavily influencing our findings.

Regression Analysis

To test Hypotheses 1 and 2, we used a bootstrapping method (Hayes & Preacher, 2014) that has been found to have higher power than the Sobel test or causal steps approach, while maintaining reasonable control over the Type I error rate. It is also preferred because it reduces the number of tests needed, avoids making the unwarranted assumption of normality of the sampling distribution of the relative indirect effect, and a growing body of evidence indicates that it performs well (Biesanz, Falk, & Savalei, 2010; Hayes & Scharkow, 2013). Relative

indirect effects were calculated using estimated coefficients obtained by repeatedly sampling (using 10,000 bootstrap samples) from our original population of 763 and estimating the indirect effect in each resampled data set. Bias-corrected and accelerated intervals were calculated to avoid issues with power that may arise when forced symmetry is imposed on ordinary confidence intervals and estimation inaccuracies associated with Type I errors (only the bias-corrected and accelerated intervals are shown in Table 3).

First, quality of change communication, procedural fairness in restructuring, change management history, and anxiety about change (X_1, X_2, X_3, & X_4) were regressed onto threat appraisal (M). As shown in Table 3, quality of change communication and procedural fairness in restructuring are negatively related to threat appraisal (-.22, $p < .01$; -.34, $p < .01$), thus supporting Hypotheses 1a and 1b. While change management history is not related to threat appraisal (.00, ns), anxiety about change is positively related to threat appraisal (.22, $p < .01$). Therefore, Hypothesis 1c is not supported and Hypothesis 1d is supported. With the exception of change management history (Hypothesis 1c), our results indicate support for Hypothesis 1.

Second, turnover intentions (Y) were regressed onto threat appraisal, quality of change communication, procedural fairness in restructuring, change management history, and anxiety about change. Job search was used as control variable because it has been shown to account for a significant amount of variation in voluntary turnover (Blau, 1993). Table 3 summarizes the regression results. As hypothesized, threat appraisal is significantly and positively related to turnover intentions (.21, $p < .05$). Thus, Hypothesis 2a is supported.

Third, to test for mediation (Hypotheses 2b-e), we assessed direct and indirect effects of our change variables on turnover intentions as well as bias-corrected and accelerated intervals (seen in Table 3). A significant indirect effect is present when the 95% confidence interval does

not straddle zero. Based on the 10,000 bootstrap resample, the indirect effect of quality of change communication on turnover intentions through threat appraisal is negative and significant (-.05; BCa 95% CI = -.08, -.02), and the direct effect of quality of change communication on turnover intentions is not significant (.02, *ns*). In support of Hypothesis 2b, these results indicate that threat appraisal fully mediated the link between quality of change communication and turnover intentions.

Again, based on the 10,000 bootstrap resample, the indirect effect of procedural fairness in restructuring on turnover intentions through threat appraisal is negative and significant (-.07; BCa 95% CI = -.12, -.04), and the direct effect of procedural fairness in restructuring is not significant (-.11, *p* < .05). In support of Hypothesis 2c, these results indicate that threat appraisal partially mediated the link between procedural fairness in restructuring and turnover intentions. On the other hand, the indirect effect of change management history on turnover intentions through threat appraisal is not significant (-.00; BCa 95% CI = -.03, .03) while the direct effect is significant (-.10, *p* < .05). Contrary to Hypothesis 2d, threat appraisal does not mediate the link between change management history and turnover intentions.

Finally, the indirect effect of anxiety about change on turnover intentions through threat appraisal is positive and significant (.05; BCa 95% CI = .03=, .08), and the direct effect of anxiety about change on turnover intentions remained significant (-.09, *p* < .01). In support of Hypothesis 2e, these results indicated that threat appraisal partially mediated the link between anxiety about change and turnover intentions. Therefore, we have partial support for Hypothesis 2.

In line with Cohen and Cohen (1983), we tested Hypothesis 3 with moderated regression analysis. Hypotheses 3a-d propose that job embeddedness will moderate the relationships of

quality of change communication, procedural fairness in restructuring, change management history, and anxiety about change with threat appraisal such that the relationships will be weaker when job embeddedness is high. As seen in table 4 (see also figure 1), the interaction term for quality of change communication and job embeddedness is significant (.18, $p < .05$). Additionally, the interaction term for procedural fairness in restructuring and job embeddedness is significant (-.72; $p < .01$; see figure 2). The results are in line with Hypotheses 3a and 3b.

Discussion

Our intent in this study was to investigate manageable levers of withdrawal that would shed light on why individuals facing the same environmental conditions respond quite differently. Results indicate that employee reactions to change-related shocks can be predicted by quality of change communication, procedural fairness in restructuring, and anxiety about change. Further, job embeddedness moderated the relationships of quality of change communication and procedural fairness in restructuring with threat appraisal. These findings highlight the importance of change processes and contextual factors in relation to withdrawal.

Theoretical and Practical Implications

Utilizing cognitive appraisal theory allowed us to provide a novel perspective as to how and when shocks lead to turnover intentions, further increasing the utility of the unfolding model of turnover. In addition, we add to the relatively sparse literature that explores the relationship between threat appraisal and turnover intentions (e.g., Fugate et al., 2012; Michela & Vena, 2012); offer a more thorough theoretical explication identifying threat appraisal as a key mechanism linking change-related shocks with turnover intentions; and offer an empirical test that identifies an important contextual moderator that helped explain when elements of change are seen as more or less threatening.

More specifically, we extend the unfolding model by describing how and why individuals experiencing the same shock may respond in different ways. In particular, employees were more likely to appraise a shock as threatening when it was accompanied by poor change communication, unfair decision making processes affecting restructuring, and elevated levels of anxiety relating to the change. Although we expected change management history to affect threat appraisal, results indicated no relationship. While this was surprising, it may be that change history affects different mechanisms of withdrawal. For instance, Devos, Buelens and Bouckenooghe (2007) found that participants having a combination of poor change history and low trust also tended to have lower openness to change. Moreover, Rafferty and Restubog (2010) found the relationship between change history and turnover intentions to be mediated by affective commitment to change. This is an interesting area that would benefit from future research.

In addition to considering a broader set of antecedents to threat appraisals, we considered a key moderator, job embeddedness, that helped to explain under what conditions employees would consider a shock as threatening. Job embeddedness moderated the relationships of quality of change communication and procedural fairness in restructuring with threat appraisal. Our results show that the effects of high quality change communication and fair procedures are magnified when individuals are more embedded. We believe this is due, in part, to more embedded individuals having access to social capital and other resources that engender greater confidence in the veracity of organizational information and knowledge of how procedures are affecting others within their network. It appears that embeddedness is less relevant to one's prior experience with change management and for responding to anxiety. Future research into these

processes, and associated moderating variables would shed additional insight into reactions to change-related shocks.

Furthermore, our examination of levers of threat appraisal that are amenable to manipulation or change by management provides insight into strategies that are likely to inhibit unwanted intentions and behaviors related to withdrawal. Specifically, organizations can influence threat appraisals and thus withdrawal by: (1) offering timely, accurate, and useful change information; (2) involving employees in restructuring decisions, using transparent procedures, and being empathetic to employees' concerns; and (3) abating anxiety through encouragement, and helping employees to integrate and identify with the newly formed organization. Combined, these insights emphasize the importance of focusing on the human side of M&As and suggest that threat appraisal is a key mechanism underlying employee reactions to organizational shocks.

Limitations and Future Research Directions

Several limitations to our study should be considered. First, we relied exclusively on the use of self-report measures, which raises concerns related to common method variance. Some correlation coefficients were not statistically significant or exceeding a baseline level recommended by Spector (2006), and CFA results suggest a method factor is not heavily influencing the results. Also, the significant interaction effects are not subject to the same common method concerns. However, future research collecting data from multiple sources would be valuable. A second limitation is our use of cross-sectional data, which prohibits causal inference, and also limits our ability to assess how individuals deal with change over time. Although implicit in our research design, conclusions made about causality were predominantly based on associating empirical evidence with extant theorizing, and we are unable to

conclusively test the causal ordering of our variables. Future research would benefit from longitudinal data that allows for analysis of these variables over time.

Third, our data was collected four months after the initial changes had begun. Although this is in line with similar research (Amiot, Terry, & Callen, 2007), it is likely that change communication would be more developed than initial communications. Therefore, future research would benefit from data that is collected earlier in the change process.

Fourth, the use of turnover intentions rather than actual turnover has historically been viewed as a potential limitation. Although the value of turnover information is unequivocal, turnover intentions are appropriate in this setting because they provide important information about employee reactions to change while intervention is still feasible. It also excludes many of the confounding variables involved in translating intentions to behavior. Still, future research that examines the extent to which threat appraisals lead to turnover behavior would be a useful extension of our work.

Fifth, we considered a limited numbers of variables affecting withdrawal. Other change mechanisms should be considered that may contribute to threat appraisal and inform our insignificant findings on threat appraisal. We responded to a call by Fugate et al. (2012) to explore not only other "contextually relevant antecedents but those that are also malleable and statelike," and are hopeful that others will do the same. We also considered two potential moderators when there are other variables that could play similar buffering roles (e.g., supervisor support; organizational climate).

Last, in a review of employee turnover, Hom, Mitchell, Lee, & Griffeth (2012) identified two types of stayers (reluctant & enthusiastic). Reluctant stayers – those who remain because they feel they cannot leave, despite wanting to exit – and enthusiastic stayers – those who stay

because they want to, although they have the ability to leave (Hom, Mitchell, Lee, & Griffeth, 2012). Although we expect that highly embedded employees are more likely to be enthusiastic stayers because of their abundant resources, it is possible that highly embedded employees can be reluctant stayers. Therefore, it may be worth investigating the extent to which potentially threatening events affect each type of embedded employee differently and if different types of embeddedness are likely to predict whether an employee will be a reluctant or enthusiastic stayer.

Conclusion

The results of this study further explicate why some employees facing the same shock will be likely to stay, and others will be likely to go. The unfolding model of turnover portrays withdrawal as a multifaceted process involving assessment of an individual's work environment, personal situation, and feelings. This process ultimately leads to a decision about turnover, but it has not been clear how managers can affect this outcome. We found quality of change communication, procedural fairness in restructuring, and anxiety about change to be important antecedents of threat appraisal that influence the decision process. Job embeddedness moderated several of these relationships and shed light on practical strategies for mitigating undesirable affective and physiological responses to shocks. We look forward to research that will provide further insight into this important, and under-examined, aspect of organizational change.

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Tables and Figures

Table 1. Means, Standard Deviations, and Intercorrelations

Variable	M	SD	1	2	3	4	5	6	7	8
1. Change Management History	3.39	1.27	0.85							
2. Quality of Change Communication	3.23	1.73	.56**	0.94						
3. Anxiety about Change	5.4	1.65	-.24**	-.24**	0.87					
4. Procedural Fairness in Restructuring	3.14	1.49	.58**	.70**	-.17**	0.96				
5. Threat Appraisal	4.74	1.54	-.42** -	-.52** -	.35**	-.55** -	0.89			
6. Turnover Intentions	2.51	1.19	.34**	.35**	.05	.43**	.45**	0.93		
7. Global Job Embeddedness	3.78	1.66	.29** -	.28** -	-.04	.43** -	-.25**	-.57**	0.91	
8. Job Search	1.73	0.89	.23**	.25**	.09*	.33**	.31**	.57**	-.39**	0.92

Note . Listwise N = 763; ** significant at the .01 level; * significant at the .05 level; reliability estimates listed on the diagonal.

Table 2. Results of a Confirmatory Factor Analysis Including all Study Variables

	x^2	df	RMSEA	NNFI	CFI	SRMR
One-factor model	8046.31	902	.18	.89	.89	.12
Eight-factor model	2308.79	881	.06	.98	.98	.05

Note. All chi-square values are statistically significant at p = .00; df = degrees of freedom; RMSEA = root mean square error of approximation; NNFI = non-normed fit index; CFI = comparative fit index; SRMR = standardized root mean square residual.

Table 3. Mediation Model

Direct and Indirect Effects of Change Variables on Turnover Intentions Through Threat Appraisal

Predictor Variables	Threat Appraisal	Turnover Intentions			BCa 95% CI	
	(a)	(b)	(c')	(ab)	Lower	Upper
Independent variable						
Quality of Change Communication	-.22**		.02	-.05*	-.08	-.02
Procedural Fairness in Restructuring	-.34**		-.11*	-.07*	-.12	-.04
Change Management History	.00		-.10*	.00	-.03	.03
Anxiety about Change	.22**		-.09**	.05*	.03	.08
Intervening mechanisms						
Threat Appraisal		.21**				
Control Variable						
Job Search			.53**			

Note: DV=Embeddedness; 10,000 bootstrap samples;**p < .01, *p < .05; (c') direct effect; (ab) indirect effect; control variable included job search. Total Effects Model Summary (R = .62; R^2 = .39; F = 51.94); Indirect Effects Model Summary (R = .66; R^2 = .43; F = 51.42).

Table 4. Interaction Effects of Job Embeddedness and Change Variables on Threat Appraisal

	Job Embeddedness	
Predictor	β	Std. Error
Quality of Change Communication	-.23**	.05
Procedural Fairness in Restructuring	-.32**	.06
Change Management History	-.03	.06
Anxiety about Change	.27**	.04
Job Embeddedness	-.04	.04
Interaction Term		
Quality of Change Communication x JE	.18*	.03
Procedural Fairness in Restructuring x JE	-.72**	.04
Change Management History x JE	.18	.04
Anxiety about Change x JE	.09	.02

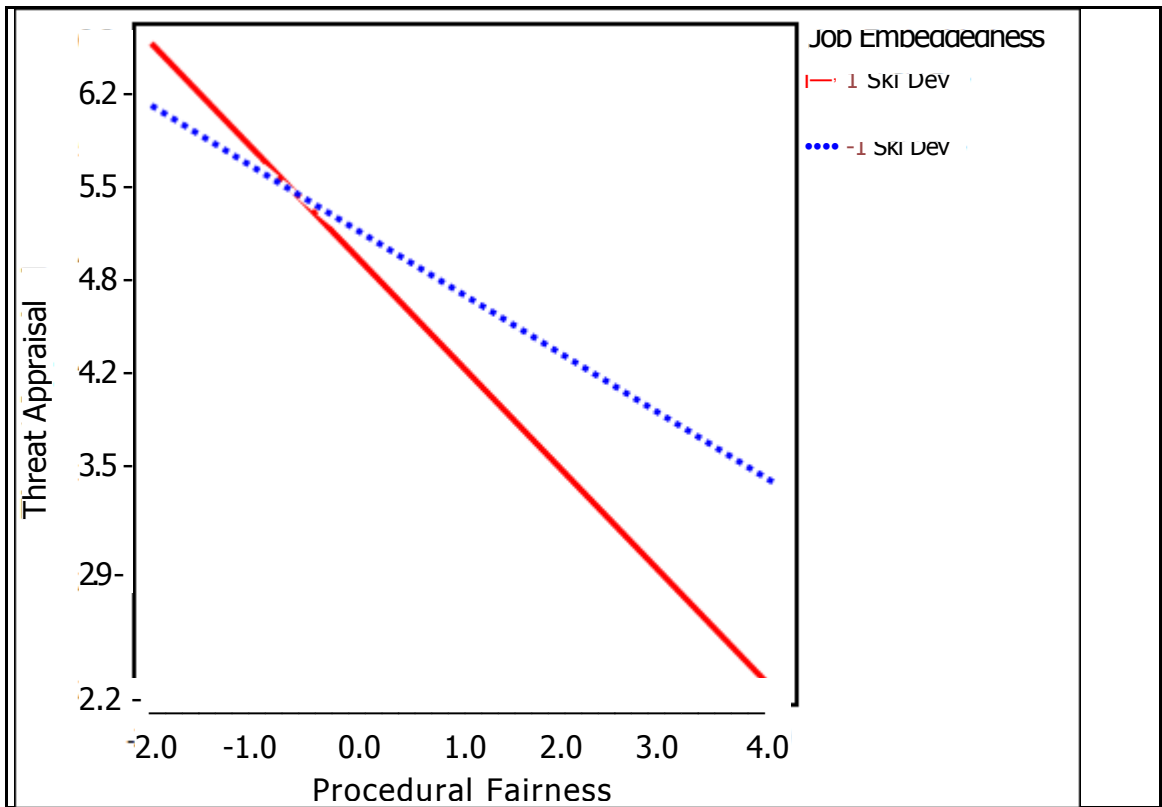*Note.* DV = Threat appraisal; **$p < .01$, *$p < .05$

Figure 1: Interaction Plot of Job Embeddedness and Procedural Fairness in Restructuring
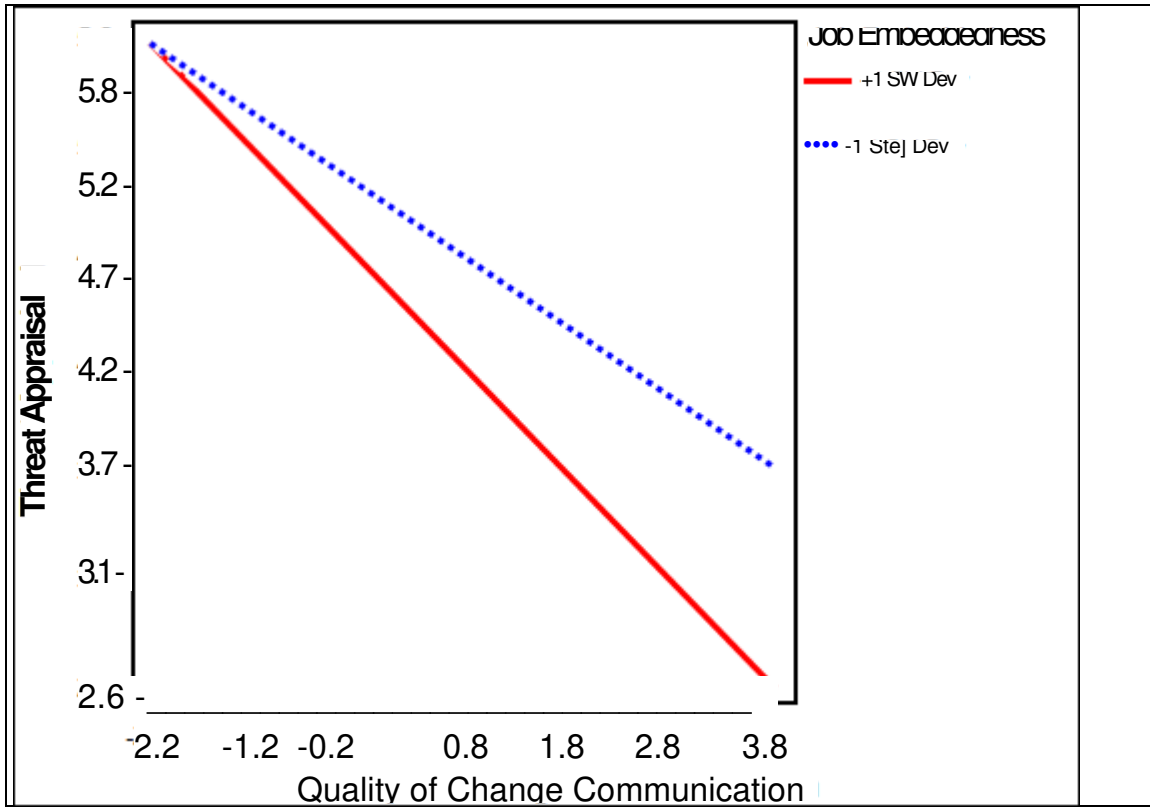
Figure 2: Interaction Plot of Job Embeddedness and Quality of Change Communication

Appendix

Confirmatory Factor Analysis Results

Scale Items	Standardized Loadings
Anxiety About Change (strongly disagree = 1 to strongly agree = 7)	
I feel anxious about possible changes that might occur at my organization.	.77
I worry about work-related issues.	.87
I am highly concerned about the changes at work these days.	.87
Change Management History (strongly disagree = 1 to strongly agree = 7)	
In my experience:	
organizational change has been positive.	.85
organizational change has been managed well.	.87
organizational change has had a positive impact on the quality of service delivery.	.83
organizational change has improved organizational performance and effectiveness.	.84
the impact of change on employee well-being was an important consideration.	.72
Job Embeddedness (strongly disagree = 1 to strongly agree = 7)	
I feel attached to the organization.	.78
It would be difficult for me to leave this organization.	.87
I'm too caught up in this organization to leave.	.84
I feel tied to this organization.	.72
I simply could not leave the organization that I work for.	.77
It would be easy for me to leave this organization (R)	.71
I am tightly connected to this organization.	.83
Procedural Fairness in Restructuring (strongly disagree = 1 to strongly agree = 7)	
When decisions are made about job reductions and reassignments, management treats me with kindness and respect.	.80
Management makes sure that all employee concerns are heard before job changes and elimination decisions are made.	.82
When making decisions about job changes and eliminations, management offers explanations that make sense to me.	.84
When decisions are made about my job, management is sensitive to my personal needs.	.84
To make restructuring decisions, management collects all the necessary information.	.79
Management explains very clearly all decisions made about restructuring.	.85

Procedural Fairness in Restructuring (Cont'd)

When decisions are made about job changes and eliminations, my manger and others in management treat me with respect and dignity. .8

When decisions are made about restructuring, management deals with me in a truthful manner.	.80
Management clarifies decisions and provides additional information when requested by employees.	.86
When decisions are made about job changes and eliminations, management shows concern for my rights as an employee.	.87
All job decisions are applied consistently across all affected employees.	.71
Employees are allowed to challenge or appeal job decisions made by management.	.66
People at my job level have adequate input into the restructuring decision process.	.73
Procedures are in place to provide employees with timely information about restructuring.	.71

Quality of Change Communication (strongly disagree = 1 to strongly agree = 7)

The official information I have received about the changes at my organization:

has been useful.	.90
has adequately answered my questions about the changes.	.91
has been communicated appropriately.	.91
has been timely.	.86
has been accurate.	.82

Threat Appraisal (not at all threatened = 1 to threatened to a great extent = 5)

Due to the changes, to what extent do you feel that each of the following is threatened (a possibility that it will get worse in the future)?

Your job security?	.75
Relationships with your coworkers.	.66
Relations with your supervisor.	.71

Threat Appraisal (Cont'd)

Desirability of your job (i.e., aspects you like).	.82
Personal job opportunities within your organization.	.75
Your pay and benefits.	.74
Your general working conditions.	.82

Turnover Intentions

What are the chances that you will leave the organization during the next 12 months? (no chance, 25%, 50%, 75%, 100%)	.93
I intend to leave my organization during the next 12 months. (definitely not, probably not, uncertain, probably yes, definitely yes)	.97
I intend to quit my present job. (definitely not, probably not, uncertain, probably yes, definitely yes)	.82

Fit Statistics. X^2 = 2308.79, p = .00; df = 881; RMSEA = .06; NNFI = .98; CFI = .98; SRMR = .05