The Impact of Change Process and Context on Change Reactions and Turnover During a Merger[†]

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The authors examined relationships among two measures of the change process adopted by a firm and a measure of the change context and employees' reactions to a merger. A longitudinal study was conducted. An employee's perception that he or she had a poor change history was negatively associated with affective commitment to change. As the number of formal change information sessions attended increased, anxiety decreased. High quality change information was negatively associated with anxiety and positively related to affective commitment to change. Affective commitment was positively associated with job satisfaction and negatively associated with turnover intentions, which were positively associated with voluntary turnover.

Keywords: *change process; change context; reactions to change; voluntary employee turnover; organizational merger*

Mergers and acquisitions are large-scale changes that engender considerable disruption and result in a number of negative consequences for employees and organizations (Amiot, Terry, Jimmieson, & Callan, 2006; Astrachan, 2004; Cartwright, 2008; Fugate, Kinicki, & Scheck, 2002). For instance, mergers have been associated with increased employee job

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insecurity and uncertainty (Schweiger & DeNisi, 1991), separation anxiety (Astrachan, 2004), and feelings of threat and reduced control (Burlew, Pederson, & Bradley, 1994; Schweiger & DeNisi, 1991). Although a number of studies have examined mergers (e.g., Fugate et al., 2002), Seo and Hill (2005) characterized research in the area as fragmented and fairly limited. In this article, we study an organization undergoing a horizontal merger, where two organizations in direct competition merge. Our focus is on the smaller, low-status merger partner as employees in this organization are likely to experience decreased adjustment to the merger over time and to react more negatively to change than employees working for the high-status merger partner (e.g., Amiot et al., 2006; Terry, Carey, & Callan, 2001).

This study addresses the call for more research examining the role of the processes used when implementing change and the context in which change is conducted, as antecedents of employee and organizational outcomes (e.g., Pettigrew, Woodman, & Cameron, 2001). Change processes refer to the specific methods used to implement organizational change. In this study, we assess the role of change communication because this was the primary change process adopted by the organization when implementing the merger. We assess both the formal and the informal communication processes occurring in the firm. Specifically, we assess the formal change communication process using an archival measure of the number of formal change information sessions attended by employees. We assess the informal change communication processes occurring in the organization using employees' perceptions regarding the quality of change information they received about the merger. Our dual focus on formal and informal communication processes enables us to triangulate our findings regarding the role and outcomes of change communication. Triangulation involves using multiple methods to analyze a theoretical question (Campbell & Fiske, 1959). As noted by Jick (1979), the use of multiple measures may uncover unique variance that would otherwise have been neglected by a single method.

We also examine the role of the internal change context as an influence on employees' reactions to the merger. An organization's context refers to the "situational opportunities and constraints that affect the occurrence and meaning of organizational behavior" (Johns, 2006, p. 386). We identify an employee's perception of his or her individual change history in an organization as an important aspect of a firm's internal change context. Pettigrew et al. (2001) note that history matters when studying change, arguing that history is "not just events and chronology, it is (also) carried forward in the human consciousness. The past is alive in the present and may be shaping the emerging future" (p. 700).

Our study makes three important contributions to the organizational change literature. First, we contrast the influence of formal and informal change communication processes on employee reactions to change. Despite the prevalence of formal or programmatic change communication efforts, researchers have not systematically studied the influence of these two processes on employee and organizational outcomes during change (Lewis, 2000; Russ, 2008). Second, although researchers have recently discussed the theoretical importance of the context of change (e.g., Herold, Fedor, & Caldwell, 2007; Holt, Armenakis, Feild, & Harris, 2007; Pettigrew et al., 2001), empirical attention has predominantly focused on change processes. The relative lack of interest in the role of the change context is surprising as the identification of contextual factors that influence employees' responses to large-scale changes represents a significant opportunity to more effectively manage change. We address the lack of research

Figure 1
A Model of the Impact of Change History and Process During a Merger
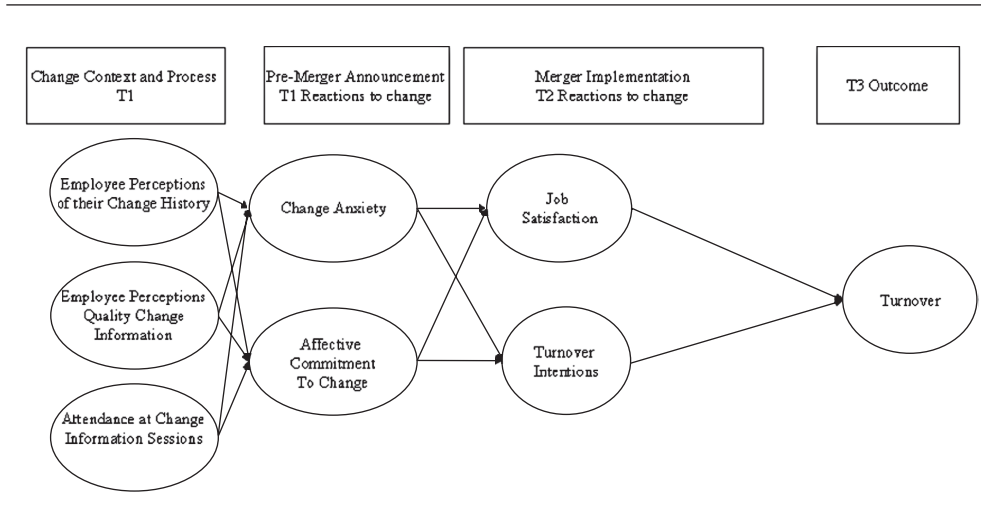
on the internal change context, examining relationships between employees' perceptions of their individual change history in the organization and reactions to a merger over time.

Finally, we answer the call for research that adopts a more sophisticated approach when exploring the factors that shape employee responses to change (Caldwell, Herold, & Fedor, 2004; Devos, Buelens, & Bouckenooghe, 2007; Herold et al., 2007). Our proposed model seeks to understand the long-term impact of change process *and* context on employees' reactions to a merger, and ultimately, on employees' likelihood of exiting the organization (see Figure 1). The proposed model is an indirect effects model that argues that change process and context influence employees' initial reactions to change (anxiety about change and affective commitment to change), which influence employee attitudes when the merger is actually implemented (job satisfaction and intentions to leave the organization), and ultimately, voluntary employee turnover. Below, we discuss the distinction between the process and context of change.

Change Process and Context

Armenakis and Bedeian (1999) distinguished three aspects of change—the content, process, and context of change—as potential influences on employee responses to change. In this study, we focus on change process and context. Change processes refer to the specific methods used to implement organizational change (Self, Armenakis, & Schraeder, 2007). A number of change processes have been discussed, including communication (e.g., Bordia, Hunt, Paulsen, Tourish, & DiFonzo, 2004; Jimmieson, Terry, & Callan, 2004; V. D. Miller, Johnson, & Grau, 1994; Schweiger & DeNisi, 1991), participation (e.g., Armenakis, Harris, & Feild, 1999; Caldwell et al., 2004), justice (e.g., Caldwell et al., 2004;

Gopinath & Becker, 2000; Korsgaard, Sapienza, & Schweiger, 2002; Mishra & Spreitzer, 1998), and the provision of resources to implement change (Caldwell et al., 2004). One of the most common recommendations arising from this literature involves providing employees with timely and accurate information about change (e.g., Jimmieson et al., 2004; Lewis, 2000; Wanberg & Banas, 2000).

In contrast, the context in which change is enacted has received considerably less systematic attention (Pettigrew et al., 2001). Johns (2006) defined context as the "situational opportunities and constraints that affect the occurrence and meaning of organizational behavior as well as functional relationships between variables" (p. 386). Self et al. (2007) defined context as "the existing external and internal conditions that have been shown to influence organizational effectiveness" (p. 214). We identify an individual's perception of his or her change history in an organization as a key aspect of the internal change context that is likely to influence employee reactions to a merger. In the next section, we discuss the organization's change process and change context in more detail.

Change Process: Communication About Change

Many change management interventions are based on the belief that communicating with employees about change will promote cooperation and reduce resistance to change (e.g., V. D. Miller et al., 1994), while also minimizing anxiety and uncertainty about change (e.g., Jimmieson et al., 2004; Marks & Mirvis, 1985; Nelson, Cooper, & Jackson, 1995; Paulsen et al., 2005; Rafferty & Griffin, 2006). Researchers have distinguished between formal or programmatic communication efforts and informal change communication processes (Lewis, 2000; Russ, 2008). Programmatic approaches involve formal activities that transmit top-down information designed to generate employee compliance and to stimulate positive attitudes about change (Russ, 2008). Such communication efforts emphasize the downward transmission of information about new policies and procedures, knowledge or facts about the change process, and directives about how change is to be implemented. These communication approaches are highly centralized, controlled, and prescribed. Examples of such activities include general information meetings, memos, and newsletters (Russ, 2008).

Lewis (2000) reported that change implementers reported a preference for using general information meetings and small group meetings when implementing planned changes. In contrast, however, other research reveals that considerable informal communication occurs within organizations and such communications are particularly prevalent during periods of change (e.g., Bordia, Jones, Gallois, Callan, & DiFonzo, 2006). We define 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. Below, we discuss the formal and informal change communication processes that occurred in the organization under study in more detail.

Formal change communication. Despite the prevalence of formal communication approaches when implementing change, comparatively little research has examined the influence of these approaches on outcomes (Lewis, 2000, 2006; Russ, 2008). One exception is the work of Schweiger and DeNisi (1991), who examined a formal communication

program called a realistic merger preview. This preview provided employees in an experimental group with a letter from the chief executive officer, and specific information about how the merger would affect them immediately after that information became available. Employees in the control group did not receive any formal communications concerning the merger apart from the letter from the chief executive officer. The results of this study revealed that participants in the experimental group reported lower perceived uncertainty than those in the control group. Findings also suggested that attitudinal problems arising from the merger continued to develop in the control group. In contrast, attitudes stabilized in the experimental group as soon as the realistic preview was introduced. Over time, attitudes in the experimental group began to approach premerger levels.

The primary change process used by the organization in the present study involved the delivery of two formal change communication sessions, which took approximately two hours each. Information sessions involved a discussion of the planned merger, and the stated purpose of the sessions was to provide timely and accurate information regarding the merger and an opportunity for employees to ask questions about the merger. We examine relationships among the number of change information sessions attended by employees and their responses to change.

Informal change communication. Informal change communication processes have been studied by a number of researchers (e.g., DiFonzo & Bordia, 1998; Fairhurst, 1993). However, to date, authors have focused on informal communications such as routine work conversations between employees and leaders (Fairhurst, 1993), and the rumors that accompany change efforts (Bordia et al., 2006). In this study, we also identify the informal attempts by mid-level organizational leaders to communicate with employees about change as an important source of informal information. Interest in informal change communication processes in organizations reflects the increasing attention directed to the notion that people are not just passive recipients of change but also play an active role in creating and reacting to change (Weick, 1995). Social information processing theory (Salancik & Pfeffer, 1978) suggests that individuals' immediate social environment—including coworkers and leaders—provides cues that are used by people to construct and interpret events. For example, by commenting on certain aspects of the environment, by talking frequently about certain issues such as organizational change events, coworkers and leaders convey messages to individuals as to what to consider in the work setting.

In the organization under study, the directors of each department were asked to provide a very broad overview of the merger and its purpose to their employees during departmental meetings that occurred prior to the formal information sessions. However, no specific instructions were provided to directors as to what was to be said in these meetings. In addition, no detailed information about the merger was available at this time. As such, it is likely that employees in different work areas received different quality information from these informal meetings, which would have prompted rumors and discussion across the organization. We suggest that these informal communication efforts from the heads of the departments were an important source of information about change in the organization. We examine relationships between employees' perceptions of the quality of change information provided by the organization, which is likely to be influenced by both formal and informal communication processes and employee responses to the merger.

The Internal Change Context: Change History

With the exception of studies examining change cynicism (Reichers, Wanous, & Austin, 1997; Wanous, Reichers, & Austin, 2000), almost no research has systematically explored the influence of an individual's perception of his or her change history in an organization on reactions to change. Theorists have argued that cynicism emerges in response to a history of change attempts that are not entirely or clearly successful (Wanous et al., 2000). For example, Devos et al. (2007) drew on social learning theory (Bandura, 1977) to argue that past experiences cause people to develop expectations about their ability to perform a previously untried task prior to performing a task. In an experimental study, Devos et al. (2007) found that participants in the low trust and poor history of change condition reported significantly lower openness to change than individuals in any of the other conditions.

Karniol and Ross (1996) argue that how people think about the past has important motivational consequences for the present. For instance, these authors suggest that individuals often react to the present as if they were reliving the past. The past can come to mind uninvited, color the present, and push individuals into action (Karniol & Ross, 1996). We draw on Isabella's (1990) model of the sense-making process that accompanies change efforts when developing hypotheses about the role of an individual's perception of their change history in an organization. Isabella's model suggests that an individual's perception of their change history is an important mechanism by which employees come to understand current change events.

In a sample of managers undergoing a large-scale change, Isabella (1990) found that employees' interpretation of change events is standardized through discussion with colleagues. Individuals draw on conventional explanations and references to similar events in the past to understand current changes. It is in this stage of change that people compare the current change to past changes that they have experienced and arrive at a conclusion as to whether a current change is similar to or different from other historical changes in the organization. We argue that an individual's perception that he or she has a poor (or positive) history of change experiences in an organization will have an influence on his or her expectations regarding the proposed merger. In particular, we argue that individuals who perceive that they have a poor change history in an organization—as reflected in having experienced poorly managed change in their current firm—will be more likely to expect that current changes will be unsuccessful and will be poorly managed. In the next section, we examine the outcome variables in our proposed model.

Affective Commitment to Change and Anxiety About Change

We argue that affective commitment to change and anxiety about change are important initial responses to the merger announcement that will influence employees' long-term reactions to the change process. Herscovitch and Meyer (2002) define affective commitment to change as "a desire to provide support for a change based on a belief in its inherent benefits" (p. 475). This type of commitment is one of the most important factors involved in

developing employee support for change initiatives (Armenakis et al., 1999; Bernerth, Armenakis, Feild, & Walker, 2007; Cunningham, 2006; Fedor, Caldwell, & Herold, 2006; Meyer, Srinivas, Lal, & Topolnytsky, 2007). Indeed, affective commitment to change has been found to be positively associated with cooperation and championing of change efforts (Herscovitch & Meyer, 2002; Meyer et al., 2007) and has implications for employees' reactions throughout the change process (Armstrong-Stassen, 2004).

Lazarus and Folkman's (1984) transactional model of stress and coping proposes that individuals go through a cognitive–emotional process in which they attempt to make sense of a change, struggle with their emotional reactions to change, and cope with change. Anxiety is a common reaction to change, with research suggesting that employees frequently report intense negative emotions such as anger, frustration, and anxiety when confronted with organizational change events (Fugate, Kinicki, & Prussia, 2008; Huy, 1999, 2001; Liu & Perrewe, 2005). Anxiety involves low pleasure and high mental arousal (Axtell et al., 2002).

In summary, based on theory and previous empirical research, we propose that attendance at formal change information sessions, an employee's perceptions that he or she has received high-quality change information, and an employee's perceptions that he or she has a poor individual change history in an organization will be associated with anxiety about change and affective commitment to change when the merger is announced. Specifically, it is hypothesized as follows:

Hypothesis 1a: There will be a significant negative relationship between attendance at change information sessions and anxiety about change when the merger is announced.

Hypothesis 1b: There will be a significant positive relationship between attendance at change information sessions and affective commitment to change when the merger is announced.

Hypothesis 2a: There will be a significant negative relationship between an individual's perception that he or she has received high-quality change communication and anxiety about change when the merger is announced.

Hypothesis 2b: There will be a significant positive relationship between an individual's perception that he or she has received high-quality change communication and affective commitment to change when the merger is announced.

Hypothesis 3a: An individual's perception that he or she has a poor change management history in the organization will be positively associated with anxiety about the current change when the merger is announced.

Hypothesis 3b: An individual's perception that he or she has a poor change management history in the organization will be significantly negatively associated with affective commitment to the current change when the merger is announced.

Job Satisfaction, Intentions to Turnover, and Voluntary Turnover

Both job satisfaction and turnover intentions are important indicators of employees' adjustment to organizational change (e.g., Amiot et al., 2006; Rafferty & Griffin, 2006). Job satisfaction is generally understood as "the pleasurable emotional state resulting from the

appraisal of one's job as achieving or facilitating the achievement of one's job values" (Locke, 1969, p. 316). Considerable research suggests that large-scale changes are negatively associated with job satisfaction (e.g., Amiot et al., 2006; Rafferty & Griffin, 2006; Schweiger & Ivancevich, 1985) and positively related to intentions to leave an organization (e.g., Rafferty & Griffin, 2006; Schweiger & DeNisi, 1991). For example, Rafferty and Griffin found that there was a positive relationship between employee perceptions that transformational change had occurred and intentions to leave an organization.

We propose that employees' initial reactions to the merger—their anxiety about change and affective commitment to change—will be associated with job satisfaction and turnover intentions when the merger is being implemented. The notion that initial reactions to change influence subsequent reactions to change has received some empirical support (e.g., Armstrong-Stassen, 2004; Fugate et al., 2008; Kiefer, 2005). In a longitudinal study of a merger, Kiefer (2005) found that emotions such as anxiety, anger, and frustration displayed positive relationships with employee withdrawal at a later date in the change process. Armstrong-Stassen (2004) reported that employees' prior type of organizational commitment was important in determining how they responded to a downsizing effort. Employees who had high levels of affective commitment in the past were more likely to use control-oriented coping strategies and report higher job satisfaction during the change than those who reported lower affective commitment in the past.

In summary, we propose that the anxiety about change and affective commitment to change when the merger is announced will influence reactions to change when the merger is being implemented. Thus, it is predicted as follows:

Hypothesis 4a: Anxiety about change when the merger is announced will be negatively associated with job satisfaction and positively associated with turnover intentions during merger implementation.

Hypothesis 4b: Affective commitment to change when the merger is announced will be positively associated with job satisfaction and will be negatively associated with turnover intentions during merger implementation.

We also contend that job satisfaction and intentions to turnover when the merger is being implemented will predict voluntary employee turnover when the merger has been stabilized. Mobley's intermediate linkages model of voluntary turnover, or variations on this model (e.g., Bluedorn, 1982; Griffeth, Hom, & Gaertner, 2000), identify a number of important antecedents of turnover, including satisfaction and turnover intentions. We propose that job satisfaction and turnover intentions at merger implementation will have an impact on voluntary employee turnover when the merger has been completed. Thus, the following hypotheses are proposed:

Hypothesis 5a: There will be a significant negative relationship between job satisfaction and voluntary turnover at merger stabilization.

Hypothesis 5b: There will be a significant positive relationship between turnover intentions and voluntary turnover at merger stabilization.

Method

Research Context

The research site was a property and development firm in the Philippines dedicated to the creation and development of communities for commercial and residential purposes. This organization offers an integrated range of services, including operations, property and construction management, and marketing. Like many organizations striving for competitive advantage, top management had engaged in a series of discussions to merge with a larger and more established organization. The survey process began when top management had just announced the merger to all employees. We focus on the smaller, low-status partner in the merger as research suggests that the negative effects of a merger are most marked for the low-status organization in a merger (e.g., Terry et al., 2001).

The Merger Process

In the organization under study, the first stage of the merger process involved a comprehensive review of the job description of personnel. However, employees were guaranteed that no jobs would be lost. A committee was formed consisting of senior human resource representatives from both merger partners and an external consultant, who headed the committee. The job review committee formed when the merger was announced (Time 1) although no actual changes to jobs occurred until seven months later (Time 2). The job review process involved determining how job roles in key areas in the organization mapped onto the needs of the larger organization.

In case of duplication of key responsibilities, the position title of employees in the smaller organization was modified. For example, because the accounting head of the smaller organization duplicated the duties and responsibilities of the senior accountant in the larger organization, the title "accounting head" was changed to "assistant to the senior accountant." Only the position titles were changed—employees retained their current salary and benefits. For those positions involving multiple duplications (e.g., customer reservation staff and sales representatives), employees were offered the opportunity to relocate to another division/ department that would require them to perform administration-related tasks. Specialist job roles such as recruitment and selection, psychometric testing, and training were collapsed into a more general job title called human resources assistants.

Participants and Procedure

Data were collected from the smaller merger partner at three points in time. The Time 1 (T1) survey was administered just as the merger was announced by top management. The Time 2 (T2) survey was administered seven months after the merger was announced, when changes to individuals' jobs were occurring. For both T1 and T2 data collection, reminder cards were sent a week after the first survey mail out. Another reminder card together with a copy of the employee survey was sent four weeks after the initial mail out (Dillman, 2000).

Finally, voluntary turnover data (Time 3; T3) were collected 15 months after the T2 surveys were administered.

At T1, 325 employees received a survey kit consisting of a self-report questionnaire and a letter outlining the goals of the study, voluntary participation, and an assurance of confidentiality. Of those individuals, 173 (53.2%) employees chose to participate in the initial survey. Employees who returned a survey at T1 worked in a broad range of roles, including administrative, clerical, and secretarial assistants; business development specialists and assistants; marketing specialists and assistants; accountants, accounting assistants, and book-keepers; training, recruitment, and human resource assistants; and sales representatives and assistants.

At T2, a follow-up survey was distributed to the T1 participants; 155 employees returned a survey (response rate 93.1%). Survey 2 was administered seven months after the first survey—when actual changes to job roles were being implemented. Fifteen months after Survey 2 was administered (T3), we obtained turnover data for the T2 participants. This resulted in a matched sample of 155 participants who completed both surveys and had turnover data at T3.

To assess sampling bias, we conducted a series of t tests comparing the demographic characteristics of those individuals who completed the two surveys with individuals who only returned one survey. There were no significant differences across any of the demographic characteristics, including age, $t(169) = .38$, ns; gender, $t(170) = -.66$, ns; tenure, $t(167) = .55$, ns; or employment status, $t(170) = -.93$, ns, between those participants who responded to both surveys and those people who responded only to Survey 1. Additional analyses were undertaken to examine whether there were significant differences for the T1 study variables between those participants who responded to both surveys and those who responded only to Survey 1. Univariate analysis suggests no significant differences in attendance in change management sessions, $t(171) = -.26$, ns; perceptions of poor change management history, $t(171) = -1.66$, ns; quality of change communication, $t(171) = 1.17$, ns; change anxiety, $t(171) = .79$, ns; or affective commitment to change, $t(171) = .60$, ns.

The final sample comprised 102 males and 52 females (one individual failed to report his or her gender). To protect the identity of the participants, age was assessed in terms of age range. Participants' ages were reported as follows: 20 to 29 years (28%), 30 to 39 years (41.6%), 40 to 49 years (23.9%), and older than 50 years old (5.6 %). Average organizational tenure was 4.1 years ($SD = 3.1$ years). The majority of the employees (58.4%) were permanent full-time employees or probationary full-time employees (29.8%). Eighteen individuals (11.2%) of the sample were employed on a part-time basis, whereas one individual (0.6%) did not respond to this question.

Measures

Questionnaires were prepared in English because this language is spoken by a vast majority of the Filipino population and is predominantly used in organizational contexts (Bernardo, 2004). The response format for all items, except the demographic variables, was a 7-point Likert-type scale (1 = *strongly disagree*; 7 = *strongly agree*). Items were coded so that a higher score indicated a greater amount of the focal construct.

Attendance at change information sessions. We collected archival data from the organization with respect to attendance at the formal change management information sessions. We collected data on the number of information sessions that employees attended, which could range from 0 to 2 sessions.

Employee Reactions at T1

In the T1 survey (Survey 1), we assessed demographic measures, including age (years), gender (*male* = 0; *female* = 1), and organizational tenure (years). In addition, we assessed employees' perceptions of the quality of change information and their individual change history in the organization, employee anxiety about change, and affective commitment to change.

Employee perceptions of the quality of change information. Information quality was assessed using five items that measured whether employees reported that they had been provided with timely information, whether information was appropriate, and whether information has been accurate (Bordia et al., 2004). This scale had a Cronbach's alpha of .93.

Employee perceptions of change history. We asked employees to respond to eight questions about their individual change history in the organization (Bordia, Restubog, Jimmieson, & Irmer, 2007). Three reverse-scored items were included in this scale. An example item is, "I feel that past organizational changes in this company have been managed well." Positively worded items were reverse scored so that a high score on this scale reflects a poor change history. The scale had a Cronbach's alpha of .79.

Change anxiety. Anxiety is an unpleasant emotional arousal resulting from stressful demands or threatening stimuli (Lazarus, 1991). We used K. I. Miller and Monge's (1985) 3-item measure. An example item includes, "I am anxious about the changes at work these days." The reliability of the measure was .72.

Affective commitment to change. Affective commitment to change was measured with six items (Herscovitch & Meyer, 2002). An example item is, "I believe in the value of this change." This scale yielded a reliability coefficient of .90.

Employee Reactions at T2

Seven months after the T1 survey, we administered a second survey, which assessed job satisfaction and turnover intentions.

Job satisfaction. Job satisfaction was measured with two items developed by Cammann et al. (1983). An example item is, "All in all, I am satisfied with my job." This scale had a coefficient alpha of .82.

Turnover intentions. Turnover intentions were assessed with a 3-item scale (Fried & Tiegs, 1993; Hom, Griffeth, & Sellaro, 1984). An example item is, "I often seriously think about resigning from my job." For this study, the reliability coefficient of the scale was .90.

T3 Measure

Fifteen months after the second survey was administered, we collected information regarding voluntary employee turnover.

Voluntary employee turnover. To protect the participants' anonymity, an independent person matched the information from the organizational records with the survey responses using control numbers. Neither the organizational representatives nor the researchers had access to both pieces of information. Employees who were still with the organization at T3 received a score of 0 ("stayers"), whereas people who have voluntarily left the organization as reported by the human resource manager at T3 received a value of 1 ("leavers") on this measure. At T3, 29 people (18%) who were initially employed by the small-property firm had voluntarily left the merged company. The base rate of voluntary turnover in the small-property organization in the preceding year was 10% and in the year before this was 8.5%.

Results

Descriptive Statistics

Table 1 displays the means, standard deviations, and zero-order correlations among the variables. There was a significant positive relationship between gender and employee perceptions of his or her change history in the organization ($r = .19$, $p < .05$) and a significant negative relationship between gender and employee perceptions of the quality of change information ($r = -.24$, $p < .01$). That is, female employees reported a poorer change management history in the company and also reported that they received lower-quality change information than did male employees. Age was not significantly associated with any of the study variables. We included gender and age as controls in all analyses.

Overview

We conducted a two-step procedure when estimating relationships among the study constructs (Anderson & Gerbing, 1988). First, we estimated a series of nested measurement models where we specified the relations of the observed measures to their posited underlying constructs, with the constructs allowed to intercorrelate freely. We estimated a series of nested structural models to test the study hypotheses. The fit of the nested models was assessed using both absolute and incremental fit indexes. An absolute fit index assesses how well an a priori model reproduces the sample data. We focus on two absolute fit indexes—the goodness-of-fit index (GFI) and the root mean square error of approximation (RMSEA;

Table 1

Means, Standard Deviations, and Zero-Order Correlations Among the Study Variables

	M	SD	Gender	Age	Employee Perceptions of Their Change History in the Organization T1	Attendance at Change Information Sessions T1	Employee Perceptions of the Quality of Change Information T1	Anxiety T1	Commitment to Change T1	Satisfaction T2	Turnover Intentions T2
1. Gender[a]	0.34	0.47	—								
2. Age	3.08	0.86	0.06	—							
3. Employee perceptions of their change history in the organization T1	3.40	0.93	0.19*	−0.15	(0.79)						
4. Attend change information sessions[b]	0.77	0.66	−0.11	0.01	−0.13	—					
5. Quality of change information T1	4.24	1.52	−0.24**	0.01	−0.43***	0.16*	(0.93)				
6. Change anxiety T1	4.42	1.38	0.13	−0.13	0.25**	−0.31***	−0.32***	(0.73)			
7. Affective commitment T1	4.59	1.36	−0.12	0.13	−0.53***	0.12	0.69***	−0.36***	(0.90)		
8. Job satisfaction T2	4.71	1.35	−0.07	0.02	−0.35***	−0.07	0.47***	−0.05	0.37***	(0.82)	
9. Turnover intentions T2	2.85	1.39	0.10	−0.15	0.24***	−0.06	−0.35***	0.30***	−0.32***	−0.49***	(0.90)
10. Turnover T3[c]	0.14	0.35	−0.01	−0.12	0.12	−0.03	−0.26**	0.21**	−0.14*	−0.46***	0.70***

Note: Cronbach's alpha is reported on the diagonal. $n = 153$ to 155.
a. Gender: 0 = *male*, 1 = *female*.
b. Ranges from 0 to 2 sessions.
c. 0 = *stay*, 1 = *leave*.
*$p < .05$.
**$p < .01$.
***$p < .001$.

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Hu & Bentler, 1999). An incremental fix index measures the proportionate improvement in fit by comparing a target model with a more restricted, baseline model (usually the null model in which all observed variables are uncorrelated). We use the non-normed fit index (NNFI) and the comparative fit index (CFI; Hu & Bentler, 1998, 1999). A cut-off value of .06 for RMSEA and .90 for the other fit indices are indicative of a good fitting model (Hu & Bentler, 1999).

Because of the small sample size, we sought to minimize the number of indicators per construct using item parcels. An item parcel is an aggregate-level indicator composed of the average of two or more items (Little, Cunningham, Shahar, & Widaman, 2002). We used confirmatory factor analysis to determine which items should be allocated to parcels and used a balanced approach to allocating items to a parcel so as to derive parcels that are equally balanced in terms of their difficulty and discrimination (Little et al., 2002). We created two item parcels for the quality of change information scale T1—one item parcel consisted of two items and the other parcel consisted of three items. In addition, we created two items parcels consisting of four items per parcel to assess employee perceptions of their individual change history T1. Finally, we created two parcels consisting of three items each to assess the affective commitment to change scale T1.

Measurement Models

To assess the factor structure of the measures in the study, we tested a series of confirmatory factor analysis models (see Table 2). Analyses were conducted on the data provided by the 155 respondents. Each model included the 18 items from the 10 constructs assessed in this study. Gender and voluntary turnover T3 were assessed with dichotomous measures. As a result of the inclusion of both continuous and dichotomous measures, we calculated polyserial correlations in PRELIS (Jarros, Jermier, Koehler, & Sincich, 1993). The adjusted correlation matrix, consisting of both product–moment and polyserial correlations, was used as the input to LISREL. All model tests were based on this matrix, and maximum-likelihood estimation was used as implemented in LISREL 8.3.

Across all the measurement models, relationships were estimated among the two demographic measures and all study variables. The first measurement model (Model 1) was the most constrained model—a 6-factor model. In this model, two demographic factors were estimated and these factors were free to correlate. An attendance at change information sessions factor was estimated as was a voluntary turnover T3 factor. In addition, a T1 attitude factor was estimated. Items assessing employees' perception of their change history in an organization, quality of change information T1, anxiety about change T1, and affective commitment to change T1, loaded onto the T1 attitude factor. Finally, a T2 attitude factor was estimated and the job satisfaction T2 items and the turnover intentions T2 items loaded on this factor. This model was not a good fit to the data as indicated by the poor fit indices, $\chi^2(125) = 647.49$, $p < .001$; GFI (goodness-of-fit index) = .68, CFI (comparative fit index) = .65, NNFI (non-normed fit index) = .57, RMSEA (root mean square error of approximation) = .16.

The next measurement model—Model 2—was a 7-factor model (see Table 2), which distinguished two demographic measures, employees' rating of their change history in the

Table 2
Model Comparisons for the Measurement and Structural Models

Models	χ^2	df	NNFI	RMSEA	CFI	GFI
1. Model 1: 6-factor measurement model	647.49	125	.57	.16	.65	.68
2. Model 2: 7-factor measurement model	435.6	117	.71	.13	.78	.76
3. Model 3: 8-factor measurement model	347.51	111	.77	.12	.83	.80
4. Model 4: 9-factor measurement model	238.29	103	.86	.09	.90	.85
5. Model 5: 10-factor measurement model	135.2	94	.93	.05	.96	.91
6. Model 6: 10-factor saturated structural model	135.2	94	.93	.05	.96	.91
7. Model 7: Indirect effects only structural model	151.26	105	.93	.05	.95	.90
8. Model 8: Mediated structural model	149.87	102	.92	.05	.95	.90
9. Model 9: Direct effects only structural model	227.03	106	.80	.09	.80	.86

Note: NNFI = non-normed fit index; RMSEA = root mean square error of approximation; CFI = comparative fit index; GFI = goodness-of-fit index.

organization, an attendance at change information sessions factor, and a voluntary turnover T3 factor. In this model, the T1 change anxiety and T1 affective commitment items loaded on a single T1 attitude factor. In addition, the T2 job satisfaction and T2 turnover intentions items loaded on a single factor. This model was not a good fit to the data, $\chi^2(117) = 435.6$, $p < .001$; GFI = .76, CFI = .78, NNFI = .71, RMSEA = .13. Comparison of Models 1 and 2 using a chi-square difference test indicated that there was a significant difference in the fit of the two models, $\Delta\chi^2 (8) = 211.89$, $p < .001$. Model 2 was a significantly better fit to the data than Model 1.

Next, an 8-factor model—Model 3—was estimated. This model was identical to Model 2 with the exception that the T2 job satisfaction items and the T2 turnover intentions items loaded on two separate factors. This model was also not a good fit to the data, $\chi^2(111) = 347.51$, $p < .001$; GFI = .80, CFI = .83, NNFI = .77, RMSEA= .12. However, this model was a significantly better fit to the data than Model 2, $\Delta\chi^2(6) = 88.09$, $p < .001$. The next model estimated was a 9-factor model (Model 4). In this model, the items assessing individuals' perception of the quality of change information T1 loaded on a separate factor. In this model, the anxiety about change T1 and the affective commitment T1 items loaded on a single factor. The fit statistics indicate that this model was not a good fit to the data, $\chi^2(103) = 238.03$, $p < .001$; GFI = .85, CFI = .890, NNFI = .86, RMSEA = .09. However, application of a chi-square difference test revealed that the 9-factor model was a significantly better fit to the data than the 8-factor model, $\Delta\chi^2(8) = 109.22$, $p < .001$.

The final measurement model estimated was the hypothesized 10-factor model—Model 5. In this model, factors assessing gender, age, employees' perceptions of their change history in an organization, attendance at change information sessions, quality of change information, anxiety about change, affective commitment to change, job satisfaction, turnover intentions, and voluntary turnover were estimated. This model was a good fit to the data, $\chi^2(94) = 135.21$, $p < .01$; GFI = .91, CFI = .96, NNFI = .93, RMSEA = .05. Comparison of Models 4 and 5 using a chi-square difference test indicated that Model 5—the hypothesized 10-factor model—was a significantly better fit to the data than Model 4, $\Delta\chi^2(9) = 103.09$, $p < .001$.

In summary, the hypothesized 10-factor model was selected as the best fitting model to the data. Table 3 displays the standardized parameter estimates for the 10-factor measurement model. All the model parameters loaded significantly onto their hypothesized latent factor at $p < .001$, and the latent factors explained substantial amounts of item variance (R^2 ranged from .28 to 1.00). Table 4 displays the correlations between the latent factors in this model.

Structural Models

A series of nested structural models were estimated to test the hypotheses. In all the structural models, relationships were estimated among the two demographic measures and all the study variables. In addition, employees' perceptions of their change history in an organization T1, attendance at the information sessions, and the quality of change communication T1, were free to correlate in all models. In addition, affective commitment T1 and anxiety about change T1 were also free to correlate in all the models estimated.

We contrast models that distinguish between indirect and mediated relationships (Mathieu & Taylor, 2006). Mathieu and Taylor argue that mediation refers to instances where the significant total relationship that exists between an independent and dependent variable is accounted for in part (partial mediation) or completely (full mediation) by a mediator variable. In contrast, indirect effects are a special form of intervening effect whereby the independent and dependent variables are not related directly but are indirectly related through significant relationships with a linking mechanism.

The first structural model estimated—Model 6—was the saturated structural model. In this model, structural relationships were estimated among the change process and context variables—employees' perception of their change history in an organization T1, quality of change information T1, and attendance at change information sessions—and the T1 and T2 attitudes and voluntary turnover T3. This model is identical to the 10-factor measurement model, which was a good fit to the data, $\chi^2(94) = 135.21$, $p < .01$; GFI = .91, CFI = .96, NNFI = .93, RMSEA = .05.

The next structural model estimated was the indirect effects model—Model 7. In this model, no structural relationships among the change process and context factors and turnover T3 were estimated. Rather, we estimated relationships among employees' perceptions of their change history in the organization T1, quality of change information T1, and attendance at change information sessions and anxiety about change T1 and affective commitment to change T1. In addition, structural relationships among affective commitment T1 and anxiety about change T1 and job satisfaction T2 and turnover intentions T2 were estimated. Finally, we estimated structural paths from job satisfaction T2 and turnover intentions T2 to turnover T3. This model was a good fit to the data, $\chi^2(105) = 151.26$, $p < .001$; GFI = .90, CFI = .95, NNFI = .93, RMSEA = .05. Comparison of Models 6 and 7 via a chi-square difference test revealed that there was no significant difference between the fit of the two models, $\Delta\chi^2(11) = 16.06$, *ns.* Therefore, the more parsimonious model—Model 7—was selected as the best fit to the data.

The next model estimated—Model 8—was the mediated model. In this model, structural relationships were estimated among the change context and process variables and turnover

Table 3
Standardized Parameter Estimates in the 10-Factor Measurement Model

	Gender	Age	Employee Perception of Change History T1	Attend Change Info Sessions	Quality of Change Information T1	Anxiety T1	Commitment T1	Satisfaction T2	Turnover Intentions T2	Turnover T3	R^2
1. Gender	1.00										1.00
2. Age		1.00									1.00
3. Employee perception of their change history T1 parcel 1			1.00								1.00
4. Employee perception of their change history T1 parcel 2			.74								.55
5. Attendance at change information sessions				1.00							1.00
6. Quality of change information T1 parcel 1					.91						.82
7. Quality of change information T1 parcel 2					.93						.86
5. Anxiety item 1 T1						.61					.37
6. Anxiety item 2 T1						.87					.75
7. Anxiety item 3 T1						.53					.28
8. Affective commitment parcel 1 T1							.93				.86
9. Affective commitment parcel 2 T1							.91				.83
10. Job satisfaction item 1 T2								.86			.74
11. Job satisfaction item 2 T2								.80			.64
12. Turnover intentions item 1 T2									.87		.76
13. Turnover intentions item 2 T2									.80		.65
14. Turnover intentions item 3 T2									.94		.88
15. Voluntary turnover T3										1.00	1.00

$p < .001$ in all cases.

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Table 4
Correlations Among the Latent Factors in the 10-Factor Measurement Model

	Gender	Age	Employee Perception of Change History T1	Attendance at Information Sessions	Quality of Change Communication T1	Anxiety T1	Commitment T1	Satisfaction T2	Turnover Intentions T2
1. Gender									
2. Age	.09								
3. Employees' perception of change history T1	.22**	-.16*							
4. Attendance at information sessions	-.11	-.01	-.10						
5. Quality of change communication T1	-.26**	.01	-.41***	.16*					
6. Anxiety T1	.15	-.19*	.33**	-.37***	-.45***				
7. Affective commitment T1	.14	.15	-.53***	.13	.75***	-.48***			
8. Job satisfaction T2	-.10	-.02	-.38***	-.06	.51***	-.07	.43***		
9. Turnover intentions T2	.11	-.13	.27***	-.07	-.41***	.32**	-.35***	-.56***	
10. Turnover T3	-.01	-.10	.19*	-.03	-.28***	.20*	-.15	-.51***	.72***

*$p < .05$.
**$p < .01$.
***$p < .001$.

T3. In addition, indirect relationships among the change context and process variables and anxiety about change T1 and affective commitment to change T1 were estimated. That is, the two attitudes T1 were related to the T2 attitudes, which were related to turnover T3. This model was a good fit to the data, $\chi^2(102) = 149.87$, $p < .001$; GFI = .90, CFI = .95, NNFI = .92, RMSEA= .05. Comparison of Models 7 and 8 via a chi-square difference test revealed that there was no significant difference between these models, $\Delta\chi^2(3) = 1.39$, *ns.* Therefore, the more parsimonious model—Model 7—was selected as the best fit to the data.

Finally, a direct effects model—Model 9—was estimated. In this model, structural relationships among employee perceptions of his or her change history in an organization T1, quality of change information T1, and attendance at change information sessions and turnover T3 were estimated. Model 9 tests whether the intervening variables (employee attitudes at T1 and T2) are essential to the fit of the model. This model was not a good fit to the data as indicated by the poor fit indices, $\chi^2(106) = 227.03$, $p < .001$; GFI = .86, CFI = .80, NNFI = .80, RMSEA= .09. Comparison of Models 7 and 9 revealed that there was a significant difference in fit between the models, $\Delta\chi^2(4) = 77.16$, $p < .001$. Model 7 was a significantly better fit to the data, suggesting that the intervening mechanisms are necessary to the fit of the data. In summary, analyses revealed that the hypothesized indirect effects model was a significantly better fit to the data than a series of theoretically viable alternative models. The structural relationships between the latent factors in the indirect effects model—Model 7—are displayed in Table 5 and shown in Figure 2.

Hypothesis Testing

Hypothesis 1a proposed that there would be a significant negative relationship between attendance at the formal change information sessions and T1 anxiety about change. This hypothesis was supported, $\beta = -.30$, $p < .001$. Hypothesis 1b proposed that there would be a significant positive relationship between attendance at change information sessions and affective commitment to change at T1. This hypothesis was not supported, $\beta = -.01$, *ns.*

Hypothesis 2a proposed that there would be a significant negative relationship between an individual's perception that he or she has received quality change communication and anxiety about change when the merger is announced. This hypothesis was supported, $\beta = -.35$, $p < .001$. Hypothesis 2b proposed that there would be a significant positive relationship between an individual's perceptions that he or she has received quality change communication and affective commitment to change when the merger is announced. This hypothesis was supported, $\beta = .66$, $p < .001$.

Hypothesis 3a proposed that an individual's perception that he or she has a poor change history in the organization would be positively associated with anxiety about the current merger. This hypothesis was not supported, $\beta = .12$, *ns.* Hypothesis 3b proposed that an individual's perception that he or she has a poor change management history in the organization would be negatively associated with T1 affective commitment to change. This hypothesis was supported, $\beta = -.27$, $p < .001$.

Hypothesis 4a proposed that T1 anxiety about change would be negatively associated with T2 job satisfaction and positively associated with T2 turnover intentions T2. This

Table 5
**Standardized Parameter Estimates in Model 7: The Indirect Effects Model**

	Gender	Age	Employee Perception of Change History T1	Attend Change Info Sessions	Quality of Change Information T1	Anxiety T1	Commitment T1	Satisfaction T2	Turnover Intentions T2	Turnover T3
1. Employee perception of change history T1	.24	−.18								
2. Attend change information sessions	−.11	.00								
3. Quality of change information T1	−.26	.04								
4. Anxiety T1	.01	−.17	.12	−.30***	−.35***					
5. Affective commitment T1	.08	.09	−.27***	−.01	.66***					
6. Job satisfaction T2	−.04	−.07				.20	.55***			
7. Turnover intention T2	.05	−.07				.19	−.25**	−.13		
7. Turnover T3	−.09	.00							.66***	
Variance explained			8	1	7	34	66	24	16	54

*p < .05.
**p < .01.
***p < .001.

Figure 2
Significant Structural Relationships in Model 7: The Indirect Effects Model
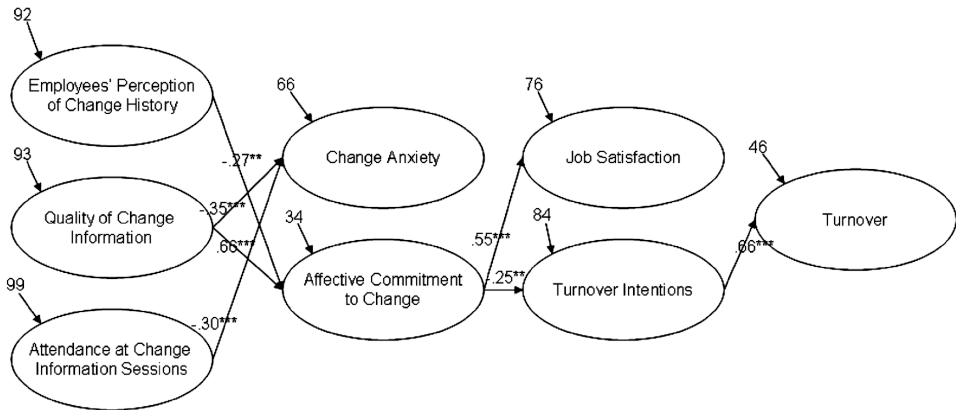
hypothesis was not supported as there was not a significant positive relationship between T1 anxiety about change and T2 job satisfaction, $\beta = .20$, ns, or between T1 anxiety and T2 job satisfaction, $\beta = .19$, ns. Hypothesis 4b proposed that T1 affective commitment to change would be significantly positively associated with T2 job satisfaction and significantly negatively associated with T2 turnover intentions. This hypothesis was supported. T1 affective commitment was significantly associated with T2 job satisfaction, $\beta = .55$, $p < .001$ and T2 turnover intentions, $\beta = -.25$, $p < .01$.

Hypothesis 5a proposed that there would be a significant negative relationship between T2 job satisfaction and T3 voluntary employee turnover. This hypothesis was not supported, $\beta = -.13$, ns. Hypothesis 5b proposed that there would be a significant positive relationship between T2 turnover intentions and T3 voluntary employee turnover. This hypothesis was supported, $\beta = .66$, $p < .001$.

Examination of Indirect Paths

The Sobel test was used to examine the significance of the indirect relationships in the model (Sobel, 1982). The indirect relationships among T1 employees' perception of their change history in an organization, T1 anxiety, and T2 job satisfaction ($z = .98$, *ns*) and T2 turnover intentions ($z = .98$, *ns*) were not significant. In contrast, the indirect relationships among T1 employee perceptions of their change history in an organization, T1 affective commitment, and T2 job satisfaction ($z = -3.04$, $p < .01$), and T2 turnover intentions ($z = 2.10$, $p < .05$) were significant. None of the indirect relationships among attendance at change information sessions and T1 anxiety or T1 affective commitment and T2 job satisfaction or turnover intentions were significant. In addition, employee perceptions of the quality

of change information T1 did not have a significant indirect relationship with T2 job satisfaction through T1 anxiety ($z = -.16$, ns) or T2 turnover intentions ($z = -.15$, *ns*). In contrast, the indirect relationships among employee perceptions of the quality of change information T1 and T1 affective commitment and T2 job satisfaction ($z = 4.53$, $p < .001$) and among quality of change T1 and affective commitment and turnover intentions T2 ($z = -2.45$, $p < .05$) were significant. The indirect relationship among affective commitment T1, turnover intentions T2, and voluntary turnover T3 was significant ($z = -2.44$, $p < .05$).

Discussion

We explored the role of change process and the internal change context as antecedents of employees' reactions to a merger. An indirect effects model, where change process and context at the time of the merger announcement were hypothesized to be associated with anxiety about change and affective commitment to change that were related to job satisfaction and turnover intentions when the merger was being implemented, was proposed. We predicted that job satisfaction and turnover intentions would be associated with voluntary employee turnover after the merger had been implemented. Analyses provided support for the indirect effects model. Importantly, our results revealed that all of the significant indirect relationships in the model involved affective commitment to change. Thus, the influence of change process and context on voluntary employee turnover was transmitted through affective commitment to change.

Theoretical and Practical Implications

The results of this research in conjunction with recent empirical studies (e.g., Devos et al., 2007; Herold et al., 2007) suggest that it is important to consider the influence of both the processes used when implementing change and the context of change on employee responses to a merger. In particular, when individuals reported having a poor change history in the organization, they were less affectively committed to change than individuals who reported having a positive change history in the firm. Surprisingly, however, an employee's perception that he or she had a poor change management history in an organization was not significantly associated with anxiety about change. One theoretical explanation for this result is that an individual's personal change history does not create the high mental arousal that is an important component of anxiety (Axtell et al., 2002). Rather, an individual's perception of their change management history in an organization may primarily influence his or her beliefs about change rather than one's emotional reactions to change. This issue should be investigated in future research.

We also examined relationships among two measures of the change process used by the organization and employee responses to change. Our focus on both the formal change process used by the organization and the informal change communication processes that occurred in the organization is an important contribution to the literature. To date, very little research has systematically studied the influence of programmatic change communication approaches on employee or organizational outcomes (Lewis, 2000; Russ, 2008). The results

of our study indicated that the formal change process—the use of formal information sessions to disseminate top-down information about the merger—did have a significant negative relationship with anxiety about change at the time of the merger announcement. Importantly, however, the number of formal information sessions that employees attended was not significantly associated with affective commitment to change.

Our findings suggest that the formal information sessions had a short-term impact on mental arousal prompted by the impending change. However, the information sessions did not seem to persuade people to alter their beliefs about the inherent benefits of the proposed merger. The lack of significant relationships between attendance at the formal information sessions and affective commitment is important because it was affective commitment to change that displayed an indirect relationship with voluntary employee turnover. These findings provide initial evidence that it may not be sufficient for an organization to rely on a single programmatic communication process when implementing large-scale change. To gain some additional insights about the formal communication strategy adopted by the organization, we conducted post-hoc interviews with a random selection of survey participants who did not attend any of the formal information sessions. Our aim was to explore the reasons why individuals failed to attend the information sessions. Analysis of the interview data revealed that, although a small proportion of employees reported practical constraints that ensured they couldn't attend the information sessions (e.g., submission of a report due the next day), a greater proportion of the respondents reported that they did not attend because of low levels of trust in senior management.

Mayer, Davis, and Schoorman (1995) defined trust as "the willingness to be vulnerable to the actions of another party based on an expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party" (p. 712). A number of studies suggest that employees' trust in senior management is likely to influence how they react to organizational change events (e.g., Kiefer, 2005; Mishra & Spreitzer, 1998). For example, Mishra and Spreitzer (1998) argued that individuals' trust in senior managers influences the extent to which downsizing efforts are appraised as threatening and, therefore, the likelihood that survivors of a downsizing effort will respond constructively to change. In the current study, the results of post hoc interviews suggest that employees who have low trust in senior management prior to the implementation of a merger were less likely to attend formal communication sessions. Overall, the follow-up interviews that we conducted with employees who did not attend any of the formal communication sessions indicate that the formal change communication process may be most effective for employees who have moderate to high levels of trust in senior managers at the time that a major change is announced. The results of this study suggest that for formal change communication processes to be effective for all employees, organizations need to identify strategies to overcome employees' mistrust of senior management prior to change implementation.

Gillespie and Dietz (2009) identified a range of strategies that can be undertaken by an organization to restore employees' trust in an organization, and such approaches may need to be considered prior to implementing large-scale changes. For example, an organization can implement activities designed to modify dysfunctional aspects of a firm or its employees, replacing them with a new "admissible range" of behaviors. In relation to leadership and management practices, a firm could investigate the practices, conduct, and attitudes of senior

management that have generated low levels of trust and then implement changes to ensure that such practices and attitudes are no longer supported (Gillespie & Dietz, 2009). In addition, Gillespie and Dietz argue that organizations also need to restore positive expectations through activities that actively demonstrate ability, benevolence, and integrity—core elements of trust (Mayer et al., 1995). Prior to large-scale change implementation, a firm may enhance the trustworthiness of other system components such as the procedural fairness of decision making systems. In summary, our findings add to the work of Kiefer (2005) and Mishra and Spreitzer (1998) who have proposed that trust in senior management has an important role in establishing employees' initial reactions to change. Future researchers need to explore how trust in management influences change attitudes and behaviors in large-scale organizational change efforts.

Our results also revealed that an individual's perception of the quality of change information provided in the organization was significantly associated with both anxiety about change and affective commitment to change at the time of the merger announcement. Specifically, when employees reported that they had received timely, accurate, and appropriate information about change, they were less anxious about change and reported higher affective commitment to change. It is important to note that the two measures of the change communication process displayed a weak, but significant, positive correlation. We argued that the perceptual measure of the quality of change communication processes would capture both the informal and the formal change processes occurring in the firm. The weak positive correlation between attendance at formal information sessions and perceptions of the quality of change information provide support for this argument.

Discussion with the organization revealed that a variety of informal communication efforts were occurring in the firm at the time of the merger announcement. For instance, department heads in the company were asked to broadly discuss the impending merger with employees prior to the change information sessions. However, the content of these sessions was not specified and no specific information about the merger was available at the time. Our results suggest that in this study it was the informal communication processes that were occurring in the organization that had a long-term impact on voluntary turnover 21 months later via the mechanisms of affective commitment and turnover intentions. These findings suggest that there is a need to understand and manage the more informal communication processes that occur in organizations when implementing large-scale changes.

Overall, the results of this research along with recent empirical studies (e.g., Devos et al., 2007; Herold et al., 2007) suggest that the emphasis on change processes when implementing change has obscured other important factors that affect the likelihood of successful change. In particular, an individual's perception that he or she had a poor change history in the organization had a long-term association with voluntary employee turnover through affective commitment. Clearly, there is a need to consider change process and context when modeling factors that drive employee reactions to change in organizations. Practically, the findings of our study suggest that organizations need to actively consider how to manage employees' perceptions of their previous experience of change in the firm. Our results suggest that an individual's perceptions that he or she has a poor change history in the organization act as a form of "baggage" that reduces affective commitment to current changes. There is a need to develop strategies to help individuals overcome negative change experiences that have occurred in the past.

Future Research

This study represents a major step in developing a more sophisticated understanding of the role of the change context and change process as influences on employees' responses to large-scale organizational changes. Our study offers a number of avenues for future research. First, future research should continue to explore relationships between the internal change context and employee reactions to change. We only focused on one aspect of the change context—employee perceptions of their individual change history in the organization. However, recent research (e.g., Herold et al., 2007; Rafferty & Griffin, 2006) suggests that there are multiple aspects of the change context that are salient to individuals and that may have direct and indirect relationships with employee responses to organizational change. For example, although we focused on change history, post hoc interviews that suggested that trust in the organization's senior leaders may play an important role in influencing individuals' receptivity to formal change communication processes. This issue should be investigated in future research.

In terms of change processes, we examined one of the most commonly discussed factors based on previous theory and research—the provision of quality information about change. However, there are clearly other change processes that require empirical attention, including participation in change (e.g., Caldwell et al., 2004; Coyle-Shapiro, 1999; Devos et al., 2007), justice (Bernerth et al., 2007; Korsgaard et al., 2002; Mishra & Spreitzer, 1998), and the resources and support provided for change efforts (Caldwell et al., 2004). Future studies will not only need to explore additional change context and change process factors but will also need to build on the work of Devos et al. (2007) and Caldwell et al. (2004) to simultaneously examine the interactive effects of change context, change process, and the content of change on employee responses to change as well as on organizational performance indicators.

Recently, researchers have begun to recognize that the content of change as captured by perceptions relating to the personal impact of change have important consequences for employees (e.g., Caldwell et al. 2004; Rafferty & Griffin, 2006). For instance, Caldwell et al. (2004) and Herold et al. (2007) have controlled for the personal impact of change when examining relationships among change process measures and employee outcomes. We did not examine the personal impact of change in this study. However, the job review process that was the critical change that occurred due to the merger is likely to have been perceived as having a greater or lesser impact on individuals' jobs depending on issues such as an individuals' position in the organization and even their personality characteristics. Some additional post hoc interviews with a randomly selected subgroup of study participants indicated that employees did differ in the extent to which the merger process was reported to have a personal impact on their job roles. Specifically, based on employees' responses to survey questions administered over the telephone, we were able to create a retrospective measure of the personal impact of the job review process at T2. We correlated this measure with the study variables. Results suggested that the retrospectively collected measure of the personal impact of change T2 was significantly associated with a number of the substantive measures. For example, employees who reported a poor change history in the organization T1 were more likely to report that the merger process had a major impact on them when the job reviews were implemented at T2. In addition, people who reported the job review implementation had a major impact on them at T2 were also less satisfied with their job at T2. These

findings suggest that it would be beneficial for future research to consider the personal impact of change on individuals when examining the relationship between the change process and context as antecedents of employee responses to change.

Strengths and Limitations

This study has a number of strengths that should be acknowledged. First, our study is one of only a few studies to explore the role of the internal change context and change process as antecedents of employee reactions to change. We found that both the change context and process drive employee reactions to a merger over time. Second, we adopted a longitudinal methodology, studying the impact of a merger across three time points over a 21-month period. This design feature allowed us to study the processes by which the change context and change process influence employee reactions over time. Third, data were collected from employees and archival records. The collection of multiple sources of data is one approach used to alleviate the issue of common method variance (Podsakoff, MacKenzie, & Podsakoff, 2003). Finally, the use of archival records to capture attendance at change information and voluntary employee turnover is a strength of our study. Archival data are less vulnerable to biases associated with subjective assessments because they tap into "observable, countable, and discrete outcomes" (Viswesvaran, 2001, p. 111). Overall, the use of a multimethod approach represents an important strength of this study because it enabled a stronger test of our model (Miner, Glomb, & Hulin, 2005) than if we only collected self-report data.

Like most research, our study has limitations and results should be viewed with these limitations in mind. First, we could not entirely eliminate the possibility that common method variance influenced a number of relationships in our model. Common method variance refers to variance that is attributable to the measurement method rather than the constructs the measures represent (Lindell & Whitney, 2001; Podsakoff et al., 2003; Richardson, Simmering, & Roman, 2003). In our study, for example, we collected data from employees on perceptions of change history T1, the quality of change information T1, anxiety about change T1, and affective commitment to change T1. As such, the relationships among these constructs may partially reflect the measurement approach rather than relationships among the substantive constructs.

A second limitation of our study is that we did not address whether cultural differences between the Philippines and the West mean that the results of this study can be generalized. Multicultural comparative research has characterized the Philippines as very high on power distance and low on individualism (Restubog & Bordia, 2006). In contrast, Western countries, such as the United States tend to be low on power distance and highly individualistic (Hofstede, 2001). Because of these cultural differences, we cannot ascertain whether our results could be replicated in Western nations. However, we suggest that it is possible that the detrimental effects of having a poor individual change management history, for example, may actually be stronger in Western nations than in the Philippines. That is, because of the high power distance and high collectivity that is characteristic of the Philippines, our sample of respondents are "conditioned" to follow orders and to believe in collective decisions even when they have a poor change history. Future research should explore whether this is indeed the case.

Another limitation of our study is that we did not examine whether employee personality characteristics, such as trait affectivity, influenced the study findings. Watson et al. (1986) proposed that people who are high in trait negative affectivity tend to report greater distress and negative emotions than those low in this trait and suggested that this might bias self-report measures of organizational variables so that correlations between two measures are spurious. That is, the relationship between employee perceptions of their change history in an organization and anxiety may occur because both constructs are influenced by trait negative affectivity rather than because these two constructs are substantively related. Future research should include trait affectivity to explore the role of personality in driving employee reactions to the internal change context and change processes and, ultimately, as an antecedent of employee responses to change. Finally, employees in this study were assured that no person would lose his or her job as a result of the merger process. It is important to note that this is an unusual aspect of the merger under study, making this organizational change distinctly different from many mergers that occur. This issue should be considered when generalizing the study results to other merger efforts.

Conclusion

We argued that it is important to theoretically consider the impact of change process and the internal change context during a merger. Results of a longitudinal study using multiple methods of data collection indicated that this is indeed the case. Employees who reported that they had a poor individual change history in the organization reported lower affective commitment to change. In contrast, as the number of formal change information sessions attended increased, anxiety about change decreased. An employee's perception of the quality of change information was significantly negatively associated with anxiety about change and significantly positively related to affective commitment to change. Affective commitment was positively associated with job satisfaction and negatively associated with turnover intentions. Turnover intentions were significantly positively associated with voluntary turnover. Overall, our results inform organizational scholars concerned with developing models of how change process and context influence employee reactions to change as well as practitioners seeking to find answers about how to effectively implement large-scale changes.

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