A Longitudinal Study of the Impact of Organizational Change on Transactional, Relational, and Balanced Psychological Contracts

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Abstract
Workplace transitions are thought to result in a fundamental shift in the employment relationship. This study used sensemaking theory to examine when and how organizational change affects employees’ psychological contracts (PCs). The authors suggest that employees interpret organizational change through contextual and cognitive factors related to the change. These factors, in turn, influence whether employees revise their PCs. Results of our longitudinal study suggest that the extent to which contextual and cognitive factors affect employees’ PCs depends on the type of PC. Transactional and balanced PCs were unaffected by the contextual and cognitive factors related to the change, while changes occurred in relational PCs.

Keywords
psychological contract, sensemaking, organizational change

It is widely believed that the workplace is in a state of transition (Ghoshal & Bartlett, 2000; McLean Parks, Kidder, & Gallagher, 1998; Shore et al., 2004). In response to globalization and increased competition, organizations are implementing change programs such as downsizing, corporate mergers, restructuring, and sometimes outsourcing to stay competitive (Barthelemy, 2003; Sronce & McKinley, 2006; Wanberg & Banas, 2000). With the recent economic downturn, it seems likely that the new workplace reality will significantly redefine employment relationships and have an impact on individuals’ psychological contracts (PCs). Rousseau (2001) views the PC as a mental model that individuals hold regarding the reciprocal exchange agreement between themselves and their organization—their subjective beliefs of what they owe their organization and what their organization owes them. Context, by definition, is the setting or what surrounds the obligations (Shore et al., 2004). If the context undergoes change, it is likely to influence exchange relationships embedded within that context. For
example, anecdotal evidence points to a “new deal” or new employment relationship resulting from the workplace characterized by change (Chaudhry, Wayne, & Schalk, 2009; Herriot & Pemberton, 1996; Shore et al., 2004).

To date, the majority of empirical work has downplayed the role of organizational change and its impact on the PC. As organizations respond to economic pressures by introducing change, how individuals interpret and respond to the change becomes an increasingly central element for PC research. Despite calls to address the nature of change in PCs (McLean Parks & Kidder, 1994; Shore et al., 2004), it remains on the periphery. Our study addresses this gap by examining the role of change in the workplace on employees’ PCs; the extent to which employees’ PCs undergo revision in response to an organizational event involving change. Using a sample from an organization undergoing extensive change, we explore how employees’ perceptions of organizational change affect their PCs.

We adopt sensemaking theory as a theoretical framework to examine how employees interpret organizational change. Sensemaking theory helps identify factors that make employees “stop and ask ‘why’?” (Silvester & Chapman, 1997, p. 1). How employees attempt to explain the change is important because the way in which individuals explain events is related to how they respond to the events (Fincham & Jaspers, 1980; Rust, McKinley, Moon, & Edwards, 2005). A key application of sensemaking theory is describing and understanding organizational life from the employee’s perspective (Weick, 1995), and this resonates with the description of the PC as a mental model guiding employees in understanding their exchange relationship with the organization (Rousseau, 2001).

A change event in the organizational context is defined as any observable difference in form, quality, or state over time in an organizational entity (Van De Ven & Poole, 1995). How change is defined and understood may differ from one employee to the other. Furthermore, certain change events may be viewed as beneficial by some employees while others may perceive these as detrimental to their work experience. For instance, outsourcing of nonstrategic activities may mean opportunities to work on core or strategic activities for some employees, while for others it may signal a loss of employment. Despite these challenges, it is critical to focus research attention on how organizational changes are shaping employment relationships in today’s workplace so that organizations may be able to anticipate and thus better manage employee responses to change (McLean Parks & Kidder, 1994; Shore et al., 2004).

In the context of the employment relationship, certain terms of exchange tend to cluster together resulting in the emergence of PCs that are distinct from each other (Rousseau, 1995). Rousseau (1995, 2000) provides a classification that enables researchers to examine various features that underlie PCs in the workplace (Taylor & Tekleab, 2004). This classification consists of three PC types: transactional, relational, and balanced contracts (Rousseau, 2000). We use sensemaking theory to investigate whether and how an organizational change event shapes employee revisions to these three forms of PCs.

A key contribution of this study is that it provides insights on the extent to which PCs are amenable or resistant to change. As Rousseau and Tijoriwala (1999) note, there has been an absence of work examining the extent to which change occurs in PCs over time. Therefore, the issue of stability or amenability of PCs has not been fully explored. Rousseau (1995) suggests that contract change can be internally or externally induced. The former is said to occur when individuals modify their understanding of the contract as a consequence of socialization or increased tenure within the organization. A number of studies provide empirical support for internally induced change. Robinson, Kraatz, and Rousseau (1994), based on an empirical study of newly recruited MBA students, found that over a 2½-year period,
employee obligations to their employer decreased while perceived employer obligations increased. Similarly, over an 8-week period, army recruits increased their expectations from their employer along a number of dimensions (Thomas & Anderson, 1998). Our study aims to complement these studies in that we explore the impact of externally induced change on employees’ assessment of their PC. As shown in Figure 1, we examine contextual and cognitive factors related to revisions in PCs.

![Figure 1. Contextual and cognitive factors related to revisions in psychological contract (PC)](image)

**Literature Review**

Individuals typically rely on “habits of mind” to guide interpretation and behavior (Louis & Sutton, 1991). However, a change in the environment results in individuals abandoning “habits of mind” and beginning a systematic process of understanding what the change is about (Weick, 1995). Sensemaking is described as the process of evaluating what is not known by placing it in a framework that allows comprehension, extrapolation and therefore prediction (Weick, 1995). When making sense of a change event, individuals engage in a construed process, whereby they fill in the missing gaps by relying on contextual cues. Thus, change not only serves as a trigger for evaluating one’s PC but also results in the process of assigning meaning and making judgments regarding revisions to the PC. Sensemaking involves a sensing aspect and a cognitive aspect (Louis & Sutton, 1991). According to Weick (1995), sensing is triggered when “someone notices something, in an ongoing flow of events, something in the form of a surprise, a discrepant set of cues, something that does not fit” (p. 2). The cognitive aspect refers to the process of social construction that is described by Weick (1995) as “to engage in sensemaking is to construct, filter, frame, (and) create facticity” (p. 14). We examine the contextual characteristics of *novelty, discrepancy, deliberate initiative, uncertainty, and personal impact* that trigger employee evaluation of organizational change as well as the cognitive factors of *intentionality, foreseeability, and justifiability* that influence employees’ attributions of responsibility for the organizational change event (Chaudhry et al., 2009; Heider, 1958; Louis & Sutton, 1991).

We examine the contextual factors and the cognitive factors as antecedents of revisions to the PC content in relation to three forms of contracts developed by Rousseau (1995, 2000): transactional, relational, and balanced contracts. Transactional PC is characterized by well-specified benefits and contributions that are economic and short-term in nature. Employees are expected to perform only a fixed set of duties that are limited to what they are paid to do. The employee has no obligation to remain with the organization, while the organization has no obligation to provide training and development opportunities. In contrast, relational PCs are characterized by long-term arrangements...
that are founded on mutual trust and loyalty. Dabos and Rousseau (2004) describe a relational contract in terms of “high affective commitment, strong member-organization integration, and stability built on the traditions and the history of the relationship” (p. 54). Relational PC involves socioemotional exchanges that have open-ended time frames. An important characteristic of social exchange is that it involves “diffuse future obligations” (Blau, 1967, p. 93). Thus, relational arrangements call for trusting the other party to discharge its obligations at an unspecified future point in time. Finally, balanced PCs combine features of both transactional and relational contracts such that the terms of exchange consist of performance by the employee that is well specified yet open-ended to enable the organization to achieve competitive advantage (Hui, Lee, & Rousseau, 2004). The organization’s obligations to the employee include career support, training, and development. A key characteristic of balanced contracts is career development that enables employees to be marketable (Rousseau, 2000).

Emerging research suggests that workplace transformations are having a significant impact on the relational component of the PC (Cavanaugh & Noe, 1999). For instance, the view of the employer as a caretaker for the employee is viewed as an exception rather than a norm. Similarly, the promise of job security in return for employee loyalty is considered wishful thinking (McLean Parks & Kidder, 1994). Therefore, we contend that the change context is more likely to result in sensemaking by employees with PCs that are relational in nature. Relational PCs are defined by two dimensions—stability capturing the expectation that the employer offers stable and long-term employment to employees, and loyalty capturing not only employee identification and commitment to the employer but also the employer’s responsibility in supporting the well-being and interests of employees and their families (Rousseau, 2000). This suggests that employees with relational contracts may initially give the organization the benefit of the doubt given the long-term and stable nature of the relationship, at the same time, they also have higher levels of demands and expectations regarding what the organization ought to provide to the employee. Thus, workplace transformations may result in the employee questioning the employer’s initiatives involving changing roles and responsibilities. The resulting sensemaking process may motivate employees’ to closely monitor every aspect of the PC that previously they overlooked, given the mutual trust and loyalty that characterized the relationship.

Employees with PCs that are highly transactional in nature have limited investment in the employment relationship reflected in a short-term focus and well-defined exchanges. Employees have limited personal involvement and are less likely to expend cognitive energy regarding the change context. Given the quid pro quo nature of the exchange, employees with transactional PCs are less likely to evaluate changes (if any) to what they receive from the organization as a result of the change context. Employees with a balanced type of PC are motivated to stay competitive in the job market and have expectations of their employer related to external employability as well as internal advancement (Rousseau, 2000). Career development is a key feature of balanced PCs. Changing conditions are less likely to raise concerns regarding the extent to which the organization is committed to employees’ long-term employability. Thus, the context of change is less likely to result in sensemaking to evaluate the context or to ascribe meaning to the organization’s actions related to the context.

**Contextual Factors Related to Change Context**

A model of employee evaluation of PC fulfillment has identified five characteristics of the change event that together or alone may lead an individual to initiate a process of sensemaking (Chaudhry et al., 2009). These include novelty of a situation (novelty), discrepancy between what is expected and what is reality (discrepancy), explicit requirement of cognitive attention to the change event (conscious
deliberation), uncertainty regarding an event (uncertainty), and the level of personal impact of an event (personal impact).

Novelty. When employees experience a new workplace condition, it prompts them to pay attention to the event in order to ascertain the implication for their exchange relationship. Empirical research lends support to the contention that new workplace experiences can redefine employees’ exchange relationship as captured by their PC (Cavanaugh & Noe, 1999). While a new event signals that the employment relationship is no longer “business as usual,” it can also serve as a trigger for sensemaking regarding changes to the exchange relationship. Furthermore, several studies highlight that employees respond positively to new events, such as outsourcing (Kessler, Coyle-Shapiro, & Purcell, 1999) and reorganization (Wanberg & Banas, 2000). Therefore, we predict upward revision to employees’ PC resulting from novelty of a change event.

Discrepancy. Discrepancy as a context characteristic highlights the dichotomy between what one expects and how it differs from reality. A deviation from the norm serves as a wake-up call to employees to examine the extent to which their PC schema is no longer valid. Employee attitudes and behaviors are shaped by expectancies of valued outcomes (Vroom, 1964). These expectancies guide employee thinking about PCs with their organizations such that the terms of exchange that are deemed desirable are held salient and, therefore incorporated in employees’ PCs (Rousseau, 1995). Thus, deviation from the existing terms of the contract will be viewed as a loss and a move away from the desired state. Therefore, we expect discrepancy related to an event to result in downward revision in employees’ PC.

Conscious deliberation. Conscious deliberation of an event is a contextual trigger for sensemaking as it is initiated by the request for conscious attention to the event (Griffith, 1999). Many organizations introducing change seek employees’ input and involvement as a way of managing their interpretations of the change (Rousseau, 1996). Such a strategy not only serves to focus employee attention on the exchange relationship but also aids in engendering a positive view of the organization. For instance, Wanberg and Banas (2000) found that employees in an organization undergoing restructuring held a positive view of the change program to the extent the organization provided information about the change as well as opportunity to participate in the change process. Therefore, conscious deliberation is more likely to highlight other changes that are deemed favorable to the exchange relationship and, consequently, result in an upward revision to employees’ PC.

Uncertainty. Experimental research highlights uncertainty as a key factor related to sensemaking (Van den Bos, 2001). A common theme regarding organizational change is employees’ perceptions that the organization is not forthcoming regarding key information about the change. This results in ambiguity regarding one’s future and causes one to question the organization’s trustworthiness and honesty (Schweiger & DeNisi, 1991), which in turn prompts employees’ attention to the organization’s past promises and the extent to which these are part of the revised PC (Morrison & Robinson, 1997). Thus, we predict downward revision of employees’ PC when the context is characterized by uncertainty.

Personal impact. Experimental research suggests that individuals pay attention to events to the extent that these events are thought to have a direct impact on them (Markus, 1977). A context of change may result in stress and anxiety if the employee is unsure about how it affects him or her. Often questions arise as to whether the change will result in an increase in workload, changes in job characteristics (e.g., type of work), or loss of status or prestige (Barthelemy, 2003). Thus, when change is expected to have a high degree of personal impact, employees are likely to focus on identifying obligations that the
organization is no longer willing to commit to, and this is likely to result in employee perceptions of downward revision to their PCs.

**Cognitive Factors Related to Change Event**

It is unrealistic to assume that employees will scrutinize every organizational decision related to organizational change in terms of whether it affects the employment relationship. “Zone of acceptance” has been defined as the range of activities in a job that employees believe to be under the discretion of the employer (Rousseau, 1996; Schalk & Freese, 1997). It reflects employee willingness to be flexible regarding the terms of the exchange relationship. A question to consider is what cognitions inform the employee that the organization’s actions are beyond the zone of acceptance? Experimental studies suggest that an individual’s efforts in making sense of an event are shaped significantly by attributions of responsibility related to the event (Walster, 1966; Wong & Weiner, 1981). Research on the PC also suggests that employees engage in efforts to understand changes in their contracts by assessing who should be held responsible for those changes (e.g., Morrison & Robinson, 1997; Parzefall & Coyle-Shapiro, in press).

The central notion of attribution of responsibility is the premise that an entity can be held accountable for an event. According to Heider (1958), attribution involves judgments regarding responsibility of the entity (in this case, the organization) versus that of the environment resulting in three types of attributions²: **Intentionality**, as the term suggests, refers to an outcome perceived as resulting from deliberate action by the organization (e.g., an organization-initiated wage freeze even though there was no pressing need to do so); **foreseeability** is the extent to which the organization is held responsible for the outcome because its actions are viewed as causing the outcome and should have been anticipated (e.g., an organization-initiated wage freeze due to lower sales in their products that the organization should have anticipated); and **justifiability** refers to attributions that the observed effects were the result of justifiable actions by the organization (e.g., an organization-initiated wage freeze to prevent layoffs in order to compensate for lower sales). Through the process of assigning responsibility, employees attempt to understand the evolving nature of the PC. In other words, the extent to which the employee holds the organization accountable will shape his or her perceptions of the extent to which the PC has undergone changes. However, the three types of attributions will have differential effects on the PC and thus are considered separately.

**Intentionality.** Intentionality is viewed as one of the key attributions that significantly affect employees’ perceptions of PC breach—the organization’s failure to fulfill its promises (Lester, Turnley, Bloodgood, & Bolino, 2002; Morrison & Robinson, 1997). Human beings are said to be creatures of habit and therefore an intentional act that results in a change event is likely to be viewed with discomfort and suspicion. Therefore, to the extent that a change event is viewed as occurring due to intentional actions of the organization, it is likely to result in downward changes in the postchange PC.

**Foreseeability.** When employees engage in attributions of foreseeability, it suggests that employees hold an organization responsible to the extent the change context should have been anticipated. While intentionality attributions may form from perceptions of a purposeful and therefore a commissive act, foreseeability attributions imply that an organization is responsible for the event due to omission on their part. Thus, employees may be willing to let the organization “off the hook” since inability to foresee change suggests failure to recognize new developments but not necessarily failure to fulfill its obligations. Employees may empathize with the organization’s predicament and therefore in place of
concern related to adverse impact on one’s own exchange relationship with the organization, they are more likely to have a lenient view of the exchange relationship (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001). Hence, we hypothesize that employee attributions of foreseeability are related to upward revision in PC.

Justifiability. An experiment-based test of Heider’s framework found that while attributions of intentionality enhanced perceptions of blame, justifiability had the opposite effect (Fincham & Jaspers, 1980). The mitigating effects of justifiability held even when the condition was deemed nonexcusable and hence blameworthy. Social accounts serve as justification for organizational actions and involve not only an explanation of why the actions were taken but also the extent to which those actions are viewed as legitimate (Rousseau & Tijoriwala, 1999). Thus, to the extent an employee absolves an organization of any culpability, this will result in employee sensemaking to assess whether the exchange relationship is healthy and robust compared with the prechange context relationship, and likely to lead to upward revision in PC.

Hypothesis 1: Contextual factors of novelty, deliberate initiative and cognitive factors of foreseeability, and justifiability are related to upward revision while contextual factors of discrepancy, uncertainty, and personal impact and cognitive factors of intentionality are related to downward revisions in relational PC.

Study Design and Method

Data to test the hypotheses were collected from a nonprofit organization located in the Midwest region of the United States that was undertaking a major organizational change. The organization relies on grants and funding from public and private sources to serve the needs of an underprivileged population in terms of activities such as after-school care. Because of significant changes in traditional funding avenues as well as opportunities for new types of grants, the organization was in the process of closing several branches in some locations and opening branches in new geographical locations as well as offering new services. These developments were resulting in significant organization-wide changes in terms of staffing, work environments, and the very nature of work performed by the majority of employees. This situation is consistent with the definition of context of change applied in this study, which is any empirical observation of difference in form, quality, or state over time in an organizational entity, where the entity may be an individual’s job, a work group, an organizational strategy, a program, a product, or the overall organization (Van De Ven & Poole, 1995). A longitudinal design was adopted with data collection occurring at two time periods, 16 months before the change and 1 month after the announcement regarding the pending organizational change.

We followed the recommendations of DeVellis (2003) to test the reliability and validity of the new measures created for this study. Items were written for the contextual variables (novelty, discrepancy, deliberate initiative, uncertainty, and personal impact) based on the perusal of the theoretical literature on sensemaking (e.g., Griffith, 1999; Louis & Sutton, 1991; Weick, 1995). Items were adapted from existing measures for the attributions of intentionality, foreseeability, and justification (Robinson & Morrison, 2000; Zottoli, 2003). A complete list of items written for the study as well as items modified for the study were given to two faculty members and two doctoral students to assess face validity of the measures.
Next, a survey that included all the new and modified measures was administered to undergraduate students enrolled in management classes of a university located in the Midwest region of the United States. A total of 151 students completed the survey. A total of 50% of the sample described themselves as male, and 8% did not indicate their gender. A total of 58% of the respondents worked full time. The mean number of hours worked per week for the sample was 32 hours. The average age of the respondents was 25.36 years.

As a first step, we conducted exploratory factor analysis (EFA) using principal factor analysis on the 19 items assessing the five contextual variables. The results revealed four factors such that all five items for discrepancy loaded with items for novelty. Therefore, all items for discrepancy were dropped from further analyses. Additionally, the following three items for uncertainty had low factor loadings and were removed from further analyses: (1) “I am unfamiliar with this event,” (2) “The event is going to affect me in unknown ways,” and (3) “I am not affected by this event” (reverse scored). Factor analysis of the remaining 11 items revealed that the items loaded on their intended factors and had eigenvalues > 1.

Next, 11 items assessing attributions of responsibility were subjected to principal factor analysis. Three factors were extracted with eigenvalues > 1. Two items loaded on unintended factors: “The organization could have fulfilled its commitments by anticipating the current state of affairs” (foreseeability) and “The organization failed to live up to its promises due to genuine misunderstanding regarding what they had promised me” (justifiability). These items were removed. The remaining nine items loaded on their intended factors. The variables of intentionality and foreseeability had Cronbach alpha reliabilities of .70 or greater. However, the reliability for justifiability was .56 but it increased to .70 after removing one item: “A situation beyond the organization’s control made it impossible for the organization to keep its commitment to me.”

Participants

Surveys were administered to employees of the participating organization at Time 1 and Time 2. The Time 1 survey was part of a larger study that focused on the PC of employees and supervisors. Employee ratings of their PCs were assessed at both periods, Time 1 and Time 2. Additionally, the Time 2 survey collected data on the contextual and cognitive factors.

The Time 1 survey was completed by 180 employees of the organization. Six respondents had numerous missing responses and were excluded from the sample. A total of 41% were male, and the average organizational and position tenure was 5.4 years and 3.9 years, respectively. At Time 2, 231 employees completed the survey. The average age was 32.5, and full-time work experience ranged from 1 year to 32 years with an average of 9.28 years. Matching the Time 1 and Time 2 data set yielded a sample of 100 employees who completed both Time 1 and Time 2 surveys. The average age of the sample employees was 34 years. At Time 2, average organizational tenure was 6.2 years and average position tenure was 4.2 years. t tests showed that respondents from Time 1 included in the analyses (N = 100) and respondents from Time 1 not included in the analyses (N = 74) did not differ significantly by age, gender, or work experience.
Measures

For the measures described below, the response scale ranged from 1 (strongly disagree) to 5 (strongly agree), unless otherwise indicated. For contextual measures, the respondents were provided the following instructions:

The following section asks you about an organizational event that affects you and your employment relationship with the “organization name.” Identify a current organizational event. Keeping in mind the event, read the following statements and indicate the extent to which you agree or disagree with the statements regarding this event.

A complete list of items for the contextual measures of novelty, discrepancy, deliberate initiative, uncertainty, and personal impact as well as the cognitive measures of intentionality, foreseeability, and justifiability is provided in Appendix A.

Novelty. A four-item measure was designed based on the theoretical reasoning provided by Louis and Sutton (1991). An example item is “This event is completely new” (α = .85).

Conscious deliberation. This factor refers to systematic attention given to the event in response to a direct or indirect request to attend to the event. An example item of this measure is “I have been asked to think about this event” (α = .76).

Uncertainty. Two items assessed the extent to which respondents perceive the event as uncertain. An example item is “I cannot predict how this event is going to affect me” (α = .75).

Personal impact. Four items measured employee perceptions regarding the extent to which the event had a direct impact on the employee. An example item is “This event affects me personally” (α = .89).

Intentionality. One item developed by Robinson and Morrison (2000) and two items adopted by Zottoli (2003) were used to assess employee attributions of intentionality. An example item is “I believe the organization is responsible for the breach of promises made” (α = .88).

Foreseeability. Items for the measure of foreseeability were written for this study based on the theoretical writing of Heider (1958) and consistent with items by Robinson and Morrison (2000) and Zottoli (2003). An example item is “I hold my organization responsible for not paying attention to the situation that resulted in loss of benefits it owed me” (α = .80).

Justifiability. For measuring employee attributions of justification, three items were written using similar language as Robinson and Morrison (2000) and Zottoli (2003). A sample item used in the study is “The organization cannot be held responsible for inability to fulfill its obligations toward me” (α = .62). We note that the reliability of this measure is less than the acceptable standard of .70 (Nunally, 1978).

Psychological contract. PC was measured at Time 1 and Time 2 using items from the Psychological Contract Inventory (PCI; Rousseau, 2000). All items used a 5-point Likert-type scale response format ranging from 1 (not at all) to 5 (to a great extent). Items from the PCI are theoretically derived and have demonstrated acceptable psychometric properties including meeting established criteria for internal consistency, convergent validity, and discriminant validity (Dabos & Rousseau, 2004; Hui et al., 2004). Sample items for transactional, relational, and balanced contracts are “Require me to do only limited duties,” “Stable benefits to employees’ families,” and “Support me in meeting increasingly higher goals,” respectively. For each type of PC, two composites were made using identical items from Time 1 and Time 2 surveys. The Cronbach alpha coefficients for the composites are listed in Table 1. T Tests show
that respondents did not significantly differ from nonrespondents in terms of transactional PC ($t = 1.749$, $df = 191$, $p = .95$), relational PC ($t = 1.430$, $df = 189$, $p = .08$), and balanced PC ($t = 1.430$, $df = 189$, $p = .15$).

**Control variables.** Research has found a significant positive relationship between relational PCs and employee tenure as well as work status (full-time or part-time; Coyle-Shapiro & Kessler, 2002). Hence, employee tenure and employee work status (full-time vs. part-time status) assessed at Time 2 were included in all the analyses.

**Results of the Study**

Table 1 shows the means, standard deviations, and reliabilities for each variable, as well as the correlation coefficients among the variables.

Confirmatory factor analysis (CFA) using LISREL 8.7 was conducted to further validate the measures for the contextual variables of novelty, conscious deliberation, uncertainty, and personal impact and the attributions of responsibility—intentionality and foreseeability. The six-factor model was compared with two alternative models: (a) a two-factor model representing the items for all the contextual variables as one factor and items for the cognitive variables as a second factor; and (b) a one-factor model with all the items loading on one factor. The six-factor model with items for the four contextual variables (novelty, conscious deliberation, uncertainty, and personal impact) and items for the two attributions of intentionality measures was found to be a better fit ($\chi^2 = 198.13$, $df$ [degrees of freedom] = 174, RMSEA [root mean square error of approximation] = .04; IFI [incremental fit index] = .97; GFI [goodness-of-fit index] = .81, SRMR [standardized root mean square residual] = .07) compared with Model (a) ($\chi^2 = 545.99$, $df = 188$, RMSEA = .15; IFI = .80; GFI = .61, SRMR = .14) and compared with Model (b) ($\chi^2 = 849.15$, $df = 189$, RMSEA = .21; IFI = .43; GFI = .51, SRMR = .18).

Multivariate regression analysis was used to examine contextual and cognitive factors as antecedents of revisions to PC content. Under Edwards’s (1995) approach, multivariate regression analysis involves an examination of the effects of each independent variable (IV) on the extent to which it leads to agreement (lack of change) or disagreement (change) between the two dependent variables (DVs). If the IV has a beta value that is significant, regression lines are plotted to examine whether there is convergence (or divergence) in the DV as the IV value increases from low to high. The convergence of
the lines indicates agreement in the two dependent variables, suggesting that the Time 1 variables do not differ from Time 2 variables. When the regression lines diverge as the IV increases from low to high, it suggests that the two dependent variables (PC at Time 1 and PC at Time 2) differ from each other, hence establishing support for the hypothesized relationships. Additionally, a negative beta value at Time 2 implies a downward revision of PC at Time 2 whereas a positive beta value suggests upward revision of PC at Time 2. This procedure has previously been used in PC research (see Tekleab & Taylor, 2003) and is recommended when estimating both dependent variables simultaneously as it provides better understanding of the predictors of those outcomes.

Table 2. Multivariate Regression Analysis: Predicting Revisions to Psychological Contract (PC)

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<tr>
<th>Independent Variables</th>
<th>Dependent Variable</th>
<th>Dependent Variable</th>
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<tr>
<td></td>
<td>Wilks' Lambda (λ)</td>
<td>Relational PC (T2) (β)</td>
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<td>-.22</td>
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<tr>
<td>F</td>
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<td>.89</td>
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NOTET1 indicates that data for the variable collected at Time 1; T2 indicates that data for the variable collected at Time 2.

1p < .1  p < .05  **p < .01  ***p < .001

Results from the multivariate regression, shown in Table 2, indicate that contextual and cognitive factors did not predict changes in transactional (F = .46, ns) or in balanced PCs (F = .83, ns). For relational PCs, results are significant (F = 2.792, p < .001) for the contextual factor of novelty (β = .26, p < .05), and the cognitive factors of intentionality (β = -.52, p < .01) and foreseeability (β = .35, p < .05). Figure 2(a) shows that as novelty increases, the regression lines for relational PC diverge indicating revisions to Time 2 ratings relative to Time 1 ratings. A similar pattern is indicated for foreseeability, suggesting that as employee attributions of foreseeability increase, employee perceptions of relational PC is enhanced from Time 1 to Time 2. The results are opposite for intentionality—to the extent employees attribute
intentionality related to the change context, relational PC undergoes downward revision from Time 1 to Time 2.

**Discussion**

A primary goal of the research was to incorporate context as a substantive variable in PC research. Applying sensemaking theory, we developed and tested a model of how certain aspects of the context and employee cognitions related to attributions of responsibility resulted in revisions to employees’ perceptions of terms of the exchange with the organization. The results of the study demonstrate that the effect of sensemaking associated with the change context is contingent on the nature of the exchange relationship. When the context undergoes transformation, it is expected to lead to revisions in the terms of the relationship. Our findings suggest that for employment relationships, this premise does not hold for relationships characterized by quid pro quo and short-term transactions (transactional PC) or relationships focused on career development and employability (balanced PC). On the other hand, for relationships characterized by loyalty and a long-term perspective (relational PC), organizational change context does have a significant impact.

In terms of the contextual triggers that stimulate change, *novelty*, was shown to be significantly related to employee perceptions of revisions to relational PC. The upward revisions suggest that to the extent the change context was viewed as novel, employees perceived that the organization is promising more than what used to be part of the prechange PC. This finding reveals that not all new programs are viewed negatively. While this appears counter to a widely held notion that the new workplace reality is leading to a breakdown of the PC (see Ghoshal & Bartlett, 2000), it is consistent with research on organizational change that shows that new work experiences can also result in employees adopting new beliefs regarding their work (Cavanaugh & Noe, 1999). Although speculative, the novelty of the situation may direct an individual’s attention to those terms of exchange that are viewed as beneficial. Social comparison processes may provide a useful lens to uncover whether employee sensemaking in the context of change involves comparing what one receives to that of a referent other and how this may highlight either positive or negative aspects of the exchange relationship.

The lack of empirical support for *conscious deliberation*, *uncertainty*, and *personal impact* may lead to the conclusion that these variables do not capture sensemaking related to a change context; however, given the strength of the theoretical support for these variables, additional tests using other samples are recommended before drawing any substantive conclusions.

Finally, attributions of responsibility were examined as a key cognitive mechanism by which employees evaluate changes to their PC. Of the three cognitive factors hypothesized in the study, *intentionality* emerged as a significant predictor of downward revision to relational PC, whereas *foreseeability* was related to upward revision of relational PC. The low reliability of the *justifiability* measure calls for additional testing of this variable as a predictor of change in PC. The strength of results of the cognitive factors relative to those of contextual factors could signify that the context per se is not a critical element in the changing nature of the PC. Rather, how the context is understood, specifically, the organization’s actions related to the context of change are critical determinants of employee assessments of changing obligations of the organization. However, additional research is needed to test this premise as we did not directly compare the strength of contextual factors in relation to cognitive factors. It may be possible that one factor, say personal impact, is more salient and account for effects larger than cognitive factors related to sensemaking. The positive impact of foreseeability attributions
highlight the importance of role explanations and social accounts play in managing employee sensemaking regarding the employment relationship.

Research studies examining the role of attributions in PC research have yielded mixed findings (Lester et al., 2002; Robinson & Morrisson, 2000). Our research suggests that incorporating attributions drawn from Heider’s (1958) taxonomy may shed light on the mixed results found as it reflects a finer-grained distinction in the types of attributions. This framework is applicable not only for employment relationship research but also to other areas of organizational behavior such as pay satisfaction, organizational learning, and performance management.

**Implications for Management**

Major transformations in the workplace are redefining employment relationships. Organizations are looking for ways to redress the negative fallout of these transitions on their employees. One important implication of our findings is that all PCs are not equally affected by organizational change events. In fact, our study found that it was relational PC but not transactional or balanced PCs that were affected by the change event. Therefore, managers should be especially careful when implementing changes that affect employees with relational PCs so that the change in PC is upward rather than downward. This can be done by paying attention to the employee sensemaking. For instance, organization can provide explanations and accounts of change that would provide justifications of organization’s actions. Furthermore, individuals with relational PCs may be particularly sensitive and view organizational changes as affecting their PCs. Therefore, seeking employee input and involving tenured employees’ in change programs may allay concerns related to changing employment relationships.

Our results also highlight that not all changes are viewed negatively by employees. The implication is that organizations can potentially be proactive in managing employee reactions to a change event and, in turn, increase the likelihood that employees will respond positively rather than negatively. To achieve this goal, managers might discuss the unique, novel features of the change in order to enhance employees’ perceptions of the novelty of the change event, as novelty was associated with upward change in the relational PC. Perceptions of intentionality as well as foreseeability also affect change in relational PCs. Managers should be specific in explaining why the change is being implemented, especially if it is due to external factors. This may reduce employees’ perceptions of the organization’s intentionality and thus reduce the likelihood that there is a downward change in relational PC.

**Limitations and Future Research**

The results of this study should be considered in light of its limitations. All the variables used in the study were assessed in the form of self-reports. This common source, common method bias has been addressed to some extent by the measurement of key variables at two different time periods. Another weakness of the study is the limited number of time periods in the data collection. A study of the dynamic nature of the exchange relationship requires assessment of the relationship at multiple periods of time. Such a study would be ideal to examine temporal patterns of some of the hypothesized variables. A related issue is that of the suitable time lapse between the two data collection time periods. As Coyle-Shapiro and Conway (2005) note, guidelines for acceptable timeframes for longitudinal PC research are not available. This issue is especially pertinent for the current study given its focus on the effect of change on the exchange relationship. It is likely that employee turnover in response to the
change context potentially eliminated some of the employees most affected by the change from our sample. However, this reasoning suggests that the hypothesized relationships may exhibit even stronger results if the sample were to include such employees. Our small sample size \((N = 100)\), too, raises questions regarding power issues that may have affected the results. Our post hoc power test indicated adequate power for this sample but future research with a larger sample size is recommended. Another limitation of the study stems from the sample being drawn from a not-for-profit organization. Even though the factor structure of the three types of PC matches that of samples drawn from other contexts (Dabos & Rousseau, 2004; Hui et al., 2004), it is prudent to conduct further research in order to determine the generalizability of the results.

The focus of our study was on how context is related to upward or downward change in employees’ PCs. In examining this issue, we measured employee perceptions of their PCs prior to, and 1 month following, a major change event in the participating company. It may be that surveying employees 1 month following the change announcement was too soon. This may explain perhaps why we found changes in PCs for relational but not transactional or balanced PCs. It may take longer than 1 month for employees to feel that the change event has implications for their transactional and balanced PCs. Due to the research design, we did not examine whether the change in context led to a change in the type of PC, for example, employees with a high relational PC moving to a high transactional PC. Although our study was not designed to examine changes from one type of PC to another, this is an important area for future research. Such studies should include multiple data collections before and after the change event and include a longer time period following the announcement of the change.

Finally, the contextual and cognitive antecedents examined in the study are likely to have interaction effects on employee PC postchange. For instance, the high personal impact of an event coupled with employee attributions of intentionality may result in stronger negative perceptions of changes in employee PC. Alternatively, conscious deliberation of an event and employee beliefs of justifiability of the organization’s role in the change event may result in an upward change in the PC. Future research with larger sample sizes should examine the interaction effects of contextual and cognitive variables on change in PCs.

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### Notes

1. Rousseau (2000) describes a fourth type of contract as transitional psychological contract. However, as noted by Rousseau (2000) and Hui et al. (2004), transitional psychological contract cannot be viewed as a psychological contract form as it reflects a breakdown or absence of an exchange agreement between two parties.

2. Heider proposed two other types of attributions: Association—an entity is held responsible for all effects that are in any way connected with the entity or its actions and Commission—the entity is held responsible to the extent the observed effects are ascribed to the entity even though the effects could not have been foreseen. The cognitive processes underlying the attributions at each level are said to represent different levels of maturation, that is, at the first level of association the attributions are undifferentiated and global but progression to the next level shows a higher degree of sophistication. Empirical research on a sample of children and adults supports this notion. Research by Shaw and Sulzer (1964) found that the majority of the attributions made by children were attributions of association and commission while the majority of the attributions made by adults were attributions of foreseeability, intentionality, and justification. Therefore, the current study focuses only on the latter three types of attributions.

### Appendix A

<table>
<thead>
<tr>
<th>Variables</th>
<th>Contextual Factors (Time 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novelty 1</td>
<td>This event is completely new</td>
</tr>
<tr>
<td>Novelty 2</td>
<td>This event is previously unknown</td>
</tr>
<tr>
<td>Novelty 3</td>
<td>This event stands as being out of the ordinary</td>
</tr>
<tr>
<td>Novelty 4</td>
<td>This event is surprising as it was not anticipated</td>
</tr>
<tr>
<td>Discrepancy 1</td>
<td>The event is completely unexpected</td>
</tr>
<tr>
<td>Discrepancy 2</td>
<td>This event is unlike any experience that I have had before</td>
</tr>
<tr>
<td>Discrepancy 3</td>
<td>This event disrupts the way things used to be done here</td>
</tr>
<tr>
<td>Deliberate Initiative 1</td>
<td>I have been asked to think about this event</td>
</tr>
<tr>
<td>Deliberate Initiative 2</td>
<td>A request has been made to pay attention to this event</td>
</tr>
<tr>
<td>Deliberate Initiative 3</td>
<td>I am required to attend to this event</td>
</tr>
<tr>
<td>Uncertainty 1</td>
<td>This event provokes uncertainty</td>
</tr>
<tr>
<td>Uncertainty 2</td>
<td>This event makes me feel insecure</td>
</tr>
<tr>
<td>Uncertainty 3</td>
<td>I cannot predict how this event is going affect me</td>
</tr>
<tr>
<td>Uncertainty 4</td>
<td>There is a lot of ambiguity related to this event</td>
</tr>
<tr>
<td>Personal Impact 1</td>
<td>This event will bring about a lot of changes for me</td>
</tr>
<tr>
<td>Personal Impact 2</td>
<td>Due to this event, my work life will change dramatically</td>
</tr>
<tr>
<td>Personal Impact 3</td>
<td>This event affects me personally</td>
</tr>
<tr>
<td>Personal Impact 4</td>
<td>I expect a high level of personal impact due to this event</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cognitive Factors (Time 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intentionality 1</td>
<td>“ORGANIZATION” could have kept its commitment to me but it chose not to</td>
</tr>
<tr>
<td>Intentionality 2</td>
<td>“ORGANIZATION” behavior was motivated by selfish rather than unselfish concerns</td>
</tr>
<tr>
<td>Intentionality 3</td>
<td>I believe “ORGANIZATION” is responsible for the breach of promises made</td>
</tr>
<tr>
<td>Intentionality 4</td>
<td>Organization failed to live up to its promises on purpose rather than unintentionally</td>
</tr>
<tr>
<td>Foreseeability 1</td>
<td>I believe “ORGANIZATION” should have anticipated the reason that it could not keep its commitments</td>
</tr>
<tr>
<td>Foreseeability 2</td>
<td>Failure to foresee the circumstances led to “ORGANIZATION”’s failure to fulfill its obligations toward me</td>
</tr>
<tr>
<td>Foreseeability 3</td>
<td>I hold “ORGANIZATION” responsible for not paying attention to the situation that resulted in loss of benefits it owes me</td>
</tr>
<tr>
<td>Justifiability 1</td>
<td>A situation beyond “ORGANIZATION”’s control made it impossible for the organization to keep its commitment to me</td>
</tr>
<tr>
<td>Justifiability 2</td>
<td>“ORGANIZATION” failed to live up to its promise due to a genuine misunderstanding regarding what they had promised</td>
</tr>
<tr>
<td>Justifiability 3</td>
<td>I believe “ORGANIZATION” is justified in not providing what it owes me</td>
</tr>
<tr>
<td>Justifiability 4</td>
<td>“ORGANIZATION” cannot be held responsible for inability to fulfill its obligations toward me</td>
</tr>
</tbody>
</table>

*a. Items excluded from analyses.*
3. We would like to thank an anonymous reviewer for this clarification and suggestion for future research.

4. We would like to thank an anonymous reviewer for highlighting the possibility of interactions

References


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