

Research Note **Re-examining the effects of psychological contract violations: unmet expectations and job dissatisfaction as mediators**

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Summary

This research examines whether the relationships between psychological contract violations and three types of employee behavior (intention to quit, neglect of in-role job duties, and organizational citizenship behaviors) are mediated by unmet expectations and job dissatisfaction. Using a sample of over 800 managers from a wide variety of research sites, this study tests for mediator effects using both hierarchical regression analyses and structural equation modelling. The results suggest that unmet expectations and job dissatisfaction do partially mediate such relationships. Copyright © 2000 John Wiley & Sons, Ltd.

Introduction

Increasingly competitive world markets, a slow-growth domestic economy, and a strong focus on short-term profits have all been blamed for (or credited with) putting an end to the traditional employment relationship (e.g., D'Aveni, 1994; De Meuse and Tornow, 1990; Kissler, 1994; Parks and Kidder, 1994; Robinson, 1996). The widespread layoffs, restructurings, and reorganizations which have resulted from these competitive pressures have left many employees disillusioned and cynical (Andersson, 1996; Kanter and Mirvis, 1989), feeling less job security, displaying less organizational loyalty, and placing less faith in their employers' promises and commitments to them (Altman and Post, 1996; Mirvis and Kanter, 1992; Robinson and Rousseau, 1994). In light of these events, psychological contracts are now playing an increasingly important role in helping to define and understand the contemporary employment relationship.

Psychological contracts consist of individuals' beliefs regarding the terms and conditions of an exchange agreement between themselves and their organizations (Rousseau, 1989). Of critical importance in the establishment of any psychological contract is the belief that a 'promise' (either implicit or explicit) has been made and that a 'consideration' has been offered in exchange for it. That is, psychological contracts emerge when individuals perceive that their organization has

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agreed to provide them with certain rewards in return for the contributions that they make to the organization.

While psychological contracts have been frequently discussed in theoretical terms, empirical research on this topic is fairly recent. Prior research has demonstrated that violations of psychological contracts are relatively common and that psychological contract violations are associated with a variety of negative outcomes. The outcomes likely to arise from the perception of psychological contract violation include reduced job satisfaction, reduced organizational trust, increased turnover, decreased feelings of obligation to one's employer, reduced willingness to participate in organizational citizenship behaviors, and decreased work performance (cf. Robinson, Kraatz and Rousseau, 1994; Robinson and Morrison, 1995a; Robinson and Rousseau, 1994; Robinson, 1995).

Though researchers have documented the direct effects of psychological contract violations on employee behaviors, the processes through which psychological contract violations influence employee behaviors has received little empirical attention, with one exception. In that study, Robinson (1996) examined trust and unmet expectations as potential mediators of the relationships between psychological contract violations and employees' subsequent contributions to their organizations. Her results suggest that trust and unmet expectations do (at least partially) mediate the relationships between psychological contract violations and employees' contributions to their organizations. That is, perceptions of psychological contract violations lead to lower trust in the organization and a sense of unmet expectations, and those reactions, in turn, lead to poorer job attitudes and job performance. This research advances prior empirical work on the effects of psychological contract violations in three ways.

First, this research uses an improved measure of psychological contract violations. There has been some ambiguity in previous research regarding the meaning and measurement of this construct. Particularly in empirical studies (e.g., Robinson *et al.*, 1994; Robinson and Morrison, 1995a; Robinson and Rousseau, 1994), 'psychological contract violation' has been defined as the employee's perception that the organization has failed to fulfil one or more of its obligations as defined by the psychological contract. More recently, however, Morrison and Robinson (1997) defined 'psychological contract breach' as the employee's cognition that the organization has failed to meet one or more of its obligations and psychological contract violation as the emotional or affective state that frequently follows such a perception. In addition, while the term 'psychological contract violation' has been used to denote those cases when employees receive *less* than they were promised, there are also cases where employees may receive *more* than they were promised. Thus, psychological contracts can be 'violated' in the sense that important obligations have not been fulfilled or psychological contracts can be 'over-fulfilled' in the sense that the organization provides employees with more than they were promised.

While most prior research in this area has utilized single-item, global assessments of psychological contract violations (e.g., Robinson *et al.*, 1994; Robinson and Morrison, 1995a; Robinson and Rousseau, 1994), the measure used in this study includes multiple items assessing 16 specific aspects of the employment relationship. Moreover, the response scale used here ranges from 'Received much more than promised' to 'Received much less than promised'. Consequently, the new measure allows researchers to examine not only instances of under-fulfillment (the most common approach to assessing psychological contract violations and the focus of the present study), but also instances of over-fulfillment as well.

Second, while the direct relationships between psychological contract violations and employee behaviors are reasonably well documented, very little research has been conducted examining why psychological contract violations have the effects they do. This research aims to build on previous research on the mediating effects of unmet expectations and to consider job dissatisfaction as a mediating variable as well. More specifically, this research proposes that the experience

of a psychological contract violation triggers both job dissatisfaction and unmet expectations, and these, in turn, adversely affect job behaviors. Thus, the present research examines whether unmet expectations and job dissatisfaction fully or partially mediate the relationships between psychological contract violations and job behaviors. Moreover, the mediating effects of these variables are tested using both hierarchical regression and structural equation modelling.

Third, this study employs a much larger ($N = 804$) and much broader sample of employees than those used in previous research. Virtually all of the published research in this area has examined the psychological contract violations experienced by a single cohort of MBA graduates making the transition from school to work (e.g., Robinson, 1996; Robinson *et al.*, 1994; Robinson and Morrison, 1995a; Robinson and Rousseau, 1994). In addition to a sample of recent MBA graduates, this study also includes two other groups of workers for whom psychological contract violations are likely to be a prominent issue, namely, expatriates dealing with international relocation and managers working for organizations which have recently been restructured or downsized. The generalizability of the obtained results should be increased by the use of these multiple samples.

Theory

Outcomes of psychological contract violations

Psychological contracts define the terms of the social exchange relationship (Blau, 1964; Homans, 1961) that exists between individuals and their organizations. Previous research suggests that employees seek to maintain equity between the costs and benefits of such relationships (Adams, 1965). Thus, employees who experience psychological contract violations will, in turn, decrease the contributions that they make to their organizations (e.g., Robinson *et al.*, 1994). Drawing on the framework employed by Robinson (1996), this research examines three distinct forms of employee contributions that are critical for determining organizational effectiveness (Katz, 1964; Katz and Kahn, 1978). Specifically, these behaviors are: (1) choosing to remain in the organization; (2) dependably performing prescribed duties that are a part of one's job, and (3) engaging in innovative and spontaneous behaviors that are not specified by job requirements but that facilitate organizational effectiveness (i.e., organizational citizenship behaviors). Consistent with the previous research in this area, it is expected that:

H1: Psychological contract violations will be positively related to employees' efforts to find alternative employment (intention to quit).

H2: Psychological contract violations will be positively related to employees' neglect of their in-role job duties and responsibilities.

H3: Psychological contract violations will be negatively related to employees' willingness to engage in organizational citizenship behaviors.

Unmet expectations as a mediator of the relationships between psychological contract violations and employee contributions

Porter and Steers (1973) defined the discrepancy between what employees actually encounter in the job and what they expected to encounter as 'unmet expectations.' The unmet expectations

literature suggests that such discrepancies lead to decreased job satisfaction, reduced commitment, lower performance, and increased turnover (Wanous *et al.*, 1992).

As Robinson (1996) notes, critics of the psychological contracts literature contend that the sole mechanism underlying employees' responses to psychological contract violations is this sense of unmet expectations. If psychological contract violations impact employee behaviors only through unmet expectations, then previous work examining responses to psychological contract violations has merely replicated the research that has already been conducted on the outcomes of unmet expectations. As such, research on psychological contract violations contributes little to our understanding of employee attitudes and behaviors.

To test this possibility, Robinson (1996) examined whether unmet expectations mediated the relationships between psychological contract violations and employees' subsequent contributions to their organizations. Her results suggest that unmet expectations fully mediated the relationship between psychological contract violations and work performance and partially mediated the relationship between psychological contract violations and intent to remain with the organization. However, in her study, unmet expectations did not mediate the relationship between psychological contract violations and organizational citizenship behaviors.

In contrast, advocates of psychological contract research contend that psychological contract violations involve not only the experience of unmet expectations, but also something deeper and more emotional (Rousseau, 1989, 1995). Specifically, psychological contracts involve an element of trust, a sense of relationship, and a belief in the existence of a promise of future benefits that one party has already 'paid for' (reciprocal obligations). Thus, psychological contract violations are thought to produce 'more than just unmet expectations' (Rousseau, 1989). Psychological contract violations damage the very foundation of the relationship that exists between the organization and the individual.

Therefore, in contrast to the idea that unmet expectations fully mediate the relationships between psychological contract violations and employee behaviors, psychological contract theorists argue that the relationships between psychological contract violations and employee behaviors will remain significant even after controlling for unmet expectations. Again, if unmet expectations fully mediate these relationships, it would suggest that research on psychological contract violations is merely replicating the research that has been conducted examining the outcomes of unmet expectations. Hypotheses 4, 5 and 6 explicitly test this theoretical argument.

H4: Unmet expectations will mediate the relationship between psychological contract violations and employees' efforts to find alternative employment (intention to quit).

H5: Unmet expectations will mediate the relationship between psychological contract violations and employees' neglect of their in-role job duties and responsibilities.

H6: Unmet expectations will mediate the relationship between psychological contract violations and employees' willingness to engage in organizational citizenship behaviors.

Job satisfaction as a mediator of the relationships between psychological contract violations and employee contributions

Previous research suggests that the discrepancy between promised and received outcomes is likely to lead to feelings of inequity and, subsequently, to job dissatisfaction (Lawler, 1973; Wanous, 1973). This is especially likely if the discrepancies occur on important aspects of the job. For example, when managers receive considerably fewer promotional opportunities than they were

promised, this discrepancy leads to feelings of inequity and ultimately to heightened job dissatisfaction. Moreover, previous research suggests that psychological contract violations also result in feelings of resentment and mistrust, which reduce job satisfaction as well (Robinson and Rousseau, 1994; Rousseau, 1989).

Previous research has not yet examined whether job dissatisfaction mediates the relationships between psychological contract violations and employees' contributions to their organizations. However, numerous studies in other research streams suggest that job dissatisfaction results in employees reducing their contributions to organizations in a wide variety of ways. For example, job satisfaction has been found to be negatively related to absenteeism and turnover (Locke, 1976; Withey and Cooper, 1989), positively related to the performance of organizational citizenship behaviors (Bateman and Organ, 1983; Organ and Konovsky, 1989; Williams and Anderson, 1991), and positively related to work effort (Rusbult *et al.*, 1988; Withey and Cooper, 1989).

Thus, it appears likely that job dissatisfaction will mediate the relationships between psychological contract violations and employee behaviors. That is, the experience of psychological contract violation is likely to create a sense of job dissatisfaction in employees, and it is this job dissatisfaction, in turn, which leads to employees lowering their contributions to their organizations.

Similar to the arguments made above, if job dissatisfaction fully mediates the relationships between psychological contract violations and employees' contributions to their organizations, it would suggest that research on psychological contract violations is merely replicating the research that has already been conducted on the outcomes of job dissatisfaction. In contrast, if job dissatisfaction does not fully mediate these relationships, then psychological contract violations are able to explain variance in these outcomes that job dissatisfaction cannot account for. Thus, testing whether job dissatisfaction mediates the relationships between psychological contract violations and employees' contributions to their organizations is necessary in order to better understand why it is that psychological contract violations have the impact on employees' behaviors that they do. Hypotheses 7, 8 and 9 explicitly examine the nature of the relationships among these variables.

H7: Job dissatisfaction will mediate the relationship between psychological contract violations and employees' efforts to find alternative employment (intention to quit).

H8: Job dissatisfaction will mediate the relationship between psychological contract violations and employees' neglect of their in-role job duties and responsibilities.

H9: Job dissatisfaction will mediate the relationship between psychological contract violations and employees' willingness to engage in organizational citizenship behaviors.

Method

Sample

A total of 804 managerial-level personnel participated in this research. The sample was 55 per cent male and 45 per cent female. The mean age of respondents was 35; organizational tenure averaged seven years. The average salary of respondents was US \$49,000.

Data were collected from four samples of employees. The first sample consisted of 213 recent alumni from a masters in business administration programme at a large state university. The second sample consisted of 263 managers in international business who were alumni of a

graduate programme in international business. The third sample was comprised of 223 managers and executives from the operations centres of a Fortune 500 bank; the bank had recently been through a merger which resulted in widespread layoffs. Finally, the fourth sample consisted of 105 managers from a large state agency; major units within this agency had been significantly restructured and reorganized during the past two years.

Data were collected via mail surveys sent to respondents' home addresses; surveys were returned directly to the researchers. All participants were promised anonymity; no specific identifying information was requested. The overall response rate was 33 per cent; there were not major differences in response rates across samples.

Degree of psychological contract violation

The degree of psychological contract violation was assessed with a multi-item measure developed for this research. Specifically, the measure was comprised of 16 items tapping the typical dimensions of the employment relationship studied in previous research (e.g., Rousseau, 1990; Robinson and Morrison, 1995b): salary, pay raises, bonuses, training, advancement opportunities, career development, overall benefits, retirement benefits, health care benefits, decision-making input, job responsibility, job challenge, feedback on job performance, supervisory support, organizational support, and job security.

Respondents were asked to indicate how the amount of each aspect they had actually received compared to the amount that the organization had committed to provide them. Responses were made on a five-point scale scored as follows: 1 (receive much more than promised); 2 (receive more than promised); 3 (receive about the same as promised); 4 (receive less than promised); and 5 (receive much less than promised). The higher the score, the greater the magnitude of psychological contract violation it represents. As noted by Robinson (1996), assessing the degree of psychological contract violation in this way takes into account the full range of variance possible on these items, from over-fulfillment (receiving more than promised) to under-fulfillment (receiving less than promised).

The 16 items were averaged to form a scale, with higher values representing a greater degree of psychological contract violation ($X = 3.09$, $S.D. = 0.43$). Cronbach's alpha for the scale was 0.83. To assess the validity of the current measure, respondents also indicated the overall level of psychological contract violation they had experienced using the single-item measure used in previous research (e.g., Robinson *et al.*, 1994; Robinson and Rousseau, 1994). That item read: 'Overall, how well has your employer fulfilled the promised obligations that they owed you?' As expected, the two measures were positively and significantly correlated ($r = 0.70$, $p < 0.001$).

Employee contributions

Employees' intent to quit was measured with a six-item scale adapted from Weiss *et al.* (1967). These items assessed the extent to which respondents' were actively trying to find a job with another company. A sample item is, 'I have recently made calls or sent out my résumé in order to find another job.' The six items were averaged to form a scale, with higher values indicating a greater intent to quit ($X = 2.35$, $S.D. = 1.19$). Cronbach's alpha for this scale was 0.93.

Employees' neglect of their in-role job duties was measured with six items from Rusbult *et al.* (1988). These items focused on the extent to which employees shirked their in-role responsibilities or avoided performing basic duties required by their jobs. Sample items include: 'I sometimes

waste time while at work' and 'I try to keep out of sight of my supervisor so that I can talk to co-workers, take breaks, or take care of personal business.' The six items were averaged to form a scale ($X = 2.16$, $S.D. = 0.43$), with higher values indicating greater neglect of in-role job responsibilities. Cronbach's alpha for this scale was 0.73.

Organizational citizenship behavior was measured with seven items from Van Dyne, Graham, and Dienesch (1994). These items tapped the performance of spontaneous extra-role behaviors described by Katz (1964) as critical for promoting organizational effectiveness. Sample items include: 'I am willing to go out of my way to defend the organization to outsiders' and 'I generally do not volunteer to help out on tasks that are not part of my job' (reverse scored). These items were averaged to form a scale ($X = 3.86$, $S.D. = 0.61$), with higher values indicating a greater participation in organizational citizenship behaviors. Cronbach's alpha for this scale was 0.81.

Met expectations and job satisfaction

Met expectations was measured with four items adapted from Feldman (1976). A sample item is, 'The good points and bad points of this job are pretty much as I expected when I was hired.' The four items were averaged to form a scale ($X = 3.31$, $S.D. = 0.96$), with higher scores indicating a greater degree of met expectations. Cronbach's alpha for this scale was 0.88.

Job satisfaction was measured with two items from Hackman and Oldham (1976). A sample item is, 'Generally speaking, I am very satisfied with this job.' The two items were averaged to form a scale ($X = 3.58$, $S.D. = 0.75$), with higher scores representing a greater degree of job satisfaction. Cronbach's alpha for this scale was 0.70.

Control variables

In the data analyses, several additional variables were controlled for in order to rule out alternative explanations for the findings. Specifically, organizational tenure and salary were controlled for because these variables might plausibly influence employees' contributions to their firms by increasing the amount of vested interest that employees have in remaining with their current organizations. Also, because there were demographic differences across samples, gender and age were also controlled for. (Gender was coded '0' if the respondent was female and '1' if the respondent was male.) Finally, in order to control for mean differences across samples, dummy coded variables representing the various data collection sites were also entered into the regression equations as control variables (Pedhazur, 1982). A correlation matrix of all the variables in this study appears in Table 1.

Results

Main effects

Hypotheses 1, 2 and 3 suggested that psychological contract violations would impact all three forms of employee contributions to their organizations. Specifically, psychological contract violations were hypothesized to be positively related to employees' intent to quit, positively

Table 1. Correlation matrix of variables

	Mean	S.D.	1	2	3	4	5	6	7	8	9
1. Gender	n/a	n/a									
2. Age	35.07	7.90	0.06								
3. Salary	49 K	20 K	0.41‡	-0.02							
4. Tenure	7.41	7.27	0.15‡	0.65**	-0.08*						
5. Degree of violation	3.09	0.43	-0.08*	0.06	-0.19‡	0.08*					
6. Met expectations	3.31	0.96	0.12‡	-0.01	0.17‡	-0.01	-0.65‡				
7. Job satisfaction	3.58	0.75	0.03	0.13**	0.06	0.10†	-0.56‡	0.64‡			
8. Intent to quit	2.34	1.13	0.10†	-0.17**	-0.06	-0.14‡	0.48‡	-0.55‡	-0.61‡		
9. Neglect (in-role)	2.16	0.43	0.07	-0.19**	-0.07*	-0.13‡	0.18‡	-0.23‡	-0.40‡	0.30‡	
10. OCBs (extra-role)	3.86	0.61	-0.01	0.12**	0.14‡	0.07	-0.46‡	0.46‡	0.54‡	-0.65‡	-0.45‡

Note: Values for age and tenure are expressed in years.
 Values for salary are expressed in thousands of dollars.
 * $p < 0.05$; † $p < 0.01$; ‡ $p < 0.001$.

Table 2. Hierarchical regressions examining the impact of psychological contract violations on employee contributions

<i>Outcomes:</i>	Intent to quit		Neglect (in-role)		OCBs (extra-role)	
<i>Predictors:</i>						
Step 1:						
Gender	0.13‡	0.12‡	0.08*	0.09*	-0.08*	-0.07*
Age	-0.09	-0.09*	-0.16‡	-0.16‡	0.13‡	0.12‡
Tenure	0.01	-0.02	0.01	0.01	-0.03	0.01
Salary	-0.20‡	-0.13‡	-0.08	-0.06	0.18	0.13‡
Site 1	0.09	0.09*	0.07	0.07	-0.07	-0.08
Site 2	-0.05	-0.06	-0.05	-0.06	-0.01	0.01
Site 3	-0.10*	-0.12‡	-0.05	-0.06	-0.04	-0.03
Step 2:						
Violations		0.51‡		0.15‡		-0.43‡
<i>F</i>	7.27‡	42.60‡	7.14‡	8.43‡	5.05‡	26.59‡
Adj. <i>R</i> -Sq.	0.05	0.30	0.05	0.07	0.04	0.21
<i>R</i> -Sq Change		0.25		0.02		0.17

* $p < 0.05$; † $p < 0.01$; ‡ $p < 0.001$.

related to neglect of their in-role job duties, and negatively related to employees' willingness to engage in organizational citizenship behaviors.

These hypotheses were tested using hierarchical regression. In the first step, all of the control variables were entered into the regression equations. In the second step, the overall degree of psychological contract violation was entered into the regression equations. The results provide consistent support for Hypotheses 1, 2, and 3; the degree of psychological contract violation was positively related to employees' intent to quit, positively related to neglect of their in-role job duties, and negatively related to employees' willingness to perform organizational citizenship behaviors. The results of these analyses are reported in Table 2.

Mediating variable results

Hypotheses 4, 5, and 6 posited that unmet expectations would mediate the relationships between psychological contract violations and employees' contributions to their organizations. Similarly, Hypotheses 7, 8, and 9 suggested that job dissatisfaction would mediate the relationships between psychological contract violations and employees' behaviors. These hypotheses were tested following the procedures outlined by Baron and Kenny (1986). They suggested that three conditions must be met in order to demonstrate mediation.

First, the independent variable (psychological contract violation) and the proposed mediator (unmet expectations or job dissatisfaction) must each be significantly related to the dependent variable (intent to quit, neglect of in-role job duties, or organizational citizenship behavior) when considered separately. An examination of the correlation matrix (cf. Table 1) reveals that psychological contract violations, met expectations, and job satisfaction are all significantly correlated with each of the three dependent variables. Thus, the first condition is satisfied.

Second, the independent variable must be significantly related to the proposed mediator. Again, an examination of the correlation matrix reveals that psychological contract violations are significantly related to both met expectations and job satisfaction. Therefore, the second condition is satisfied as well.

Third, the relationship between the independent variable and the dependent variable should be significantly weaker (partial mediation) or non-significant (full mediation) when the proposed mediator is included in the regression equation. To test this last condition, a series of hierarchical regressions were performed. The results of these analyses are presented in Table 3.

In the first step, the control variables and the degree of psychological contract violation were entered into the regression equations. In the second step, the mediating variable (either met expectations or job satisfaction) was entered into the regression equations. Below, we first present the results for met expectations as a mediating variable, followed by the results for job satisfaction as a mediating variable.

Met expectations

When met expectations was included in the regression equation for intent to quit (Step 2A), it was a significant predictor. In addition, although psychological contract violations also remained a significant predictor, its beta weight decreased significantly (and was less than the beta weight for met expectations). Thus, unmet expectations partially mediated the relationship between psychological contract violations and intent to quit (providing support for Hypothesis 4).

When met expectations was included in the regression equation predicting neglect of in-role job duties (Step 2A), it was not a significant predictor. Also, psychological contract violations remained a significant predictor. Thus, unmet expectations did not mediate the relationship between psychological contract violations and neglect of in-role job duties (i.e., Hypothesis 5 was not supported).

When met expectations was included in the regression equation predicting organizational citizenship behavior (Step 2A), it was a significant predictor. In addition, although psychological contract violations remained a significant predictor, its beta weight decreased significantly (and was less than the beta weight of met expectations). Thus, unmet expectations partially mediated the relationship between psychological contract violations and organizational citizenship behavior (providing support for Hypothesis 6).

Job satisfaction

When job satisfaction was included in the regression equation predicting intent to quit (Step 2B), it was a significant predictor. Although psychological contract violations remained a significant predictor, its beta weight decreased significantly (and was less than the beta weight for job satisfaction). Thus, job dissatisfaction partially mediated the relationship between psychological contract violations and intent to quit (providing support for Hypothesis 7).

When job satisfaction was included in the regression equation predicting neglect of in-role job duties (Step 2B), it was a significant predictor. Furthermore, psychological contract violations was no longer a significant predictor. Thus, job dissatisfaction fully mediated the relationship between psychological contract violations and neglect of in-role job duties (supporting Hypothesis 8).

Finally, when job satisfaction was included in the regression equation predicting employees' willingness to engage in organizational citizenship behavior (Step 2B), it was a significant predictor. Also, although psychological contract violations remained a significant predictor, its beta weight decreased significantly (and was less than the beta weight of job satisfaction). Thus, job dissatisfaction partially mediated the relationship between psychological contract violations and organizational citizenship behavior (providing support for Hypothesis 9).

Table 3. Hierarchical regressions examining the mediating effects of unmet expectations and job dissatisfaction

<i>Outcome:</i>	<i>Intent to quit</i>			
<i>Predictors:</i>				
Step 1:				
Gender	0.12‡	0.16‡	0.10‡	0.13‡
Age	-0.09*	-0.11†	-0.07	-0.09*
Tenure	-0.02	0.01	-0.01	0.01
Salary	-0.13†	-0.10†	-0.10†	-0.09*
Site 1	0.09*	0.09†	0.07	0.07*
Site 2	-0.06	-0.06	-0.03	-0.03
Site 3	-0.12†	-0.08*	-0.07	-0.06
Violations	0.51‡	0.24‡	0.26‡	0.16‡
Step 2A:				
Met expectations		-0.41‡		
Step 2B:				
Job satisfaction			-0.45‡	
Step 2C:				
Met expectations				-0.23‡
Job satisfaction				-0.35‡
<i>F</i>	42.60‡	56.34‡	67.23‡	66.07‡
Adj. <i>R</i> -Sq.	0.30	0.39	0.44	0.46
<i>R</i> -Sq change		0.10	0.15	0.17
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<i>Outcome:</i>	<i>Neglect of in-role duties</i>			
<i>Predictors:</i>				
Step 1:				
Gender	0.09*	0.10*	0.09*	0.07
Age	-0.16‡	-0.16†	-0.15†	-0.14†
Tenure	0.01	0.01	0.02	0.01
Salary	-0.06	-0.07	-0.05	-0.06
Site 1	0.07	0.07	0.06	0.05
Site 2	-0.06	-0.06	-0.04	-0.04
Site 3	-0.06	-0.06	-0.04	-0.04
Violations	0.15†	0.16‡	0.04	0.01
Step 2A:				
Met expectations		-0.02		
Step 2B:				
Job satisfaction			-0.19‡	
Step 2C:				
Met expectations				0.04
Job satisfaction				-0.25‡
<i>F</i>	8.43‡	7.50‡	10.00‡	9.87‡
Adj. <i>R</i> -Sq.	0.07	0.07	0.10	0.10
<i>R</i> -Sq change		0.00	0.03	0.03

Table 3 Continued over page

Table 3. Continued

<i>Outcome:</i>	<i>OCBs (extra-role behaviors)</i>			
<i>Predictors:</i>				
Step 1:				
Gender	-0.07*	-0.10†	-0.05	-0.07
Age	0.12†	0.14†	0.10*	0.11†
Tenure	0.01	-0.02	-0.02	-0.03
Salary	0.13†	0.10*	0.10*	0.09*
Site 1	-0.08	-0.07	-0.05	-0.05
Site 2	0.01	-0.01	-0.03	-0.03
Site 3	-0.03	-0.05	-0.07	-0.07
Violations	-0.43‡	-0.21‡	-0.20‡	-0.15‡
Step 2A:				
Met expectations		0.32‡		
Step 2B:				
Job satisfaction			0.41‡	
Step 2C:				
Met expectations				0.14†
Job satisfaction				0.36‡
<i>F</i>	26.59‡	31.73‡	41.93‡	39.06‡
Adj. <i>R</i> -Sq.	0.21	0.27	0.33	0.33
<i>R</i> -Sq change		0.06	0.12	0.12

* $p < 0.05$; † $p < 0.01$; ‡ $p < 0.001$.

Multiple mediators

In addition, we ran a final set of hierarchical regressions in which both met expectations and job satisfaction were included in the equations predicting employees' behaviors (Step 2C). The results of these analyses were generally consistent with the results discussed above. Specifically, both met expectations and job satisfaction partially mediated the relationship between psychological contract violations and intent to quit (providing support for Hypotheses 4 and 7) and between psychological contract violations and organizational citizenship behaviors (providing support of Hypotheses 6 and 9). Also, consistent with the findings discussed above, met expectations did not mediate the relationship between psychological contract violations and neglect of in-role job duties (Hypothesis 5 was not supported), but job satisfaction fully mediated this relationship (Hypothesis 8 was supported).

Structural equation modelling

The hypothesized relationships were also examined using structural equation modelling. Structural equation modelling allows tests of alternative causal models to examine which model best accounts for or 'fits' the observed data. Specifically, structural equation modelling was used to examine which of two types of models best fit the data. Tests were conducted to see whether 'mediated' models (i.e., ones in which the process variables—met expectations and job satisfaction—mediate the relationships between psychological contract violations and employee behaviors) fit significantly better than 'direct effects' models (i.e., ones in which both

psychological contract violations and the process variables have direct effects on the dependent variables).

Model fit was examined by looking at the following indices: the Goodness of Fit Index (GFI), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), and Normed Fit Index (NFI). Values of greater than or equal to 0.90 on the GFI, CFI, TLI, and NFI indicate good fit (Floyd and Widaman, 1995).

In the first direct effects model, psychological contract violations and unmet expectations were modelled as having independent effects on employee behaviors. The fit indices obtained for this model were: GFI = 0.85, CFI = 0.84, TLI = 0.75, and NFI = 0.84. These results indicate less than good fit for the direct effects model.

Next, this model was compared to a model in which unmet expectations mediates the relationships between psychological contract violations and employee behaviors: **psychological contract violations** → **unmet expectations** → **employee behaviors**. For the mediated model, the fit indices were: GFI = 0.93, CFI = 0.95, TLI = 0.92, and NFI = 0.94. A chi-square test was used to determine whether the mediated model provided a significantly better fit to the data than the direct effects model did. The results suggest that the model in which the impact of psychological contract violations on employee behaviors is mediated by unmet expectations fits the data significantly better than the model in which both psychological contract violations and unmet expectations have direct effects on employee behaviors (chi-square change = 546, $df = 2$, $p < 0.001$).

Using the same procedure, structural equation modelling was used to examine the relationships between psychological contract violations, job satisfaction, and employee behaviors. That is, a direct effects model in which both psychological contract violations and job satisfaction have direct effects on employee behaviors was examined first. The following fit indices were obtained for the direct effects model: GFI = 0.87, CFI = 0.85, TLI = 0.78, and NFI = 0.85. As above, these results indicate less than good fit for the direct effects model.

Next, a mediated model in which the relationships between psychological contract violations and employee behaviors are mediated by job satisfaction was examined: **psychological contract violations** → **job dissatisfaction** → **employee behaviors**. For this model, the fit indices were: GFI = 0.94, CFI = 0.95, TLI = 0.92 and NFI = 0.94. Again, a chi-square test was used to determine whether the mediated model provided a significantly better fit to the data than the direct effects model. Here, too, the results indicate that the model in which the impact of psychological contract violations on employee behaviors is mediated by job satisfaction fits the data significantly better than the model in which both psychological contract violations and job satisfaction have direct effects on employee behaviors (chi-square change = 468, $df = 2$, $p < 0.001$).

In addition, a model incorporating both met expectations and job satisfaction as mediators was also examined. This model specified that psychological contract violations lead to unmet expectations, that unmet expectations lead to job dissatisfaction, and that, in turn, job dissatisfaction directly influences employees' behaviors: **psychological contract violations** → **unmet expectations** → **job dissatisfaction** → **undesirable employee behaviors**. For this model, the fit indices were: GFI = 0.94; CFI = 0.96, TLI = 0.94; NFI = 0.95. These results suggest that the model does provide a good fit to the data and that unmet expectations may precede job dissatisfaction as a mediating variable.

In summary, all of the 'mediated' models provided a good fit to the data and, equally importantly, they all fit the data better than the 'direct effects' models. However, the mediated model that included both unmet expectations and job dissatisfaction did not fit the data significantly better than either of the models that included only a single mediator. Most likely,

this occurred because the two mediators (unmet expectations and job dissatisfaction) were highly correlated.

Discussion

In this final section, we discuss the extent of psychological contract violations among respondents in this research, theoretical implications of the results obtained, limitations associated with the research methodology used, and the implications of these results for future research on psychological contract violations.

Extent of psychological contract violations

Consistent with previous research (e.g., Robinson and Rousseau, 1994), the majority of respondents (52 per cent) in this study experienced some degree of psychological contract violation. Furthermore, 81 per cent of respondents reported receiving less (or much less) than they were promised on at least one of the job factors examined. Thus, psychological contract violations appear to be a common occurrence in these diverse samples.

However, the percentage of respondents reporting psychological contract violations varied greatly across samples. Specifically, 42 per cent of the international business sample, 49 per cent of the MBA graduates sample, 63 per cent of the bank sample, and 63 per cent of the state agency sample experienced some degree of psychological contract violation. Moreover, the specific sources of psychological contract violation also varied across samples. Specifically, the managers in the international business sample were most likely to report violations concerning training and supervisory support, the MBA graduates were most likely to report violations concerning the amount of challenge they experienced in their jobs, the bank managers were most likely to report violations concerning the amount of job security and decision-making authority they had, and the managers in the state agency were most likely to support violations concerning salary, advancement opportunities, amount of organizational support, and amount of job responsibility. As these differences suggest, broad sampling in future research on psychological contracts is clearly needed since there are different degrees of psychological contract violation and different causes of the perception of violations across major categories of workers.

Theoretical implications

The results of this research are consistent with those of previous studies examining the direct outcomes of psychological contract violations (e.g., Robinson and Morrison, 1995; Robinson and Rousseau, 1994); psychological contract violations were found to have a detrimental impact on all three types of employee behavior examined here. Specifically, psychological contract violations were significantly related to employees' efforts to find another job, the extent to which employees intentionally neglect their in-role job duties and responsibilities, and a reduced willingness on the part of employees to engage in organizational citizenship behaviors (extra-role behaviors) for the good the company. Also notable here, the influence of psychological contract

violations on employees' behaviors remained significant even after controlling for a number of other factors (e.g., demographic characteristics, organizational tenure, salary, and research site).

Psychological contract violations were more strongly related to employees' intention to quit and willingness to perform organizational citizenship behaviors than to employees' neglect of their in-role job duties and responsibilities. There are several possible explanations for these results. First, employees are likely to suffer fewer negative repercussions for trying to find another job and for reducing their extra-role behaviors than they are for intentionally neglecting their required job duties; in many cases, an employee's manager may not even realize that he or she is looking for another job. Second, and related to the above point, situational constraints on employees' behavior are likely to be stronger in the realm of in-role performance than in the realm of the other two types of employee contributions studied (Herman, 1973; Schuman and Johnson, 1976). Thus, consistent with the results obtained, the relationship between psychological contract violations and in-role performance is likely to be weaker than the relationship between psychological contract violations and either intent to quit or organizational citizenship behavior. Finally, there was less variance in employees' responses on the 'neglect of in-role job duties' (cf. Table 1) than in their responses on the other outcome measures. For this reason, the strength of the relationship between psychological contract violations and neglect of in-role job duties may be somewhat attenuated.

The results also generally support the hypotheses examining the mediating effects of unmet expectations and job dissatisfaction on the relationships between psychological contract violations and employee contributions. In five of the six regression equations, the impact of psychological contract violations on employee contributions was at least partially mediated by unmet expectations or job dissatisfaction. (The one exception to this pattern of results was that unmet expectations did not mediate the relationship between psychological contract violations and employees' neglect of their in-role job duties.) Furthermore, the results of the structural equation analyses provide additional support for Robinson's (1996) idea that unmet expectations mediate the relationships between psychological contract violations and employee behaviors and for the role of job dissatisfaction as a mediator as well.

However, it should be noted that in only one of the six regression equations did either unmet expectations or job dissatisfaction *fully* mediate the relationship between psychological contract violations and employee behaviors. (Specifically, job dissatisfaction fully mediated the relationship between psychological contract violations and employees' neglect of their in-role job duties.) Thus, including these 'mediating' variables significantly reduces, but does not eliminate, the impact of psychological contract violations on employees' behaviors.

These results are encouraging for those interested in pursuing further research on psychological contract violations. While psychological contract violations are likely to result in both unmet expectations and job dissatisfaction, the effects of psychological contract violations on employee behaviors were not completely eliminated by including such variables in the analyses. That is, psychological contract violations generally had a significant impact on employees' behaviors above and beyond that accounted for by both the control variables and by unmet expectations or job dissatisfaction.

Research methodology

The research methodology used here has several advantages over the methodologies used in previous research in this area. First, this research utilized a larger and more diverse sample of employees than those used in previous studies. Second, this research used a multi-item measure of

psychological contract violation. Third, this research tests for mediating effects using both hierarchical regression analyses and structural equation modelling. However, there are still areas for methodological improvement in future research.

Perhaps the most significant limitation of the present research design is the threat of common method variance, since all of the data were collected via self-reports. Future research could decrease the threat of common method variance by collecting data from multiple sources (e.g., by having peers or supervisors rate the employee's performance). In addition, although anonymity would be lost, future research could examine archival personnel records to gather data on turnover or performance ratings.

In addition, this is the first study which has examined job dissatisfaction as a mediator of the relationships between psychological contract violations and employees' behaviors. Due to the threat of common method variance (discussed above) and the possibility that all of the outcome variables might have been influenced by a 'global' affective response, these results should be interpreted conservatively. Certainly, additional research is needed before any definitive conclusions can be drawn about the relationships between these variables.

Conclusion

Consistent with previous research, this study suggests that psychological contract violations are likely to have a pervasive negative impact on employee attitudes and behaviors, including increased neglect of in-role job duties, reduced willingness to engage in voluntary behaviors supportive of the organization, and increased attempts to leave the organization altogether. Thus, the negative consequences of psychological contract violations are likely to go beyond the hurt feelings and disillusionment felt by employees; psychological contract violations may result in behaviors that are damaging to organizational effectiveness as well.

Enough research has now been conducted to recognize that psychological contract violations are likely to have wide-ranging negative outcomes in organizations. As layoffs and reorganizations continue to occur and as the current employment relationship continues to undergo a major transformation, the importance of understanding psychological contract violations will remain an important issue for researchers and practitioners alike. This study helps to explain why psychological contract violations have the negative effects that they do. In large part (though not fully), psychological contract violations operate through a sense of unmet expectations and job dissatisfaction. Future research should focus on examining other potential mediators and moderators of the relationships between psychological contract violations and employee behaviors, such as trust, attributions about why the psychological contract violations occurred, and the procedural justice of organizational policies. Such research will help us better understand why and when employees are most likely to respond negatively to psychological contract violations and under what conditions such negative responses can be minimized or avoided.

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