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Work engagement, psychological contract breach and job satisfaction

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This study extends both Social Exchange Theory and the Job Demands–Resources model by examining the link between psychological contract breach (PCB) and work engagement, and by integrating job satisfaction into this exchange relationship. We argue that PCB reflects employees' feelings of resource loss, and that these feelings impact work engagement through their impact on job satisfaction. Levels of employee work engagement can therefore be viewed as reciprocation for the exchange content provided by employers. We conduct structural equation modeling on longitudinal survey data from 191 employees, and our results suggest that the negative effect of PCB on work engagement is mediated by job satisfaction.

Keywords: job satisfaction; mediation; psychological contract breach; structural equation model; work engagement

Introduction

Employee engagement is a growing academic research area with particular resonance for practitioners and governments (e.g. MacLeod and Clarke 2009; Rayton, Dodge and D'Analeze 2012). However, engagement has relatively recently become the subject of study as a distinct construct in the academic literature, and the antecedents and consequences of engagement are not yet sufficiently developed either theoretically or empirically (Robinson, Perryman and Hayday 2004; Torraco 2005; Smith 2006; Macey and Schneider 2008). Understanding the antecedents and consequences of employee engagement is important for organizations because a disengaged workforce is costly (e.g. Fleming, Coffman and Harter 2005; MacLeod and Clarke 2009; Rayton et al. 2012). The combination of the popularity and importance of engagement with the current lack of academic understanding creates a need for clarification of the factors that drive employee engagement (Robinson et al. 2004; Saks 2006; Bakker and Schaufeli 2008; Macey and Schneider 2008).

Our study contributes to the on-going debate about the drivers of employee engagement in organizations through examination of an exchange relationship in the specialist lending division of a UK bank. We make two specific contributions. First, this is the first study to examine the impact of feelings of resource loss, i.e. psychological contract breach (PCB), on work engagement. Second, we propose and test the hypothesis that job satisfaction mediates the relationship between PCB and work engagement. By analyzing the links between PCB, job satisfaction and work engagement, our study extends both Social Exchange Theory (SET) and the Job Demands–Resources (JD–R) model.

PCB is one of the central concepts of SET (Conway and Briner 2005). Zhao, Wayne, Glibkowski and Bravo (2007, p. 649) define breach as 'the cognitive evaluation that one's organization has failed to fulfill its obligations'. PCB arises from unmet expectations about

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the delivery of job and organizational characteristics that would be regarded as important 'resources' in the JD–R model. Bakker, Demerouti and Verbeke (2004, p. 86) define job resources as 'those physical, psychological, social, or organizational aspects of the job that … reduce job demands and the associated psychological costs'. Following this definition, previous studies examining psychological contracts within the JD–R model have focused on the resources employees possess (Hakanen and Roodt 2010; Parzefall and Hakanen 2010; Bal, de Cooman and Mol 2013). However, feelings of PCB reflect employee perceptions of the failure to deliver promised and/or expected resources. In this paper, drawing upon SET and the JD–R model, we argue that the failure to deliver on expectations induces feelings of resource loss not only because of the initial failure to deliver, but also because these unmet expectations lead to changes in employee expectations about the delivery of other resources subject to the exchange relationship.

These feelings of resource loss have not been explored from a JD–R perspective, but a large amount of work in SET has focused on unmet expectations (e.g. Rousseau 1989; Morrison and Robinson 1997). Drawing on the norm of reciprocity, we argue that the employees of organizations that do not fulfill their promises and obligations are less likely to feel dedicated to, energetic in the performance of, or absorbed by their jobs. On the other hand, negative events also increase the need for resource acquisition and accumulation (Taylor 1991), and individuals may attempt to reinstate their original positions by exerting extra efforts intended to obtain the resources necessary to do so (Bledow, Schmitt, Frese and Kuhnel 2011; Conway, Guest and Trenberth 2011).

Understanding the relationship between unmet employee expectations and engagement holds the promise of enabling organizations to create and manage an engaged workforce because previous studies indicate important links between these expectations and important employee attitudes and behavior (e.g. Conway and Briner 2005; Rigotti 2009). However, no previous study has considered the impact of unmet expectations on work engagement: only met expectations (Parzefall and Hakanen 2010; Bal and Kooij 2011; Bal et al. 2013). In addition, we extend the narrow focus of the previous literature by hypothesizing that job satisfaction mediates the relationship between PCB and work engagement. Previous work grounded in SET has identified PCB as an antecedent of job satisfaction (Tekleab, Takeuchi and Taylor 2005; Zhao et al. 2007; Bal, De Lange, Jansen and Van Der Velde 2008) and found a positive relationship between job satisfaction and engagement (Saks 2006; Simpson 2009; Yalabik, Popaitoon, Chowne and Rayton 2013). This suggests that the few previous studies that have addressed links between employee expectations and work engagement may have omitted an important mediating variable. Evidence that the impact of PCB on work engagement is mediated through job satisfaction would have important implications for organizations since work engagement is closely related to work motivation and motivational behavior (Salanova and Schaufeli 2008).

Literature

Work engagement and PCB

Work engagement is an independent, persistent and pervasive motivational psychological state that 'accompanies the behavioral investment of personal energy' (Schaufeli and Bakker 2010, p. 22). As a motivational-psychological state, work engagement is a response or reaction to one's work (Schaufeli, Bakker and Salanova 2006; Meyer, Gagne and Parfyonova 2010; Schaufeli and Bakker 2010). As defined by Kahn (1990, p. 694), engagement is specifically related to the employees' 'presenting and absenting themselves

during task performances'. In other words, it is about involvement of 'self' in the work (Kahn 1990; Meyer et al. 2010).

Work engagement is composed of three dimensions: vigor, dedication and absorption. *Vigor* refers to energy, mental resilience, determination and investing consistent effort in your job (Schaufeli, Salanova, Gonzales-Roma and Bakker 2002; Schaufeli et al. 2006). *Dedication* is about being inspired, enthusiastic and highly involved in your job (Schaufeli et al. 2002; Schaufeli et al. 2006). The last dimension, *absorption,* refers to a sense of detachment from your surroundings, a high degree of concentration on your job, and a general lack of conscious awareness of the amount of time spent on the job (Schaufeli et al. 2002; Schaufeli et al. 2006). Employee engagement involves the simultaneous physical, cognitive and emotional investment of 'self' in one's job (Rich, Lepine and Crawford 2010). Previous studies employing the JD–R model have focused on the role of job resources such as support, feedback, skills and autonomy as antecedents of work engagement (e.g. Schaufeli and Salanova 2007; Bakker and Demerouti 2008), but SET predicts that expectations surrounding the delivery of these resources will also be important in determining levels of work engagement.

The organization itself and/or the interactions of employees with their organizations create certain expectations – whether implicitly or explicitly – about various aspects of jobs, and the employees expect their organizations to fulfill those expectations (Robinson 1996). PCB occurs when employees' perceive that their organizations fail to fulfill its obligations and promises (Conway and Briner 2005). According to SET, the interactions between various parties progress over time as these parties act in an agreed framework of rules and 'exchange' relationships (Cropanzano and Mitchell 2005). Employees seek satisfying job conditions and rewards, and by meeting these expectations organizations anticipate that the norm of reciprocity will encourage employees to reciprocate with positive attitudes and behaviors toward their jobs and their organizations (e.g. Cropanzano and Mitchell 2005; Tekleab and Chiaburu 2011). The norm of reciprocity is the motivational source that shapes employees' attitudinal and behavioral responses to psychological contracts (PCs) (Settoon, Bennett and Liden 1996). As the interactions between various parties progress over time, these parties act within an agreed framework of rules and exchange relationships (Cropanzano and Mitchell 2005). As long as the exchanging parties feel indebted to each other, the exchange relationship continues, and the parties are more willing to make sacrifices for each other (Blau 1964; Rupp and Cropanzano 2002), but when employees perceive that the balance of their PC has changed, the exchange relationship between employees and their organization changes.

PCB takes place when employees recognize that their organization did not fulfill one or more of the promises made (Morrison and Robinson 1997; Conway and Briner 2005). Most research on PCB focuses on how employees react to employer breach and finds that employees respond with negative attitudes and behaviors, including reduced job satisfaction, thus reducing their contributions to the content of the exchange and effectively rebalancing the exchange relationship (Conway and Briner 2005; Zhao et al. 2007). In other words, employees withdraw exchange content as a consequence of the perceived failure of the organization to deliver its promised exchange content.

While PCB is accepted as an important determinant of employee attitudes and behavior (e.g. Taylor and Tekleab 2004), we know little about the nature of the relationship between PCs and work engagement. There are only three studies in the existing literature that specifically discuss and test the relationship between PCs and work engagement. Bal and Kooij (2011) examine the impact of PC types (transactional and relational) on work engagement, though they ignore the extent to which

organizations deliver on these contracts. Parzefall and Hakanen (2010) explain the mediating role of work engagement between PC fulfillment and mental health drawing on the JD–R model; and Bal et al. (2013) motivate the relationship between PC fulfillment and work engagement using a combination of SET and Conservation of Resources Theory.

The JD–R model argues that every job can be thought of as a set of job demands and job resources which interact to produce employee engagement (Demerouti, Bakker, Nachreiner and Schaufeli 2001; Schaufeli and Bakker 2004). In this spirit, both Parzefall and Hakanen (2010) and Bal et al. (2013) treat PC fulfillment as a 'job resource' that drives the work engagement of employees. Parzefall and Hakanen (2010, p. 5) specifically conceptualize PC fulfillment, which is often measured as the inverse of PCB, as a form of 'economic and socio-emotional resources that the employee expects the employer to provide'.

According to the JD–R model, job resources are not only necessary to handle job demands but they also contribute to employee motivation (Hobfoll 2002; Bakker et al. 2004). Parzefall and Hakanen (2010) argue that PC fulfillment has both motivational and health-enhancing effects. They operationalize PC fulfillment with measures focused on the extent to which employees feel that employers have met their obligations with respect to things such as training, autonomy and participation in goal setting. They find that the relationship between PC fulfillment and mental health is mediated by work engagement, thus demonstrating a connection between PC fulfillment and work engagement.

Bal et al. (2013) also study PC fulfillment and work engagement, but they motivate this work using SET and Conservation of Resources Theory. According to Conservation of Resources Theory, individuals continuously acquire and accumulate resources which both facilitate the acquisition of further resources and increase well-being (Hobfoll 1989, 2002). As a result, employees value obtaining, retaining and protecting their resources (Hobfoll 2002). Increases in resources augment both employee well-being and engagement, while engaged employees also exert effort to create, receive and protect resources (Hakanen and Roodt 2010). Bal et al. (2013) argue that greater PC fulfillment by employers is related to higher employee work engagement. They find that PC fulfillment increases work engagement and positive employee attitudes toward the job. However, Conservation of Resources Theory suggests that resource losses may generate larger negative effects on employee attitudes than the positive effects associated with analogous resource gains (Hobfoll 1989). While PCB and PC fulfillment are part of a continuum, the effects they create on employee attitudes may be asymmetrical, and thus researchers should evaluate the effects of breach and fulfillment separately (Conway and Briner 2002; Lambert, Edwards and Cable 2003; Conway et al. 2011; Lambert 2011). This leads Bal et al. (2013) to suggest that future studies should consider the impact of PCB on employment relations and work engagement to supplement their work on PC fulfillment.

The previous literature examining the link between the expectations and work engagement of employees has two crucial omissions. The first, as discussed, is the omission of resource losses associated with PCB from the model. The second is the omission of the well-documented impact of PCB on job satisfaction. This second point raises the prospect that job satisfaction mediates previously identified relationships between employee expectations and work engagement. The next section presents arguments in support of a mediating role for job satisfaction in the relationship between PCB and work engagement.

The mediating role of job satisfaction

Job satisfaction is the degree to which job needs are fulfilled and how much of this fulfillment is perceived by an employee (Porter 1962). It is 'a positive (or negative) evaluative judgment one makes about one's job or job situation' (Weiss 2002, p. 175). Rather than being an emotional state or an affective response, job satisfaction is therefore an evaluation of an emotional state. Job satisfaction develops through cognitive and affective reactions of employees to their jobs (Locke 1969; Organ and Near 1985; Judge and Ilies 2004; Rich et al. 2010). In other words, job satisfaction is a combination of both what an employee feels (*affect*) about his/her job and what he/she thinks (*cognition*) about the various aspects of his/her job.

The negative impact of PCB on job satisfaction is well documented in the literature (e.g. Robinson and Rousseau 1994; Coyle-Shapiro and Kessler 2000; Gakovic and Tetrick 2003; Taylor and Tekleab 2004; Tekleab et al. 2005; Zhao et al. 2007; Rigotti 2009). PCB results in decreased job satisfaction for a variety of reasons, including unmet expectations, loss of trust, loss of inducements, feelings of inequity and impediments to goal progression (Conway and Briner 2005, p. 71). While PCB decreases job satisfaction, by again drawing upon SET, it is only expected that employees will 'retaliate against dissatisfying working conditions' by decreasing their input in the exchange relationship (Crede, Chernyshenko, Stark, Dalal and Bashshur 2007, p. 516). In other words, while unmet expectations and promises might decrease job satisfaction of employees, a lowered employee job satisfaction in return is expected to impact other outcomes such as employee commitment and engagement.

Our argument about the mediating role of job satisfaction in the PCB–work engagement relationship specifies job satisfaction as an antecedent of work engagement. However, the direction of the relationship between job satisfaction and work engagement remains unclear in the literature (Mauno, Kinnunen and Ruokolainen 2007; Bakker, Schaufeli, Leiter and Taris 2008; Schaufeli and Bakker 2010). Some studies argue that job satisfaction is an *outcome* of work engagement (Saks 2006; Avery, McKay and Wilson 2007; Karatepe and Aga 2012; Vecina, Chacon, Suerio and Barron 2012). For example, Saks (2006) posits that overall job satisfaction is a positive outcome of employee engagement (as measured by job and organizational engagement). Nevertheless, Saks (2006, p. 615), recognizing that his case for this causal order is weakened by the use of cross-sectional data and associated common method variance, states that longitudinal studies are required, 'to provide more definitive conclusions about the causal effects of employee engagement and the extent to which social exchange explains these relationships'.

Other studies argue that job satisfaction is a *predictor* of work engagement (Simpson 2009; Salanova, Llorens and Schaufeli 2011), and Yalabik et al. (2013) verify this in a cross-lagged empirical design. We expect that the employees who are satisfied with their jobs become engaged in their work for several reasons. First, the view of job satisfaction as an antecedent of work engagement is supported by SET. Employee satisfaction is continuously shaped by exchange relationships within the organization. High exchange employee–organization relationships result in high job satisfaction and organizational commitment (e.g. Conway and Briner 2005; Zhao et al. 2007; Tekleab and Chiaburu 2011). Employees who feel valued and are satisfied with various aspects of their jobs reciprocate with positive attitudes and positive behavior (Eisenberger, Huntington, Hutchison and Sowa 1986; Wayne, Shore and Liden 1997; Cropanzano and Mitchell 2005; Tekleab and Chiaburu 2011). In other words, a positive emotional and cognitive

evaluation of their jobs is expected to push employees into being engaged with their jobs as reciprocation for the job satisfaction enabled by the organization.

Second, it is worth remembering that work engagement was originally conceptualized as an antipode of a three-dimensional burnout construct including exhaustion, cynicism and inefficacy (Bakker and Demerouti 2008). As such we expect that work engagement and burnout share similar antecedents. Various studies identify robust associations between job satisfaction and burnout, where low job satisfaction increases burnout (Shirom 1989; Bacharach, Bamberger and Conley 1991; Lee and Ashforth 1993; Lee and Ashforth 1996; Maslach, Jackson and Leiter 1996; Spector 1997; Brewer and Cliphard 2002).

Third, we note that engagement is a motivational concept. It is related to how individuals physically, cognitively and emotionally connect to their jobs (Kahn 1990; Rich et al. 2010). Unlike relatively passive attitudes such as job satisfaction and organizational commitment, engagement is related to an active personal presence (Kahn 1990; Rich et al. 2010; Sonnentag, Binnewies and Mojza 2010). As Harrison, Newman and Roth (2006, p. 316) explain, 'job satisfaction and organizational commitment are attitudes that specify a target but do not specify any particular action'. Similarly, Macey and Schneider (2008, p. 8) argue that job satisfaction is about *satiation* while engagement is about *activation.* Engaged employees have high arousal and activation in their work, which pushes them into action (Bakker 2009; Bakker and Bal 2010; Bakker, Albrecht and Leiter 2011; Salanova et al. 2011). Job satisfaction rests on a relatively narrow view of the 'self' and is mainly about the emotional response to one's fulfillment of needs through the job (Rich et al. 2010, p. 618). Satisfaction is the result of needs gratification and employees will be motivated in their jobs to the extent they fulfill their needs (Wolf 1970). Hence, once the needs are fulfilled, i.e. the employees are satisfied with their jobs, employees are expected to become engaged with their work. For these reasons, we hypothesize the following:

Hypothesis: The relationship between PCB and work engagement is mediated by job satisfaction.

Figure 1 summarizes our approach, and the next section describes our empirical investigations of this relationship.

Methodology

Our data come from employees in the specialist lending division of a bank whose operations span and are limited to the entire UK. The bank has approximately 20,000

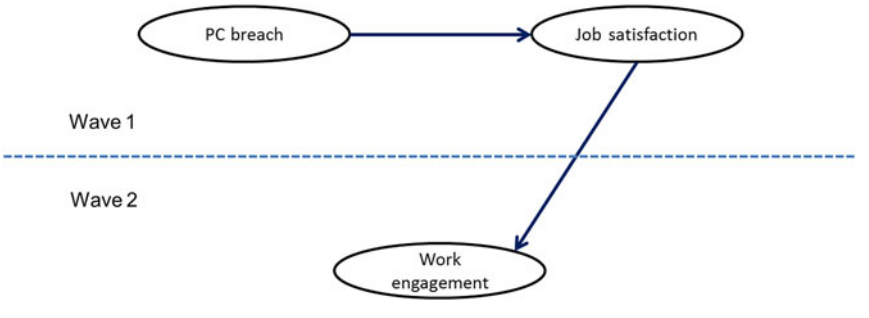

Figure 1. Hypothesized model.

Table 1. Descriptive statistics.

	Mean	*SD*
Work engagement (UWES9)	4.52	1.05
Job satisfaction	5.09	1.34
PCB	4.05	1.16
Gender (female = 1)	0.59	0.49
Age in years	34.69	11.26
Tenure in years	5.28	4.80

Notes: Means and SDs of variables constructed using summated scales as well as selected demographics. Values reflect the scales of the original question items, with values ranging from 1 to 7 with a neutral midpoint unless otherwise indicated.

employees, and this division focuses on the provision of non-standard mortgage products including mortgages for buy-to-rent properties as well as applicants who self-certify their income (e.g. the self-employed). These employees are not in direct contact with customers, but are involved in the centralized processing and approval of applications generated through the retail branch network. This provides a geographically concentrated set of employees with similar roles, the performance of which requires substantial attention to detail. This allows us to control through sample selection for variation in job design, etc., which might otherwise confound the relationships studied. Data were collected via paper-based questionnaires in August 2009. All 520 employees received questionnaires and 377 surveys were returned (73%). We repeated the survey 12 months later, yielding 202 repeat respondents. The sample available for analysis is contingent on missing data, leaving us with 191 observations for analysis, or 36.7% of the original population. Missing values analyses revealed no patterns to the missing observations. Table 1 reveals that our sample is 59% female, with employees averaging 34 years of age with just over 5 years with the company. The standard deviation (SD) of tenure is relatively high (4.80 years), revealing a skewness common to many tenure distributions, with many employees having been with the company for more than a decade. These descriptive statistics are consistent with the demographic profile of the sampled population. We use data on PCB and job satisfaction from the first wave of the survey and work engagement measures from the second survey wave. Our analyses are unaffected by use of job satisfaction data from wave 2, or by the use of a completely cross-sectional approach.

Employees received time during work for the survey, and they received a pre-paid envelope with the questionnaire allowing returns directly to the research team. Respondents were asked to provide their employee numbers on their surveys to allow the matching of survey data with information about the respondents held in company databases. Newby, Watson and Woodliff (2003, p. 166) demonstrate that the use of monetary incentives significantly enhances participation, completeness and overall data quality in surveys without introducing bias. Consequently, three randomly selected respondents from each survey wave were given meaningful cash awards in return for their participation: both to enhance data quality and to encourage the inclusion of employee identification numbers.[1]

Measures

Work engagement

We operationalize work engagement using the short form of the Utrecht Work Engagement Scale (UWES-9) as published in Schaufeli et al. (2006).

Table 2. Correlations between constructed variables.

		[1]	[2]	[3]
[1]	Work engagement (UWES9)	[0.87]		
[2]	Job satisfaction	0.67**	[0.89]	
[3]	PCB	−0.38**	−0.54**	[0.93]

Notes: Pearson correlation coefficients between variables constructed using summated scales. Values reflect the scales of the original question items, with values ranging from 1 to 7 with a neutral midpoint. Cronbach's α for each variable is reported in square brackets on the main diagonal.
**$p < 0.01$.

This conceptualization of engagement is the most theoretically and empirically developed engagement construct in the literature. All work engagement items in our study were measured using seven-item Likert scales (1, strongly disagree; 7, strongly agree). The Cronbach's α for this scale of 0.87 reported in Table 2 illustrates the reliability of this measure. The mean of the UWES-9 measure is 4.52, significantly above the neutral midpoint (4.0) of the scale ($p < 0.01$).

Job satisfaction

We measure job satisfaction in the first wave of our survey using the Michigan Organizational Assessment Questionnaire, a three-item measure of overall job satisfaction (Cammann, Fichman, Jenkins and Klesh 1983), which has been meta-analyzed and found to have acceptable reliability across the multitude of studies that have used the measure since it was first published (Bowling and Hammond 2008). A sample item is, 'All in all, I am satisfied with my job', and the Cronbach's α of the resulting scale in our sample is 0.89. This implies a high degree of internal consistency in the responses to the individual questions. The mean score reported in Table 1 is 5.09, indicating a fairly high level of job satisfaction among the survey respondents. Table 2 demonstrates the significant positive correlation of job satisfaction in the first wave of our survey with the levels of work engagement in the second wave of our survey (0.67).

Psychological contract breach

We use an often-employed five-item scale for measurement of PCB introduced by Robinson and Morrison (2000) in wave 1 of our survey. This scale is a global measure of breach rather than asking multiple questions about specific domains within which breach may or may not have occurred. Such global measures are effective tools for capturing overall perceptions of how much an organization has fulfilled (or not) its promises. Greater detail may be warranted for understanding the full variety of the sources of breach, but a global measure is appropriate for analyzing the implications of breach, and this explains its use in a wide variety of studies (e.g. Dulac, Coyle-Shapiro, Henderson and Wayne 2008; Suazo 2011; Tomprou, Nikolaou and Vakola 2012). A sample item is, '*The company* has done an excellent job of fulfilling its promises to me'. The Cronbach's α of the resulting scale in our sample is 0.93, indicating a high degree of internal consistency of this measure. The mean level of PCB falls almost exactly at the neutral midpoint of Likert scale (4.05), and the correlation of PCB has the expected significant negative correlations with contemporaneous job satisfaction (−0.54) and subsequent work engagement (−0.38).

Analyses and results

We adopt a structural equation modeling approach to testing our hypotheses, as this method has several advantages over regression methods when addressing research questions involving mediation (Cheung and Lau 2008, p. 297). Confirmatory factor analysis using AMOS 18 establishes convergent and discriminant validity, as the results indicated that the 3-factor model fitted the data well [$\chi^2 = 159.253$, df = 82, comparative fit index (CFI) = 0.962, Tucker-Lewis index (TLI) = 0.951, root-mean-square error of approximation (RMSEA) = 0.070, PCLOSE = 0.022]. We proceed to testing a baseline model in which no mediation is assumed (Figure 2), and use this as a basis for comparison as we impose restrictions on the direct pathways between PCB and work engagement measures. The results of these nested models can then be compared by assessing whether we can reject the null hypothesis that constraining these pathways has no effect on overall model fit. Failure to reject the null hypothesis is consistent with mediation. These results are presented as Table 3. In the discussion that follows, we present only the standardized coefficient estimates, as we believe these provide the best basis for comparison of coefficient magnitudes, but our figures also present the unstandardized coefficient estimates for inspection by interested readers.

The results presented in Figure 2 indicate a good overall fit, with CFI and TLI in excess of the critical value of 0.95 suggested by both Hu and Bentler (1999) and Beauducel and Wittmann (2005). We assess statistical significance in our analyses using 99% confidence

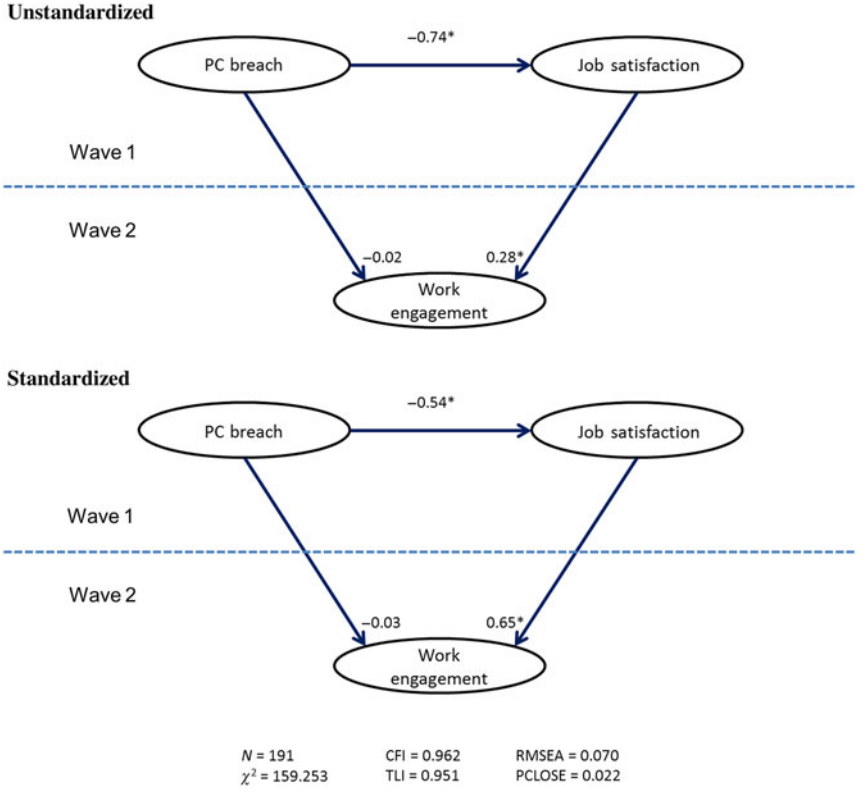

Figure 2. Coefficient estimates and fit statistics for baseline model. $*p < 0.01$.

Table 3. Model comparisons.

Model description	χ^2	*df*	$\Delta\chi^2$	*RMSEA*	*CFI*	*TLI*
Baseline model (Figure 2)	159.253	82	–	0.070	0.962	0.951
Mediation (Figure 3)	159.415	83	0.162	0.070	0.962	0.952

Notes: $N = 191$, χ^2 = chi-squared, $\Delta\chi^2$ = change in χ^2 from baseline model. RMSEA, root-mean-square error of approximation; CFI, comparative fit index. The change in χ^2 is not significantly different from zero.

levels, and further evidence of good fit includes an RMSEA of 0.070 that is not significantly different from 0.050. Inspection of our path coefficients reveals the expected significant negative relationship between PCB and job satisfaction, indicating that a 1 SD increase in breach is associated with a 0.54 SD reduction in job satisfaction. We also see a significant positive relationship between job satisfaction and work engagement. We see no significant direct relationships between PCB and work engagement.

These initial results are suggestive of our hypothesized model, and we move to test this formally by constraining the direct pathway from PCB to work engagement to be equal to zero in our baseline model. This is equivalent to assuming that the relationship between breach and engagement operates entirely through its impact on job satisfaction. These results are presented in Figure 3. The overall model fit is excellent (CFI = 0.962, TLI = 0.952, RMSEA = 0.070, PCLOSE = 0.027), and all of the path coefficients are significant with the hypothesized signs. A χ^2 difference test comparing the hypothesized

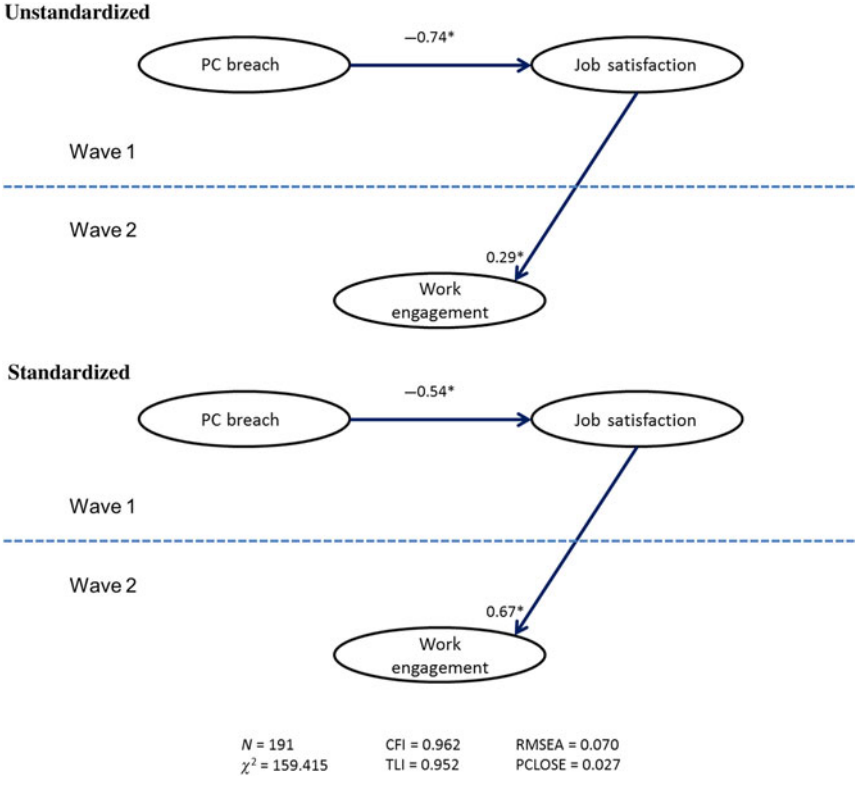

Figure 3. Coefficient estimates and fit statistics for hypothesized model. $*p < 0.01$.

and the baseline models fails to reject the null hypothesis of full mediation ($\chi^2 = 4.878$, df = 3, $p = 0.181$), and bootstrapping suggests that the indirect effect from PCB to work engagement through job satisfaction is significant at conventional levels ($t = 3.74$ based on 20,000 repetitions). These results provide clear evidence that job satisfaction mediates the relationship of PCB with work engagement.

The longitudinal element of our survey design allows us to largely avoid the effects of common method variance on our results, but our estimate of the relationship between PCB and job satisfaction remains subject to this criticism. That said, we have verified our results using job satisfaction data from the second wave of our data collection with no change to our inferences. Our estimate of the impact of job satisfaction on work engagement is a useful extension of previous results based on purely cross-sectional data (e.g. Saks 2006; Simpson 2009), and we discuss the implications of our findings for theory, future research and business practice in the final section of this paper.

Implications and conclusion

The purpose of this study is to explore the PCB–engagement link and the job satisfaction–engagement link. Our analyses support the hypothesized mediation of the relationship between PCB and work engagement by job satisfaction, indicating that work engagement is more likely to occur when employees feel that their organizations are meeting their obligations and when employees are satisfied with their jobs.

Our results have important implications for the PC and work engagement literatures. In line with the previous studies (e.g. Zhao et al. 2007), we confirm that job satisfaction is an important outcome of PCB. We also confirm that work engagement is affected by PCB, though our results suggest that this relationship operates through the aforementioned impact of PCB on job satisfaction. This demonstrates that the exchange relationship between PCB and work engagement is more complex than suggested by previous research.

Our findings support a social exchange perspective, as employees who experience breach reciprocate by decreasing their work engagement. As such, our work continues recent developments in the social exchange perspective on work engagement. Kahn (2010, p. 20), in defining engagement, argued that engaged employees 'offer up different degrees and dimensions of their selves according to some internal calculus that they consciously or unconsciously make'. This definition is clearly resonant with SET. Work engagement may be the result of some evaluation of both the quantity and quality of exchange content delivered by the employer, where the norm of reciprocity produces engagement levels that are both fragile and resilient (Kahn 2010, p. 29). Saks (2006) made an explicit connection between employee engagement and SET, albeit without reference to PCB; focusing on the relationship between perceived support and employee engagement. Our evidence of a relationship between PCB and work engagement that is mediated by job satisfaction supports the idea that work engagement is offered by employees in return for delivery of perceived organizational obligations.

Consistent with the JD–R model, we find that loss of an important resource (i.e. PCB) negatively impacts employee attitudes and decreases employees' levels of activation. The JD–R model implicitly relies upon the 'norm of reciprocity' since the job resources examined include measures of perceived support, but the JD–R framework has only recently been linked with SET. Parzefall and Hakanen (2010) and Bal et al. (2013) examined the impact of PC fulfillment on work engagement and found a positive relationship, but without recognition of the mediating role of job satisfaction in this relationship demonstrated by our work. Our linking of PCB with work engagement

illustrates how the work engagement of employees changes when they experience breach, a situation which might arise with the failure to deliver something which in the JD–R model would be considered a 'resource'. This suggests that the JD–R model might usefully be re-examined from the perspective of SET, with a clear focus not only on the delivery of salient job resources, but also on the climate of expectations against which these resources are judged. The importance of breach for the JD–R model may not be limited to resources, but could also arise through the failure of organizations to deliver job demands that meet employee expectations: either by making jobs 'too demanding' or 'too limiting' from the perspectives of employees. While stepping back to analyze the antecedents of PCB and job satisfaction lies outside the remit of this project, the failure of organizations to control job demands and/or provide employees the job resources required to achieve success would be regarded within SET as classic sources of PCB.

Our study is the first to formally test for mediation of the link between PCB and work engagement by job satisfaction, and the longitudinal dimension of our data is particularly useful in this respect (Bono and McNamara 2011), but our study has limitations. Generalization of our results is difficult since the data are from a single UK company in the service sector. Second, data collection took place in the context of a challenging economic environment. This environment makes it harder for organizations to fulfill their promises, thus increasing both the likelihood and extent of PCB (Morrison and Robinson 1997), while at the same time making it harder for employees to exhibit some withdrawal behaviors (e.g. turnover) in an effort to find more suitable employment situations, though we anticipate that this has also had a positive effect on the repeat-response rate in our data collection. We also note that employees who attribute causes for breach arising beyond organizational control, as may be the case in the current economic climate, may react less negatively to breach (Deery, Iverson and Walsh 2006). Future studies might test the same relationship in different contexts while focusing on the contents of exchange and the antecedents of breach. Despite these limitations, we note that our results are consistent with those found by other researchers where comparisons are possible.

Future studies could usefully extend our research by focusing on other variables that might play a role in the breach–satisfaction–engagement relationship. Investigation of whether the effects of other known antecedents of job satisfaction and work engagement are similarly mediated is warranted. Candidates include, *inter alia,* pay satisfaction, perceived organizational support, social support, PC violation and leader–member exchange. Job satisfaction is a multi-faceted construct, and employees may have different feelings toward various aspects of their job (Locke 1976; Howard and Frink 1996; Spector 1997), and specifying a variety of facets of job satisfaction in the breach–job satisfaction–work engagement relationship might reveal specific facets of job satisfaction which are particularly important, with some facets of job satisfaction being more closely linked with vigor, dedication and/or absorption. We note that previous work linking both PCB and work engagement with affective commitment (Coyle-Shapiro and Kessler 2000; Hakanen, Schaufeli and Ahola 2008) and organizational citizenship behavior (Robinson 1996; Coyle-Shapiro and Kessler 2000; Babcock-Roberson and Strickland 2010; Restubog, Bordia, Tang and Krebs 2010) provides further opportunities for analysis. Testing whether work engagement mediates the relationship between job satisfaction and these key constructs could connect the growing engagement literature to this large body of work while enhancing the academic case for a link between engagement and organizational outcomes. Future work could also extend our analyses to other corporate, occupational, industrial and national contexts, thus establishing the generality of our findings.

The relationships from employee engagement to individual and organizational performance evident in the previous literature mean that the results of our study have important implications for organizations. Engaged employees are more likely to stay with their organizations (Schaufeli and Bakker 2004; Hakanen, Bakker and Schaufeli 2006; Saks 2006; Bakker and Demerouti 2008; Halbesleben and Wheeler 2008), and a disengaged workforce might increase the costs associated with higher turnover, lower productivity, eroded psychological well-being and poor physical health (Crabtree 2005; Ruhlman and Siegman 2009). Our findings suggest that providing satisfying jobs, in part by delivering on promises to employees, is important for managing these costs. Indeed, the old adage of 'under promise and over deliver' appears apposite. Beginning with recruitment, organizations should avoid making unrealistic promises by considering the future possibility of contract breach and its negative consequences since both the organization and the employee suffer from breach in the long run (Zhao et al. 2007).

Managing and delivering on the expectations of employees is one means of avoiding reductions in satisfaction and work engagement associated with PCB, but when PCs are breached, organizations need to manage the implications for the job satisfaction and subsequent work engagement of employees, lest employees reduce behaviors such as knowledge sharing, using initiative and so on. (Bal, Chiaburu and Diaz 2011). This may suggest approaches that limit the dissatisfaction associated with PCB, perhaps including effective communication of the reasons surrounding the breach, particularly where those reasons lie beyond the control of the organization. Organizations might also stand ready to provide alternative or additional resources in response to PCB.

Managing PCs is not easy for organizations. The subjectivity of employee and employer perceptions and the difficulties associated with monitoring PCs are the main challenges (Conway and Briner 2005), but the demonstrated importance of PCB for the job satisfaction and work engagement of employees suggests that organizations should address these issues. Suggested strategies for managing these issues include adopting human resource management practices that support open communication with employees and leavers, giving managers the training required to enable effective interaction with employees, allowing mutual critical evaluation and shaping organizational culture toward interaction (Conway and Briner 2005; Deery et al. 2006; Lester, Kickul and Bergmann 2007; Raulapati, Vipparthi and Neti 2010).

Engaged employees have more positive attitudes, are more likely to take initiative, are willing to develop their skills and abilities, and feel more proud of their work (Bakker, van Emmerik and Euwema 2006). Employee engagement has strong performance implications because it is closely linked to the involvement of employees' 'agentic self' in their job (Rich et al. 2010). Therefore, employee engagement is thought to be a source of employee outcomes such as intentions to stay and job performance (e.g. Saks 2006; Bakker and Demerouti 2008; Halbesleben and Wheeler 2008; Xanthopoulou, Bakker, Demerouti and Schaufeli 2009; Halbesleben 2010; Christian, Garza and Slaughter 2011), and it could be a source of competitive advantage, and thus organizational performance (Harter, Schmidt and Hayes 2002; Heger 2007).

Considering the negative impact PCB creates on work engagement of employees, and the costs a disengaged workforce creates, organizations should quickly act upon restoring broken promises. Organizations might create a support culture that might help employees to experience breach less frequently or to a lesser degree. Zagenczyk, Gibney, Kiewitz and Restubog' (2009) study indicates the important role mentors play in decreasing negative effects of PCB. Early recognition of breach and increased communication and support might also play a role to control the negative impact PCB might create. Organizations

might also recognize delicate times such as downsizing when PCB is most likely to occur (Parzefall 2012) and control these periods to further avoid the decrease in employee engagement.

Recent studies indicate that the definition of what constitutes a 'good job' has changed considerably in the last decade due to changes in employees' expectations about their work and workload (Guest 2004; Holbeche 2004; Chalofsky and Krishna 2009). Employees are increasingly looking for jobs which are interesting, fulfilling, flexible, offer continuous learning and give a sense of accomplishment (Chalofsky 2003; Chalofsky and Krishna 2009), though not all types of employees value the same things (Kinnie, Hutchinson, Purcell, Rayton and Swart 2005). This has increased the need for organizations to understand what 'a good job' means for their employees if they are to keep their promises in the domains of greatest salience in their specific context, and this study suggests that organizations that do so will benefit from a more engaged workforce.

Note

1. The three prizes were for £250, £100 and £50, respectively.

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