

Doing more with less? Employee reactions to psychological contract breach via target similarity or spill-over during public sector organizational change.

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Abstract

Many countries are facing the twin pressures of austerity and recession following the 2007-2008 global financial crisis. This paper uses the UK public sector and a major national announcement of budget cuts signalling extensive organizational cutbacks as its setting. We examine (a) whether organizational changes following the national announcement affect public sector employees' psychological contract breach and (b) whether employee reactions to psychological contract breach are consistent with the target similarity model and vary across foci, namely the organization, co-workers, and public service users and (c) whether some of these relationships are moderated by job insecurity or public sector commitment. We collected longitudinal survey data before and after the announcement of budget cuts, using a sample of 340 employees from a range of public organizations and locations. Results largely confirm the hypotheses. Increases in organizational change predicted psychological contract breach, which in turn predicted decreases in contributions towards the organization; however, contributions towards co-workers and public service users were unaffected, which can be explained with a target similarity, rather than a spillover, model. Furthermore, the relationship between breach and employee behaviors directed toward the public was moderated by job insecurity and public sector commitment.

Keywords

Psychological contract breach; organizational change; organizational commitment, organizational citizenship behaviours; target similarity model; spill-over; public service

Introduction

The concept of the psychological contract has a long history in organizational behaviour, having been introduced by Argyris and Levinson over fifty years ago (Argyris, 1960; Levinson et al., 1962). More recently, Rousseau's (1989) major re-conceptualization of the psychological contract contributed to its current status as a key framework for understanding the employment relationship in both academic and practitioner literatures. A major reason for the increasing interest in the psychological contract at that time was its perceived value in explaining employees' responses to the significant changes to employment relationships caused by increased global competition and consequent organizational changes such as cost-cutting initiatives (e.g., redundancies) and restructuring (e.g., Herriot, Manning & Kidd, 1997; Noer, 1993). Such organizational changes were viewed as a breach of promises made by organizations to employees, causing employees to feel violated, question their commitment and experience reductions in motivation and morale (Herriot et al., 1997). This account of major organizational change destabilizing employment relationships was examined in both private and public sectors (Coyle-Shapiro & Kessler, 2003; Guest, & Conway, 2001; Kessler & Coyle-Shapiro, 1998). This reasoning, though frequently re-iterated, was never actually tested empirically using rigorous designs, such as longitudinal surveys of change interventions. Furthermore, the main focus of previous research has been on the effects of psychological contract breach on employee contributions towards the organization rather than towards other targets such as co-workers or customers/public service users. This paper principally addresses these gaps by providing a more precise analysis of whom employees target when they perceive psychological contract breach following organizational change

and by examining moderators of their reactions, using a longitudinal design with data collected before and after a national announcement of substantial budget reductions.

The setting for this investigation of the psychological contract is the UK public sector, which has undergone extensive and substantial organizational changes due both to recession and the incoming government's 2010 austerity measures for public service organizations. It is predicted that UK public organizations will continue to undergo organizational change as swingeing spending cuts of, on average, 25% over four years are implemented (Office for Budget Responsibility, 2010). Organizations in the public, private and voluntary sectors in many countries around the world are again facing considerable pressures, emanating from the recent (2007-2008) global financial crisis, which has led to austerity for a number of societies, linked with recession, and thereby affecting most sectors of employment (Crotty, 2009; Dolton & Makepeace, 2011).

The purpose of the present paper is to consider how employees react to psychological contract breach following organizational change, by examining whether and the extent to which employee reactions vary across targets and whether employee reactions are moderated by salient contextual features. More specifically, this paper aims to examine (a) whether organizational changes following the announced austerity cuts do create employee psychological contract breach for public sector employees; and (b) whether the effects of psychological contract breach vary across targets, namely the organization, co-workers, and public service users (in the form of employee service delivery behaviour); and (c) whether certain relationships are

moderated by the salient contextual features of job insecurity and public sector commitment. In doing so we make three major contributions.

First, our principal contribution is to respond to recent calls to examine distinctions between the targets of employee contributions when considering social exchange relationships and to explore whether behaviour in one social exchange relationship can have consequences for other social exchange relationships (Bordia et al., 2010; Lavelle, Rupp, & Brockner, 2007). We draw on the target similarity model (Lavelle, Rupp, & Brockner, 2007) and predict that employee responses to psychological contract breach by the organization will differ across foci such that employees will mainly retaliate against the organization, less so against public service users and not at all against co-workers. We compare contributions targeted towards the organization (organizational commitment and organizational citizenship behaviour towards the organization, OCBO)¹, towards co-workers (organizational citizenship behaviour towards individuals, i.e., helping behaviours, OCBI) (Dalal et al., 2009) and towards service users. In our setting service users are the public (organizational citizenship behaviour toward the customer, in this case public service user, OCBP), given that service quality has been portrayed as important in public sector organizational change (Ferlie, Hartley and Martin, 2003, Ashburner, Ferlie and Fitzgerald, 1996; Martin, 2003; Jas and Skelcher, 2005). Employee contributions towards organizations, co-workers and public service users are likely to be vital during cost-cutting organizational change when organizations turn to their employees to ‘go the extra

¹ The term "organizational citizenship behavior" refers to a large body of research on extra-role or citizenship behaviors at work. However, citizenship has different denotations and connotations in the public management field (where citizens are members of a democratic society). In order to eliminate confusion over the term "citizen" among readers from those different areas of literature, we refer to "citizen of a society" as "members of the public". We use the widely known and accepted term "organizational citizenship behaviors (OCB)" to describe extra-role behaviors (e.g. Dalal et al., 2009), with varying targets.

mile' to cover for lost resources and to accept less favourable terms and conditions while still providing a high quality service ("doing more with less").

In addition to exploring whom employees target following psychological contract breach, we also consider salient contextual features that may moderate employee reactions to breach. For our second contribution we examine two previously untested moderators of the relationship between psychological contract breach and employee contributions, job security and public sector commitment, to clarify when employees are more likely to withdraw their contribution. The common assumption that psychological contract breach reduces employee contributions may be less evident during a period of austerity and recession. Reduced job security may moderate employees' withdrawal of contributions following psychological contract breach, as employees fear further jeopardizing their employment prospects. Further, commitment towards the public sector (Brewer, Selden, Facer & Rex, 2002) may also moderate the relationship between breach and withdrawal of contributions, because employees with strong public sector commitment may choose to sustain their behaviour towards the public even when they have experienced breach by the organization.

Third, we contribute to research in the public management field by providing empirical insight into how pursuing austerity measures can affect employee attitudes and behaviours toward organizations, co-workers, and public service users. The 2010 government announcement of austerity measures in the form of severe budget cuts will force a range of different types of public sector organizations (e.g. local government, health, police) to implement massive organizational changes. We

examine whether and how the behaviors of employees in the public sector toward different targets vary following psychological contract breach. We are aware that public and private sector employees may differ in their reactions to breach, particularly behaviors towards public service users. This is theoretically relevant given that users of public services may sometimes be ‘customers’ but may also be clients, co-producers and citizens, sometimes simultaneously, as noted by a number of researchers (Needham, 2006; Alford, 2009; Newman and Clarke, 2009). The different status of service users may evoke different attitudes and behaviors from service providers, due to public service motivation (Brewer et al, 2002; Needham, 2006; Perry and Wise, 1990) and because this may be seen by employees as relational not transactional interaction given that some service users may be perceived as vulnerable.

In summary, we test a framework linking organizational change to psychological contract breach over time, and draw on the target similarity model to predict how psychological contract breach affects employee contributions towards the organization (organizational commitment, OCBO), co-workers (OCBI) and public service users (OCBP). We further argue that certain relationships are moderated by job security and public sector commitment. We use longitudinal survey data gathered closely before and after the announcement of the Government’s wide-ranging budget cuts to the public sector, using a sample of a wide range of employees across organizations and locations within the public sector.

Organizational change and psychological contract breach

Many researchers view the psychological contract as important for understanding how macro and micro organizational changes affect employees. The psychological contract has been used to examine the impact of certain specific types of change including downsizing (Feldheim, 2007), outsourcing (Ågerfalk & Fitzgerald, 2008; Koh, Ang & Straub, 2004), and major restructuring (Chaudhry, Coyle-Shapiro and Wayne, 2011), where findings show that organizational change violates promises made by organizations. In our research context, many organizational changes were likely to follow from the government's austerity measures for public service organizations, such as redundancies, revenue cutbacks, pay freezes, changes to strategy, cutbacks in services provided, department mergers, and so on. Multiple changes were therefore occurring simultaneously, akin to a "cacophony of change" (Dutton et al., 2001, p. 716). We expect that the more organizational changes employees experience, the greater the disruption to their psychological contracts and that this psychological process is common in employees across all sectors and industries (Farmer & Fedor, 1999). On the other hand, breaches may be particularly evident for public sector employees, who traditionally have been somewhat more (though not entirely) protected from economic cycles. However, this needs to be balanced alongside evidence that public service employees have, like private sector employees, undergone a long period of change (Coyle-Shapiro & Kessler, 2003).

Hypothesis 1: Organizational change predicts psychological contract breach over time.

The differential effects of psychological contract breach on employee contributions toward the organizations, co-workers, and public service users

We consider four outcomes related to three targets (the organization, individual co-workers, public service users) as consequences of psychological contract breach.

These outcomes are affective organizational commitment which is the degree to which an individual feels attached to the organization (Meyer, Allen & Smith, 1993), and organizational citizenship behaviours which are voluntary, extra-role behaviours that go beyond the formal job description (Organ, 1997) directed to the organization (OCBO); organizational citizenship behaviour directed towards the individual (i.e. co-workers or peers, OCBI); and behaviours directed towards public service users (OCBP).

We chose these outcomes because, first, we wanted to examine whether withdrawal of employee contributions following psychological contract breach differs across three different targets, namely the organization, co-workers and service users. Of key interest here is whether the changes following the announcement of austerity measures primarily affect employee contributions toward their organization, or also spill-over to affect employee contributions towards their co-workers and their service users. Second, all four outcomes (organizational commitment, OCBO, OCBI, OCBP) are important to organizational performance. For example, affective organizational commitment is associated with employee turnover (Mowday, Porter & Steers, 1982), and both organizational citizenship behaviours directed towards the organization (OCBO) and co-workers (OCBI) are associated with unit and organizational performance (Podsakoff, Ahearne & MacKenzie, 1997). Behaviours towards public

service users (OCBP) are central to the aims of public sector organizations as “customer service” would be to any service-delivery organization (even though the ontology and meaning of customer or service user is somewhat different across sectors given that public sector ‘customers’ are also members of the public as well and can co-produce the service; Alford, 2009).

Our predictions are guided by the target similarity model (Lavelle, Rupp, & Brockner, 2007). The target similarity model attempts to specify more precisely the social exchanges between employees and other parties they encounter at work. It asserts firstly that employees develop distinct social exchange relationships specific to parties they encounter at work (employer, line manager, co-worker, customer), and secondly that employees will react to their evaluations of social exchange relationships by directing their behaviour toward the focal party (i.e., the target similarity effect). The target similarity effect is largely explained by employees seeking to retain balance in the distinct exchange relationships that are party to. Spill-over effects – where employee evaluations about a social exchange party spill-over to affect their behaviour toward other parties – are expected to be weak (Lavelle, Rupp, & Brockner, 2007). Previous studies provide some evidence consistent with the target similarity model. For example, perceived organizational justice has been found to predict trust in the organization, but not trust in supervisor, whereas supervisor justice predicted trust in supervisor to a greater extent than trust in the organization (Aryee, Budwar & Chen, 2002). In our case, when employees perceive psychological contract breach by the organization, we expect them to target their response largely toward the organization and to a much lesser extent the third parties of service users and co-workers. We now discuss these relationships between psychological contract breach

by the organization and employee reactions toward the organization, service user and co-worker respectively.

Many studies find associations between employee perceptions of psychological contract breach by their organization (i.e., when their organization is seen to break an implicit or explicit promise to them; Robinson & Rousseau, 1994) and employee contributions (attitudes and behaviour) toward their organization, such as decreased organizational commitment and organizational citizenship directed to the organization (see recent meta-analyses, Bal, Lange, Jansen, & Velde, 2008; Zhao, Wayne, Glibkowski, & Bravo, 2007). Employees may withdraw contributions following breach because they seek to rebalance their contributions with the reduced level of perceived inducements or rewards, in order to restore a sense of equity. Other explanations for the withdrawal of contributions following breach include increasing distrust of the organization's future ability to deliver on promises and a desire to retaliate to get back at the organization (Conway & Briner 2009).

We now turn to employee behaviour directed toward service users and toward co-workers, rather than the organization, and consider whether employee reactions to breach by the organization are likely to spill-over to affect these targets. We could find only one study that links psychological contract breach to customer service behaviour (see Bordia et al., 2010) and no studies that link it to public service behaviour. Psychological contract research has focused on the employer/organization as the referent, both in terms of who perpetrates breach and who becomes the target of employee withdrawal/retaliation (Bordia et al., 2010). Bordia et al. (2010) found that employee perceptions of breach by their supervisor was related to their service

behaviour toward customers among a sample of restaurant workers and call centre workers in the Philippines. The researchers argued that breach by supervisors would trickle-down to affect customers (where employee reactions to supervisor breach spills-over to affect targets beyond the supervisor), as predicted by theories of displaced aggression (Marcus-Newhall, Pedersen, Carlson, & Miller, 2000).

In addition to displaced aggression there are two further reasons why employee perceptions of psychological contract breach by the organization may spill-over to affect citizenship directed toward service users. The second reason is that the psychological contract between the organization and employee and between the employee and the service user are mutually dependent (Bordia et al., 2010).

Employees may interpret psychological contract breach by the organization to mean that certain employee obligations that form part of their psychological contract with the organization, which are also simultaneously part of their psychological contracts with service users (such as courtesy towards the public), are no longer required to be fulfilled to the same degree because the organization has reneged on their side of the deal. The third reason is that psychological contract breach by the organization may lower employee morale and increase stress and this may consciously or unconsciously affect employee behaviour toward service users.

The target-similarity model would, however, predict that employees' perceptions of psychological contract breach by the organization would be less strongly related to OCBP compared with OCBO. The reasons for this, relevant to our public sector context, is because public sector workers may identify more with their service users than the organization given that such employees are often motivated by an ethos to

serve the public and to provide duties of care to service users, some of whom may be vulnerable, e.g. elderly, frail or sick (Brewer et al., 2002; Needham, 2006; Perry & Wise, 1990; Rayner, Williams, Lawton & Allison, 2011) and are themselves users or beneficiaries of public services (Boyne, 2003). Resolving the differing predictions of spill-over and target-similarity processes, we expect psychological contract breach will therefore predict behaviours toward the service user (OCBP), but the relationship will be weaker than that for OCBO.

We now consider whether psychological contract breach by the organization will relate to withdrawal of organizational citizenship behaviours toward co-workers (OCBI). The relationship between psychological contract breach and OCB towards co-workers (in the form of helping, OCBI) is less researched than OCBs towards the organization and has shown mixed results. Some researchers found a negative relationship between breach and OCBI (or a positive relationship between psychological contract fulfilment and OCBI) (e.g. Restubog, Bordia & Tang, 2007; Coyle-Shapiro, 2002). Others, for example Turnley, Bolino, Lester and Bloodgood (2003), found that fulfilment of the relational psychological contract predicted OCBI, whereas pay-related psychological contract fulfilment did not, and Johnson & O'Leary-Kelly (2003) found no relationship between breach and helping behaviours towards co-workers. The reasons suggested above as to why breach by the organization may spill-over to affect attitudes and behaviours directed toward service users (i.e., displaced aggression, interdependent psychological contracts, demoralization) may also be reasons why breach spills-over to affect OCBI. We believe, however, that they are less relevant to OCBI as employees will recognise that their co-workers face similar circumstances. Johnson & O'Leary-Kelly (2003)

speculate that the breach–OCBI link was non-significant because individuals were not willing to withdraw helping behaviours as these would harm co-workers, who were not to blame for the breach, and would harm one’s own colleague support network. Furthermore, any withdrawal of helping behaviour toward colleagues may be reciprocated and therefore harm one’s own interests. We find the arguments against spill-over toward co-workers compelling, particularly in an austerity context, where employees may have increased need for colleague support. Groups facing a common threat may even show increases in OCBI, as employees bond together (Sherif et al., 1961). Therefore, our hypothesis is consistent with the target similarity model predicting that breach effects will not spill-over.

Hypothesis 2: Psychological contract breach negatively predicts organizational commitment, organizational citizenship behaviour directed toward the organization (OCBO), and to a lesser extent organizational citizenship behaviours directed toward service users (OCBP), and has no effect on behaviours directed towards co-workers (OCBI).

Job security and public sector commitment as moderators of employee reactions to psychological contract breach

The extent to which perceptions and attitudes influence employees’ behaviours is constrained and enabled (i.e., moderated) by contextual factors (Johns, 2006). The formation of beliefs about psychological contract breach and violation is a sensemaking process where the importance attached to breach is moderated by a wide range of factors such as employee attributions about the other party’s behaviour, perceived losses and employment alternatives, personal ideologies, and procedural

justice (Conway & Briner, 2009; Robinson & Morrison, 2000). We consider job security and public sector commitment as salient features of our research context that may moderate the relationship between psychological contract breach and employee behaviour. As argued above, public sector employment was characterised as relatively secure in the past but this has become less the case over the last two decades (Coyle-Shapiro and Kessler, 2002). Our data were collected within a context of austerity, economic recession and public sector contraction and we argue that job security will moderate the extent to which employees withdraw OCBO and behaviours toward the public service users following breach. Previous research supports a positive relationship between job insecurity, in-role and organizational citizenship behaviour toward the organization (Staufenbiel & König, 2010; Ye, Cardon, & Rivera, 2012). One explanation for this effect is that if employees feel insecure (fear losing their job) they moderate withdrawal behaviours following breach, as they suspect that withdrawing in-role behaviour may undermine their perceived value to the organization and make it more likely they will be made redundant (Ye, Cardon, & Rivera, 2012). Employees may feel similarly about withdrawing discretionary behaviours, as research shows that undertaking organizational citizenship behaviour towards the organization influences managers' decisions about allocating rewards (MacKenzie, Podsakoff, & Paine, 1999). We do not expect job security to moderate the relationship between psychological contract breach and organizational commitment, as attitudes are not constrained in the same way as publicly observable behaviour. Organizational citizenship behaviours towards the organization (OCBO) and public service users (OCBP) are observable and are likely to some extent to be used tactically by employees as part of their impression management (Grant & Mayer, 2009).

An enduring concern in public-service research is whether public sector employees have a distinct ethos (Rayner et al., 2011) or public service motivation, orientation and commitment (Brewer, Selden, Facer & Rex, 2002; Perry & Wise, 1990). Here we examine whether public sector commitment moderates the relationship between psychological contract breach and organizational citizenship behaviours directed toward public service users (OCBP), as employees with a strong commitment to the public sector may choose to maintain their discretionary efforts towards the public even in the face of contract breach because to not do so would conflict with their values of upholding public service (Perry & Wise, 1990). The target similarity model proposes that employees develop distinct social exchange relationships with different foci (Lavelle, Rupp, & Brockner, 2007). Where employees feel stronger commitment to public service they will be less likely to let contract breach spill-over to affect their behaviour toward service users.

Hypothesis 3: Job security will moderate the relationship between psychological contract breach and organizational citizenship behaviour directed toward the organization (OCBO) and organizational citizenship behaviours directed toward public service users (OCBP): negative relationships between breach and organizational citizenship behaviour directed toward the organization (OCBO) and organizational citizenship behaviours directed toward public service users (OCBP) will be weaker for employees who feel less job security compared with those who feel greater job security.

Hypothesis 4: Commitment to the public sector will moderate the relationship between psychological contract breach and service behaviours directed toward public service users (OCBP): negative relationships between breach and organizational citizenship behaviours directed toward public service users (OCBP) will be weaker for employees with high public sector commitment compared to those with low public sector commitment.

Methods

Research context

Since the global financial crisis, organizations in all sectors have faced considerable financial and economic pressures. The UK government, like many others in Europe and across the world, has pursued austerity measures to decrease the public sector deficit (Crotty, 2009). It announced and implemented significant spending cuts (set out in their first major fiscal announcement, the Comprehensive Spending Review, in October 2010), where public service organizations typically faced 25% cuts in their budget over the term of the review. This was the largest budget reduction in the UK since World War 2 and is predicted to lead to a 10% cut in public sector employment by 2015 (Office for Budget Responsibility, 2010). Such cuts are forcing public service organizations to undertake major organizational changes and cost-reduction exercises and therefore the context is a fertile one in which to consider the processes of both psychological contract breach and extra-role employee contributions.

Sample and procedure

We conducted a two-wave longitudinal web-based questionnaire study of employees working across a wide range of public organizations in the UK. Data at time 1 were collected during October/November 2010 and data at time 2 were collected six months later during May 2011. This interval was chosen to be sensitive to change, while also ensuring that the panel attrition rate through restructuring and redundancies was not detrimental to the study. The distribution list consisted of two university databases of public servants along with a smaller snowball exercise of other public servants. The databases each consisted of current and former students, who had studied full- or part-time (from single-day executive programmes to various undergraduate and Masters courses) while employed as public servants, along with other public servants who had been in contact with the researchers' departments. (The approach was selected given the urgency of data collection prior to the national announcement). There were 744 respondents at time 1, of whom 340 completed the survey at time 2. This paper focuses on employees who responded at both time points, representing a response rate of 21%. The employees came from a wide range of public sector organizations and from all regions and countries of the UK.

We examined panel participation bias by testing whether there were any effects due to systematic attrition following the survey at Time 1. Following Goodman and Blum's (1996) recommendations, we computed a dichotomous variable indicating employees who completed surveys at Time 1 and Time 2 ($N = 340$) versus those who completed surveys at Time 1 only ($N = 404$). We used multiple logistic regression to test whether psychological measures (see Table 1) and control variable measures (see Appendix 1) predicted participation. Those who completed surveys at Time 1 and Time 2 did not differ significantly on any of the variables. In summary, our data were

not biased by attrition. Further, we tested whether responses differed by source (database) and found no differences in demographics or employee attitudes.

The sample consisted of 23% (self-rated) senior managers, 33% middle managers, 18% first-line managers and 26% non-managers. 56% of the sample was female; 24% were between the ages of 21 and 30, 45% were between 31 and 50, and 31% were aged 51 years or more; 85% had a university degree; 87% were employed full-time; and 82% had permanent employment. 61% were in organizations of 1,000 employees or larger. 31% of the sample was employed in London, while the remainder came from outside London (other English regions; all four UK countries). See Appendix 1 for more detail about the sample.²

Measures

Scale items were randomized to reduce order effects and common method bias (Fraley, 2007).

Organizational change index. This measure aims to assess the number of structural organizational changes as perceived by the employee for their own organization. It was designed to be sufficiently broad to capture the range of different changes known to be occurring across many different public sector organizations, professions and contexts. It was adapted from Kiefer's (2005) measure, retaining changes relevant

² We aimed for a wide range of jobs, organizations and services from the public sector, but do not claim that our sample is wholly representative of public sector employment. We compared our sample against national UK statistics for public sector employment (using the Office of National Statistics for quarter 3, September 2010 but little data is available for all public sector employees. 31% of our sample was located in London compared with the public service population of 13%. The sample also included fewer respondents from health, education and policing combined than occurs in the population (29% compared with 56%), while still indicating that our sample included a wide range of public service fields.

across both public and private sectors (such as mergers) while adding new items (such as pay freezes or working in partnership) generated through exploratory group interviews with public sector employees and through trade press reading.

This measure represents an index, rather than a theoretical construct, consisting of a range of changes relevant to the context (see e.g., Bollen & Lennox, 1991, Spector & Jex, 1998). It is a formative measure, in which items are not necessarily tightly conceptually related (Coltman et al., 2008; Diamantopoulos & Sigauw, 2006; Diamantopoulos & Winklhofer, 2001). Each item represents one possible change activity. The stem question was: ‘Have you experienced the following changes in your organization over the past six months?’ (yes/no) and includes 13 items (see Appendix 2).

Psychological contract breach. This measure was based on Rousseau and Robinson (Robinson, 1996; Robinson & Rousseau, 1994) and consisted of 7 items assessing the extent to which the organization had fulfilled or not its promises on different aspects of work (i.e., an attractive pay package, an attractive benefits package, fair treatment, a relatively secure job, feedback on performance, training, opportunities for promotion). Participants were provided with a five-point scale where responses ranged from 1 (completely fulfilled) to 5 (not at all fulfilled) and a further response category separated from the scale, labelled ‘No promises made’ which was regarded as non-response in later analyses. The individual items are listed in Appendix 3.

Organizational commitment was measured using four items from Meyer et al.’s (1993) measure of affective organizational commitment. Items included “I do not feel

a strong sense of belonging to my organization” (recoded), “I do not feel emotionally attached to this organization” (recoded), “I really feel as if this organization's problems are my own”, “This organization has a great deal of personal meaning for me”. Anchors ranged from 1 (strongly disagree) to 5 (strongly agree).

Organizational citizenship behaviour directed to the organization (OCBO) was measured using 5 items from Lee and Allen’s (2002) measure. Items included “Expressed loyalty toward the organization”; “Kept up with developments in the organization”; “Offered ideas to improve the functioning of the organization”; “Showed pride when representing the organization in public”; and “Took action to protect the organization from potential problems”. Anchors ranged from 1 (not at all) to 5 (to a great extent).

Organizational citizenship behaviour directed towards co-workers (OCBI) was measured using 4 items from Lee and Allen’s (2002) measure. Items included: “Willingly gave your time to help others who have work related problems”; “Adjusted my work schedule to accommodate other employees' requests for time off”; “Showed genuine concern and courtesy toward coworkers, even when working under high pressure”; and “Assisted others with their duties”. Anchors ranged from 1 (not at all) to 5 (to a great extent).

Organizational citizenship behaviour directed towards public service users (OCBP) measured behaviours directed towards delivering a service to users and adapted four items from Bettencourt, Gwinner and Meuter’s (2001) service-oriented citizenship behaviours, where “customers or clients” was replaced with “members of the public”.

An example is: “I follow up in a timely manner to requests and problems raised by members of the public”. The anchors ranged from 1 (very slightly or not at all) to 5 (a great deal). Only participants in a service role (as opposed to a policy or corporate role) were invited to complete this scale (N = 81 at both time 1 and 2). We used multiple logistic regression to test whether control variables (see Appendix 1) predicted a dichotomous variable indicating participants in a service role. Senior managers ($p < .001$), younger workers ($p < .01$), and men ($p < .05$) were significantly less likely to be in service roles.

Public sector commitment was measured using two items developed for this study and adapted from general items used to measure organizational commitment. Items include “I am thinking about applying to the private sector” (reverse coded) and “I am very committed to working in the public/voluntary sector”. The Cronbach alpha was .50 at time 1 and .57 at time 2. This is lower than widely cited thresholds for acceptable alphas of 0.7 (e.g., Nunnally, 1978); however, alphas increase with item scale length (Petersen, 1994) and we would therefore not expect a high alpha without considerable content redundancy in a two-item measure. Furthermore, George and Mallery (2003) note that while 0.7 is threshold for good reliability, alphas between 0.5 and 0.6 can be acceptable albeit with questionable reliability. We therefore retained the measure as it had good face validity.

Job security was measured using three items from Kraimer et al. (2005). Items included “I am confident that I will be able to work for my organization as long as I wish”, “If my job were eliminated, I would be offered another job in my current organization”, and “My current organization would transfer me to another job if I

were laid off from my present job". Anchors ranged from 1 (strongly disagree) to 5 (strongly agree).

Control variables. We controlled for a range of establishment and individual characteristics typical in studies using individual-level data across organizations, which included organization size, public service field (health, education, etc), governmental level where relevant (central, local), geographical region of UK, gender, age, managerial level, tenure, educational qualification, work status (full-time versus part-time) and contract status (whether the respondent's job was permanent or otherwise (fixed-term, temporary) (see Appendix 1).

Analysis strategy

Researchers have commented recently on the generally low quality of survey research designs in the fields of the psychological contract (Conway & Briner, 2009) and public administration, where designs tend to be cross-sectional (Brewer & Brewer, 2011; Lee, Benoit-Bryan & Johnson, 2012), recommending stronger designs such as quasi-experiments to improve internal validity and to avoid external validity concerns inherent to lab-based experimental designs. We therefore used a quasi-experimental design where our Time 1 survey took place at the time of the national announcement about austerity measures and our Time 2 survey occurred six months later. Our design is quasi-experimental in the sense that we assume (and find evidence for) changes resulting from the national announcement (taking place between surveys 1 and 2).

We tested our hypotheses using panel regression analyses (Finkel, 1995).

Longitudinal data and panel regression analyses provide greater confidence in causal inferences (Finkel, 1995). The dependent variable at time 2 was regressed on its lag at time 1, the independent variable at time 2 and its lag at time 1. The presence of lagged variables permits analysing the effects of change in the independent variable on change in the dependent variable, as indicated by the regression coefficient of the independent variable at time 2 (Finkel, 1995). Our design elements collectively constitute a reasonably rigorous test of causality in a field setting (Finkel, 1995; Cook & Campbell, 1979). Furthermore, the inclusion of the time-lagged dependent and independent variables rules out the effects of assumed stable factors such as personality or aspects of job or workplace because clearly change cannot be explained by stable unchanging factors (Bunderson, 2001; Finkel, 1995).

Results

Means, standard deviations, alpha reliabilities and correlations are shown in Table 1.

In Table 2 we present regression analyses relating to the three hypotheses. Paired sample t-tests showed that between time 1 and time 2 organizational change and psychological contract breach had significantly increased (respectively $t = 8.26, p < .001$; $t = 6.91, p < .001$) and organizational commitment, OCBO and OCBI had significantly decreased (respectively $t = 4.00, p < .001$; $t = 3.57, p < .001$; $t = 2.37, p < .05$).

< INSERT TABLES 1 AND 2 ABOUT HERE >

As variables at time 2 are likely to be correlated with their lagged counterparts at time 1, we did a preliminary check for multicollinearity: it indicated no concerns as Variance Inflation Factors (VIFs)³ for predictor variables were below 2 for all regression models and well below the recommended cut-off of 10 (Levin, Whitener & Cross, 2006). All regression models in step 1 control for individual and establishment level characteristics described in the methods and Appendix 1⁴. In step 2 we entered the interaction variables and lower order variables from which the interaction variables were derived (interaction terms should be tested after controlling for lower order terms according to Aiken and West [1991]) as well as job security and public sector management at time 1. We created the interaction terms by multiplying the independent variable and the moderator, after first mean-centring the variables.

Hypothesis 1 stated that the increase in organizational change over time will predict psychological contract breach, and this was supported. The effect of the independent variable at time 2 (after controlling for time 1) indicates change in the amount of organizational change had an effect on change in psychological contract breach ($\beta = .20, p < 0.001$).

Hypothesis 2 stated that psychological contract breach will negatively predict outcomes and this was supported for organizational commitment ($\beta = -.16, p < .01$, see psychological contract breach at time 2), OCBO ($\beta = -.19, p < .001$), but not for

³ VIFs measure multicollinearity among predictor variables in regression models. A predictor variable with a VIF equal to 2 indicates that the squared multiple correlation (SMC) between it and all of the remaining predictors in the model is 0.50 (i.e., $VIF = 1 / SMC$).

⁴ The control variables showed no consistent or extensive effects on the dependent variables once the psychological variables were controlled for. Summarizing, none of the 15 control variables associated with psychological contract breach at time 2; education associated positively with organizational commitment ($\beta = .09, p < .05$); women were more likely to report engaging in OCBI ($\beta = .12, p < .05$); respondents based outside of London ($\beta = .08, p < .05$) and in smaller organizations ($\beta = .10, p < .05$) were more likely to report engaging in OCBO; and respondents based outside of London ($\beta = .33, p < .001$) and in full-time employment ($\beta = .21, p < .05$) were more likely to report engaging in OCBP.

organizational citizenship behaviours directed toward public service users (OCBP; $\beta = .04$, non-significant). Hypothesis 2 also stated that breach would not relate to organizational citizenship behaviours directed toward co-workers (OCBI), which was also supported (see Table 2). Hypothesis 2 was therefore supported for three of the four outcomes and the results are fully consistent with the target similarity model, where employees tended to react against the perpetrator of breach, but not other targets.

Hypothesis 3 stated that job security will moderate the relationship between psychological contract breach and organizational citizenship directed toward the organization (OCBO) as well as organizational citizenship behaviours directed toward public service users (OCBP), such that the negative relationships between breach and OCBO and OCBP will be weaker for employees who feel job insecure compared with those who feel job secure. This was supported for the outcome of service delivery (OCBP), where the interaction term between psychological contract breach at time 2 and job security at time 2 had a significant effect on OCBP ($\beta = -.17$, $p < .05$). The hypothesis was not supported for OCBO.

To interpret the significant moderating effect, we plotted two simple regression lines corresponding to high and low values of job security defined by one standard deviation above and below the mean (Aiken & West, 1991). Figure 1 indicates that low job security did indeed dampen employees' withdrawal of OCBP following psychological contract breach; in addition, in practice, for insecure employees, psychological contract breach positively related to OCBP indicating that employees experiencing psychological contract breach were more likely to engage in OCBP.

Hypothesis 4 stated that commitment to the public sector will moderate the relationship between psychological contract breach and OCBP. The interaction between psychological contract breach at time 2 and public sector commitment at time 2 was related significantly to OCBP ($\beta = -.20, p < .05$), but in a direction contrary to the hypothesis. Figure 2 plots the interaction effect: breach related to increases in OCBP for employees with low public sector commitment, and decreases for employees with high public sector commitment.

< INSERT FIGURES 1 AND 2 ABOUT HERE >

Discussion

This study makes important contributions to research on the unfolding of the psychological contract where substantial organizational changes are occurring, and more specifically to how public sector employees react to psychological contract breach following organizational change during a period of austerity. The study has wider relevance to organizations engaged in ‘doing more with less’ as a result of austerity and recession, particularly service organizations (where employees interact with customers or public service users). The focus on the psychological processes underlying organizational change suggests that many of these processes may well be similar for private sector firms pursuing austerity measures, though this deserves further research. Findings strongly support the target similarity model, where employees react against the perceived agent of the breach by withdrawing organizational citizenship behaviour directed toward the organization (OCBO), while

their citizenship behaviour toward public service users (OCBP) and co-workers (OCBI) was unaffected. We also consider two factors, job security and public sector commitment, relevant to the current public sector context of austerity that may moderate the effects of breach on public sector worker behaviours. Our study is one of very few to examine the effects of organizational change on psychological contract breach in organizational change using a robust longitudinal design. Finally, it offers evidence of how recent and on-going changes to the public sector are likely to affect employees' contributions across the sector, and how changes may affect recipients of public services.

The findings support researchers' claims about the utility of the psychological contract as a framework for understanding how organizational change filters through to affect employee attitudes and behaviour (Arnold, 1996; Conway & Briner, 2005; Guest, 1998; Rousseau, 1989). While there has been some debate about whether any kind of change inevitably leads to more negative attitudes and reduced employee contributions (Choi & 2011), our research shows clearly that when the content of the organizational changes reflect cost-cutting measures it results in psychological contract breach. Reports of the increase in organizational change following the announcement of the austerity measures predicted psychological contract breach (see Appendix 2 and 3 for the extent of change).

Psychological contract breach predicted change in contributions towards the organization (organizational commitment and OCBO), but not organizational citizenship behaviour directed toward public service users or employees' co-workers, supporting target similarity effects. We hypothesized a weaker relationship between

breach and organizational citizenship behaviour directed toward public service users (OCBP) and no relationship for organizational citizenship behaviour directed toward co-workers (OCBI). In fact, there was no effect for both OCBP and OCBI, suggesting that employees target their reactions to the breach perpetrator – perceived as the organization in this case – and neither co-workers nor the public. Our findings differ tests of the target similarity model in the private sector, where employee perceptions of supervisor breach related to customer service behaviour (Bordia et al., 2010). The conflicting findings may be explained by context: in the public sector employees are less likely to retaliate against their “customer” (i.e., the public) as they can take the public’s perspective, are themselves members of the public (Boyne, 2003), and public services are to some extent co-produced during the public service encounter (Alford, 2009). Furthermore, “customers” of the public sector consist of multiple sets of widely differing users (e.g., the young, old, sick, vulnerable), which may make retaliation against certain groups less likely. Yet all of those points deserve further research. However, we do not yet know whether, in the longer-term, decreasing levels of contributions to the organization (i.e. organizational commitment and OCBO) will affect the delivery of public services, given OCBO contributes positively to unit and organizational productivity and performance quality (Podsakoff, Ahearne, & MacKenzie, 1997) and this is an area for further research. Furthermore, we were unable to examine the extent respondents saw themselves as professionals or not, which could influence both attitudes and behaviours in organizational change in the sense that it would be unprofessional to target service users (Noordegraaf, 2011) and this could also be an area for future research. Finally, support for the target similarity model elaborates our understanding of how employees react to breach by parties in organizations. It should be further researched in the public sector by, for example,

examining simultaneously relationships among the multiple parties that may breach psychological contracts associated with workplaces (organizations, supervisors, co-workers, service-users/customers). Future research should also examine conditions when spill-over is more or less likely to occur. For example, our findings show that in the short time of six months between time 1 and time 2 there was a large increase in psychological contract breach, which was negatively associated with changes in organizational commitment and organizational citizenship directed toward the organization. Future research should investigate the medium and longer-term effects of breach and the target similarity model, to investigate whether spill-over affects foci beyond the organization over a longer term.

Job security moderated relationships between psychological contract breach and organizational citizenship behaviours towards service users (OCBP). In fact, for job insecure employees, experiencing psychological contract breach slightly increased service behaviour. This may be explained by employees feeling trapped in their jobs, perceiving few employment opportunities elsewhere in the context of rising UK unemployment, seeing coworkers lose their jobs, perhaps leading respondents to react to psychological contract violations through increasing service efforts and demonstrating their value through service to the public. This argument is supported by research suggesting that anxiety about layoffs can increase performance in the short-term (Brockner et al., 1986). But how will these set of circumstances play-out in the longer term? Will employees feel embittered and let their frustrations affect their behaviour toward service users? The extent of breach to promises associated with rewards (attractive benefits, attractive pay, promotion) indicated in Appendix 3 suggests that such financial rewards are particularly likely to be withdrawn. This

raises further questions, including what might emerge as the longer-term deal for public sector employees and what are the implications for the changing psychological contract across all sectors in a time of austerity.

Counter to our hypothesis, psychological contract breach for those employees with low public sector commitment was related to increases in organizational citizenship behaviour directed toward public service users (OCBP) whereas it decreased for those with high public sector commitment. Inspecting the interaction plots suggests a plausible interpretation of the finding. For employees who report fulfilled psychological contracts (i.e., low breach in the plots), those with high public sector commitment report higher organizational citizenship behaviour directed toward public service users than employees with low public sector commitment. However, for employees who report high psychological contract breach, those with high and low public sector commitment report the same level of organizational citizenship behaviour directed toward service users (see Figure 2). This may be because employees highly committed to the public sector feel more hurt by psychological contract breach. Employees with high public service motivation or commitment may feel a strong sense of duty, social justice, self-sacrifice, and compassion (Perry, 1996), similar to employees who hold ideological psychological contracts (Bunderson, 2001), where employees expect their employer to honour obligations related to their ideological beliefs and react strongly when they do not. Furthermore, employees with low public sector commitment may recognize the need to demonstrate their value, consistent with our job security discussion above. Future research should explore interactions between public sector motivation and different types of psychological contracts (transactional, relational, ideological).

We note several limitations and further areas for research. First, we assume that employees' increased reporting of organizational change and psychological contract breach resulted from how organizations responded to the extensive austerity measures imposed by the government. Some of the reported changes, however, may predate or occur outside the austerity measures. While this is unlikely to affect the overall pattern of associations in our findings, it may have influenced the reported incidence of change and breach. Second, the time 2 survey – six months after the announced austerity measures – may not have allowed enough time to capture the full range of cuts and their effects. However, the time period we capture is, arguably, when the largest rate of change will be reported, as it represents the clear start of the introduction of the austerity measures when employee reactions are likely to be most marked, and before they become habituated to changes (Jimmieson, Terry & Callan, 2004). Furthermore, to the extent that austerity measures involve extensive redundancies, longer time frames would lead to significant attrition of our longitudinal data set. Finally, our sample is varied in demographics, organizations and locality and was not intended to be representative of public sector employment. The sample is skewed towards managers who are sometimes responsible for psychological contract breach of their subordinates as well as experiencing it themselves from their superiors or from central government. However, the inspection of the control variables in the regression indicates that managerial level did not affect our results (although senior managers were less likely to be in service roles). It would be valuable to undertake further research to substantiate this, and also to explore the impact of professional identity on organizational citizenship behaviours across the three targets we identified here. We also failed to find consistent differences by

public service field (e.g. health, police) or by level of government (local, central).

This suggests that organizations within an institutional field may exhibit variation, which overwhelms service differences (a finding by other researchers such as Boyne, 2003) but this is an area, which warrants further exploration.

To conclude, since the global financial crisis of 2007-2008, many countries have implemented austerity measures (Pollitt and Bouckaert, 2011). Six months after the government announced significant cuts to the public sector budget, employees in our sample reported large increases in organizational change and psychological contract breach by the organization, which appeared to lead to employees targeting their reactions toward the organization through withdrawing organizational commitment and organizational citizenship behaviors directed to the organization, rather than citizenship behaviours towards co-workers and service users. In the short-term, our findings suggest that employees' reactions to widespread organizational change following austerity measures are not spilling-over to affect targets beyond the perceived initiator of breach, though it remains an open question as to whether and under what conditions and processes this is will be the case in the longer-term.

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Table 1: Means, Standard Deviations, Alpha Reliabilities and Zero-Order Correlations between Main Study Variables

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Organizational change t1	4.58	2.60	(.71)															
2. Psychological contract breach t1	2.87	.85	.18**	(.82)														
3. Organizational commitment t1	3.28	.88	-.10	-.38**	(.75)													
4. OCBI t1	4.03	.60	.15**	.00	.22**	(.69)												
5. OCBO t1	3.90	.70	.09	-.27**	.45**	.56**	(.78)											
6. OCBP t1	4.19	.76	.21*	-.08	.24*	.35**	.25*	(.71)										
7. Job Security t1	2.42	.99	-.21**	-.37**	.13*	.04	.14*	.10	(.82)									
8. Public Sector Commitment t1	3.96	1.00	-.10	-.23**	.37**	.15**	.20**	.30**	.13*	(.50)								
9. Organizational change t2	5.65	2.54	.56**	.12*	-.03	.20**	.07	.29**	-.13*	-.11*	(.67)							
10. Psychological contract breach t2	3.22	.96	.17**	.52**	-.26**	.02	-.24**	.05	-.22**	-.08	.23**	(.84)						
11. Organizational commitment t2	3.11	.90	-.03	-.26**	.67**	.25**	.46**	.26**	.14*	.33**	-.05	-.29**	(.78)					
12. OCBI t2	3.96	.62	.11*	-.03	.21**	.57**	.46**	.25*	.00	.09	.13*	-.04	.25**	(.70)				
13. OCBO t2	3.79	.68	.04	-.23**	.41**	.37**	.70**	.29**	.09	.16**	.06	-.33**	.54**	.53**	(.78)			
14. OCBP t2	4.29	.64	.07	.03	.12	.19*	.07	.58**	-.01	.40**	.00	.07	.13	.16	.10	(.63)		
15. Job Security t2	2.44	.97	-.20**	-.26**	.09	.00	.10	.08	.58**	.07	-.14**	-.27**	.19**	.00	.15**	-.14	(.80)	
16. Public Sector Commitment t2	3.95	1.02	-.13*	-.20**	.30**	.17**	.17**	.07	.00	.63**	-.13*	-.20**	.40**	.12*	.24**	.23*	-.06	(.57)

Notes.

N ranges between 331 to 340 except for OCBP where N at time 1 ranges between 79 and 105 and at time 2 ranges between 79 and 116.

* $p < .05$, ** $p < .01$

Table 2: Panel Regression Analyses^a

	Breach t2	Organizational commitment t2	OCBI t2	OCBO t2		OCBP t2	
Dependent variable at t1	.46***	.65***	..56***	0.65***	0.63***	0.73***	0.90***
Organizational change t1	.01	.06	.01	-0.06	-0.05	0.03	-0.04
Organizational change t2	.20***	-.02	.00	0.08	0.09	-0.27*	-0.30**
Breach t1		.09*	.00	0.06	0.05	0.07	0.09
Breach t2		-.16**	-.03	-0.19***	-0.15**	0.04	0.04
Job Security t1					0.06		-0.03
Job Security t2					-0.12*		0.39***
Pub Sect Commitment t1					-0.04		0.01
Pub Sect Commitment t2					0.11		0.20
Breach t2 x Job Security t2					-0.02		-0.17*
Breach t2 x Pub Sect Commitment t2					0.04		-0.20*
R ² associated with control variables ^b	.07	.13	.07	.13	.13	.25	.25
R ²	.33	.51	.37	.55	.57	.55	.73
F	8.11***	15.12***	8.41***	17.66***	14.32***	3.58***	5.32***
ΔR ²					.02		.17
ΔF					2.00		5.52***

Notes.

^a *N* ranges between 331 to 340 except for service delivery where *N* = 79. * *p* < .05, ** *p* < .01, *** *p* < .001. Standard regression (beta) coefficients are presented.

^b All equations control for individual and organizational level characteristics described in the methods and Appendix 1. The control variables showed no consistent or extensive effects on the dependent variables once the psychological variables were controlled for.

Appendix 1

Means for establishment and individual controls

	Mean	Std. Deviation
Central government	.16	.36
Local government	.42	.49
Health	.06	.24
Education	.14	.35
Police	.09	.28
London	.31	.46
Scotland/Wales	.04	.20
Large organization (1000+ employees)	.61	.49
Male	.44	.50
Age	5.88	2.37
Senior manager	.23	.42
Tenure (years)	9.18	8.64
Education (degree)	.85	.36
Fulltime (versus part-time)	.87	.34
Permanent (versus fixed-term/temp)	.82	.38

Notes. $N = 340$. Age was categorized in bands of 5 years ranging from 1 = 16-20, to 11 = 66-70.

Appendix 2

Frequencies of change index by item

	T1	T2	Percentage change
Recruitment freeze	79.4%	75.9%	-3.5
Significant cutbacks in revenue budget for team or service area	63.5%	68.2%	4.7
Merger of teams or service area within my organization	52.6%	65.0%	12.4
Major changes in organizational strategy	50.0%	56.2%	6.2
Voluntary redundancies	48.2%	76.5%	28.3
Cutbacks in service provisions	39.4%	54.4%	15.0
Compulsory redundancies	26.8%	44.1%	17.3
Changes to my job description	22.6%	30.0%	7.4
Changes to my job conditions (eg. flexibility) and other benefits	21.5%	26.8%	5.3
Major changes to products and services	18.2%	24.1%	5.9
Services contracted out	16.5%	25.3%	8.8
Merger of my organization with another	9.1%	10.0%	0.9
Decision to close my organization	7.1%	6.5%	-0.6

Notes. $N = 340$.

Appendix 3

Psychological contract breach by item

	Mean T1	SD T1	Mean T2	SD T2	t-test
An attractive benefits package (e.g. pension)	2.61	1.17	3.22	1.35	7.23***
An attractive pay package	2.83	1.24	3.33	1.41	5.52***
A relatively secure job	3.12	1.15	3.37	1.28	3.27***
Fair treatment	2.53	1.13	2.86	1.21	4.71***
Feedback on performance	2.71	1.19	2.93	1.29	3.24***
Opportunities for promotion	3.70	1.16	4.23	1.15	6.23***
Training	2.67	1.28	3.17	1.31	6.49***

Notes. 1 = completely fulfilled, to 5 = not at all fulfilled. * $p < .05$, ** $p < .01$, *** $p < .001$.

Figure 1: Interactive effects of Psychological Contract Breach and Job Security (JS) on Organizational Citizenship Behaviours Directed Towards Public Service Users (OCBP)

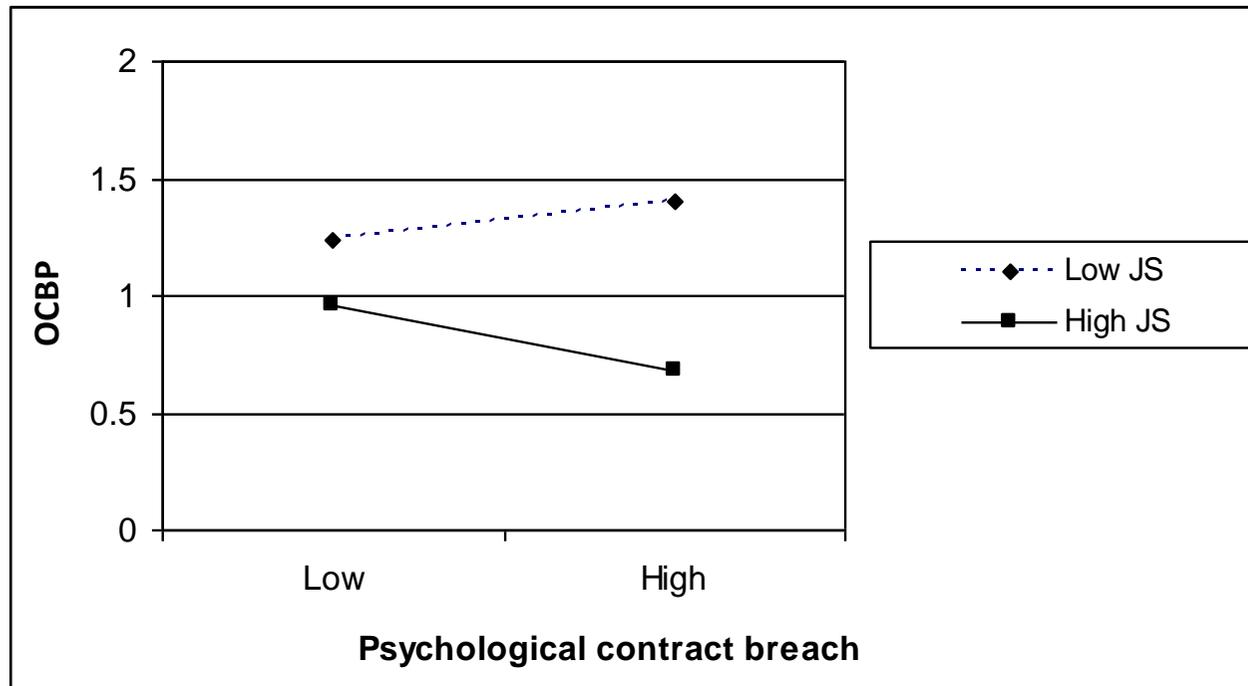


Figure 2: Interactive effects of Psychological Contract Breach and Public Sector Commitment (PSC) on Organizational Citizenship Behaviours Directed Towards Public Service Users (OCBP)

