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**Job Insecurity and Work Outcomes: The role of Psychological Contract Breach and
Positive Psychological Capital**

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Abstract

Job insecurity has received growing attention from researchers because it poses serious challenges for organizations and for society as a whole. However, there are insufficient studies about the processes through which job insecurity affects outcomes as well as potential ways to reduce its negative impact (Greenhalgh & Rosenblatt, 2010). This study focuses on the relationship between job insecurity and individual-level outcomes (in-role performance and organizational deviance) and examines if a) job insecurity is positively and/or negatively related to work outcomes; b) psychological contract breach acts as a mediator of the relationship between job insecurity and work outcomes, and c) positive psychological capital (PsyCap) buffers the job insecurity-work outcomes relationship via psychological contract breach. With a sample of 362 employee-supervisor dyads, in which the outcome measures were collected from the supervisors, we found support for our hypotheses. Specifically, we found a moderated mediation effect, whereby PsyCap moderates the negative indirect relationship of job insecurity on outcomes through psychological contract breach.

Keywords: job insecurity, psychological contract breach, PsyCap, performance

Introduction

Recently, job insecurity has received growing attention from researchers, for different reasons. First, there is a positive association between job insecurity and actual unemployment rates, ranging from .04 to .13 (Anderson & Pontusson, 2007; Chung & Van Oorschot, 2010). World unemployment rates hit an historic high of 26.6 million and this number is likely to increase in the next years (International Labor Office [ILO], 2014). Research shows that countries' economic and labor market situation affects the individual's perceptions of job insecurity and that unemployment rates increase the perceived probability of losing one's job and diminish the chances of finding another (Anderson & Pontusson, 2007; Chung & Van Oorschot, 2010). In these studies, job insecurity is seen as a subjective rather than objective phenomenon whereby individuals perceive the same insecure situation in different ways, which may change the magnitude of the relationship between unemployment rates and job insecurity.

Job insecurity is defined as an individual perception that refers to the "perceived powerlessness to maintain desired continuity in a threatened job situation" (Greenhalgh & Rosenblatt, 1984, p. 438). Job insecurity represents a workplace stressor and an indirect problem for organizations (Reisel, Probst, Chia, Maloles, & König, 2010) as it is an internal perception that affects employees' health, attitudes, and behaviors (Cheng & Chang, 2008; Sverke, Hellgren, & Näswall, 2002) and organizational productivity (Greenhalgh & Rosenblatt, 1984).

Second, job security is one of two factors that have been consistently rated among the top most important issues for employees in the last 11 years (Society for Human Resources Management [SHRM], 2014), and only 31% of employees state they are very satisfied with job security in their current job (SHRM, 2014). The global economic scenario is not improving greatly and Eurozone gross domestic product (GDP) still has not returned to its pre-crisis values

of 2007 (European Commission Eurostat, 2014). Moreover, evidence points to the saliency of job insecurity even after recessions are over (Auerbach & Gale, 2009). Job insecurity may also arise in the absence of contextual uncertainty. In this sense, many people experience this insecurity at some point in their career even when their job is not in fact at risk (Murphy et al., 2013), as there are additional factors that contribute to job insecurity, such as organizational messages and rumors (Greenhalgh & Rosenblatt, 1984).

Organizations are implementing strategies such as the general reduction of labor costs and massive layoffs, changing the nature of the traditional employment arrangements. Accordingly, it has been suggested that job insecurity indicates an undesirable change in employees' psychological contracts (De Cuyper & De Witte, 2006). Psychological contracts have been defined as individual beliefs regarding the mutual obligations that exist between employee and employer (Rousseau, 1995).

Based on the above, we propose that with the economic crisis and the new challenges it poses for companies, many employees feel insecure. These feelings of insecurity enhance the perception that their psychological contracts have been compromised. As mentioned above, insecurity is one of the top five factors in the employment relationship (SHRM, 2014). The reasoning behind this is that the economic downturn exacerbates the feelings of job insecurity (Kang, Gold & Kim, 2012), which in turn leads to perceptions of lack of reciprocity (i.e., psychological contract breach; Piccoli & De Witte, 2015). We also advance a possible way to minimize the negative consequences of job insecurity and psychological contract breach. We suggest that developing positive strengths in employees (i.e., positive psychological capital, PsyCap: Luthans, Avolio, Avey, & Norman, 2007) may create a powerful buffer, by improving tools that help to cope with insecurity and perceived contract breach.

Overall, our study offers a number of contributions to the literature. We answer the call for studies that examine the processes (i.e., psychological contract breach) through which job insecurity relates to work outcomes (e.g., performance; Greenhalgh & Rosenblatt, 1984, 2010). We also advance our knowledge of a potential safeguard (i.e., PsyCap) that organizations can employ to minimize the relationship between job insecurity, psychological contract breach and employees' behaviors. Our conceptual model is depicted in Figure 1.

[INSERT FIGURE 1 ABOUT HERE]

Job Insecurity and Work Outcomes

Job insecurity is considered a work-related stressor since it involves the experience of threat and high levels of uncertainty with consequences for both individuals and organizations (e.g., De Witte, 1999). As a major workplace stressor, job insecurity leads to negative attitudes toward the organization, impaired health and well-being, and decreased performance (Cheng & Chang, 2008). In this study the focus is on behavioral reactions to job insecurity, such as individual job performance and deviant behaviors. The first refers to meeting the requirements of one's job (i.e., specific tasks) (Griffin, Neal, & Parker, 2007). The second is defined as "voluntary behavior of organizational members that violates significant organizational norms and in doing so threatens the well-being of the organization, its members, or both" (Robinson & Bennis, 2000, p.556), representing a distinct domain of performance.

The negative impact of job insecurity on individual's behavior is explained by stress and motivation theories. Regarding the former, conservation of resources theory (COR, Hobfoll, 1989) claims that individuals experience strain when there is a threat of resource loss, an actual resource loss, or a lack of resource gain after an investment. According to Hobfoll (1989), employment is an important resource. Therefore, employees who experience job insecurity

would feel a threat to a valued resource (job) and might withdraw from job tasks that further demand their resources (König, Debus, Häusler, Lendenmann, & Kleinmann, 2010). This withdrawal can take different forms, such as reduced performance or deviant behaviors (Lim, 1996). An insecure employee may also become incapacitated by anxiety, because he/she uses his/her resources not only to perform tasks, but to deal with the threat situation (Greenhalgh & Rosenblatt, 1984; 2010), resulting in lower performance (Cheng et al., 2008). Moreover, research suggests that individuals who feel insecure about their jobs engage in deviant behaviors due to high levels of stress because they tend to blame the organization for the insecurity and take revenge upon the organization through deviant behaviors (Tian, Zhang, & Zou, 2014) .

Concerning the general motivation theories (Herzberg, Mausner, & Snyderman, 1959; Maslow, 1954), the underlying idea is that individuals need to feel secure in order to be motivated to work and achieve goals. Building upon this idea, Greenhalgh and Rosenblatt (1984) argue that security is a basic motivation for working and therefore job insecurity negatively affects behaviors toward the work and the organization. Empirical evidence is consistent with this view of job insecurity. For instance, studies report a positive relationship between job insecurity and non-compliant or deviant behaviors (e.g., Tian et al., 2014) and a negative relationship with performance (Sverke et al., 2002). In addition, meta-analytic results show a moderate negative effect of job insecurity on performance outcomes (Gilboa, Shirom, Fried, & Cooper, 2008). In summary, theory and research suggest a negative impact of job insecurity on performance and a positive impact on deviant behaviors.

Based on the above, we propose that:

Hypothesis 1: Job insecurity is negatively related to performance (1a) and positively related to deviant behaviors (1b).

Psychological Contract Breach as a Mediator

The relationship between job insecurity and work-related attitudes has been examined by several researchers (e.g., Cheng & Chan, 2008; De Cuyper & De Witte, 2007), but we still know little about how job insecurity affects the view employees have concerning their organization's ability to fulfill its promises. This is a key facet of the employee-organization relationship that is greatly influenced by the context (Coyle-Shapiro, 2002). Psychological contracts are based on social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960) and refer to mutual exchanges between employees and their organizations. When employees feel that the organization is not fulfilling the promises made to them, a breach can occur. Therefore, psychological contract breach refers to the employee's perception concerning the degree to which the organization has failed to fulfill its promises or obligations (Robinson & Morrison, 1997). It is worth noticing that the psychological contract is often breached, as it is subjective and idiosyncratic (Robinson & Rousseau, 1994). However, if the organization is clear about its strategy, practices, and policies it may be able to prevent the perceptions of breach on the part of some employees, as it reduces uncertainty about its goals and actions.

Psychological contract breach can be an explanatory mechanism in the relationship between job insecurity and employee outcomes. First, according to the uncertainty reduction theory, individuals naturally seek ways to reduce uncertainty. Therefore, the primary goal of the interactions with the environment in general and with the organization in particular is to reduce the level of uncertainty (Berger & Calabrese, 1975). Thus, if the economic and social contexts yield job insecurity, employees will seek explanations for it and seek to develop strategies to minimize such insecurity. As explained by uncertainty reduction theory axioms, the higher the level of uncertainty, the higher the rate of reciprocity. In insecure situations, one party tends to

give (or return) in kind what was received in the first place from the other party. This symmetric exchange allows both parties to acknowledge what they will receive in the future; therefore, it is a way to increase the predictability to the situation. According to Berger and Calabrese (1975), a simple way to reduce uncertainty is “to ask and give in the same kinds of information at the same rate of exchange” (p.330).

Social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960) provide additional insights concerning how this exchange occurs, especially how employees evaluate reciprocity in a job insecurity context (Piccoli & De Witte, 2015). Employees who feel a threat of job loss tend to calculate the ratio between what they give and what they receive from the organization. In doing so, they assess the quality of the employment relationship (Morrison & Robinson, 1997). Then, as reciprocity is the basis of social exchanges, employees will act according to their evaluation. It is important to note that the norm of reciprocity is positive in its nature (i.e., people return favors and other acts of kindness), but it also has a negative side (i.e., “sentiments of retaliation where the emphasis is placed not on the return of benefits but on the return of injuries”; Gouldner, 1960, p.172).

Third, the majority of the workforce, both permanent and temporary, still expects security in their jobs (De Cuyper & De Witte, 2007; Piccoli & De Witte, 2015). Research shows that job insecurity is related to both relational and transactional psychological contracts, which are characteristic of permanent and temporary workers, respectively (De Cuyper & De Witte, 2007). Moreover, in European countries in particular, psychological contracts are still based on long-term, open-ended permanent contracts, reinforcing security as a key determinant. In these countries, labor unions themselves reinforce the message that job security is a signal of good human resource practices and management (Sverke & Hellgren, 2002), strengthening its value

for employees. In this sense, job insecurity signals to employees that the organization does not value their effort and that it is not focused on maintaining a long-term relationship with them, thereby triggering an increase in the perception of psychological contract breach.

The relationship between job insecurity, psychological contract breach, and performance and deviant behaviors is of particular interest, due to the implications it carries for organizational functioning. Several studies have shown that psychological contract breach is negatively related to employees' performance, suggesting that employees reciprocate such perceptions by reducing the amount of effort put into on their daily work activities (Robinson, 1996). However, when an individual perceives that the psychological contract was breached, he/she may also decide to actively harm the organization (Chiu & Peng, 2008), by displaying deviant behaviors in order to restore balance to the relationship. Indeed, research found that employees who perceive psychological contract breach are more likely to perform deviant behaviors against the organization (Chiu & Peng, 2008). Therefore, we suggest that:

Hypothesis 2: Psychological contract breach mediates the negative relationship of job insecurity and performance (2a) and the positive relationship between job insecurity and deviant behaviors (2b).

The Moderating Role of Positive Psychological Capital

In order to minimize the negative impact of job insecurity and psychological contract breach, we propose that the positive internal resources of employees may help them to cope with this situation. Positive psychological capital, or simply PsyCap, is an individual's positive psychological state that is open to development (Luthans et al., 2008). It presents four facets which are defined as follows. Self-efficacy is an individual's conviction (or confidence) about his or her capabilities to mobilize what is needed (motivation, cognitive resources, courses of

action) to perform a specific task (Stajkovic & Luthans, 1998). Optimism is defined as the positive attributional style an individual uses to explain events (Seligman, 1998). Hope is defined as a positive motivational state characterized by a sense of successful agency (goal directed agency) and pathways (planning to attain goals) (Snyder, Irving, & Anderson, 1991). Finally, resilience is the individual's ability to bounce back or rebound when faced with failure or success (Luthans, 2002). PsyCap is a second-order factor comprising the shared variance between the four positive resources, integrating the mechanisms that these resources have in common (Avey, Reichard, Luthans, & Mhatre, 2011). PsyCap entails the four components, but has a positive effect greater than the effect of each component individually (Norman, Avey, Ninmicht & Pigeon, 2010). This conceptualization has been theoretically and empirically validated, presenting PsyCap as a higher-level construct that represents the commonality among the four components (Luthans, Avolio, et al., 2007).

Theoretically, agency, malleability, and sociability are the underlying mechanisms for understanding how PsyCap works (Youssef-Morgan & Luthans, 2013). To explain agency, PsyCap builds on Bandura's social cognitive theory, which argues that the individual, the environment, and the behavior interact and lead "to confidence in the ability to intentionally take control over one's future and destiny" (Youssef-Morgan & Luthans, 2013, p.153). Moreover, malleability is important to shape the resources and make them open to development. Therefore, PsyCap is more attractive for managers and organizations than personality traits because these are stable (Terracciano, McCrae & Costa, 2010) and, for that reason, harder to change or develop. This is especially important as these internal capacities have proven to be open to development through training (Luthans et al., 2008) and also have shown a high return on investment (Luthans et al., 2007). In addition, it is more realistic to help employees develop and

maintain their PsyCap than to try to change organizational practices and policies during times of high volatility and when the resources available are scarce and short term performance is a key driver. It is also relevant to notice that PsyCap is important to how employees interpret resource constraints and the use of the resources that are available (Chadwick & Raver, 2013). Finally, sociability allows for mobilization of resources from one's social environment toward the attainment of personal goals.

According to Luthans and Youssef (2007), employees who are high in PsyCap are more confident in their ability to achieve goals and, for that reason a psychological contract breach can be seen as a challenge or a minor obstacle in the pursuit of their main goal. These employees are hopeful and should therefore be able to create different paths and solutions in order to deal with job insecurity and breaches of psychological contract. They should also evaluate the situation as a temporary problem that will soon be reduced, showing that they are hopeful and optimistic. Finally, due to their resilience they are able to face adversities, and should therefore cope positively with job insecurity and psychological contract breach.

Regarding empirical evidence, PsyCap has been consistently related to performance, regardless of the performance measure used (Avey et al., 2011) because employees who have higher PsyCap tend to be more energized and put additional effort in tasks, which is reflected in higher performance (Avey et al., 2011). Concerning undesirable behaviors, there is limited empirical evidence about PsyCap's impact on deviant behaviors (Norman et al., 2010). Norman et al.'s (2010) study is an exception. They found that employees who are high in PsyCap did not engage in deviant behaviors because those employees "are more able to rebound (resilience) from the pressure for additional output by recognizing (hope) that they are able (self-efficacy) to withstand the pressure as it is only momentary and will soon be reduced (optimism)" (Norman et

al., 2010, p. 385). Therefore, we also test whether PsyCap prevents employees' deviant behaviors in response to job insecurity and psychological contract breach because they have internal resources to deal with it.

Based on its components, underlying theory and empirical evidence, we expect employees who are high in PsyCap and perceive a psychological contract breach due to job insecurity to react differently than employees who are low in PsyCap, because they have a number of features that help them to deal with these situations. Therefore, we hypothesize the moderation of the direct relationship between psychological contract breach and outcomes as well as the mediated relationship between job insecurity and outcomes:

Hypothesis 3a: PsyCap moderates the negative relationship between psychological contract breach and performance, such that the negative relationship between breach and performance is stronger when PsyCap is low.

Hypothesis 3b: PsyCap moderates the positive relationship between psychological contract breach and organizational deviance, such that the positive relationship between breach and organizational deviance is stronger when PsyCap is low.

Hypothesis 4a: PsyCap moderates the negative relationship between job insecurity and performance via psychological contract breach, such that the indirect relationship between job insecurity and performance through breach is stronger when PsyCap is low.

Hypothesis 4b: PsyCap moderates the positive relationship between job insecurity and organizational deviance via psychological contract breach, such that the indirect relationship between job insecurity and organizational deviance through breach is stronger when PsyCap is low.

Method

Sample and Procedure

We contacted several organizations in Portugal, where firms were gravely affected by the economic crisis. We asked their representatives for permission to collect data, gathering at least two employee-supervisor dyads from each organization. The paper-based surveys were provided only if both employee and supervisor were willing to participate. We handed out 441 surveys in 46 private companies. The surveys were handed out personally to each participant, which helps explain the high response rate (82.3%). The sample was reduced to 362 employees due to exclusion of participants who did not complete the survey. One hundred and thirty-five supervisors provided evaluations for these employees.

The organizations that agreed to participate were from different areas, such as retail (7.7%), banking (11%), health care (21.4%), restaurants (15.7%), construction (8%), information technology (10.7%), hygiene and maintenance (18.2%), and tourism (7.2%). The crisis has hit all sectors and employees similarly (both permanent and temporary workers; Pedroso, 2014). Empirically, the data show no differences between industries in terms of job insecurity ($F(9, 348)=1.25, p>.05$). The average number of dyads per company was approximately 8 (minimum 3 and maximum 40). The overall average number of ratings per supervisor was 3, with a minimum of 1 and maximum of 14. We did not find any differences in our outcome variables between those supervisors who only rated one employee and those who rated more than one employee (in-role performance, $F(1, 360) = 2.37, p > .05$; organizational deviance, $F(1,360)= .01, p> .05$). Additionally, we found no differences regarding the company (in-role performance, $F(44,317)= .00, p>.05$; organizational deviance, $F(44,317)= .00, p>.05$) or industry (in-role performance $F(9,352)= .00 p>.05$; organizational deviance, $F(9,352)= .00 p>.05$).

Fifty-three percent of participants were female and the average age was 35 years (ranged from 19 to 62). The average organizational tenure was 8 years and the education level was as follows: primary education (6.9%), basic education (11%), high school degree (41.2%), and college degree (40.9%). Concerning supervisors, 55.6% were male. The average age was 44 years (ranged from 20 to 75). The average tenure was 14 years and the education level was as follows: primary education (8.1%), basic education (22%), high school degree (23.2%), and university degree (54.8%).

Measures

For all but the control variables, participants rated their agreement with each statement using a 5-point Likert scale (1=strongly disagree, 5= strongly agree).

Control variables. We controlled for two subordinate demographic variables that have been related to our outcome variables in past research (Sverke & Hellgren, 2002): employee age (in years) and education (categories).

Job insecurity. To measure job insecurity we used six items from Oldham, Kulic, Stepina, and Ambrose's (1986) scale, three of which were reverse coded. This is a reduced form of the survey, using the items with the highest loadings in Kraimer, Wayne, Liden, and Sparrowe's (2005) study. A sample item from this scale is: "My job is not a secure one". Cronbach's alpha was .85.

Psychological contract breach. To assess employees' perceptions of psychological contract breach, we used the 5-item scale developed by Robinson and Morrison (2000), three items of which were reverse coded. An example item from this scale is: "I have not received everything promised to me in exchange for my contributions". Cronbach's alpha was .88.

Positive psychological capital. We measured PsyCap with a reduced version (12 items) of the Luthans, Youssef and Avolio (2007) PsyCap Questionnaire (PCQ). This 12-item PCQ included three items for efficacy, four items for hope, two items for optimism, and three items for resilience. Sample items are as follows: efficacy – “I feel confident presenting information to a group of colleagues”; hope – “Right now I see myself as being pretty successful at work”; resilience – “I usually take stressful things at work in stride”; optimism – “I’m optimistic about what will happen to me in the future as it pertains to work”. Cronbach’s alpha was .81. The PCQ-12 is comprised of multiple facets and it had acceptable reliability and support for construct validity (Luthans, Avolio et al., 2007; Luthans et al., 2008). Nonetheless, we ran a confirmatory factorial analysis (CFA) considering PsyCap as a second order factor. Overall, the results supported that the four PsyCap components represent an underlying latent core construct of overall PsyCap ($\chi^2(50) = 110.63, p < .001$; CFI = .94; GFI = .95; RMSEA = .05; SRMR = .05), which is aligned with earlier research.

In-role performance. To measure in-role performance, we asked supervisors to rate their employees using Williams and Anderson’s (1991) five in-role performance items, one of which was reverse coded. A sample item from this scale is: “This employee performs tasks that are expected of him/her”. Cronbach’s alpha was .86.

Organizational deviance. To assess organizational deviance, we asked supervisors to evaluate their employees using five items adapted from Aquino, Lewis and Bradfield (1999) and Robinson and Bennett’s (1995) scales. A sample item is: “This employee covers up his/her mistakes”. Cronbach’s alpha was .71.

Results

Means, standard deviations, correlations, and scale reliabilities are in Table 1. Reliabilities for all scales were acceptable, ranging from .71 to .88.

[INSERT TABLE 1 ABOUT HERE]

Because participants were employed in 46 organizations and grouped by supervisors, we assessed intraclass correlations (ICCs) for all variables to determine the proportion of group-level variance (Bliese, 2000). ICC (1) and ICC (2) are used to assess whether aggregation to the group level is appropriate. Large ICC (1) values indicate dependence on the data structure, whereas high ICC (2) values suggest reliable between-group differences (Bliese, 2000). Results for ICC (1) show that organizational (job insecurity = .03; psychological contract breach = .01; PsyCap = .16; in-role performance = .23; organizational deviance = .21) and supervisor (in-role performance = .01; organizational deviance = .29) membership explains a fair amount of variance in some variables. However, none of these values are large (poor ICC values are less than .40; Cicchetti, 1994). Moreover, ICC (2) is too low to support aggregation by organization (e.g., ICC2 for job insecurity = .39; ICC2 for breach = .15) or by supervisor (e.g., ICC2 for in-role performance = .27). Consequently, we analyzed our hypotheses with the raw data (Hox, 2002).

Measurement Model

We conducted confirmatory factor analysis (CFA) with maximum likelihood estimation to examine the distinctness of the variables in our model, using AMOS 20. The measurement model contained five factors: job insecurity, psychological contract breach, PsyCap, organizational deviance, and in-role performance. We compared the five-factor model against a series of nested models: a four-factor model in which we combined organizational deviance and performance, as they presented the highest correlation and were both collected from supervisors; a two-factor model, in which we separated all items collected from employees (i.e., job

insecurity, PsyCap, and psychological contract breach) from those indicated by supervisors (i.e., organizational deviance, and in-role behaviors); and a one-factor model in which we combined all items into a single factor.

[INSERT TABLE 2 ABOUT HERE]

The five-factor model obtained a good fit ($\chi^2(264) = 660.68$; CFI = .91; RMSEA = .06; SMRM = .07) and had a significantly better fit than the less constrained models (Table 2). Factor loadings from the proposed model were all acceptable, ranging between .55 and .85 for job insecurity, .67 and .86 for psychological contract breach, .50 and .78 for PsyCap, .60 and .86 for in-role behaviors, and .40 and .78 for organizational deviance. Moreover, following the recommendation of Podsakoff and colleagues (2012) to test for the presence of common method variance (CMV), we included a latent variable in CFA, a common method factor, and loaded all indicators on this uncorrelated factor (Podsakoff et al., 2012). The fit improved slightly, which is expected (Williams, Cote, & Buckley, 1989; $\chi^2(239) = 468.05^{**}$; CFI = .95; RMSEA = .05; SRMR = .05). According to Williams et al. (1989), the CMV impact is examined by the total variance of the unrelated method factor, which should be below 25%. In our data CMV accounted for 6.92% of total variance. Thus, these analyses suggest that CMV accounts for little variation in the data.

Tests of hypotheses

All hypotheses were tested using our final sample (N=362). Our analytic approach was as follows. First, to examine hypothesis 1 we conducted a simple regression analysis with X (job insecurity) predicting Y (outcomes: performance and organizational deviance), controlling for age and education. Second, to examine hypothesis 2 we ran a bootstrapping analysis to assess mediation because the primary effect of interest is an indirect effect (i.e., X predicts Y via M;

Preacher, Rucker, & Hayes, 2007). Bootstrap tests are non-parametric simulations and are a straightforward and robust strategy to estimate indirect effects, for both mediation and moderation models (Preacher et al., 2007). It is a better choice than the Sobel test because in an indirect effect test the standard error estimate usually does not follow a normal distribution and provides a biased *p*-value (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). We therefore tested the mediation model using the SPSS macro, PROCESS (Hayes 2012), model 4, which gives the direct and indirect effects of mediation analysis. Third, to assess the conditional effects and conditional indirect effects (hypotheses 3 and 4) we ran PROCESS model 14, which represents the full moderated-mediation model. Additionally, we followed the moderation analysis procedure recommended by West and Aiken (1991) and centered both predictors. According to Preacher et al. (2007), a conditional indirect effect is demonstrated when the strength of the predictor (i.e., X – job insecurity) on the criterion (i.e., Y – performance and organizational deviance) via mediator (i.e., M – breach) differs across high and low levels of the moderator (PsyCap; one standard deviation above and below the mean, respectively). The bootstrap tests on conditional indirect effects allow us to check the null hypothesis of no indirect effect for high/low values of the moderator (through confidence intervals) and the size of these effects.

Concerning the hypotheses 1a and 1b, which stated that job insecurity should be negatively related to performance and positively related to organizational deviance, results from the simple linear regression showed no significant direct relationship between job insecurity and performance or deviance ($B = -.02, p > .05$; $B = .00, p > .05$, respectively). According to MacKinnon et al. (2002), having a significant relationship between X and Y is no requirement to proceed with mediation analysis. Hypotheses 2a and 2b referred to the mediating role of psychological

contract breach in the relationship between job insecurity and performance and organizational deviance. As predicted, we found that job insecurity was positively related to psychological contract breach ($B = .40, p < .01$), which in turn impacted both in-role performance and organizational deviance ($B = -.12, p < .01$; $B = .07, p < .10$, respectively). Moreover, the indirect relationship between job insecurity and performance was significant ($B = -.05, p < .05$) and the indirect relationship between job insecurity and organizational deviance was marginally significant ($B = -.03, p < .10$). These results support our mediation hypothesis.

[INSERT TABLE 3 ABOUT HERE]

Hypotheses 3a and 3b suggested that PsyCap moderates the relationship between psychological contract breach and performance and deviance. We found an interaction effect on both in-role performance ($B = .17, p < .01$) and organizational deviance ($B = -.22, p < .01$). We plotted the simple slopes for each interaction effect using the procedure outlined by Cohen, Cohen, West, and Aiken (2003) at two levels of the moderator: high (+1 standard deviation) and low (-1 standard deviation). The negative relationship between psychological contract breach and in-role performance was significant when PsyCap was low ($B = -.15; t = -3.27, p < .05$), but not when it was high ($B = .01; t = -0.20, p > .05$). Results were similar for organizational deviance. The relationship between psychological contract breach and organizational deviance was significant when PsyCap was low ($B = .18; t = 3.40, p < .05$), but not when it was high ($B = -.05; t = -0.59, p > .05$). As expected, the slopes were significantly different from each other for both in-role performance and organizational deviance ($t = 1.98, p < .05$; $t = -2.70, p < .05$, respectively). Figure 2 illustrates the interaction results.

[INSERT FIGURE 2 AND 3 ABOUT HERE]

Hypotheses 4a and 4b proposed that PsyCap moderates the relationship between job insecurity and in-role performance (4a) and organizational deviance (4b) via psychological contract breach. Therefore, we examined the conditional indirect relationship between job insecurity and in-role performance and organizational deviance through psychological contract breach at two levels of PsyCap: high (one standard deviation above the mean), and low (one standard deviation below the mean). The results indicate that the negative indirect relationship between job insecurity and in-role performance through psychological contract breach was significant when PsyCap levels were low ($B = -.06, p < .05$), but not when they were high ($B = .01, p > .05$). For organizational deviance, the results were similar: the positive relationship between job insecurity and organizational deviance through psychological contract breach was significant when PsyCap levels were low ($B = .06, p < .05$), but not when they were high ($B = .01, p > .05$). Figure 3 depicts the conditional indirect relationships, that is, bootstrap mean estimates and the 95% confidence interval of job insecurity's indirect relationship with in-role performance and deviance across a range of PsyCap (i.e., moderator). The negative indirect relationship between job insecurity and in-role performance was significant for low levels rather than high levels of PsyCap. For organizational deviance, the result was similar. Therefore, the positive indirect relationship between job insecurity and organizational deviance was significant for low levels of PsyCap but not for high levels. These results support hypotheses 4a and 4b (Table 3).

The test of the moderated-mediation model indicated that the regression coefficient of job insecurity and performance became statistically significant, but positive. This represents a suppression effect, that is, when the direct and mediated effects of an independent variable (i.e., job insecurity) on a dependent variable (i.e., performance) have opposite signs (Rucker, Preacher, Tormala, & Petty, 2011). Due to opposite signs and effects, the bivariate correlation

can be small or even zero (MacKinnon et al., 2000). It is also worth mentioning that the same positive parallel direct effect and negative mediated effect of job insecurity on performance is reported in earlier research (Staufenbiel & König, 2010), demonstrating some consistency in this pattern of relationship between job insecurity and performance.

Discussion

Research into the processes and conditions through which job insecurity affects individual outcomes is still sparse and inconsistent. The dearth of studies on possible intervening variables has been suggested as an explanation for the inconsistencies found in the previous studies (Greenhalgh & Rosenblatt, 1984, 2010). As a response, the aim of our study was to examine the relationship between job insecurity, psychological contract breach, in-role performance and organizational deviance. Additionally, we proposed PsyCap as an effective tool to reduce the negative impact of psychological contract breach on the outcomes.

Theoretical Implications

Our study contributes to the literature on job insecurity and psychological contract breach in a number of ways. First, we address a major gap in the literature concerning the processes that help explain the relationship between job insecurity and individual-level outcomes (Greenhalgh & Rosenblatt, 1984, 2010), by advancing psychological contract breach as a possible mediator. This process is explained not only by the social exchange theory and the norm of reciprocity, but also by the uncertainty reduction theory. The first of these mentions refers that when an individual feels a breach in their psychological contract, he/she will reciprocate accordingly. Using insights from the uncertainty reduction theory, in insecure situations, the levels of reciprocity are high because symmetric exchanges help to provide more predictability to the relationship (Berger & Calabrese, 1975).

Second, our study sheds light on the findings concerning the relationship between job insecurity and work related outcomes. The positive direct relationship with performance may be surprising to a certain extent. However, our pattern of results is aligned with Staufenbiel and König's (2010) results. These authors found a positive direct relationship between job insecurity and several outcomes and a negative indirect relationship through job attitudes. In their study and ours, the results reveal a suppression effect (i.e., direct and mediated relationships between job insecurity and performance have opposite signs; MacKinnon et al., 2000). They concluded that "an "either-or" approach regarding job insecurity is not appropriate" (p.111). A more appropriate approach would involve a "both-and" view of job insecurity because a theory that takes into account mediating and suppressing effects is more complete than a theory that considers only the first (Rucker et al., 2011). One possible explanation is that job insecurity can motivate employees to work harder in order to improve their likelihood of staying in the organization and feel that insecurity breaches their psychological contracts at the same time.

Finally, our study also provides evidence that there are resources available (i.e., PsyCap) that help employees deal in a more positive manner with job insecurity and psychological contract breach. We found that employees who are low in PsyCap tend to demonstrate higher levels of deviance and lower in-role performance as a response to job insecurity and psychological contract breach than those who are high in PsyCap because they have more resources to overcome daily problems. Moreover, higher levels of PsyCap are related to less perceived breach, which may be explained by the impact of PsyCap has on how individuals interpret situations (Chadwich & Raver, 2013).

Managerial Implications

A number of suggestions for managers also emerge from our results. For instance, knowing that feelings of job insecurity can trigger employees' evaluation of the fulfillment of their contract and, consequently, lead to perceptions of psychological contract breach, managers can take actions to prevent or alleviate this situation, such as taking care about what they promise and being honest about the current state of affairs in the organization.

Managers might believe that promoting job insecurity motivates employees (because of the positive direct association with performance). However, the resulting stress and negative work attitudes may jeopardize the organizations' performance. For instance, in the short term it may work as a positive factor, but in the long run it may impair employees' health and attitudes toward work. Moreover, managers should be aware that insecurity influences psychological contract breach, which decreases performance and increases deviant behaviors. Therefore, they should avoid fostering insecurity as a motivator.

In a context of uncertainty, high unemployment, and economic downturn, employees are a key source of competitive advantage for organizations. This study shows that in such a scenario, employees with high PsyCap tend not to act against the organization by reducing performance and increasing deviant behaviors. Hence, managers should also invest in the development of their employees' PsyCap through highly focused micro-interventions and very short training sessions (Luthans et al., 2008). In these sessions, one can develop his/her positive capacities. In addition, individuals with high levels of PsyCap tend to stay in the organization and not search for other jobs (Avey, Luthans, & Jensen, 2009), which is key for organizations facing times of crisis.

Limitations and Future Research

When interpreting our results, there are some limitations one should keep in mind. First, this research relies on cross-sectional data, and we therefore advise caution with any inferences of causality. The relationship between job insecurity and both moderating and mediating variables should be interpreted with caution (Podsakoff, MacKenzie, & Podsakoff, 2003). In order to reduce common method variance (CMV), supervisors provided reports for the outcome variables. Second, there are no unusually high correlations among employees' variables and past research has shown that CMV cannot create artificial interaction effects (Siemsen, Roth, & Oliveira, 2010) and, in fact, delates them. Nonetheless, other researchers should retest our model using different designs, such as longitudinal studies, to better understand the relationship between job insecurity and psychological contract breach over time. Although it reduces CMV concerns, outcome measures were obtained from the supervisors, and the attributional processes involved may influence their reports. Future researchers should consider examining objective performance (e.g., objective ratings) and deviance (e.g., theft), as these provide a (more) unbiased measure of actual behaviors.

Concerns about the small effects sizes (i.e., coefficients) may be raised. However, these effects may suggest strong empirical evidence and impressive support for a given phenomenon (Cortina & Landis, 2009). Indeed, conditional indirect effects tend to be small when the study involves individual perceptions (Cortina & Landis, 2009), such as job insecurity or psychological contract breach (e.g., Dulac et al., 2008). Despite the small indirect effect, our study shows that individuals who are low and high in PsyCap react in substantially different ways to job insecurity and psychological contract breach: individuals with low PsyCap will react in a negative way by retaliating against the organization, while individuals with high PsyCap will not retaliate against the organization. However, and given the small effect size, further replication is warranted.

Our measures of job insecurity and work outcomes may raise some questions. We measured the quantitative facet of job insecurity since it is the main concern individuals have in a context where unemployment is growing quickly (De Witte, 1999). Nonetheless, different kinds of insecurity may lead to different responses.

Additionally, future research should examine other potential buffers of the job insecurity-work outcomes relationship, namely employees' past experiences, and perceptions of control. For instance, employees with a high sense of control over the situation may think that the results associated with it are more predictable and therefore act in a different manner. Other potential avenue of research may examine organizational and contextual variables as moderators of the insecurity-work outcomes relationship, namely the role of supervisor and labor market regulation, and state social protection. Regarding other potential safeguards, one can assess other positive constructs such as gratitude, forgiveness, and courage, which may have the same positive effect as PsyCap (Luthans et al., 2007). Future research should also examine the antecedents of job insecurity and psychological contract breach. For instance, researchers may be interested in testing the impact of different blame attributions of job insecurity or if the economic uncertainty results in alterations of the psychological contract.

Conclusion

This study offered a possible explanation for the relationship between job insecurity and work outcomes. Job insecurity triggers negative behaviors, via breach of psychological contract. Still, there are promising solutions. Our study shows that PsyCap may help to deal in a positive fashion with job insecurity and perceived psychological contract breach. We hope that our study stimulates the discussion on job insecurity and its impact on work related outcomes, as further

research is still needed to fully understand the pervasive effects of the socio-economic context in organizational life.

References

- Anderson, C., & Pontusson, J. (2007). Workers, worries and welfare states: Social protection and job insecurity in 15OECD countries. *European Journal of Political Research*, 46, 211-35.
- Aquino, K., Lewis, M. U., & Bradfield, M. (1999). Justice constructs, negative affectivity, and employee deviance: A proposed model and empirical test. *Journal of Organizational Behavior*, 20(7), 1073-1091.
- Auerbach, A. J., & Gale, W. G. (2009). *The economic crisis and the fiscal crisis: 2009 and beyond*. Urban-Brookings Tax Policy Center.
- Avey, J., Luthans, F., & Jensen, S. (2009). Psychological capital: A positive resource for combating employee stress and turnover. *Human Resource Management*, 48(5), 677-693.
- Avey, J.B., Reichard, R.J., Luthans, F., & Mhatre, K.H. (2011). Meta-analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance. *Human Resource Development Quarterly*, 22 (2), 127-152.
- Berger, C. R., & Calabrese, R. J. (1975). Some explorations in initial interaction and beyond: Toward a developmental theory of interpersonal communication. *Human Communication Research*, 1(2), 99-112. DOI: 10.1111/j.1468-2958.1975.tb00258.x
- Blau, P.M. (1964). *Exchange and power in social life*. New York: Wiley.
- Bliese, P. D. (2000). Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In K. Klein & S. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations* (pp. 349-381). San Francisco: Jossey-Bass.
- Chadwick, I., & Raver, J. L. (2013). Continuously improving in tough times: Overcoming resource constraints with psychological capital. *Academy of Management Proceedings*.

- Chiu, S., & Peng, J. (2008). The relationship between psychological contract breach and employee deviance: the moderating role of hostile attributional style. *Journal of Vocational Behavior, 73*, 426-433. DOI: 10.1016/j.jvb.2008.08.006,
- Chung, H., & Van Oorschot, W. (2010). Employment insecurity of European individuals during the financial crisis: A multi-level approach. *Reconciliation of Work and Welfare in Europe Working Paper*, (14).
- Cicchetti, D. (1994). Guidelines, criteria, and rules of thumb for evaluating normed and standardized assessment instruments in psychology. *Psychological Assessment, 6*(4), 284–290.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Erlbaum.
- Cortina, J. M., & Landis, R. S. (2009). When small effect sizes tell a big story, and when large effect sizes don't. *Statistical and methodological myths and urban legends: Doctrine, verity and fable in the organizational and social sciences*, 287-308.
- Coyle-Shapiro, J. (2002). A psychological contract perspective on organizational citizenship behavior. *Journal of Organizational Behavior, 23*, 927-946. DOI: 10.1002/job.173
- De Cuyper, N., & De Witte, H. (2006). The impact of job insecurity and contract type on attitudes, well-being and behavioral reports: A psychological contract perspective. *Journal of Occupational and Organizational Psychology, 79*, 395-409.
- De Cuyper, N., & De Witte, H. (2007). Job insecurity among temporary versus permanent workers: Effects on job satisfaction, organizational commitment, life satisfaction and self-rated performance. *Work & Stress, 21*(1), 1–20.
- De Witte, H. (1999). Job insecurity and psychological well-being: Review of the literature and exploration of some unresolved issues. *European Journal of Work and Organizational Psychology, 8*(2), 155-177.

- Dulac, T., Coyle-Shapiro, J. A., Henderson, D. J., & Wayne, S. J. (2008). Not all responses to breach are the same: The interconnection of social exchange and psychological contract processes in organizations. *Academy of Management Journal*, *51*(6), 1079-1098.
- Gilboa, S., Shirom, A., Fried, Y., & Cooper, C. (2008). A meta-analysis of work demand stressors and job performance: Examining main and moderating effects. *Personnel Psychology*, *61*, 227–271.
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review* *25*, 161-178.
- Greenhalgh, L., & Rosenblatt, Z. (1984). Job insecurity: toward a conceptual clarity. *Academy of Management Review*, *3*, 438-448. DOI: 10.5465/AMR.1984.4279673
- Greenhalgh, L., & Rosenblatt, Z. (2010). Evolution of research on job insecurity. *International Studies of Management & Organization*, *40* (1), 6-19.
- Herzberg, F., Mausner, B., & Snyderman, B. (1959). The motivation to work. New York: Wiley.
- Hobfoll, S.E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American psychologist*, *44*(3), 513.
- Hox, J. J. (2002). Multilevel multivariate and structural equation models: Some missing links. In J. Blasius, J. Hox, E. de Leeuw, & P. Schmidt (Eds.), *Social science methodology in the new millennium*. Opladen, Germany: Leske + Budrich.
- International Labor Office (2014). *Employment policies for sustainable recovery and development*. Geneva: ILO.
- Kang, D., Gold., J., & Kim, D. (2012). Responses to job insecurity. *Career Development International*, *17* (4), 314-332.
- König, C. J., Debus, M. E., Häusler, S., Lendenmann, N., & Kleinmann, M. (2010). Examining occupational self- efficacy, work locus of control and communication as moderators of

the job insecurity-job performance relationship. *Economic and Industrial Democracy*, 31, 231-247.

Kraimer, M., Wayne, S., Liden, R., & Sparrowe, R. (2005). The role of job security in understanding the relationship between employees: Perceptions of temporary workers and employees' performance. *Journal of Applied Psychology*, 90 (2), 389-398.

Lim, V. K. (1996). Job insecurity and its outcomes: Moderating effects of work-based and nonwork-based social support. *Human relations*, 49(2), 171-194.

Luthans, F. (2002). The need for and meaning of positive organizational behavior. *Journal of Organizational Behavior*, 23, 695-706.

Luthans, F., Avey, J., Clapp-Smith, R., & Li, W. (2008). More evidence on the value of Chinese workers' psychological capital: a potentially unlimited competitive resource? *The International Journal of Human Resource Management*, 19 (5), 818-827.

Luthans, F., Avolio, J., Avey, J., & Norman, S. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60, 541-572. DOI: 10.1111/j.1744-6570.2007.00083.x

Luthans, F., Youssef, C., & Avolio, B. (2007). *Psychological Capital*. New York: Oxford University Press.

MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7(1), 83.

MacKinnon, D.P., Krull, J., & Lockwood, C. (2000). Equivalence of mediation, confounding and suppression effect. *Prev Sci*, 1(4), 173.

Maslow, A.H. (1954). *Motivation and personality*. New York: Harper.

Morrison, E. & Robinson, S. (1997). When employees feel betrayed: A model of how psychological contract violation develops. *Academy of Management Review*, 22 (1), 226-256.

- Murphy, W., Burton, J., Henagan, S., & Briscow, J. (2013). Employee reactions to job insecurity in a declining economy: A longitudinal study of the mediating role of job embeddedness. *Group & Organization Management, 38* (4), 512-537.
- Norman, S. M., Avey, J. B., Nimnicht, J. L., & Pigeon, N. G. (2010). The interactive effects of psychological capital and organizational identity on employee organizational citizenship behaviors. *Journal of Leadership & Organizational Studies, 17*, 380-391.
- Oldham, G.R., Kulik, C.T., Stepina L.P., & Ambrose, M.L. (1986). Relations between situational factors and the comparative referents used by employees. *Academy of Management Journal, 29*, 599-608.
- Pedroso, P. (2014). Portugal and the global crisis: The impact of austerity on the economy, the social model and the performance of the state. *International Policy Analysis*, Friedrich Stiftung, Berlin.
- Piccoli, B., & De Witte, H. (2015). Job insecurity and emotional exhaustion: Testing psychological contract breach versus distributive injustice as indicators of lack of reciprocity. *Work & Stress, 29*(3), 246-263.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879.
- Preacher, K., Rucker, D., & Hayes, A. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research, 42* (1), 185-227.
- Reisel, W. D., Probst, T. M., Chia, S. L., Maloles, C. M., & König, C. J. (2010). The effects of job insecurity on job satisfaction, OCBs, deviant behavior, and negative emotions of employees. *International Studies of Management and Organization, 40*(1), 74-91.
- Robinson, S. L. (1996). Trust and breach of the psychological contract. *Administrative Science Quarterly, 41*, 574-599.

- Robinson, S., & Bennet, R. (1995). A typology of deviant workplace behaviors: A multi-dimensional scaling study. *Academy of Management Journal*, 38, 555-572.
- Robinson, S., & Morrison, E. (2000). The development of psychological contract breach and violation: A longitudinal study. *Journal of Organizational Behavior*, 21 (5), 525-46.
- Rousseau, D.M. (1995). *Psychological contracts in organizations: Understanding written and unwritten agreements*. Thousand Oaks, CA: Sage Publications.
- Rucker, D. D., Preacher, K. J., Tormala, Z. L., & Petty, R. E. (2011). Mediation analysis in social psychology: Current practices and new recommendations. *Social and Personality Psychology Compass*, 5(6), 359-371.
- Seligman, M. E. P. (1998). *Learned optimism*. New York, NY: Pocket Books.
- Siemsen, E., Roth, A., & Oliveira, P. (2010). Common method bias in regression models with linear, quadratic, and interaction effects. *Organizational Research Methods*, 13(3), 456-476.
- Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., & Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology*, 60(4), 570.
- Society for Human Resource Management. (2014). *An employee job satisfaction and engagement survey*. USA: Society for Human Resource Management.
- Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin*, 124, 240– 261.
- Staufenbiel, T., & König, C. (2010). A model of the effects of job insecurity on performance, turnover intention, and absenteeism. *Journal of Occupational and Organizational Psychology*, 83, 101-117.
- Sverke, M., & Hellgren, J. (2002). The nature of job insecurity: Understanding employment uncertainty on the brink of a new millennium. *Applied Psychology: An International Review*, 51(1), 23–42.

- Sverke, M., Hellgren, J., & Näswall, K. (2002). No security: A meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology, 7*, 242-264.
- Terracciano, A., McCrae, R., & Costa, P. (2010). Intra-individual change in personality stability and age. *Journal of Research in Personality, 44*(1), 31-37.
- Tian, Q., Zhang, L., & Zou, W. (2014). Job insecurity and counterproductive behavior of casino dealers—the mediating role of affective commitment and moderating role of supervisor support. *International Journal of Hospitality Management, 40*, 29-36.
- Williams, L., & Anderson, S. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management, 17*(3), 601-617.
- Williams, L., Cote, J., & Buckley, M. (1989). Lack of method variance in self-reported affect and perceptions at work: reality or artifact? *Journal of Applied Psychology, 74*(3), 462.
- Youssef-Morgan, C. M., & Luthans, F. (2013). Psychological capital theory: Toward a positive holistic model. In A. Bakker (Ed.), *Advances in positive organizational psychology, 1*, 145-66.

Table 1.

Descriptive statistics, correlations, and Cronbach's alphas^{a b}

Variable	M	SD	1	2	3	4	5	6	7
1.Job Insecurity	2.98	.80	(.85)						
2.Psychological contract breach	2.41	.92	.32**	(.88)					
3.PsyCap	3.81	.54	-.26**	-.25**	(.81)				
4.In-role performance	4.16	.70	-.02	-.18**	.37**	(.86)			
5. Organizational deviance	1.76	.71	.02	.14**	-.25**	-.60**	(.71)		
6.Education	3.43	1.17	.00	-.08	-.07	.24**	-.40**		
7.Age	43.99	10.2	.05	.10	.02	-.02	.14**	-.23	

Note: ^a . 5-point scales ^b. Cronbach's alphas appear in parentheses along the main diagonal. **

p<.01; *p<.05

Table 2.

Confirmatory Factorial Analyses (CFA) fit indexes

Models	χ^2	df	$\Delta \chi^2$	CFI	RMSEA	SRMR
Five-factor model (hypothesized model)	660.68*	264		.91	.06	.07
Four-factor model ^a	823.76*	268	163.08*	.86	.08	.07
Two-factor model ^b	1588.69*	273	764.93*	.62	.12	.12
One-factor	2642.98*	274	1054.29*	.36	.16	.17
Unrelated method factor	468.05	239	192.63*	.95	.05	.05

Note:

* $p < .01$

^a Equating organizational deviance and in-role performance

^b Equating organizational deviance and in-role performance; and, job insecurity, psychological contract breach and PsyCap.

Table 3. Results

Model/Predictors	Mediator				Outcomes							
	Psychological Contract Breach				In-role Performance				Organizational Deviance			
	β	B	SE(B)	95% CI	β	B	SE(B)	95% CI	β	B	SE(B)	95% CI
Simple Regression Model: Main Effects (H1)												
Age					.02	.00	.02	[-.01, .01]	.06	.01	.00	[-.00, .01]
Education					.24	.17**	.04	[.10, .25]	-.39	-.28**	.04	[-.37, -.21]
Job Insecurity					-.02	-.02	.05	[-.11, .08]	.01	.00	.05	[-.08, .09]
R ²							.06**				.17**	
Simple Mediation Model: Main and Indirect Effects (PROCESS Model 4, H2)												
Age	.01	.01	.01	[-.00, .02]	.00	.00	.00	[-.01, .01]	.01	.00	.00	[-.00, .01]
Education	-.08	-.08	.05	[-.17, .02]	.24	.17**	.04	[.09, .25]	-.39	-.28**	.03	[-.35, -.20]
Job Insecurity	.34	.40**	.06	[.28, .51]	.03	.03	.05	[-.07, .13]	-.03	-.02	.05	[-.12, .07]
PC Breach					-.16	-.12**	.04	[-.20, -.03]	.09	.07†	.04	[-.01, .15]
Job Insecurity via PC Breach (indirect effect)					-.05	-.05*	.02	[-.09, -.01]	.03	.03†	.02	[.00, .07]
R ²			.13**				.08**				.17**	
Moderated Mediation Model: Main Effects (PROCESS Model 14, H3)												
Age	.01	.00	.01	[-.00, .02]	.00	.01	.01	[.00, .02]	.01	.00	.00	[.00, .01]
Education	-.08	-.08	.05	[-.18, .02]	.20	.14**	.04	[.07, .22]	-.36	-.26**	.04	[-.33, -.19]
Job Insecurity	.34	.40**	.06	[.28, .51]	.12	.10*	.05	[.01, .20]	-.08	-.07	-.05	[-.17, .02]
PC Breach					-.08	-.06	.04	[-.14, .02]	.04	.03	.04	[-.05, .11]
PsyCap					.38	-.50**	.07	[.37, .63]	-.24	-.32**	.07	[-.45, -.19]
PC Breach X PsyCap					.12	.17**	.07	[.04, .30]	-.15	-.22**	.06	[-.33, -.19]
R ²			.13**				.23**				.26**	
Moderated Mediation Model: Indirect Conditional Effects (PROCESS Model 14, H4)												
Low PsyCap					-.07	-.06*	.03	[-.12, -.01]	.07	.06*	.03	[.02, .12]
High PsyCap					.01	.01	.02	[-.02, .05]	-.03	-.03	.02	[-.07, .00]

Note. β = standardized regression coefficients; B = unstandardized regression coefficients; SE(B) = standard error of B; CI = Confidence Interval;

PC = Psychological Contract; PsyCap = Positive Psychological Capital; † $p < .10$; * $p < .05$; ** $p < .01$.

Figure 1.

Conceptual Model. In-role performance and organizational deviance were assessed from supervisors and the others constructs were assessed from subordinates.

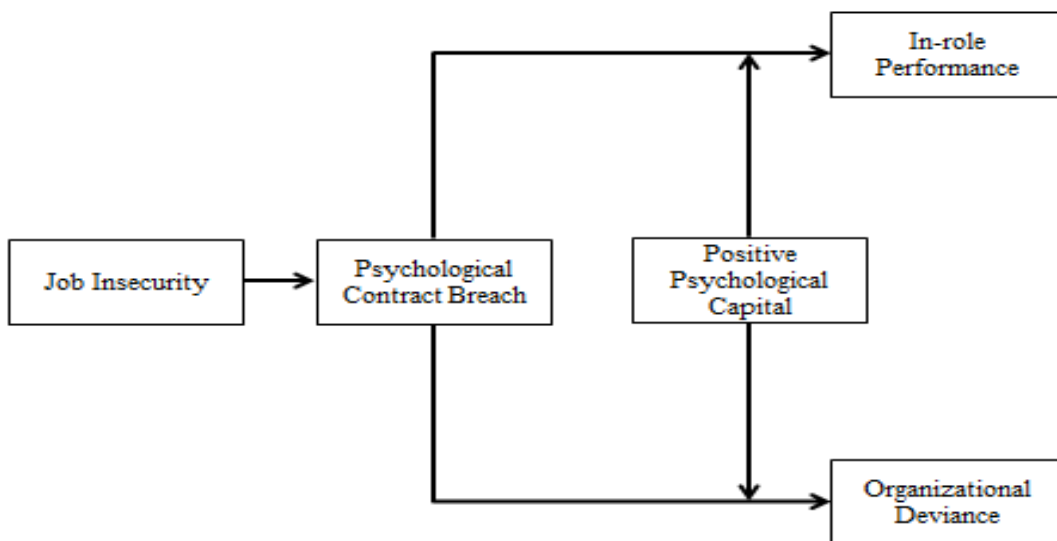


Figure 2. Interactive effects of psychological contract breach and PsyCap on in-role performance and organizational deviance.

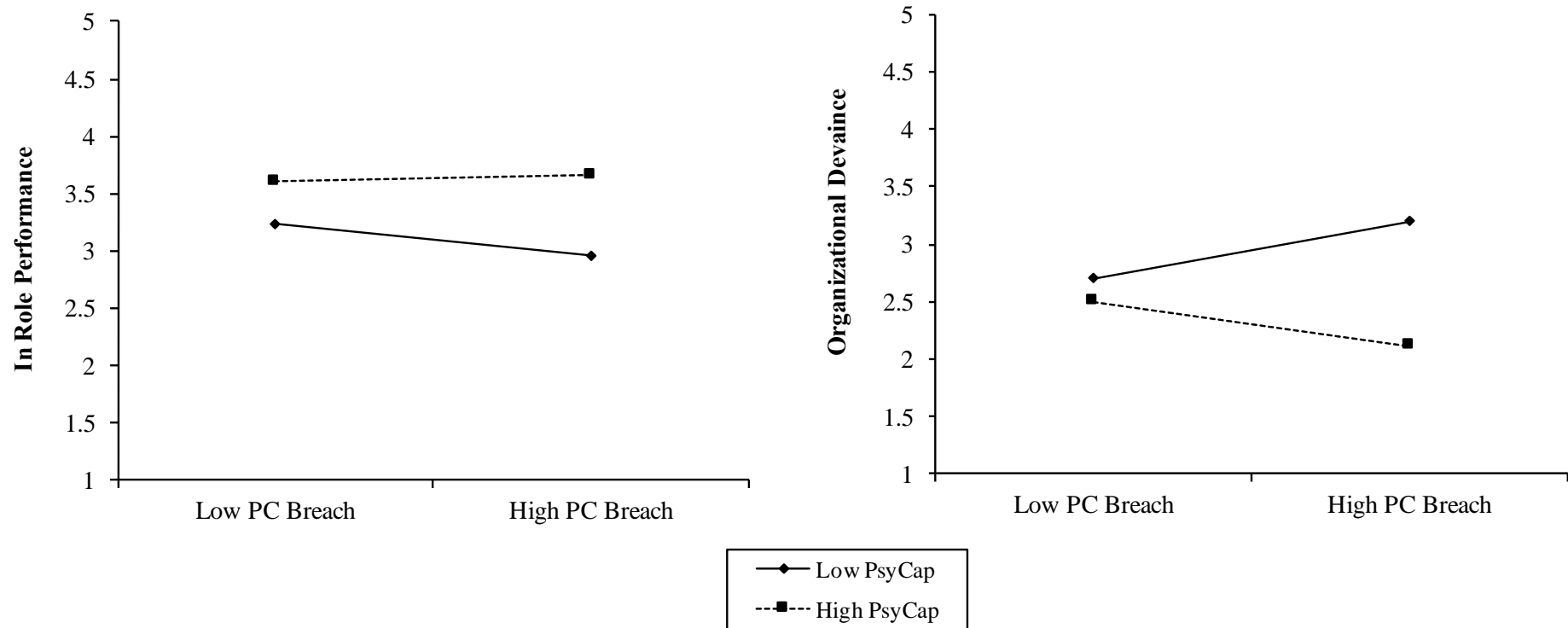


Figure 3. Bootstrapping indirect effect estimates of job insecurity on performance and organizational deviance across different values of PsyCap. The straight line shows the average indirect effect estimates and the dashed lines show the upper and lower 95% confidence intervals.

