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Forgiving is good for health and performance: How forgiveness helps individuals cope with the psychological contract breach

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Abstract

The negative impact of the psychological contract breach on outcomes has received growing attention from researchers. However, there is a lack of studies about the potential individual resources that may help employees to cope with such breaches of the psychological contract, minimizing its negative effects. Drawing on the job demands-resources model, we examined psychological contract breach (time 1) as a job stressor and its direct impact on emotional exhaustion and carry over effects for in-role performance and organizational citizenship behaviors (time 2). Based on the conservation resources theory, we tested the moderating role of forgiveness and revenge cognitions as personal resources that allow individuals to cope with stressful situations. Using a sample of 220 employees and their supervisors, our results suggest that forgiveness cognitions moderated the relationship between the psychological contract breach and emotional exhaustion, while the effect of revenge cognition was non-significant These findings highlight the role of breach as an important stressor and its negative effects for health and performance, as well as the buffering effect of forgiveness cognitions.

Keywords: psychological contract breach; job demands-resources model and conservation of resources theory; forgiveness; revenge; performance
Forgiving is Good for Health and Performance: How Forgiveness Helps Individuals Cope with the Psychological Contract Breach

1. Introduction

Recent years have seen a renewed interest in psychological contracts (e.g., Conway & Coyle-Shapiro, 2012). The underlying motivation has been the organizational changes caused by market competition and the financial crisis. Hereupon, employees experience constant variations in their employment relationships and contracts, which are often perceived as breaches of their psychological contract (Zhao, Wayne, Glibkowski, & Bravo, 2007). Curiously, these breaches are known for being the norm and not the exception (Robinson & Rousseau, 1994) and have negative consequences for employees (e.g., Turley & Feldman, 2001), hypothetically leading to increased stress and strain, because it jeopardizes the notion of reciprocity, which is key to employees’ well-being (Maslach, Schaufeli, & Leiter, 2001).

Furthermore, research indicates that the psychological contract breach can be particularly distressful for employees (Gakovic & Tetrick, 2003; Noblet & Rodwell, 2009). Two reasons have been pointed out: the imbalance of the relationship may exceed the levels of job control and social support available to the individual (Karasek, Baker, Marxer, Ahlbom, & Theorell, 1981); and, the threat to predictability and sense of control that people believe they have over their environment (Gakovic & Tetrick, 2003). In this regard, we suggest that psychological contract breach can be defined as a job stressor since it is a stimulus that requires cognitive effort and it is associated with certain psychological and physical costs (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). However, research on this topic is only emerging and
little is known about the extent to which psychological contract breach contributes to employees’ stress appraisal process.

In order to understand the role of psychological contract breach as a stressor, we draw on the job demands-resources model of burnout (JD-R; Demerouti et al., 2001) and use insights from the conservation of resources theory (COR; Hobfoll, 1989, 2001). The former model suggests that job demands (e.g., workload; Wright & Cropanzano, 1998) may lead to a depletion of energy, exhausting employees (Caplan, Cobb, French, Harrison, & Pinneau, 1975). The latter assumes that individuals use personal resources in order to deal with threatening or demanding conditions, preventing negative outcomes (Hobfoll, 2001). Personal resources (e.g., self-efficacy and optimism) are aspects of the self that increase an individual’s ability to control and impact upon the environment in a successful fashion (Hobfoll, Johnson, Ennis, & Jackson, 2003).

Personal resources have some similar features to job resources, such as being functional in the achievement of goals, reducing job demands and stimulating personal growth and development (Demerouti et al., 2001). These personal and job resources are theoretically analogous to coping strategies (Jonge & Dormann, 2006) because they can be defined as an extra energy that makes individuals able to cope with stressors (Hobfoll, 1989, 2002). Thus, employees who experience psychological contract breach (cognitive stressor) are likely to experience strains (emotional exhaustion) unless they have the resources to cope with the situation (coping strategies).

This research makes three important contributions to the literature. First, we propose that personal resources (i.e., forgiveness and revenge cognitions) operate as coping strategies that allow individuals to deal with the psychological contract breach.
Specifically, we suggest that forgiveness and revenge cognitions buffer the relationship between psychological contract breach and performance (i.e., in-role performance and organizational citizenship behaviors) via emotional exhaustion. In doing so, we respond to calls in the stress literature for more evidence of the buffering role of resources on the impact of job demands (i.e., breach) on stress (i.e., emotional exhaustion) (Bakker, Demerouti, & Verbeke, 2004; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). Moreover, not only there is a lack of forgiveness scholarship in organizational sciences (Bright & Exline, 2011; Cox, 2011), but research about forgiveness and revenge has been focused on interpersonal relationships (Aquino, Grover, Goldman, & Folger, 2003; Aquino, Tripp, & Bies, 2001; Aquino, Tripp, & Bies, 2006; Bradfield & Aquino, 1999). Thus, we make a second contribution by shedding light on forgiveness as a coping and conflict reduction strategy, and as a benefit in the aftermath of wrongdoing in organizations (Aquino et al., 2003); and, by extending the literature about forgiveness and revenge directed at impersonal entities (i.e., organizations) because these types of cognitions can also significantly affect the employment relationship.

We offer a third contribution to psychological contract literature by examining a complementary mechanism to social exchange – the most studied process - in the explanation of the negative impact of psychological contract breach. Specifically, we propose that employee health (i.e., emotional exhaustion) mediates the breach-outcomes relationship. The uniqueness of this contribution is based on the fact that we test this mechanism over and beyond the effect of social exchange (operationalized here as affective commitment to the organization) and it shows that psychological contract breach harms not only the quality of the employment relationship, but also impairs one’s health and performance. This is also a response to a call in the
employee-organization literature for clarification of negative effects of a poor employment relationship (i.e., breach) on employees’ health and stress (Coyle-Shapiro & Shore, 2007).

1.1. Conceptualization of psychological contract breach as a job stressor

Psychological contracts have been defined as individual beliefs regarding the mutual obligations that exist between employee and employer (Rousseau, 1995), and are based on the norm of reciprocity (Gouldner, 1960) and social exchange theory (Blau, 1964). Contrasting with labor contracts, the terms of a psychological contract are not written, stated, negotiated, or discussed, but they can be restructured by a context that implicitly or explicitly transmits a future commitment or intent (Rousseau, 2001). When one party fails to keep up the promises or obligations, a psychological contract breach occurs (Rousseau, 1989). Hence, 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 & Rousseau, 1994). When the employee perceives a breach in his/her psychological contract, he or she feels that the relationship with the employer is unbalanced (i.e., the difference in the ratio between benefits received and contributions made), and acknowledges that he or she is not receiving enough from the organization (Morrison & Robinson, 1997; Robbins, Ford, & Tetrick, 2012; Rousseau, 1995). This perception is likely to lead to negative responses if it induces strong feelings of unfairness (Noblet & Rodwell, 2009), which is normally the case (Robbins et al., 2012).

Perceived unfairness, in general, and psychological contract breach as a demonstration of lack of fairness (i.e., one believes that what he or she is receiving is not fair), in particular, are considered stressors at the workplace (Robbins et al., 2012), since they embody conditions or situations that can be a source of strain to an
individual (Kahn & Bossier, 1992). Additionally, this conceptualization of the psychological contract breach as a stressor is based on its potential to exert a negative influence on employees’ psychological and physical health (Demerouti et al., 2001), by reducing the individual’s capacity to exert control over the work environment and affecting his or her ability to function in an efficient way (Fried, Ben-David, Tiegs, Avital, & Yeverechyahu, 1998). Moreover, Lapointe, Vandenberghe and Boudrias (2013) argue that breach can be “conceived as a stressor that alters the quality of employee-organization relationship and depletes individuals’ organization-related outcomes” (p.535).

1.2. Psychological contract breach and performance: the mediating role of emotional exhaustion

Psychological contract breach has been related to reductions in performance (Robinson, 1996; Turnley, Bolino, Lester, & Bloodgood, 2003; Turnley & Feldman, 1999) and organizational citizenship behaviors (Robinson, 1996; Zhao et al., 2007). Several studies have demonstrated the existence of multiple mechanisms, such as trust (Robinson & Morrison, 1997) and affective commitment (Restubog, Bordia, & Tang, 2006) that operate in the relationship between the psychological contract breach and outcomes. The most common framework used for understanding these results is social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960). According to this theoretical framework, employees seek a balanced and fair exchange between their contributions to the organization and what the organization gives back. While reciprocity is an important explanatory mechanism, other theoretical foundations can be used to understand how psychological contract breach impacts performance.
As psychological contract breach can be conceptualized as job stressor because it requires a sustained mental effort to deal with the breach (Demerouti et al., 2001) and it is linked to high levels of emotional exhaustion (Gakovic & Tetrick, 2003). An important aspect of this conceptualization is that job demands are mainly perceived by the employee. In a case of breach of the psychological contract, this perception can be defined as higher job demand/stressor, which starts a resource depletion process that harms the employee-organization relationship (Lapointe et al., 2013). Employees who encounter job stressors (e.g., psychological contract breach) are more likely to suffer from emotional exhaustion (De Croon, Sluiter, & Blonk, 2004; Sonnentag, Kuttler, & Fritz, 2010), which can be defined as “feelings of being overextended and depleted of one’s emotional and physical resources” (Maslach et al., 2001, p. 399). Emotional exhaustion is a key outcome of the stress process for several reasons. First, research shows that emotional exhaustion is the core dimension of burnout (Cropanzano, Rupp, & Byrne, 2003; Maslach & Jackson, 1981; 1996; Maslach et al., 2001). Second, there is some evidence showing that emotional exhaustion precedes the other burnout dimensions (i.e., depersonalization and personal accomplishment; Toppinen-Tanner, Kalimo, & Mutanen, 2002) and therefore appears first as excessive chronic work demands drain individual energy and resources. Third, emotional exhaustion tends to be more strongly related to outcomes than the other dimensions and is associated with poor performance and poor health (Cropanzano et al., 2003).

The depletion of one’s emotional and physical resources (Maslach et al., 2001) and depletion of individual coping and energy resources (Hobfoll & Freddy, 1993) are consequences of high demands, such as psychological contract breach. Therefore, individuals in those conditions would be more exhausted, decreasing their investment
in the relationship and, at the same time, lowering their outcomes (Buunk & Schaufeli, 1993; Cropanzano et al., 2003; Wright & Cropanzano, 1998; Wright & Bonett, 1997) because they would feel physical fatigue, a persistent sense of mental weariness (Wright & Cropanzano, 1998), and reduced levels of energy. Additionally, there is evidence of the negative relationship between emotional exhaustion and performance (e.g., Wright & Cropanzano, 1998; Wright & Bonett, 1997).

Hence, we predict the following:

**Hypothesis 1.** Emotional exhaustion mediates the psychological contract breach-performance (i.e. in-role and OCBs) relationship.

1.3. *Conceptualization of forgiveness and revenge cognitions directed to the organization*

When employees perceive a breach (which is considered to be unfair), they may use different strategies to deal with the situation. Bies and Tripp (1996) categorize several coping strategies into a typology, which includes avoidance (e.g., doing nothing), private coping (e.g., engaging in revenge fantasies, and forgiveness) and public coping (e.g., restoring one’s image). More recently, Tripp et al. (2007) posit that when individuals perceive mistreatment, they tend to avoid, engage in revenge or offer forgiveness to the offender. Taking this into account, we followed Aquino and colleagues (2006) conceptualization of forgiveness and revenge cognitions as coping strategies, as these responses should help individuals manage negative workplace events (Aquino, Tripp, & Bies, 2006).

On the one hand, forgiveness literature is scarce and recent (e.g., Aquino et al., 2001, 2006). Forgiveness has been defined as the internal act of giving up the anger, resentment, and the desire to seek revenge against the offender (e.g., Enright & the Human Development Study Group, 1991; North, 1987); or, “a relational process
whereby harmful conduct is acknowledged (…) the harmed partner extends undeserved mercy to the perceive transgressor” (Kelly & Waldron, 2006, p. 307). Forgiveness is also considered to be a positive process that allows the individual to grow and move on with their life, leaving behind worries and ruminations about the transgressions they experience (Enright & Coyle, 1998; Worthington, 1998). Moreover, it is associated with restoring relational closeness (e.g., Kelley & Waldron, 2005). At the organizational level, it is a strategy that is likely to be used by employees as a response to workplace offences in order to reduce the consequent stress (Cox et al., 2012). This positive process has been linked to positive individual outcomes, such as improved physical and mental health, which in turn lowers absenteeism and turnover levels (Cameron & Caza, 2002; Exline & Baumeister, 2000).

On the other hand, revenge is an “attempt to redress an interpersonal offense by voluntarily committing an aggressive action against the perceived offender” (McCullough, Bellah, Kilpatrick, & Johnson, 2001, p. 602) and it has been mostly defined as an effort by the victim to cause damage, injury, discomfort, or punishment on the party judged responsible for causing harm (Aquino, Tripp, & Bies, 2001, 2006; Bies & Tripp, 1996). In other words, there is a clear intention to see the transgressor suffer (Schumann & Ross, 2010). Previous studies found that revenge is something common at the workplace (Bies & Tripp, 1996; 1998; Restubog et al., 2012) and it occurs at the interpersonal level (e.g., Aquino et al., 2001, 2006). However, research also suggested that revenge can also be directed at the organization as a whole through retaliatory behaviors, such as theft and sabotage (Crino, 1994; Greenberg, 1990). Although it carries negative consequences for the other party and the relationship, revenge cognitions can be used as a mechanism through which
employees release the stress or feel renewed a sense of justice (e.g., McCullough, 2008; McCullough et al., 2001).

It is important to notice that both forgiveness and revenge cognitions and actions occur as a response to a triggering event (McCullough, 2008). In general, the offender is another individual (i.e., supervisor or coworker). However, many times, the mistreatment comes from the organization (i.e., breach of psychological contract) and not from a specific organizational agent. There is an important assumption underlying the employee-organization relationship that states that employees attribute anthropomorphic characteristics to the organization or, in other words, individuals tend to attribute human like qualities to the organization (i.e., impersonal entity) (Eisenberger, Huntington, Hutchinson, & Sowa, 1986; Levinson, Price, Minden, Mandl, & Solley, 1962). Moreover, Levinson et al. (1962) also claimed that employees interpret the organizational agents’ behaviors as actions by the organization itself, which is further explained by the fact that organizations have responsibilities for its agents (Eisenberger et al., 1986).

Based on this assumption, we propose that coping responses (forgiveness and revenge) are not only used in dealing with interpersonal mistreatment, but also in dealing with organizational harmful actions perceived by the employee, such as psychological contract breach.

1.3.1 The moderating role of forgiveness and revenge cognitions

The JD-R model (Demerouti et al., 2001) assumes that the lack of resources jeopardizes the meeting of job demands, which further leads to emotional exhaustion. On the other hand, high levels of resources, namely personal resources (i.e., self-efficacy and organizational-based self-esteem), may buffer the job demands-
emotional exhaustion relationship (Demerouti et al., 2001), as demonstrated by a recent study (Xanthopoulou et al., 2007).

According to the COR theory, personal resources are aspects of the self that enhance the individual’s ability to control and impact their environment in a successful manner (Hobfoll et al., 2003). Additionally, this theory assumes that individuals strive to obtain, retain, protect, and foster the things that they value (Hobfoll, 2001) and that they use their personal resources in that process, investing them in order to deal with threatening conditions (Hobfoll, 1989). Personal resources are theoretically analogous to coping strategies (Jonge & Dormann, 2006) because they can be defined as an extra energy that makes individuals better able to cope with stressors (Hobfoll, 1989, 2002). Moreover, the discovery of the optimal combination of stressor-resource (i.e., double match principle) can offer insights about the best tools to deal with specific workplace stressors (Jonge & Dormann, 2006). In other words, if the stressor and resources match in dimension (i.e., psychological contract breach, and forgiveness and revenge cognitions are cognitive), it increases the power of these resources in combating that stressor.

Based on the JD-R model (Demerouti et al., 2001) and COR theory (Hobfoll, 1989, 2001), forgiveness and revenge cognitions can be considered resources although for different reasons. Forgiveness is a way of actively coping with the environment, by trying to change one’s feelings and behaviors towards the offender (Aquino et al., 2003). It is important to notice that forgiveness does not involve forgetting that something immoral occurred, but it is a reduction in negative emotions (Tangney, Wagner, Hill-Barlow, Marschall, & Gramzow, 1996). The underlying mechanism is completely different for revenge cognitions. Despite its common negative consequences for organizations (e.g., Greenberg, 1990), revenge cognitions
help relief employees’ emotional exhaustion because it allows escape from psychological pain (Fridja, 1994). However, this relief can be only temporary. According to Goldberg (2004), revenge that remains in the fantasy level (such as revenge cognitions) serves as a psychological constructive function because it is part of the healing process of hurt and anger. In addition, revenge cognitions act as a self-preservative and stabilizing cognition (Goldberg, 2004). The former is relevant because it signals the disposition to avoid being harmed again. The latter refers to the attempt to achieve emotional and cognitive consistency.

Although the existing body of research about coping is extensive, the literature did not investigate forgiveness and revenge cognitions as strategies for dealing with mistreatment (Cox, Bennett, Tripp, & Aquino, 2012). In this study, we combine COR theory (Hobfoll, 1989, 2001) with the buffering hypothesis of the JD-R model (Bakker et al., 2005) by recognizing the potential moderating role of personal resources in the stressor-emotional exhaustion relationship. In this sense, we suggest that individuals who cope with psychological contract breach using forgiveness as a coping strategy would be able to let go of the negative feelings and would be stimulated to grow and develop themselves, thus avoiding strain (e.g., emotional exhaustion). Individuals who cope with psychological contract breach using revenge as coping strategy would try to establish a cognitive balance, relieving the tension implied in the perception of the breach, in order to be able to achieve work goals and reduce the impact of the stressor. Employees who experience a breach in their psychological contract breach would experience less exhaustion if they had revenge cognitions, because it would allow a temporary relief.

Moreover, we suggest that the interaction between psychological contract breach and personal resources (i.e., forgiveness and revenge cognitions) is related to
emotional exhaustion and, subsequently, to performance and organizational citizenship behaviors. When forgiveness and revenge cognitions are low, a higher level of perceptions of psychological contract breach should lead to an increase in emotional exhaustion and thus impact negatively performance and organizational citizenship behaviors. However, when forgiveness cognitions are high, the experience of breaches in psychological contract should not contribute to higher emotional exhaustion, as employees are stress resilient (Chen, Gully, & Eden, 2001) and able to control and adapt to their environment (Hobfoll, 1989; Hobfoll et al., 2003).

Similarly, when revenge cognitions are high, the perceptions of psychological contract breach should not lead to increased emotional exhaustion, as employees are escaping from psychological pain (Fridja, 1994), using self-preservative and stabilizing revenge fantasies (Goldberg, 2004). In this context, there would be no negative impact on in-role performance or organizational citizenship behaviors. Based on the presented arguments, we hypothesized:

**Hypotheses 2a.** The conditional indirect effect of psychological contract breach on performance and OCBs via emotional exhaustion will be weaker when forgiveness cognitions are high than when forgiveness cognitions are low.

**Hypotheses 2b.** The conditional indirect effect of psychological contract breach on performance and OCBs via emotional exhaustion will be weaker when revenge cognitions are high than when revenge cognitions are low.

Our conceptual model is depicted in Figure 1.

2. Method

2.1. Participants and procedure
We administered the questionnaires to subordinates and supervisors of a firm operating in the water supply sector. Data for this study were collected in two waves. At time 1, the survey was administered to 399 employees, of whom 283 responded (71% response rate). Six weeks after, 44 supervisors rated in-role behaviors and OCBs of employees who participated in time 1.

After the removal of incomplete questionnaires, the final sample used to test the hypotheses was 220. The participants’ ages ranged from 21 to 65, with a mean of 45 years. 60.9% of the final respondents were men. Organizational tenure was on average 17 years (s.d=10.78). Educational attainment was as follows: 25.4% reported not completing high school, 44.6% reported having a high school diploma, 23.9% reported having an undergraduate degree, 4.7% reported having a graduate degree.

2.2. 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).

2.2.1 Psychological contract breach. To assess employees’ perceptions of the psychological contract breach, we used the 5-item scale developed by Robinson and Morrison (2000). An example item from this scale is: “I have not received everything promised to me in exchange for my contributions”. The Cronbach alpha was .86.

2.2.2. Emotional exhaustion. We measured emotional exhaustion with five items of the Maslach Burnout Inventory-General Survey (MBI-GS; Schaufeli, Leiter, Maslach & Jackson, 1996). A sample item is: “I feel emotionally drained from my work”. The Cronbach alpha was .90.

2.2.3. Forgiveness and revenge cognitions. Forgiveness and revenge cognitions scales were adapted from the interpersonal level to the organizational level and applied specifically to psychological contract breach. Specifically, we reworded the items by
removing the words relating to interpersonal level (i.e., them) and replacing those words with the expression “the organization”. Items were introduced by the following text: “Think about the last time you felt that your organization did not fulfil a promise. Please indicate your agreement / disagreement with the following statement regarding how you felt and what you thought in that moment”.

To assess forgiveness, we used the 4-item scale developed by Aquino et al. (2006). They treat forgiveness as a coping strategy for dealing with a workplace mistreatment. Aquino et al. (2006) developed this scale using a critical incident technique to elicit experiences of workplace offences. After participants (N=172) described the offence, they answered about their cognitive responses. Then, they performed a principal-components analysis to assess the dimensionality of different responses to the offence. Items presented high loadings (> .50) on the expected factor. In addition, the Cronbach’s alpha in that study was .81. A sample item is: “I would let go of the negative feelings I had against my organization”. The Cronbach alpha in our study was .91. To measure revenge, we used three items from Wade (1989). A sample item is: “I wished that something bad happen to my organization”. The Cronbach alpha was .86.

2.2.4. In-role performance (time 2). To measure in-role performance, we asked supervisors to rate their employees using Lynch, Eisenberger & Armeli’s (1999) nine in-role performance items. A sample item from this scale is: “This employee performs tasks that are expected of him/her”. The Cronbach alpha was .91.

2.2.5. Organizational citizenship behavior (time 2). To assess organizational citizenship behaviors, we asked supervisors to evaluate their employees with six items (i.e., civic virtue and altruism) from MacKenzie, Podsakoff and Fetter’s (1993) scale. These two dimensions are the most representative and active forms of extra-role
behaviors (Vey & Cambell, 2004). A sample item is: “This employee keeps up with developments in the company”. The Cronbach alpha was .85.

2.2.5. Control variables. Because of the potential effect of demographic variables on emotional exhaustion and performance (Halbesleben & Bowler, 2007; Maslach & Jackson, 1986; Morrison, 1994), we controlled for subordinates’ age, gender, tenure, and education attainment. Moreover, following recommendations by Bernerth and Aguinis (2016) for the use of control variables, we performed all the analysis both with and without control variables. The results were similar in both cases. In the results section, tests are presented with control variables included.

In addition, in order to examine if the impact of psychological contract breach goes beyond social exchange constructs, we control for employees’ affective organizational commitment as it represents an important mechanism associated with social exchange and reciprocity (Coyle-Shapiro & Kessler, 2000).

3. Results

Means, standard deviations, correlations, and scale reliabilities are presented in Table 1. Reliabilities for all scales were good, ranging from .86 to .91.

3.1. Analytical approach

Before testing the hypotheses, we examined the data structure by computing and analyzing intraclass correlations. Then, we performed exploratory factor analysis of forgiveness and revenge items. Finally, we used confirmatory factor analysis to establish the factorial validity of the scales.

3.1.1. Test for nested data structure

Each of the 44 supervisors rated in-role performance and OCBs of multiple subordinates (average = 5; minimum = 1, maximum = 27), which may raise concerns
regarding non-independence of the ratings. We computed intraclass correlations (ICCs) for all variables to observe 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 (Table 2). Large ICC (1) values indicate dependence on structure of data, whereas high ICC (2) suggest reliable between-group differences (Bliese, 2000). Results for ICC (1) indicate that supervisor membership explains a fair amount of variance in one of the five variables, however this value is not particularly large (i.e., less than .40; Cicchetti, 1994). Moreover, ICC (2) of five variables (i.e., psychological contract breach, emotional exhaustion, forgiveness cognitions, revenge cognitions, and OCBs) is too low (i.e., less than .70) to support aggregation.

However, as in-role performance presents a high ICC (2), we modelled our data using a pooled within-group covariance matrix as suggested by Hox (2002). Specifically, we subtracted the individual’s team mean from the individual’s score (i.e., group mean centered) in order to provide an unbiased estimate of the population within groups (Hox, 2002). Then, we tested our model using these unbiased estimates of the population, that is, we used within-groups covariance matrix instead of testing the raw data (Hox, 2002).

3.1.2. Exploratory factor analysis of revenge and forgiveness

We examined the dimensionality of forgiveness and revenge cognitions adapted items by performing a principal axis factor analysis with direct oblimin rotation to identify the underlying factors. The resulting eigenvalues indicate a two-factor solution with all items showing high loadings on the expected factor (see Table 3). Specifically, the loadings for forgiveness cognitions range from .74 to .93, and the loadings for revenge cognitions range from .63 to .99. The first factor, consisting of
four items, represents forgiveness cognitions, while the second factor, defined by three items, measures revenge cognitions.

3.1.3. Measurement model

We conducted confirmatory factor analysis (CFA) with AMOS 20 to examine whether our measurement model had an acceptable fit. The measurement model contained six factors: in-role performance, organizational citizenship behaviors, psychological contract breach, emotional exhaustion, forgiveness, and revenge. We compared the six-factor model against a series of nested models: a seven-factor model, where we separated the two dimensions of OCBs, a four-factor model, where the data collected from supervisors (i.e., in-role performance and organizational citizenship behaviors) were combined into a single factor; a two-factor model, where we separated all items collected from employees (i.e., psychological contract breach, emotional exhaustion, forgiveness, and revenge) from those indicated by supervisors (i.e., in-role performance and organizational citizenship behaviors); and a one-factor model where we combined all items into a single factor.

The six-factor model presented a good fit ($\chi^2 (445) = 609.62; \text{CFI} = .96; \text{RMSEA} = .04; \text{SMRM} = .05$) and held a significantly better fit than the alternative models (Table 3). Factor loadings were all acceptable, ranging between .51 and .92 for psychological contract breach, .74 and .88 for emotional exhaustion, .71 and .92 for forgiveness, .44 to .76 for revenge, .45 and .83 to organizational citizenship behaviors, and .50 and .88 for in role performance.
We also analyzed the impact of a seventh latent variable, representing an unrelated method factor (Podsakoff et al., 2003) in order to evaluate common method variance. The improvement of the measurement model fit means that CMV may be present in the data (Williams, Cote & Buckley, 1989). After adding an unrelated method factor, the statistical fit indexes improved slightly ($\chi^2 (414) = 559.00**; \text{CFI} = .96; \text{RMSEA} = .04; \text{SRMR} = .04$), which is expected. Consequently, we calculated the variance explained by the method factor (Williams et al., 1989). CMV accounted for 4.8% of the total variance, which represents an acceptable value, significantly lower than the established threshold (25%; Williams et al., 1989).

3.2. Hypotheses testing

To test the proposed mediated moderation effects, we used the bootstrapping analysis outlined by Hayes (2012). Several researchers have advocated bootstrapping as a straightforward and robust strategy for assessing indirect effects, particularly mediated-moderation effects (MacKinnon, Lockwood, & Williams, 2004; Preacher et al., 2007; Shrout & Bolger, 2002). Furthermore, Shrout and Bolger (2002) have demonstrated that bootstrap methods are more powerful than traditional tests of mediation. Additionally, we centered the predictor variables (i.e., psychological contract breach, forgiveness, and revenge) following the recommendation put forth by Aiken and West (1991). We also test our model with and without control variables (Bernerth & Aguinis, 2016). The main results with control variables are displayed in Table 4. Consistent with hypothesis 1, we found that psychological contract breach was positively related to emotional exhaustion ($B=.22, p<.01$), which in turn was related to in role performance ($B=-.13, p<.05$) and OCBs ($B=-.16, p<.01$). The indirect effects of PCB on in-role performance and OCBs via emotional exhaustion are $B=-.03$ and $B=-.04$ ($p<.05$), respectively.
To examine hypotheses 2a and 2b, we followed a three-step approach. First, we tested the simple interaction between psychological contract breach and forgiveness and revenge cognitions on emotional exhaustion. Then, we plotted the significant interaction using the procedures recommended by Cohen, Cohen, West, and Aiken (2003). Finally, we tested the full moderated mediation model to examine if the interaction effect of psychological contract breach and forgiveness and revenge cognitions extended to in-role performance and organizational citizenship behaviors, via emotional exhaustion.

The results indicated that the interaction between psychological contract breach and forgiveness cognition was significant ($B=-.11, p<.05$). However, the interaction between psychological contract breach and revenge was non-significant ($B=-.03, p>.05$). We plotted the interaction between psychological contract breach and forgiveness cognitions and calculated the simple slopes using the procedures recommended by Cohen et al. (2003) and Dawson (2014). As shown in Fig. 2, the results matched the predicted pattern. Psychological contract breach had a strong positive relationship with emotional exhaustion when forgiveness cognitions were low ($t=4.15, p<.05$), but not when they were high ($t=1.46, p>.05$). The difference between slopes was significant ($t=-2.00, p<.05$), suggesting that the strength of the relationship between psychological contract breach and emotional exhaustion is indeed affected by forgiveness cognitions.

Finally, we tested for moderated mediation (Preacher et al., 2007). The first step is to assess whether the mediator is significantly related to in-role performance
and organizational citizenship behaviors. The results indicated a direct and significant relationship between emotional exhaustion and both in-role performance (B=-.13, p<.05) and organizational citizenship behaviors (B=-.16, p<.05). To further test the mediated-moderation hypothesis, we analyzed the conditional indirect effect of psychological contract breach on both in role performance and organizational citizenship behaviors at specific values of the moderator (-1SD, +1 SD). Supporting our hypothesis, the indirect effect of psychological contract breach x forgiveness on in-role performance through emotional exhaustion was significant for low forgiveness cognitions (B=-.05; p<.05) but not high (B=-.01; p>.05). A similar effect was present for organizational citizenship behaviors. That is, the indirect effect of psychological contract breach x forgiveness via increased emotional exhaustion was significant for low forgiveness cognitions (B=-.06; p<.05), but not for high (B=-.02; p>.05). Overall, when forgiveness cognitions are low, as psychological contract breach increases, in-role performance and organizational citizenship behaviors decrease via heightened emotional exhaustion. When it is high, an increase in psychological contract breach does not lead to a decrease in in-role performance and organizational citizenship behaviors nor an increase in emotional exhaustion.

3.2.1. Alternative model

In addition, we tested an alternative model, in order to understand whether forgiveness would also reduce the negative effects of emotional exhaustion on subsequent performance and OCBs. We performed bootstrapping analysis using SPSS macro Process (model 58), in which forgiveness is assessed as a moderator of the psychological contract breach-emotional exhaustion relationship and in the emotional exhaustion-outcomes relationship. Results indicated a significant interaction effect of psychological contract breach and forgiveness on emotional exhaustion (B=-.15,
p<.05), but not between emotional exhaustion and forgiveness on performance and OCBs (B=-.01, p>.05; B=-.02, p>.05, respectively)

4. Discussion

In this article, we examined the interplay between psychological contract breach, forgiveness cognitions, revenge cognitions, emotional exhaustion, and both performance and organizational citizenship behaviors (OCBs). The main goal was to examine the potential role of forgiveness and revenge cognitions as buffers of psychological contract breach-outcomes relationship via emotional exhaustion. The empirical findings supported our predictions for forgiveness cognitions, indicating that when forgiveness cognitions are high, employees will be less emotionally exhausted because these forgiving thoughts make them more able to cope with psychological contract breach. Therefore, their performance and OCBs will not be reduced.

4.1. Theoretical implications

Our research makes several important theoretical contributions. First, we found that forgiveness cognitions buffered the psychological contract breach – emotional exhaustion relationship, suggesting that it is an important personal resource to handle perceived workplace wrongdoing. As a personal resource, forgiveness is a deliberate choice from one who decided to use a constructive alternative to retaliation (Boon & Sulsky, 1997). Additionally, employees who use forgiveness as a coping strategy are resilient to workplace stress (Chen, Gully, & Eden, 2001) and able to control and adapt to such stressful environments (Hobfoll, 1989; Hobfoll et al., 2003). Using this type of personal resources is an effective way to deal with demanding conditions, and in turn avoid negative outcomes (Xanthopoulou et al., 2007). Moreover, several researchers have pointed out the need for further research in such
area (Bright & Exline, 2011), because forgiveness has the potential to reconcile damaged relationships (Cox, 2011). We did not find a similar effect for revenge cognitions. This pattern of results demonstrates that revenge cognitions might play a different role when responding to psychological contract breach. A plausible explanation can be linked to the fact that revenge is almost always accompanied by intense negative emotions such as anger, which seem to increase the risk of burnout (Tokar, Fischer, & Subich, 1998). Another potential explanation is related to the fact that revenge cognitions only offer a temporary relief, which can be too short lived to impact employees’ levels of emotional exhaustion.

Second, we extend our knowledge of how psychological contract breach operates by applying the JD-R model (Demerouti et al., 2001) and COR theory (Hobfoll, 1989), and conceptualizing psychological contract breach as a job demand / stressor. Psychological contract breach is a job stressor not only because it is related to psychological and physical problems (Demerouti et al., 2001), but also because it induces strong feelings of unfairness (Noblet & Rodwell, 2009), which tend to be associated with emotional exhaustion (Cole, Bernerth, Walter, & Holt, 2010).

Third, our findings are aligned with the JD-R model (Demerouti et al., 2001) in that we found that psychological contract breach functions as a stressor, which increases emotional exhaustion, and consequently reduces performance. In addition, our results are aligned with previous research that has found a direct relationship between emotional exhaustion and both in role performance and organizational citizenship behaviors (Cropanzano et al., 2003; Wright & Cropanzano, 1998). Explained by COR theory (Hobfoll, 1989), the depletion of resources and energy would be a plausible reason for such relationships. The conditional effect of psychological contract breach on outcomes suggests that employees experiencing
breaches of their psychological contracts, but without the resources to deal with it, will feel emotionally drained which in turn will lead to a decrease in performance.

4.2. Practical implications

The present study holds important insights for managers who want to prevent employee burnout and the resulting negative effects on performance. Our results showed that psychological contract breach leads to emotional exhaustion, which in turn affects performance levels. Implicitness of promises, pre-hire interactions, organizational change, and perceived breach history are pointed out as antecedents of psychological contract breach (Robinson & Morrison, 2000). With such factors in mind, organizations need to be careful about what they promise. In addition, managers should try to evaluate the employees’ expectations and clarify the discrepancies between expectations and reality.

Nonetheless, sometimes psychological contract breach is unavoidable due to changes in financial conditions (Robinson & Morrison, 2000). In such situations, organizations need to be prepared to try to minimize its costs. A possible way is to develop a positive organizational climate (Lam, Huang, & Janssen, 2010) or a healthy emotional climate (Janssen, Lam, & Huang, 2010) because these climates make employees more tolerant to emotional exhaustion. Furthermore, training programs could be developed, involving personal self-management skills (Taormina & Law, 2000). For instance, these skills entail the ability to relax and rest, and are therapeutic in stress management (Greenberg, 1993). In addition, as suggested by our results, organizations should foster a forgiving climate as it can be a “strategic advantage, thus acting as both a prosocial and a profit force for organizations” (Fehr & Gelfand, 2012, p.682). To develop such climate, managers should act as role models, showing
forgiveness through their actions. For instance, managers can move on from past problems without resentment.

Moreover, organizations can provide training in which forgiveness is included as a way of dealing with stress at the workplace. Forgiveness training is also mentioned as a way to decrease the negative effects of burnout (Cox et al., 2012). Regardless of the benefits of forgiveness, managers should be aware that forgiveness only works as a discretionary cognition such that employees who forgive “by force” (i.e., because they believe that there is no other option) will experience high levels of stress and poorer health (Cox et al., 2012). Thus, managers should avoid forcing employees to forgive because it impacts negatively on their health.

4.3. Limitations and future research

This study has several limitations that deserve comment. First, our study only examines the role of emotional exhaustion as a mediator between psychological contract breach and performance, leaving the other two burnout dimensions (i.e., cynicism, and low efficacy; Malachi et al., 1996) aside. The choice of emotional exhaustion as a mechanism between contract breach and performance was based on the fact that this is the key element in the burnout process (e.g., Cropanzano et al., 2003; Maslach et al., 2001) and precedes the other dimensions (Toppinen-Tanner et al., 2002). Nonetheless, and in order to provide a more nuanced view of the relationship between PCB and (the multiple dimensions of) burnout, future research should explore them simultaneously.

Second, four of the six variables in our model were assessed from employees at time 1, raising questions concerning common method variance (CMV). However, our concerns are minimized given that: a) we included two outcome variables (i.e., in-role performance and organizational citizenship behaviors) assessed by a different
source; b) correlations between same source variables are low; and c) CMV cannot create artificial interaction effects (Siemsen, Roth, & Oliveira, 2010). Nonetheless, the relationship between the independent variable (i.e., psychological contract breach), the moderators (i.e., forgiveness and revenge cognitions), and mediator (i.e., emotional exhaustion) should be interpreted with caution (Podsakoff, MacKenzie, Lee & Podsakoff, 2003) and future research should re-examine the relationship between these constructs using other designs.

Third, there is a call for forgiveness studies at different levels of analysis (Palanksy, 2012). Specifically, Palansky (2012) indicates that collective-level (i.e., team, organization, or societal/cultural) moderators may impact the relationship at the dyadic and individual level. For example, culture may shape the decision to forgive. In other words, in collectivistic cultures, in which pride, loyalty, harmony, conflict avoidance, and long-term relationships are extremely valued (Thomas, Au, & Ravlin, 2003), individuals may forgive to maintain social harmony and avoid conflicts in long-term relationships.

Finally, there are other typologies which involve potential coping strategies that one may use to deal with psychological contract breach and its impacts. For instance, one may be interested in examining other private coping strategies, such as emotion-focused behavioral strategies (e.g., seeking social support to accept breach more easily), emotion-focused cognitive strategy (e.g., viewing breach in a positive light), or problem-focused behavioral strategy (e.g., correcting the breach by discussing it with one’s supervisor). Moreover, one may also assess avoidance (i.e., doing nothing) and public coping strategies (i.e., restoring one’s image) (Bies & Tripp, 1996) as alternative coping responses to psychological contract breach. For instance, individuals who use avoidance as a strategy would socially withdraw from
the organization “in order to reduce unpleasantness in their work life” (Tripp et al., 2007, p. 14). For those individuals who use public coping strategies, they would try to get a public apology in order to restore their image (Bies & Tripp, 1996) after a psychological contract breach.

5. Conclusion

Each day in organizations, people experience breaches in their psychological contracts. Our findings suggest that is a significant workplace stressor that impacts employees’ emotional exhaustion and performance. Nonetheless, forgiveness is a resource that organizations can foster and nurture in their employees in order to prevent emotional exhaustion and the subsequent negative effect on individual performance and organizational citizenship behaviors. These findings highlight the potential of creating a forgiving climate and how this climate can offer benefits for the organization and its employees, because as Paul Boese highlighted, “forgiveness does not change the past, but it does enlarge the future”.

References


Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job

cohort study of truck drivers. *Journal of Applied Psychology, 89*(3), 442. doi:
10.1037/0021-9010.89.3.442.

within psychological interventions. *Dimensions of forgiveness: Psychological
research and theological perspectives*, 139-161.

development of forgiveness. In W. Kurtines & J. Gewritz (Eds.), *Handbook of Moral


Fehr, R., & Gelfand, M. J. (2012). The forgiving organization: A multilevel model of
forgiveness at work. *Academy of Management Review, 37*(4), 664-688. doi:
10.5465/amr.2010.0497.

interactive effect of role conflict and role ambiguity on job performance. *Journal of
Occupational and Organizational Psychology, 71*(1), 19-27. doi : 10.1111/j.2044-

for employees. *Journal of Business and Psychology, 18*(2), 235-246. doi:
10.1023/A:1027301232116.


Figure 1. Proposed Moderated Mediation Model.

Note: OCB – Organizational citizenship behavior. * Assessed by supervisors
Figure 2. Interactive Effects of PCB and Forgiveness on Emotional Exhaustion.
Table 1

Descriptive Statistics, Correlations, and Cronbach’s Alphas$^{a,b}$

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Psychological Contract Breach</td>
<td>2.73</td>
<td>.92</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Emotional Exhaustion</td>
<td>2.36</td>
<td>.86</td>
<td>.27*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Forgiveness</td>
<td>3.27</td>
<td>1.04</td>
<td>.12</td>
<td>.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Revenge</td>
<td>1.32</td>
<td>.66</td>
<td>.10</td>
<td>.18*</td>
<td>-.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. In role Performance (T2)</td>
<td>4.36</td>
<td>.66</td>
<td>-.04</td>
<td>-.03</td>
<td>.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. OCB (T2)</td>
<td>3.90</td>
<td>.73</td>
<td>-.13</td>
<td>-.10</td>
<td>-.09</td>
<td>.78*</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>7. Age</td>
<td>44.7</td>
<td>9.83</td>
<td>.16*</td>
<td>-.06</td>
<td>.05</td>
<td>.15*</td>
<td>.02</td>
<td>-.09</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Gender</td>
<td>1.39</td>
<td>.49</td>
<td>-.16*</td>
<td>.00</td>
<td>-.04</td>
<td>-.06</td>
<td>.04</td>
<td>.12</td>
<td>-.27**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Education Attainment</td>
<td>3.32</td>
<td>1.33</td>
<td>-.13</td>
<td>-.05</td>
<td>-.05</td>
<td>-.13</td>
<td>.22*</td>
<td>-.30**</td>
<td>.36*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Tenure</td>
<td>17.1</td>
<td>10.7</td>
<td>.25</td>
<td>.02</td>
<td>.00</td>
<td>.16*</td>
<td>-.02</td>
<td>-.12</td>
<td>.66*</td>
<td>-.27**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. ** p<.01; *p<.05. OCB - Organizational Citizenship Behaviors. In-role performance and OCBs rated by supervisors.

$^a$. 5-point scales
b. Cronbach’s alphas appear in parentheses along the main diagonal.

Table 2

<table>
<thead>
<tr>
<th></th>
<th>ICC(1)</th>
<th>ICC(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Psychological Contract Breach</td>
<td>.00</td>
<td>.05</td>
</tr>
<tr>
<td>2. Emotional Exhaustion</td>
<td>.02</td>
<td>.27</td>
</tr>
<tr>
<td>3. Forgiveness Cognitions</td>
<td>.01</td>
<td>.15</td>
</tr>
<tr>
<td>4. Revenge Cognitions</td>
<td>.11</td>
<td>.61</td>
</tr>
<tr>
<td>5. In role Performance</td>
<td>.17</td>
<td>.72</td>
</tr>
<tr>
<td>6. OCB</td>
<td>.02</td>
<td>.18</td>
</tr>
</tbody>
</table>

*Note:* ICC = Intraclass correlations. OCB = Organizational Citizenship Behaviors
Table 3

*Principal axis factor analysis of forgiveness and revenge*

<table>
<thead>
<tr>
<th>Item</th>
<th>Forgiveness</th>
<th>Revenge</th>
</tr>
</thead>
<tbody>
<tr>
<td>I let go of the negative feelings I had against my organization.</td>
<td>.74</td>
<td>.05</td>
</tr>
<tr>
<td>I let go of my hate and desire for vengeance.</td>
<td>.92</td>
<td>-.08</td>
</tr>
<tr>
<td>I let go of my hurt and pain.</td>
<td>.81</td>
<td>-.05</td>
</tr>
<tr>
<td>I let go of the resentment I felt toward the organization.</td>
<td>.93</td>
<td>-.05</td>
</tr>
<tr>
<td>I wished that something bad happen to my organization.</td>
<td>-.01</td>
<td>.99</td>
</tr>
<tr>
<td>I'm going to get even of my organization.</td>
<td>.01</td>
<td>.63</td>
</tr>
<tr>
<td>I want to hurt the organization.</td>
<td>.02</td>
<td>.93</td>
</tr>
</tbody>
</table>

Eigenvalue: 3.15 | 2.45  
% variance explained: 45.06 | 34.99

*Note.* Boldface values indicate high factor loadings.
Table 4

Comparison of alternative models against the hypothesized measurement model:

Confirmatory factorial analyses (CFA) fit indexes

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$\Delta \chi^2$ (vs. 1)</th>
<th>CFI</th>
<th>RMSEA</th>
<th>SRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hypothesized 6 factor measurement model</td>
<td>609.62</td>
<td>445</td>
<td></td>
<td>.96</td>
<td>.04</td>
<td>.05</td>
</tr>
<tr>
<td>2. Alternative 7 factor model $^a$</td>
<td>831.48</td>
<td>446</td>
<td>222.24**</td>
<td>.90</td>
<td>.06</td>
<td>.15</td>
</tr>
<tr>
<td>2. Alternative 4 factor model $^b$</td>
<td>665.86</td>
<td>450</td>
<td>56.24**</td>
<td>.95</td>
<td>.05</td>
<td>.06</td>
</tr>
<tr>
<td>3. Alternative 2 factor model $^c$</td>
<td>1718.42</td>
<td>459</td>
<td>1108.80**</td>
<td>.68</td>
<td>.11</td>
<td>.11</td>
</tr>
<tr>
<td>4. Alternative one-factor</td>
<td>2498.17</td>
<td>461</td>
<td>1888.55**</td>
<td>.48</td>
<td>.14</td>
<td>.15</td>
</tr>
<tr>
<td>5. Common method factor 7-factor model</td>
<td>559.00</td>
<td>414</td>
<td>-50.62**</td>
<td>.96</td>
<td>.04</td>
<td>.04</td>
</tr>
</tbody>
</table>

Note. ** $p < .01$  $^a$ Equating civic virtue and altruism (i.e., organizational citizenship behaviors) as separated dimensions;

$^b$ Equating in-role performance and organizational citizenship behaviors; $^c$ Equating in-role performance and organizational citizenship behaviors; and, psychological contract breach, emotional exhaustion, forgiveness, and revenge
Table 5

Bootstrapping Results

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Mediator</th>
<th>Outcomes</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Emotional Exhaustion</td>
<td>In Role Performance</td>
<td>OCB</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B(SE)</td>
<td>t</td>
<td>95%CI</td>
<td>B(SE)</td>
<td>t</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.01</td>
<td>-.45</td>
<td>[-.03, .01]</td>
<td>-.01</td>
<td>-1.39</td>
</tr>
<tr>
<td>Gender</td>
<td>.09</td>
<td>.61</td>
<td>[-.21, .39]</td>
<td>-.01</td>
<td>-1.0</td>
</tr>
<tr>
<td>Tenure</td>
<td>.00</td>
<td>-.20</td>
<td>[-.02, .01]</td>
<td>.10</td>
<td>1.03</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attainment</td>
<td>.01</td>
<td>-.80</td>
<td>.01</td>
<td>.57</td>
<td>.02</td>
</tr>
<tr>
<td>AOC (mediator)</td>
<td>.07</td>
<td>.86</td>
<td>[.09, .23]</td>
<td>.09</td>
<td>.12</td>
</tr>
</tbody>
</table>

**Main Effects**

| | PCB | Forgiveness | Revenge |
| | .22 | -.13 | .19 |
| (SE) | (.07) | (-.06) | (.11) | | | | |
| | 3.27** | | |
| | | [.09, .37] | | | | |

**Interaction Terms**

| | PCB x Forgiveness | PCB x Revenge |
| | -.22 | -.31 |
| | -.20* | -.23 |
| (SE) | (.06) | (.14) | | | | |
| | | | |
| | | [.01] | | | | |
| | | [.25] | | | | |

**Mediators**

| Emotional Exhaustion | - .13 | - [-.35, -.16] | - [-.28, -] |
| Exhustion | (.05) | 2.03* | .01 | (.06) | 2.56* .04 | |

Note. * p<.05 ** p<.01. PCB - Psychological Contract Breach; OCB - Organizational Citizenship Behaviors; AOC – Affective Organizational Commitment; CI - Confidence Interval
Forgiving is Good for Health and Performance: How Forgiveness Helps Individuals Cope with the Psychological Contract Breach

Highlights

x Emotional exhaustion mediates the breach-performance relationships.

x Forgiveness moderates the relationship between breach and emotional exhaustion.

x The moderating effect spreads to the indirect relationships of breach to outcomes.