

## Perception of organizational politics, psychological safety climate, and work engagement: A cross-level analysis using hierarchical linear modeling

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**Título:** Percepción de las políticas organizacionales, clima de seguridad psicológica y compromiso con el trabajo: Un análisis cruzado usando modelos jerárquicos lineales.

**Resumen:** El propósito de esta investigación fue probar empíricamente la hipótesis de que el clima de seguridad psicológica de la organización y la percepción de las políticas de la organización predicen hasta qué punto los empleados se sienten comprometidos con su trabajo. El uso de modelos jerárquicos lineales y los datos recopilados de 1,244 empleados en 64 organizaciones mostraron que el clima de seguridad psicológica a nivel organizativo y la percepción de la política organizacional a nivel de los empleados predijeron el compromiso con el trabajo de los empleados. También hubo una inesperada interacción significativa entre los niveles, de modo que el efecto negativo de la percepción de las políticas organizacionales se amplificó en organizaciones con un clima de seguridad psicológica positivo. En otras palabras, la seguridad psicológica organizacional beneficia más el compromiso de los individuos cuando ellos perciben la existencia de políticas organizacionales bajas. Los resultados ofrecen información sobre los mecanismos por los cuales el contexto organizativo percibido puede influir en el compromiso laboral de los empleados y resaltar la importancia de la coherencia organizativa percibida en la promoción del compromiso laboral dentro de su organización.

**Palabras clave:** Políticas organizacionales; Compromiso de los empleados; Clima organizacional; Análisis multinivel.

**Abstract:** The purpose of this research was to empirically test the hypothesis that the organizational psychological safety climate and the perception of organizational politics predict the extent to which employees feel engaged in their work. Using hierarchical linear modeling and data collected from 1,244 employees in 64 organizations, organizational level psychological safety climate and employee-level perception of organizational politics predicted employee work engagement. There was also an unexpected significant cross-level interaction, so that the negative effect of the perception of organizational politics was amplified in organizations with a positive psychological safety climate. In other words, organizational psychological safety benefits the work engagement of individuals more when they perceive the existence of low organizational politics. The results offer insight into the mechanisms by which the perceived organizational context may influence employees' work engagement and highlight the importance for the perceived organizational consistency in the promotion of work engagement within their organization.

**Keywords:** Organizational politics; Employee engagement; Organizational climate; Multilevel analysis.

### Introducción

Work engagement is a construct in the field of positive organizational psychology and has increasingly attracted the attention of researchers in the area (Bakker & Albrecht, 2018; Knight, Petterson, & Dawson, 2019). Studies have demonstrated that more engaged individuals have higher levels of wellbeing (Bakker & Oerlemans, 2011), revealing better health (Seppälä et al., 2012), greater positive emotions experience (Bakker, Demerouti, & Sanz-Vergel, 2014) and greater opening to new experiences (Fredrickson, 2001).

Work engagement also entails consequences for the organization. Research evidences that engaged individuals are more productive and perform better (Bakker & Bal, 2010; Halbesleben & Wheeler, 2008; Salanova, Agut, & Peiró, 2005), as well have more creative ideas and are more likely to innovate (Gawke, Gorgievski, & Bakker, 2017; Orth & Volmer, 2017). This enhances the organizational performance

thus producing higher financial returns (Albrecht, Bakker, Gruman, Macey, & Saks, 2015; Schneider, Yost, Kropp, Kind, & Lam, 2017; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009), greater client satisfaction/loyalty (Harter, Schmidt, & Hayes, 2002; Salanova et al., 2005), besides low rates of absenteeism and turnover (Harter et al., 2002; Schaufeli, & Bakker, 2004). On accounting of these consequences, managers and researchers have worked to deepen the study of the factors that can condition the development of individuals' greater engagement in their work (Bakker et al., 2014).

The predictors of work engagement have been frequently classified as situational (job demands and resources) and individual (personal resources) (Bakker et al., 2014). Concerning job resources, different studies indicate that resources like career and development opportunities (Crawford, LePine, & Rich, 2010) and leadership and autonomy (Christian, Garza, & Slaughter, 2011), for example, are positive predictors of work engagement.

Researchers have also taken interest in the nature of the organizational resources that affect the engagement (Kahn, 1990; Albrecht et al., 2015; Albrecht, Breidhal, & Marty, 2018; Idris, Dollard, & Tuckey, 2015). One of these resour-

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ces is the psychological safety climate, which has been associated to positive outcomes at work, such as voice behaviors, learning and creativity at work and team performance (Detert & Burris, 2007; Edmondson, 1999; Kark & Carmeli, 2009). However, this phenomenon received relatively little attention in the literature despite its consequences (May, Gilson, & Harter, 2004), specially in its relationship with work engagement (e.g., Kark & Carmeli, 2009; Kirk-Brown & Van Dijk, 2011).

Turning to job demands, studies have shown that they have positive and negative relations with engagement. Work overload (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007a), time pressure (Schaufeli, Taris, & van Rhenen, 2008) and the levels of responsibility at work (Crawford et al., 2010) have shown positive relations with this phenomenon. On the other hand, perception of organizational politics (Crawford et al., 2010), role conflict and bias, as well as the clients' emotional demands (Hakanen & Roodt, 2010) constitute negative predictors of work engagement.

Perceptions of organizational politics represent a strong reality in the work environment (Cropanzano, Howes, Grandey, & Toth, 1997) and pose a potential threat to the organization's efficiency and general efficacy (Kacmar, Bozeman, Carlson, & Anthony, 1999). Individuals who perceive the existence of organizational politics experience negative outcomes, such as low satisfaction levels and work commitment and higher stress levels (Atinc, Darrat, Fuller, & Parker, 2010; Bedi & Schat, 2013; Vigoda-Gadot & Talmud, 2010). Despite its importance in the organizational context, perception of organizational politics has not so far been sufficiently explored in terms of its consequences (Kacmar et al., 1999), specially concerning its association with engagement (e.g., Kane-Frieder, Hochwarter, & Ferris, 2014a; Landells & Albrecht, 2019).

Thus, it is observed that both the perception of organizational politics and the psychological safety climate reflect important aspects of the work environment. Research on their effects on work outcomes, specially on workers' engagement, is still scarce and has predominantly been executed independently. In addition, research aimed at jointly investigating the effects of individual and organizational variables for work engagement remains scarce (Schaufeli & Taris, 2014). Therefore, one of the objectives of this study was to investigate the conjoint effects of the psychological safety climate and the perception of organizational politics on workers' engagement.

If the stress caused by organizational politics perceptions is strong enough, it may diminish the motivational state that characterizes work engagement. Thus, we need to obtain a deeper understanding not only of employees' negative response to organizational politics perceptions, materializing in reduced engagement, but also of how this harmful effect could be buffered.

According to the Job Demands–Resources (JD-R) theory, adverse work conditions have a negative impact on work behaviors, but relevant resources can attenuate this

process (Bakker & Demerouti, 2018). When employees believe that decision making in their organization is mainly political, they usually become anxious (Ferris & Kacmar, 1992), a condition that can drain their energy and cause a diminishment of their engagement at work. However, this negative relationship between organizational politics perceptions and work engagement might be less pronounced when employees feel that their organization is a safe place where to express their feelings without fear of negative consequences (Edmondson, 2003), and, therefore, they feel more energized to accomplish their tasks. Consequently, another objective of the study was to investigate the moderating role of the psychological safety climate in the relationship between perceptions of organizational politics and workers' engagement. This responds to the demand for applying contingency approaches to study organizational politics perceptions outcomes (Chang, Rosen, Siemieniec, & Johnson, 2012; Lee & Peccei, 2011).

The study contributes to the literature on work engagement in different ways. First, in order to understand the antecedents of the construct, we sought to integrate an individual predictor (perception of organizational politics) and an organizational predictor (psychological safety climate). Second, when investigating the effects of the interaction between organizational politics perceptions and the psychological safety climate at the secondary level, an additional perspective was offered on the prediction of work engagement at the individual level. Thus, the impact of the psychological safety climate on engagement was tested through a cross-level focus, and showed that the organizational context can interfere in the expression of individual differences, thus offering an important evidence on the value of a cross-level approach to understand work engagement. The theory underlying work engagement (JD-R) deals essentially with an individual approach but has also been applied at higher aggregation levels (Bakker & Demerouti, 2017; Schaufeli & Taris, 2014). Thus, the study adds to the emerging interest in cross-level influences on organizational behavior, providing further evidence on the need to consolidate this approach. Third, the study also intended to extend the empirical findings on engagement in Brazilian samples; these findings are still incipient (see, for example, Siqueira, Martins, Orengo, & Souza, 2014), and should certainly allow the acquisition of further knowledge on positive attitudes and outcomes in the job framework and the future development of organizational practices, which can be useful for Brazilian organizational managers.

### Work engagement and psychological safety climate

Work engagement is a work-related positive and fulfilling mental state, characterized by vigor, dedication and absorption (Bakker, Schaufeli, Leiter, & Taris, 2008; Schaufeli, Salanova, González-Roma, & Bakker, 2002). Vigor refers to high levels of energy and mental resiliency while at work, the desire to make efforts on the job and to persist, even when

facing difficulties. Dedication is a sense of meaning, enthusiasm, inspiration, pride and challenge. Therefore, it goes beyond the concept of work involvement, comprising cognitive and affective dimensions. Absorption is related to the individual's complete concentration on work, which makes time go by quickly without the individual noticing it, and which makes him/her avoid disconnecting from what he/she is doing (Schaufeli et al., 2002).

The JD-R theory has served as the main reference model for research on work engagement. Initially developed by Demerouti, Bakker, Nachreiner and Schaufeli (2001), it has gone through a lot of refinements (Bakker & Demerouti, 2007; 2014; 2017; 2018; Schaufeli & Taris, 2014). The theory focuses on the processes through which the job demands and resources influence the development of work engagement.

According to this theory, all job characteristics can be classified into two broad categories: job demands and job resources (Bakker & Demerouti, 2017; Demerouti et al., 2001; Schaufeli & Bakker, 2004). Job demands are the physical, psychological, and social/organizational aspects of the job that require physical or mental effort. They are thus associated with an energy resources depletion process which, in the longer run, may give rise to job strain and health complaints. Job resources, on the other hand, are the physical, psychological, and social/organizational aspects of the job that fulfill basic human needs, stimulating personal growth and accomplishment. They are thus associated to a motivational process that gives rise to work engagement.

Job demands and job resources are therefore responsible for two substantially independent processes. While job demands engender a health impairment process leading to negative outcomes such as burnout, job resources promote a motivational process leading to positive outcomes such as work engagement (Bakker & Demerouti, 2014). In other words, job demands have detrimental effects on employee's health and well-being, whereas job resources have beneficial effects. In this sense, job resources are the most important predictors of engagement at work (Bakker & Demerouti, 2017).

The psychological safety climate is considered to be an organizational resource because it refers to the individual's belief that he is capable of showing and expressing himself without fear of negative consequences in the company (Kahn, 1990). Individuals feel safe when they perceive that expressing themselves sincerely in the work environment will not cause retaliations.

According to McCaughy (2010), the construction of the safety climate is a psychological interpretation of an employee's perception of his workplace in terms of work safety. Thus, the safety climate reflects the relationship between the employees' perception and the work environment and serves as an antecedent for the worker's subsequent affective states, behavior in the workplace and organizational and individual outcomes.

Some studies suggest that the psychological safety clima-

te can exist at the individual level (Ashford, Rothbard, Piderit, & Dutton, 1998; Detert & Burris, 2007) and at the group level (Edmondson, 1999). Hence, organizational climates have also been proposed as collective phenomena, although they are based on individual perceptions (Kuenzi & Schminke, 2009). In this way, psychological safety can be approached as an individual, as a team and as an organizational phenomenon (Edmondson & Lei, 2014).

Research results have shown that psychological safety contributes to performance in terms of creativity and learning (Edmondson, 1999; Kark & Carmeli, 2009; Kessel, Kratzer, & Schultz, 2012) and to voice behaviors (Detert & Burris, 2007). A positive safety climate, in which the employees perceive that safety is a priority and that the managers make efforts in this field, can also increase the organizational workers' feelings of commitment and satisfaction, thus influencing the individual's behavior (Morrow & Crum, 1998). Recently, the psychological safety climate was also positively associated with job crafting behaviors (Plomp, Tims, Khapova, Jansen, & Bakker, 2019).

Kahn (1990) argues that certain psychological conditions, such as safety, lead to the employees' engagement. Thus, individuals demonstrate greater engagement when they feel psychologically safe and can act without fear of negative consequences for their self-image, career or status (Kahn, 1990). In line with these arguments, Kark and Carmeli (2009), in one of the only studies to date about those relationships, observed that the psychological safety climate was positively associated to vitality, which is conceptually similar to work engagement, while Kirk-Brown and Van Dijk (2011) found that the psychological safety climate was positively associated to work engagement. More recently, Lee and Ok (2015) observed that when employees believe that their organization provides a reliable and predictable working environment where their performance and conduct do not create risk to the intergroup dynamics, they are more likely to become engaged. Therefore, the following research hypothesis was raised:

H1: Organizations with a higher psychological safety climate will have employees who report higher levels of work engagement than organizations with a lower psychological safety climate.

### **Work engagement and perception of organizational politics**

Since its initial proposition, the JD-R theory has gone through expansions, leading to many studies. One of these refinements is the classification of the demands into obstacles and challenges. The latter refer to aspects of the job context that, although stressful, contribute to the individual's personal growth and attainment of future gains. The obstacle or hindering demands, in turn, refer to stressful aspects of the work environment that tend to impede personal growth, learning and the accomplishment of objectives (Crawford et al., 2010). Challenge demands are the most im-

portant predictors of work engagement, while obstacle demands are the most important predictors of burnout (Crawford et al., 2010).

The perception of organizational politics in the organization can be considered a hindering demand because it demands physical and/or psychological efforts by the employees, resulting in negative attitudes and behaviors and behavioral consequences for psychological health (Bedi & Schat, 2013). This phenomenon refers to behaviors the organization does not endorse, and which entail negative consequences for the organizations and their members. It is characterized by subjective perceptions of the extent to which the work environment features self-servicing to various individuals and groups, to the detriment or at the cost of other individuals or groups (Ferris, Russ, & Fandt, 1989), without taking into account the well-being of the stakeholders (Kacmar & Baron, 1999). Work environments perceived as being dominated by organizational politics are characterized by a high degree of bias and uncertainty, competition over limited resources, allocation of rewards based on non-objective criteria and self-promotion behaviors (Ferris et al., 1989; Kacmar et al., 1999).

Hence, the perceived political games in organizations refer to the individual's personal assessment based on what he/she experiences in the work environment. Although these perceptions may not reflect the objective reality, they can influence the individuals' cognitive, emotional and behavioral reactions in his/her work organizations (Ferris et al., 1989).

The perceived political games have been associated with negative outcomes in the job context, revealing their dysfunctional role (Ferris & Judge, 1991; Kacmar & Baron, 1999). Meta-analytic evidences (Chang, Rosen, & Levy, 2009; LePine, Podsakoff, & LePine, 2005) indicate that the perceived existence of frequent political behaviors in the organization is a factor that induces stress. Individuals who perceive higher levels of organizational politics can feel less sure about their position at work and their well-being may be compromised, causing them to experience high levels of psychological tension (Chang et al., 2009; Cropanzano et al., 1997).

Research findings have shown positive associations between organizational politics and burnout, stress at work (Kacmar et al., 1999) and intended turnover (Chang et al., 2009; Miller, Rutherford, & Kolodinsky, 2008). On the other hand, negative associations have been found between the perception of organizational politics and organizational citizenship behaviors (Chang et al., 2009; Chang et al., 2012), organizational commitment (Maslyn & Fedor, 1998; Nye & Witt, 1993; Witt, 1998; Vigoda, 2000; Vigoda-Gadot, Vinarski-Peretz & Ben-Zion, 2003), job satisfaction (Abbas, Raja, Darr, & Bouckennooghe, 2014; Chang et al., 2009; Ferris, Frink, Galang, Zhou, Kacmar, & Howard, 1996; Zhou & Ferris, 1995) and job performance (Vigoda-Gadot & Talmud, 2010). Thus, environment with higher organizational politics usually produces negative images of the organizations, which can entail harmful consequences for work.

More recently, some investigators have empirically examined the relationship between organizational politics perceptions and work engagement (Kane-Frieder, Hochwarter, Hampton, & Ferris, 2014b; Karatepe, 2013; Landells & Albrecht, 2019) and found a negative relationship between these two constructs. Work environments in which individuals experience self-servicing, high degrees of bias, and competition over limited resources (Ferris et al., 1989) are therefore associated negatively with work engagement. Thus, perceptions of organizational politics consist in a hindrance demand and are typically viewed as obstacles that thwart gains and accomplishment, because they encompass the assumption that they are dependent on external and uncontrollable factors, which can result in a sense of being overwhelmed (Vujčić, Oerlemans, & Bakker, 2017). So, when employees feel that organizational decision making is dominated by self-serving attitudes and behaviors, they usually feel high levels of anxiety, frustration and anger (Ferris & Kacmar, 1992). These negative perceptions of organizational politics and the relevant feelings usually drain employees' energy and diminish the likelihood of feeling engaged at work. Therefore, a negative association is expected between perception of organizational politics and work engagement. Hence, the following hypothesis was formulated:

H2: Employees who perceive the existence of higher levels of organizational politics will report lower levels of work engagement compared to employees who perceive the existence of lower levels of organizational politics.

### **The moderating role of the psychological safety climate**

In addition to the main effects of resources and demands on employees' well-being, the JD-R theory proposes an interaction effect between demands and resources, known as the buffering effect (Bakker & Demerouti, 2017). Accordingly, job resources may buffer the negative effect of hindrance job demands on well-being. Thus, job resources give employees tools to cope with the stressors at work and to recover the energies they lost through the job demands. Thus, when employees have more resources to cope with their job demands, the latter detrimental effect on work engagement is mitigated. The combination of high demands with high resources characterizes the so-called active jobs that challenge employees to learn new things on the job and motivate them to use new behaviors (Bakker & Demerouti, 2014). Different studies have found evidence for this buffering hypothesis, showing that resources play an important motivational role and become particularly useful when needed (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Bakker, Van Veldhoven, & Xanthopoulou, 2010; Hakanen, Bakker, & Demerouti, 2005; Tadic, Bakker, & Oerlemans, 2015; van Woerkom, Bakker, & Nishii, 2016; Xanthopoulou et al., 2007b).

Based on the JD-R theory (Bakker & Demerouti, 2018), we then propose that the psychological safety climate is a job

resource that mitigates the relationship between perceptions of organizational politics and work engagement. Perceptions of organizational politics consist in shared perceptions that the organizational environment is safe for taking risks in the work setting (Edmondson, 1999), allowing self-expression without fear of negative consequences to self-image, status or career (Kahn, 1990) and allowing speaking up (Kessel et al., 2012). Individuals use to evaluate their decisions to take or not actions depending on the particular risks of being hurt in their organizational interpersonal environment (Edmondson, 2003). Thus, an action seen as very unlikely in a certain environment could be seen as very likely in another one. This happens because the psychological safety climate helps employees to overcome their anxiety and to show themselves without fear (Kark & Carmeli, 2009).

In other words, psychological safety climate facilitates the exposure of employees' errors and failures more openly and without fear because they feel they are in a trustful and safe environment (Edmondson, 1999), where they will not be considered ridiculous (Kark & Carmeli, 2009). Besides, their investment in work is considered less risky (Randall, Cropanzano, Bormann, & Birjulin, 1999). Thus, Kiewvitz, Hochwart, Ferris and Castro (2002) argue that in such environment employees engage in tasks that maximize their return, even if their organizations are permeated by a lot of politics. Giving support to these arguments, Kiewvitz et al. (2002), in one of the few studies about the effects of the interaction between psychological safety climate and perceptions of organizational politics on job outcomes, showed that the negative impact of perceptions of organizational politics on commitment, as well as the positive impact of the perception of organizational politics on turnover intent, was attenuated by a positive psychological climate.

We can then suppose that individuals who perceive their organizational environment as safe, that is, who feel that the level of their organization's psychological safety climate is high, would be more energized and engaged in investing efforts to accomplish their tasks, even when they are in an environment dominated by organizational politics, where they usually feel anxious and frustrated and with their energies drained (Ferris & Kacmar, 1992). On the other hand, when they feel that the level of their organization's psychological safety climate is low and dominated by organizational politics, they would be less prone to be engaged at work. Thus, we propose, on the basis of the JD-R theory that the psychological safety climate acts as a resource that can buffer the negative effect of perceptions of organizational politics on work engagement, that is, psychological safety climate moderates the negative association between the perception of organizational politics and work engagement. Thus, the following hypothesis was raised:

H3: The relationship between the perception of organizational politics and work engagement will be buffered (i.e., smaller) when the organizational psychological safety climate is higher, when compared to lower psychological safety climate.

## Materials and methods

### Participants and Procedures

The investigators contacted about 350 organizations by e-mail. Eighty of them accepted to participate in the study, but only 64 had a sufficient number of respondents to be included in the sample for the purpose of a multilevel research (Mathieu, Aguinis, Culpepper, & Chen, 2012). To be included in the sample, the individual should have been working for at least one year. The respondents were informed that their answers would be kept anonymous.

The participants were contacted by e-mail and through face-to-face interviews. In the on-line application (e-mail), first, the research objectives were briefly described, followed by a link leading directly to the investigation homepage. Participants who indicated that they wanted to answer the questionnaire electronically and return it to the investigators, also received the questionnaire in a Word file. Hence, 936 participants answered the questionnaire electronically, 912 of whom through the link that was provided to them and 17 in a Word file. In the face-to-face interviews, 380 individuals answered the questionnaire. The participants read the instructions and then completed the questionnaire and returned it to the investigators.

The convenience sample included 1,244 Brazilian workers, male and female (58.5% female). The participants' age ranged between 17 and 72 years, with an average age of 36.23 years ( $SD = 9.93$ ). Out of 26 Brazilian States and the Federal District, 21 States participated in the research. Respondents from the State of Minas Gerais (29.9%) stood out. The respondents belonged to 64 different organizations. The average number of individuals per organization was 19.44. Most of the sample reported having a post-graduation degree (65.7%), and teachers represented the most significant part of the sample (28.9%), with 31.9% of the respondents working in the teaching department and 72.1% being affiliated with public organizations. The employees' total experience in the organization ranged between one and 36 years, averaging 6.23 years ( $SD = 6.35$ ), with 17.5% having worked in the organization for at least one year and 47.8% between two and five years having worked for the same organization.

### Instruments

In order to measure the perception of organizational politics, we adapted items from the Perceptions of Organizational Politics scale, developed by Hochwarter, Kacmar, Perrewé and Johnson (2003), answered on a seven-point Likert scale, ranging from one ("never") to seven ("always") ( $\alpha = .85$ ). One item, for example, is: "People do what is best for them and not what is best for the organization".

Work engagement was measured using the short Brazilian version of the Work Engagement Scale (Ferreira et al., 2016), adapted from the Utrecht Work Engagement Scale (UWES) by Schaufeli, Bakker and Salanova (2006). The scale

consists of nine items ( $\alpha = .92$ ), to be answered on a seven-point Likert scale ranging from one (“never”) to seven (“always”). One item, for example, is “My work inspires me”.

The psychological safety climate was measured through three items (Burris, Detert, & Chiaburu, 2008), adapted from Edmondson (1999) and answered on a seven-point Likert scale, ranging from one (“I totally disagree”) to seven (“I totally agree”) ( $\alpha = .93$ ). One item, for example, is “Employees feel safe to voice what they think”.

We controlled for age and education. The educational level was measured on a six-point scale, ranging from 1 (primary education) to 6 (post-graduation).

### Data treatment

The software Mplus, version 7.11 was used to perform the confirmatory factorial analysis and the hierarchical linear modeling (HLM) analyses. The simple slopes were estimated through the site <http://www.quantpsy.org/interact/>, constructing two variables corresponding to a high level and to a low level of the moderating variable which consists in the psychological safety climate.

### Results

To assess the model structure and discriminant validity of the variables, three models were tested: One model with only one general factor covering all items; one two-factor model, being one specific engagement factor and one factor covering all organizational politics and psychological safety climate items (explanatory variables of the model); and one three-factor model. The single-factor model did not adjust to the data ( $\chi^2(\text{gl}) = 3810.4$  (87); TLI = .52; CFI = .60; RMSEA = .19; SRMR = .17) and the fitness of the two-dimensional model was not appropriate either ( $\chi^2(\text{gl}) = 1526.7$  (86); TLI = .81; CFI = .85; RMSEA = .12; SRMR = .09). The three-factor model indicated a good data general fit ( $\chi^2(\text{gl}) = 264.4$  (84); TLI = .98; CFI = .98; RMSEA = .04; SRMR = .03). These results indicate that the research variables have presented discriminant validity. In addition, expanding this discussion, the average variances extracted (AVE) were calculated; they equaled .64, .60 and .81 for the factors work en-

gagement, perception of organizational politics and psychological safety climate, respectively. These AVEs were higher than all determination coefficients (i.e. squared correlations) and represent additional discriminant validity evidence. Table 1 shows the loadings for the final model.

**Table 1.** Standardized loadings for Engagement, Organizations Politics, and Safety Climate Latent Variables (final model).

Dimension / Item	Loading	SE
1. Engagement		
item1	0.79	0.01
item2	0.86	0.01
item3	0.84	0.01
item4	0.74	0.02
item5	0.85	0.01
item6	0.86	0.01
item7	0.66	0.02
item8	0.80	0.02
2. Organizational Politics		
item1	0.71	0.02
item2	0.86	0.02
item3	0.82	0.02
item4	0.71	0.02
3. Safety climate		
item1	0.81	0.01
item2	0.92	0.01
item3	0.96	0.01

After ensuring the discriminant validity of the scores, we aimed to assess the possibility of adding the psychological safety climate variable to the organizational analysis level. The mean *rvb* equaled .25, ranging between 0 and .84, with 9.37% surpassing .6. This indicates that 9.37% of the workers presented similar perceptions regarding the psychological safety in the organization. In addition, the estimated intraclass correlation coefficient ICC1 was equal to .11, and the estimated ICC2 was equal to .70. The ICC2 coefficients can be interpreted as the precision of the aggregated scores. An ICC2 of .10 indicates a medium effect, while a coefficient greater than .70 is recommended (Nunnally & Bernstein, 1994). Table 2 presents the means, standard deviations, reliability and correlations of the measures and variables used in the study.

**Table 2.** Means, standard deviations, reliability and correlations.

Individual variables (Level 1)	M	SD	1	2	3	4
1. Work engagement	4.60	1.32	(.92)			
2. Age	36.32	9.93	.18***			
3. Education			.10***	.23***		
4. Perception of organizational politics	3.85	1.41	-.19***	-.06*	-.01	(.85)
Organizational Variables (Level 2)						
1. Work engagement (Random intercepts)				.65***		
2. Psychological safety	4.12	.75		(.92)		

Note. Cronbach's Alphas are presented in parentheses; Number of employees = 1,244; Number of organizations = 64; \*\*\* $p \leq .001$ , \*\* $p \leq .01$ , \* $p \leq .05$ .

Table 3 summarizes the results of the HLM analyses, based on the random regression coefficient (or slope as outcome) model and implemented in MPlus. The research hypotheses indicate that part of the variance in work engagement can be explained at the individual and organizational levels. Thus, first, a null model was tested in which variance

in work engagement was separated per analysis level. In Table 3, in the empty model, significant variance in engagement is found at both analysis levels. Also in the empty model, the ICC coefficient indicated that 7% of the variance in the work engagement can be attributed to the organizational level.

**Table 3.** Hierarchical Linear Modeling Results.

Parameters	Model 1	Model 2	Model 3		Model 4	
	Empty Model	Control Variables	Level 1 and 2 predictors		Cross-level	
	Estim (EP)	Estim (EP)	$\beta$	Estim (EP)	$\beta$	Estim (EP)
<i>Level 1</i>						
Engagement Variance	1.81 (.07)*	1.74 (.07)*		1.69 (.07) *		1.67 (.07)*
Age → Engag		.02 (.01)*	.17*	.02 (.04) *	.16*	.02 (.01)*
Education → Engag		.11 (.04)*	.09*	.08 (.04) *	.06	.08 (.04)*
Perc org pol → Engag				-.18 (.03)*	-.18*	Rand Par
Correl Age (↔) Education		2.54 (.33)*	.23*	2.54 (.33)*	.23*	2.54 (.33)*
<i>Level 2</i>						
Mean Engag (Random intercepts)	4.71 (.06)*	4.14 (.23)*		4.29 (.22)*		4.23 (.22)*
Engagement Variance	.14 (.05)*	.14 (.05)*		.07 (.03)*		.06 (.03)*
Psyc saf clim → Engag				.30 (.07)*	.65*	.29 (.07)*
<i>Level 1 X Level 2 (cross-level)</i>						
Intercept (Perc org pol → Engag)						-.18 (.03)*
Psyc saf clim → slope (Perc org pol → Engag)						-.09 (.04)*
Variance slope (Perc org pol → Engag)						.01 (.01)
ICC	.07	.08		.06		.06
$\Delta R^2$ w				.03		
$\Delta R^2$ b				.50		
AIC	4,325.67	17,046.64		16,975.75		16,974.21

Note. Number of workers = 1.244; Number of organizations = 64; \*  $p \leq .01$ ; Coefficients between parentheses correspond to the standard error of the estimation. Rand par = randomized slope for the second analysis level.  $R^2$  refers to the percentage explained by the model, through the control of the variables age and education. Although the secondary-level variance of the randomized parameter between perceived organizational political and engagement was low (.009 – coefficient not presented in the table), the psychological safety climate can explain 44.4% of this variable.

In model 2 (Table 3), the control variables age and education were included. These variables presented a significant effect on engagement at the individual level. In model 3, the effect of the predicting variables perception of organizational politics and psychological safety climate was tested. This model was used to test Hypotheses 1 and 2 and suggests that the psychological safety climate presented significant effects (.30,  $p \leq .01$ ) on organizational engagement, which allowed confirmation of Hypothesis 1, while the perception of organizational politics was negatively associated with work engagement (-.18,  $p \leq .01$ ), which confirms hypothesis 2.

In model 4, the regression parameter between perception of organizational politics and work engagement at the individual level was randomized for the organizational analysis model. Thus, in Table 3, the intercept of this parameter, equal to -.18, ('intercept Perc Org Pol → Engag') refers to the mean effect of the perception of organizational politics on engagement. In addition, we aimed to explain the variability in this regression parameter through the psychological safety climate variable. In other words, we aimed to test Hypothesis 3 about the moderating effect of the psychological safety climate on the relationship between perception of organizational politics and work engagement. This effect was

significant (-.09,  $p \leq .01$ ), but negative, showing that the psychological safety climate variable has contributed to enhance the negative relationship between the perceptions of organizational politics and work engagement. Therefore, Hypothesis 3 was not supported.

It is highlighted that the parameters of model 4, presented in Table 3, are not standardized and therefore cannot be mutually compared in terms of the effect size. To support the interpretation of the effect sizes, Figure 1 presents the model relation between the variables and the standardized regression parameters. The results indicate that, at the individual analysis level, the effect of the perception of organizational politics on engagement is small ( $\beta = -.18$ ). Nevertheless, the psychological safety climate can largely explain the random part of this parameter at the organizational level ( $\beta = -.68$ ). It is highlighted that the beta of the moderation was standardized, considering the random slope variance and, therefore, it is not included in the same beta measure of the mean effect between perception of organizational politics and engagement. In other words, the betas -.18 and -.68 cannot be directly compared in this case.

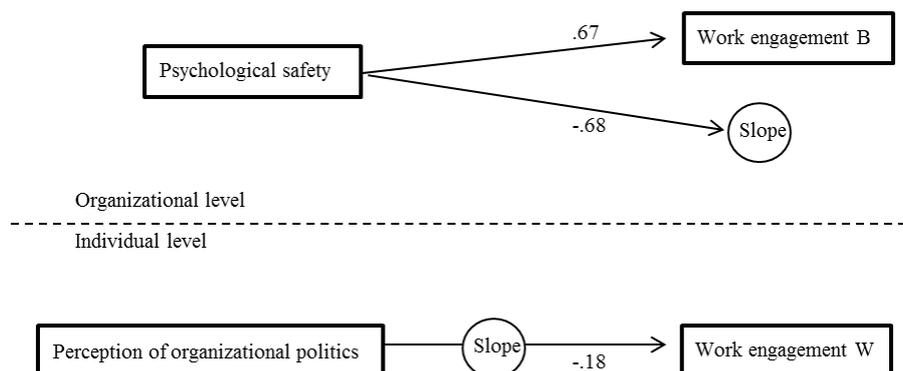


Figure 1. Moderating effect.

In order to enhance the understanding about the interpretability of the moderating effects, we aimed to test the effects of simple slopes using the procedures indicated by Preacher, Curran and Bauer (2006). These effects indicated that, in organizations with high levels of psychological safety climate, the negative magnitude of the association between the perceived organizational politics and work engagement is higher ( $b = -.24$ ,  $EP = .04$ ,  $p \leq .01$ ) than in organizations with low levels of psychological safety ( $b = -.12$ ,  $EP = .03$ ,  $p \leq .01$ ). To classify the institutions regarding low and high levels of psychological safety, the cut-off points  $-1$  SD and  $+1$ SD were used.

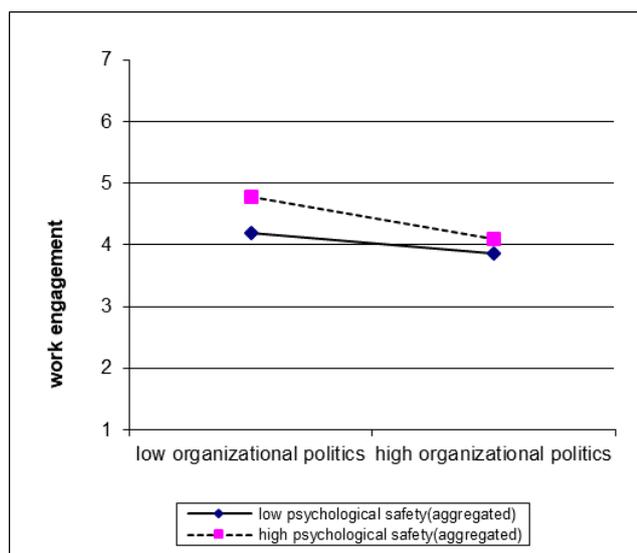


Figure 2. Moderating effect of psychological safety climate in the relation between organizational politics and work engagement.

In Figure 2, the relationship between work engagement and perception of organizational politics as moderated by the psychological safety climate is displayed. Considering that the psychological safety climate is an interval variable, to facilitate the chart interpretation, this variable was categorized in low and high levels. Therefore, the cut-off points of one standard deviation were considered. In the figure, we

perceive a more enhanced drop in engagement in relation to the increase in organizational politics for organizations with a high psychological safety climate. Considering that the perception of organizational politics is negative for engagement (as a function of the measure of the variable used in this study), the moderating effect of the psychological safety climate can also be interpreted as a booster of this relationship.

### Discussion

Based on the JD-R theory (Bakker & Demerouti, 2017), we tested three of its main assumptions: the main effect of a job resource, the main effect of a job demand and the buffer effect of a job resource. The direct relationship between the aggregated psychological safety climate and the engagement was an important finding, which justifies the use of a multi-level study. As predicted, a positive relationship between psychological safety climate and work engagement was found. This mimics findings in previous research about the positive effects of psychological safety climate on positive work attitudes and behaviors, specifically work engagement (Kessel et al., 2012; Kirk-Borwn & Van Dijk, 2011; Lee & Ok, 2015; Plomp et al., 2019). As employees estimate the perceived costs and risks to expose themselves in an uncertainty environment (Kark & Carmeli, 2009), psychological safety climate facilitates their engagement because it conveys them messages that they are in a trustful and safe setting (Edmonson, 1999; Kahn, 1990), where they can be energetic and invest efforts in their tasks without risks (Randall et al, 1999).

Our second prediction was also supported, since a direct negative relationship between organizational political perceptions and work engagement was found. These findings are similar to those of previous research about the harmful effects of perceptions of organizational politics on positive work attitudes and behaviors, including work engagement (Abbas et al., 2014; Chang et al., 2012, Kane-Frieder et al., 2014b; Karatepe, 2013; Landells & Albrecht, 2019). Thus, the perceptions of self-serving behaviors and politically based decision making in the organization cause feelings of frustration and anger (Ferris & Kacmar, 1992) which deplete

employees' energy levels and diminish their engagement. In other words, engaged individuals perceive organizational politics as hindrance demands (Crawford et al., 2010) that represent barriers to their personal goal attainment and impede the likelihood that their investments will be rewarded (Kane-Frieder et al., 2014a). Our results support earlier research findings about the relationship between work resources, work demands and engagement (Bakker et al., 2014), at the individual and organizational levels (Schaufeli & Taris, 2014).

We also investigated the cross-level interaction between the perception of organizational politics and organizational characteristics, which was neglected in earlier studies (Kiewitz et al., 2002). Contrary to our prediction, however, no support was found for the buffer effect of psychological safety climate on the relationship between organizational political perceptions and work engagement. Our results were therefore different from the previous ones observed in the context of the JD-R theory (Bakker et al., 2007; Hakanen et al., 2005; Xanthopoulou et al., 2007b, where this buffer effect has been observed.

In fact, we found a significant booster effect of psychological safety climate on those relationships. In other words, we showed that psychological safety climate moderated the association between the perception of organizational politics and work engagement, enhancing the negative effect of organizational political perceptions on work engagement. So, when the environment of the organization was perceived as being safer, the organizational life was perceived as more political, which in turn caused less employees' engagement. In other words, organizations that allow individuals to talk openly about what they think increase the individual and negative effect of the perception of organizational politics on the work engagement.

Although the JD-R theory postulates a buffer effect of the job resources on the relationships between job demands and well-being (Bakker & Demerouti, 2017); such effect was not always evident. Thus, in a longitudinal investigation with samples composed of Australian and Chinese employees, Brough et al. (2014) found that only one out of 16 interaction tests were significant.

In addition, the JD-R theory does not postulate a boosting effect of the job resources on the relationships between job demands and work engagement, since it considers that job resources are always beneficial (Bakker & Demerouti, 2017). However, the possibility that job resources are not always beneficial, since their effects depend on the context, has recently begun to be discussed in the literature (Van Veldhoven, van den Broeck, Daniels, Bakker, Tavares & Ogbonnaya, 2019). In this connection, Schaufeli and Taris (2014) contend that a resource can either be perceived as threatening, turning to be a demand, or as an opportunity for learning and development.

It is, therefore, possible that in the present study, the perceptions that organization is safe have facilitated the practice of organizational politics, in so far as people felt safe and confident in adopting more self-serving attitudes and beha-

viors. This may have changed employees' perceptions that the organization was a safe place to the perceptions that their organization was a place dependent on external and uncontrollable factors (Vujčić et al., 2017), a fact that probably caused anxiety, frustration and anger (Ferris & Kacmar, 1992) and contributed to the depletion of energy and to the reduction of work engagement. In other words, it is possible that the psychological safety climate, in the presence of organizational politics, was perceived as an additional hindrance demand and not as a resource, which enhanced the negative effect of organizational politics perceptions on work engagement. Therefore, these results can be viewed as an indication that "we need to have the right resources and the right time to do the right thing" (Van Veldhoven et al., 2019, pg. 12).

### Theoretical implications

The outcome of our study makes several important contributions to the existing literature and broadens our understandings on the conditions that may foster or undermine employees' work-related well-being. First, our results brought additional evidence on the direct association between job demands and resources on employees' health and well-being. Although the perception of organizational politics significantly influences the work engagement, little research has been conducted on how these behaviors affect engagement (Landells & Albrecht, 2019). Hence, the study provides empirical evidence on the negative association between the perception of organizational politics and work engagement, demonstrating that, when the individuals perceive self-servicing behaviors within the organizations, their engagement level will drop. It was possible to understand this construct as a hindering demand since it requires efforts by the individuals and hinder their development. On the other hand, the psychological safety climate was understood as an organizational resource that stimulates personal growth, learning, and development (Bakker et al., 2007).

Second, our investigation is in line with the recent climate studies that have used a multilevel approach (Dollar & Bakker, 2010; Idris et al., 2015). Essentially, the JD-R model presents an individual-level approach and the majority of the investigations conducted under its scope were performed at the individual level (Bakker & Demerouti, 2017). However, it has also been applied to higher aggregation levels (Schaufeli & Taris, 2014). In addition, the integration of multilevel constructs in the engagement investigations can contribute to the development of more complex models (Bakker & Demerouti, 2017). Although the ICC indicated a medium effect, the results indicate an association between the moderating variable of the organizational level (psychological safety climate) and the dependent variable at the individual level (work engagement). In other words, even if the variable may not refer exactly to an organization phenomenon, the individuals' average perception of an organization's psychological safety climate influences work engagement. Thus, we advan-

ced the literature on the JD-R theory by investigating an organizational resource as predictor of individual processes, using a more complex model.

Finally, and perhaps the most important implication of the findings is that the organizational conditions play an important role on how people interpret the environment and its relationships in the job context, thus developing behaviors at work. In that sense, this study theoretically developed the cross-level interaction effect on work engagement by integrating the constructs of perception of organizational politics and psychological safety climate. In addition, the investigation empirically demonstrated the moderating role of the psychological safety climate on the relationship between the perception of organizational politics and engagement at the organizational level in different organizations. In fact, this study is one of the first ones to examine how the psychological safety climate influences the relationship between the perception of organizational politics and work engagement.

Overall, we established a more complete picture of the contingency approaches to the study of perceptions of organizational politics. In particular, we extended extant literature by specifying the concurrent and cross-level influence of organizational politics perceptions and psychological safety climate on engagement. However, we found no evidence about the proposed buffering effect of job resources (Bakker & Demerouti, 2017). We reveal, on the contrary, the boosting influence of an organization level resource (psychological safety climate) on the likelihood that perceptions of self-serving behavior diminish work engagement. In other words, the findings demonstrate that the detrimental effects of organizational politics on work engagement are stronger in companies with a high psychological safety climate. It seems then that not all job resources are appropriate to deal with job demands (Plomp et al., 2019), considering that they do not always generate positive effects. This indicates the need for additional research that can elucidate the circumstances in which job resources interact with job demands in a positive or negative direction (Van Veldhoven et al., 2019).

### Limitations and future studies

The use of a cross-sectional study in this investigation does not allow determination of the causal link. As the hypotheses were based on theories, however, we believe that the above aspect did not significantly affect the interpretation of the results. Nevertheless, future longitudinal studies are needed to demonstrate the causal link.

Despite the use of self-reported research data collected at a single moment, the moderating effects contributed to minimize the common method variance effects. In an earlier investigation, it was verified that psychological safety can vary significantly among groups within an organization (Edmondson, 1999) but, in this study, the psychological safety as a group variable was not controlled for.

This study used only one obstacle demand. Further studies should include other demands in the investigation mo-

del, such as challenging demands. With regard to the JD-R theory, these studies should include the analyses of the demands and resources' valences, and consider them as threats or opportunities for growth, based on the study context. This investigation did not intend to use personal resources in the model, and this should be reconsidered in future studies, which should focus on the individuals' characteristics and their relationship with work engagement.

Another limitation was the use of a single organizational variable, which contributed to the low ICC. Further investigations should expand studies using variables from the organizational context. The application of the method in the multilevel study sample illustrated that the power to detect significant cross-level interactions was extremely low. The power to detect cross-level interactions largely depends on the magnitude of the cross-level interactions and the standard deviation of the slopes, both alone and in combination. The Level 2 and the mean of the Level 1 sample also play prominent roles in determining the capacity to detect cross-level interactions, both directly and in combination with other factors (Mathieu et al., 2012). Future studies should also measure the perception of political activities with regard to different targets, organizations, supervisors, departments and work groups (in line with Maslyn & Fedor, 1998).

### Practical implications

This study offers practical implications. As the organizations increasingly seek to find strategies to reduce the impact of the perception of organizational politics (Witt, 1998), the chances that workers will develop positive attitudes towards their work activities will increase. Human Resource professionals and managers should promote frequent meeting with their workers and apply other practices that can diminish the detrimental effects of organizational politics perceptions.

The relationship between the perception of organizational politics and work engagement was moderated by the psychological safety climate. Thus, the organizations strongly influence the individual's relationship with his/her work activities, especially in the negative sense. Therefore, ensuring the employees that no self-serving behaviors take place in the organization, mainly in a safe place, can favor work engagement.

### Conclusion

The current study showed that both organizational level psychological safety climate and employee-level perceptions of organizational politics predicted employee's work engagement. Specifically, employees who perceived the existence of less frequent organizational politics behaviors in their organizations and who were employed in organizations with more positive psychological safety climates were more likely to be engaged in their work. There was also a significant cross-level interaction, so that the negative effect of the perceptions of organizational politics was ampli-

fied in organizations with a positive psychological safety climate. These findings offer insights into the mechanisms by which the perceived organizational context may influen-

ce employees' work engagement and entails practical and theoretical implications for the organizational promotion of work engagement.

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