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Yannick Griep<sup>a</sup>, Tim Vantilborgh<sup>a</sup>, Elfi Baillien<sup>b</sup> & Roland Pepermans<sup>a</sup>

<sup>a</sup> Faculty for Psychology and Educational Sciences, Work and Organizational Psychology (WOPs), Vrije Universiteit Brussel, Pleinlaan 2, 1050 Brussels, Belgium

<sup>b</sup> Faculty of Economics and Business, Human Relations Research Group, University of Leuven Campus Brussel, Warmoesberg 26, 1000 Brussels, Belgium

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## The mitigating role of leader–member exchange when perceiving psychological contract violation: a diary survey study among volunteers

Yannick Griep<sup>a\*</sup>, Tim Vantilborgh<sup>a</sup>, Elfi Baillien<sup>b</sup> and Roland Pepermans<sup>a</sup>

<sup>a</sup>Faculty for Psychology and Educational Sciences, Work and Organizational Psychology (WOPs), Vrije Universiteit Brussel, Pleinlaan 2, 1050 Brussels, Belgium; <sup>b</sup>Faculty of Economics and Business, Human Relations Research Group, University of Leuven Campus Brussel, Warmoesberg 26, 1000 Brussels, Belgium

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Several scholars in the field of volunteering emphasized the pivotal role of psychological contract (PC) violation in explaining maladaptive behavioural reactions—such as counterproductive work behaviour (CWB)—of volunteers. Reactions to violation feelings are, however, interrelated and may intensify over time. Extending this dynamic perspective, we introduce momentary leader–member exchange (LMX) as a buffering social resource in the relationship between violation feelings and (1) CWB and (2) the likelihood to perceive a PC breach. Using weekly diary survey data from 247 volunteers (827 observations), we conducted a moderated multilevel zero-inflated Poisson regression analysis. As hypothesized, experiencing feelings of violation during one week related positively to CWB towards the organization (CWB-O), but not to CWB towards individuals (CWB-I) during the next week. Moreover, experiencing violation feelings during one week increased the likelihood to perceive a PC breach during the subsequent week. Finally, experiencing a high-quality LMX relationship effectively mitigated the positive relationship between violation feelings during one week and (1) CWB-O, and (2) the likelihood to perceive a PC breach during the next week. Our study highlights momentary LMX as an effective redressing mechanism in the relationship between violation feelings and undesirable employee outcomes.

**Keywords:** violation feelings; counterproductive work behaviour; leader–member exchange; volunteer; diary study; likelihood

Many nonprofit organizations and social enterprises rely on volunteers—defined as workers (1) performing activities out of free will, (2) in a formal organization, (3) without receiving remuneration, and (4) benefiting others (Mutchler, Burr, & Caro, 2003)—to ensure their daily functioning and delivery of services to society (e.g., Salamon, Sokolowski, & Haddock, 2011). To attain these goals, organizations promise to offer certain inducements—which can be transactional, relational, or ideological in nature—in return for specific contributions by the volunteer (e.g., Vantilborgh et al., 2011). While transactional inducements involve the exchange of economic currency (e.g., improving future prospects in return for being a reliable volunteer), relational inducements involve the exchange of socioemotional currency (e.g., providing a fair treatment in return for being an enthusiastic volunteer; Rousseau, 1990). More recently, Bingham (2005) and Thompson and Bunderson (2003) introduced ideological inducements. These inducements involve the pursuit of a valued cause or principle that is not limited to self-interests of the organization (e.g., providing the opportunity to contribute to the organization’s valued cause or principle

in return for organizational commitment). The exchange of these inducements in return for contributions by the volunteers forms the core of the psychological contract (PC), defined by Rousseau (1989, p. 123) as “an individual’s beliefs regarding the terms and conditions of a reciprocal exchange agreement between that focal person and another party.”

Organizational scholars in the field of voluntary work (e.g., Nichols & Ojala, 2009; Vantilborgh et al., 2011, 2012, 2014) have repeatedly emphasized the pivotal role of the PC as a blueprint that guides a volunteer’s cognitions and behaviours. In particular, they argued that a breach of one or more organizational promise(s) or obligation(s)—termed “PC breach”—evokes an emotional and affective reaction—termed “feelings of violation.” These violation feelings in turn may trigger unfavourable attitudinal (e.g., reduced job satisfaction and organizational commitment) and behavioural (e.g., increased turnover, reduced performance) reactions (for meta-analyses on paid employees, see Bal, De Lange, Jansen, & Van Der Velde, 2008; Zhao, Wayne, Glibkowski, & Bravo, 2007). These attitudinal and behavioural reactions can be

\*Corresponding author. Email: [yannick.griep@vub.ac.be](mailto:yannick.griep@vub.ac.be)

understood along Conservation of Resources Theory (COR; Hobfoll, 2001, 2002). The basic logic of COR is that individuals strive to retain, protect, and accumulate valued personal and environmental resources (e.g., money, social support, safety). Consistent with these arguments, perceiving a PC breach signifies a threat to or loss of resources because one is no longer able to acquire or maintain these valued resources (Restubog, Zagenczyk, Bordia, & Tang, 2013). As one tends to protect or maximize the remaining resources, a perceived or actual loss of resources is the key driver of behavioural and cognitive reactions (Hobfoll, 2001, 2002). By this rationale, volunteers can engage in counterproductive work behaviour (CWB) targeted towards the organization (CWB-O) or to its individual members (CWB-I) (e.g., Robinson & Bennett, 1995) as a reaction to the perceived source of this resource loss (e.g., Bordia, Restubog, & Tang, 2008; Restubog, Zagenczyk, Bordia, Bordia, & Chapman, 2012). These counterproductive behavioural reactions bring about an economic cost between 17.6 (Hollinger & Langton, 2006) and 200 billion dollars (Penney & Spector, 2002) annually. In addition, volunteers can monitor the extent to which the organization delivers other promised inducements in an attempt to protect the remaining resources. Paradoxically, while vigilant monitoring may be intended to protect remaining resources, it has been argued to increase the likelihood to perceive a deviation from what was promised, as a PC breach (Fiske & Taylor, 1984). Consequently, we examine if violation feelings increase the likelihood to perceive new PC breaches.

As volunteers are invaluable to today's civil society and to social enterprises specifically (Salamon et al., 2011), the question arises as to how organizations can effectively redress the harmful consequences of violation feelings. In this respect, several scholars have considered leader-member exchange (LMX) as an important mitigating factor in the relationship between violation feelings and undesirable employee outcomes (e.g., Ng, Feldman, & Butts, 2014; Restubog, Bordia, Tang, & Krebs, 2010; Zagenczyk, Gibney, Kiewitz, & Restubog, 2009). At a trait level, LMX refers to the overall quality of the reciprocal exchange relationship between an immediate supervisor (i.e., volunteer coordinator) and his/her subordinates (i.e., volunteers) (Graen & Uhl-Bien, 1995). While LMX has often been treated as fairly stable over time, recent evidence (e.g., Li & Song, 2014) questions this stability. Much in line with the distinction between trait and state personality, LMX is not as stable over time as previously assumed. Both cognitive (e.g., evaluations of joint interactions) and affective (e.g., trickle down effect of positive emotions) processes were found to influence one's momentary level of LMX (Li & Song, 2014). Momentary LMX thus refers to one's momentary (i.e., fluctuations between two measurement moments in time) perceptions of the quality of the reciprocal exchange

relationship with the supervisor. A high-quality LMX relationship may protect volunteers from the detrimental consequences of PC breach (Hobfoll, 2001, 2002) because it serves as an interpersonal social support resource (e.g., instrumental help and emotional support). However, prior findings regarding the buffering effect of trait-level LMX are mixed. For example, whereas Ng and colleagues (2014) found that high-quality LMX relationships weakened the positive relationship between PC breach and aggressive voice behaviour, Restubog and colleagues (2010) found that high-quality LMX relationships strengthened the negative consequences of PC breach. As these studies measured PC breach with a global subjective assessment of the overall fulfilment in the social exchange relationship (Robinson & Morrison, 2000), they may confound PC breach with other aspects such as social support, justice, and equity. Hence these measures tend to confound perceptions of PC breach with the potential mitigating role of LMX in the aftermath of violation feelings. We adhere to the recommendations of Bal, Hofmans, and Polat (2012) and operationalize PC breach as a cognitive assessment of what a volunteer has (not) received at a specific point in time.

In line with this theoretical rationale and recent arguments raised concerning the dynamic and interrelated nature of PC breach, violation feelings, and its associated detrimental outcomes (Beal, Weiss, Barros, & MacDermid, 2005; Ng et al., 2014), we adopt a dynamic and process-oriented approach when investigating (1) *consequences* of violation feelings and (2) the role of violation feelings as an *antecedent* of PC breach. Hence, we will study PC processes and the mitigating role of momentary LMX over time (i.e., on a weekly basis) to assess (1) the relationship between violation feelings during one week (time T-1) and CWB-O, CWB-I, and the likelihood to detect a new PC breach during the next week (time T) and (2) the buffering role of momentary LMX as a moderator in these relationships.

### Psychological contract theory

A PC will emerge when a volunteer believes that the organization has promised to provide certain transactional, relational, and ideological inducements in return for contributions to the organization (Vantilborgh et al., 2011). Interest in applying the PC framework to study exchange relationships between volunteers and organizations has recently grown (Nichols, 2013). Some studies (e.g., Vantilborgh et al., 2012) have demonstrated that there are small differences between volunteers' and paid employees' PC in terms of content (e.g., volunteers are less likely to perceive promises or obligations related to monetary rewards). Nevertheless, scholars agree that volunteers react similarly as paid employees when transactional, relational, and ideological promises or obligations are not met by the

organization (e.g., Farmer & Fedor, 1999; Griep, Vantilborgh, & Pepermans, 2014; Nichols, 2013; Nichols & Ojala, 2009; Vantilborgh, 2014; Vantilborgh et al., 2011, 2012, 2014).

In early research, such failures of the organization to meet one or more organizational promises or obligations within one's PC were labelled PC violation. Morrison and Robinson (1997) and Robinson and Morrison (2000) later distinguished between the cognitive evaluations of deviations (i.e., PC breach) and the affective, emotional feelings ensuing from these cognitions (i.e., violation feelings). We therefore conceptualize violation feelings as the intensity of the emotional and affective reaction—characterized by a mixture of feelings like frustration, anger and outrage—that arise from a cognitive and rational assessment of one's PC (Morrison & Robinson, 1997; Robinson & Morrison, 2000; Rousseau, 2011). It is important to note that violation feelings are *conditional* upon the perception of PC breach (i.e., violation feelings cannot exist without a preceding PC breach). To fully grasp this conditional relationship between PC breach and violation feelings, several scholars (e.g., Conway & Briner, 2002; Griep, Vantilborgh, & Pepermans, 2014; Rousseau, 2011; Vantilborgh, Griep, & Pepermans, 2013) have argued—from both a theoretical and empirical point of view—that PC breach and violation feelings should be modelled simultaneously. That is to say, research on PC processes should align with the basic premises of PC theory by accounting for the fact that violation feelings cannot exist in the absence of PC breach. In addition, and in line with the conceptual model of Morrison and Robinson (1997), it is most likely that these violation feelings—not perceptions of PC breach—may influence cognitive and behavioural outcomes. How this can be modelled will be discussed in more detail when describing the measurements and analytical approach.

### **The dynamic relationship between feelings of violation, counterproductive work behaviour and the likelihood to perceive a PC breach**

In line with COR theory (Hobfoll, 2001, 2002) and the argument that PC breach constitutes a threat towards or a loss of valued resources (Restubog et al., 2013), we argue that volunteers who experience violation feelings could engage in CWB as a reaction to the perceived source (i.e., the organization) of this resource loss (e.g., Bordia et al., 2008; Restubog et al., 2012). Although empirical research already documented the relationship between violation feelings and CWB (e.g., Bordia et al., 2008; Hsu, Yang, & Lai, 2011; Jensen, Opland, & Ryan, 2010), most of these studies relied on an overall measurement of CWB (e.g., Hsu et al., 2011) or on some of its subcomponents, such as withdrawal behaviour (e.g., Jensen et al., 2010). However, when investigating CWB as a consequence of PC breach, using a composite score of CWB might obscure certain

relationships as an individual can direct CWB towards the organization or towards colleagues. This distinction is important as we operationalized the PC as the reciprocal exchange relationship between an individual and his/her organization (Rousseau, 1989, 2001). In this respect, Heider (1958) and Frijda (1988) have theorized that there ought to be an alignment between the source of frustration and the target of an emotional or behavioural reaction, resulting in behavioural contingency. Put differently, when volunteers perceive the organization to be at the source of a PC breach, they will be apt to blame the organization—not one or more colleagues—for the apparent PC breach and the associated loss of resources (Hobfoll, 2001, 2002). The resulting violation feelings will urge the volunteer to intentionally target his/her behavioural reactions towards the perceived source of the resource loss, namely the organization (Morrison & Robinson, 1997; Robinson & Morrison, 2000; Rousseau, 1989). In other words, we posit that a volunteer who experiences violation feelings will engage in CWB-O, but will refrain from CWB-I.

*Hypothesis 1: Experienced violation feelings during one week (time T-1) relate positively to CWB-O during the next week (time T).*

*Hypothesis 2: Experienced violation feelings during one week (time T-1) do not relate to CWB-I during the next week (time T).*

In the previous discussion, we argued that volunteers could engage in CWB-O as a reaction to the perceived source of a PC breach. According to the principles of COR theory (Hobfoll, 2001, 2002), a volunteer who experienced violation feelings in the past wishes to protect the remaining resources or may even attempt to gain new resources within the framework of his/her PC. This can be achieved by monitoring the extent to which the organization delivers other promised inducements in the future. Gorgievski and Hobfoll (2008) state that individuals will invest personal and environmental resources (i.e., attention, cognitive processing, sense-making) to ensure protection of the remaining resources or to maximize the likelihood to obtain new resources. A vigilant management of the on-going state of the remaining resources accomplishes this. Applied to PC theory, this would imply that volunteers vigilantly monitor the extent to which an organization delivers other promised inducements. This would be done to potentially protect against further resource loss or to maximize the likelihood of gaining new resources even if chances of success are low and the consequences of further resources loss are likely to be severe (Hobfoll, 2001, 2002). Although intended to protect against a further loss of resources, vigilantly monitoring the on-going state of the PC has been theorized to result in an increased likelihood to



perceive a PC breach (Morrison & Robinson, 1997). Several scholars (e.g., Guzzo, Noonan, & Elron, 1994; Rousseau, 1995; Schalk & Roe, 2007) have argued that each individual has a zone of acceptance towards a deviation from the promised inducements. The likelihood for this zone of acceptance to be surpassed is influenced by the vigilance with which a person monitors the fulfilment of the PC. In particular, vigilant monitoring increases the likelihood to detect and interpret a breach because attention is devoted to negative environmental cues causing one to seek out, attend to, and make sense of small discrepancies in line with previous experiences of the organization breaking its promises (Fiske & Taylor, 1984). In this respect, Rousseau (1995) theorized that an exchange relationship characterized by violation feelings would increase the likelihood to perceive a PC breach. In other words, perceiving violation feelings during one week increases the likelihood to perceive a PC breach during the next week. We therefore hypothesize:

*Hypothesis 3: Experienced violation feelings during one week (time T-1) relate positively to the likelihood to perceive a PC breach during the next week (time T).*

### **Redressing the deleterious behavioural and cognitive consequences of feelings of violation: the mitigating role of momentary LMX**

The high prevalence of PC breach, as suggested by previous researches (e.g., Conway & Briner, 2005; Coyle-Shapiro & Kessler, 2000), highlights the importance of understanding the factors that buffer negative behavioural and cognitive consequences of violation feelings. One such attenuating factor that has been suggested by several scholars—from both a theoretical and empirical point of view—is LMX. Building on the premises of COR theory (Hobfoll, 2001, 2002), LMX could be considered a resource gain (i.e., social support mechanism), whereas violation feelings resulting from PC breach (i.e., loss of valued resources such as money, social support, safety) is to be considered a drain of resources. LMX forms an interpersonal social support resource that has the potential to operate as a “resource reservoir” (Gorgievski & Hobfoll, 2008). Therefore, we argue that momentary LMX could buffer the negative behavioural and cognitive consequences of violation feelings as the former is to be considered a protective factor for the resource drain caused by the latter (Hobfoll, 2001, 2002).

Investigating the role of LMX as an interpersonal social support mechanism within the PC framework is important as Rousseau (1989, p. 126) theorized that “organizations cannot perceive, though their immediate managers can themselves personally perceive a PC with their subordinates and respond accordingly.” In line with this,

several scholars (e.g., Coyle-Shapiro & Kessler, 2000) argued that one’s immediate supervisor plays a key role when negotiating and upholding the content of one’s PC on behalf of the organization (Vandenberghe & Bentein, 2009). Although volunteers do not necessarily hold their immediate supervisors personally responsible for a PC breach, they do consider them capable of attenuating the negative effects of violation feelings and hence expect them to take the necessary actions to redress the experienced feelings of violation feelings (Baccili, 2001). In this respect, several scholars (e.g., Ng et al., 2014; Restubog et al., 2010; Zagenczyk et al., 2009) have suggested that immediate supervisors in high-quality LMX relationships with their subordinates—versus those in low-quality LMX relationships—might offer more support when one experiences violation feelings. Consequently, we argue that momentary LMX acts as a moderator, such that the positive relationship between violation feelings during one week (at time T-1) and CWB-O during the next week (at time T) is attenuated when momentary LMX is high.<sup>1</sup> In a similar vein, momentary LMX is expected to moderate the positive relationship between violation feelings during one week (at time T-1) and the likelihood to perceive a PC breach during the next week (at time T), acting as a buffer.

*Hypothesis 4: High-quality momentary LMX moderates the positive relationship between violation feelings (time T-1) and CWB-O (time T), acting as a buffer.*

*Hypothesis 5: High-quality momentary LMX moderates the positive relationship between violation feelings (time T-1) and the likelihood to perceive a PC breach (time T), acting as a buffer.*

## **Method**

### **Organizational context**

The current study was conducted in a social enterprise. This organizational type aims to maximize improvements in social, community, and environmental well-being in a participatory nature (i.e., an initiative launched by a group of citizens), rather than maximizing profit for the benefit of external shareholders (Ridley-Duff & Bull, 2011). Although some for-profit organizations would consider themselves to adhere to social objectives (e.g., corporate social responsibilities), social enterprises differ in that, inversely, they do not aim to offer any economic benefits to their investors and shareholders. They will only do so when distributing profit is believed to improve their capacity to realize their social and environmental goals (Ridley-Duff & Bull, 2011). For the purpose of this study, we included the Belgian branch of an international fair-trade social enterprise that distributes goods that are

produced in parts of the Southern hemisphere (Latin-America, Africa, and Asia) according to the principles of fair trade (i.e., a fair wage for fair labour). To ensure their daily functioning and the distribution of their goods, this organization relies on 5987 volunteers (69% women, 31% men) and 31 paid employees (51.6% women, 48.4% men), the latter being primarily responsible for the coordination of the volunteers.

### Procedure

During a personal conversation with the volunteer management director, we explained the purpose of the study, the use of weekly diary surveys, the importance of discretionary and voluntary participation, confidential treatment of responses, and promised an anonymized general feedback rapport of the study results. Upon agreement of all three volunteer managers, an e-mail containing a short explanation of the study's objectives and a link to the general online survey was distributed to all volunteers. This general survey was primarily used to collect demographic information and to assess a volunteer's willingness to fill out a short weekly survey for five consecutive weeks. Indication of willingness to participate in the study was interpreted as informed consent. These volunteers subsequently received an e-mail containing an individualized link to the short weekly survey (to be filled out between Friday 11 a.m. and Sunday 11 p.m.) and were asked to reflect upon the past week when filling out this survey. Each weekly survey started off with a prequestion to determine whether one was actively involved in his/her voluntary activities during the past week. Only those who actively volunteered during the past week were asked to fill out the remainder of the weekly survey. We opted for a weekly diary survey design as people often volunteer at irregular intervals and consequently may be unable to experience PC breach at a daily level. In this respect, it should be noted that several scholars (e.g., Bakker & Bal, 2010; Parkinson, Briner, Reynolds, & Totterdell, 1995) have firmly established that people can accurately reflect upon and make assessments of their work-related experiences over the course of one week. Adopting such a weekly diary survey design has the advantage of reducing the retrospective bias that is otherwise present in more traditional survey studies (Reis & Gable, 2000) and allows us to account for the temporal context when studying emotions, cognitions, and behaviour (Reis & Gable, 2000).

### Sample

Of the 386 respondents who completed the general survey, 318 respondents (response rate of 82.38%) agreed to participate in the weekly diary survey study. For the final sample, we only included respondents who minimally completed two consecutive weekly surveys on weeks

they volunteered for their organization ( $N = 247$ , response rate = 77.67%) to (1) compute the *one-week* time-lag variables for all concepts under study and to (2) ensure adequate statistical power to detect medium and large fixed effects when performing multilevel modelling (Maas & Hox, 2005; Scherbaum & Ferreter, 2009). It should be noted that the unit of analysis equals "weekly observations" rather than "respondents," resulting in an effective sample size of 827 observations or an average of 3.35 completed weekly surveys per respondent.

Respondents were on average 56.17 years old ( $SD = 11.79$ ), 71.90% was female, and 29.3% obtained a higher—university—degree while 42.80% obtained a higher—nonuniversity—degree (25.30% obtained a high school degree and 2.80% had either no degree or a primary school degree). The mean tenure for their current organization was 11.70 years ( $SD = 8.50$ ). During actively involved weeks, respondents volunteered on average 1.91 days per week ( $SD = 1.35$ ; on average 2.40 hr on Monday ( $SD = 1.62$ ), 2.72 hr on Tuesday ( $SD = 1.89$ ), 2.83 hr on Wednesday ( $SD = 1.96$ ), 2.48 hr on Thursday ( $SD = 1.73$ ), 2.82 hr on Friday ( $SD = 1.64$ ), 3.65 hr on Saturday ( $SD = 2.14$ ), and 3.00 hr on Sunday ( $SD = 2.10$ )). We performed a Pearson chi-square test based on the information we received from the organization concerning the demographical composition of their entire voluntary workforce (mean age of 55 years old, 69% women, 75% higher degree, 22% high school degree, and 3% primary degree or no degree). The results of this test revealed no statistical significant differences in terms of age ( $\chi^2(246, N = 247) = .95, p = .35$ ), gender ( $\chi^2(246, N = 247) = -1.32, p = .19$ ), higher—both university and nonuniversity—degree ( $\chi^2(246, N = 247) = -.79, p = .43$ ), high school degree ( $\chi^2(246, N = 247) = 1.01, p = .31$ ), and no degree or a primary degree ( $\chi^2(246, N = 247) = -.57, p = .57$ ) between our sample and the volunteer population in the participating organization.

### Measures

In order to tap into the dynamics and temporal aspects of the variables under study, it is critical to be very clear on the time frame over which respondents are required to report (Fisher & To, 2012). Therefore, we (1) included *during the past week* to all items and (2) made use of the past tense (e.g., this is how I *felt* instead of this is how I *feel*) to stress the perspective of time.

*PC breach* was measured by asking respondents to indicate—using a dichotomous variable—whether their organization had breached one or more promised inducements during the past week. The stem for this item was as follows: "Please indicate if your organisation breached one or more of the following promised inducements during the past week." We presented respondents with a list of 20 common PC items and asked them to indicate which

specific inducement(s) was breached. These PC items were selected because they represented the transactional and relational PC and were similar with those typically studied in the PC literature (e.g., Kickul & Lester, 2001; Robinson, Kraatz, & Rousseau, 1994; Robinson & Morrison, 1995; Rousseau, 1990). As we are working with a sample of volunteers, we also included ideological items derived from Bingham (2005). All items can be found in the Appendix. When at least one PC breach was reported (in 133 of the 827 weekly observations), PC breach was coded as 1. In all other cases, PC breach was coded as 0 (for a similar approach, see Griep, Vantilborgh, Hofmans, Pepermans, & Rousseau, 2014; Griep, Vantilborgh, & Pepermans, 2014). This approach aligns with PC theory by conceptualizing PC breach as a cognitive evaluation of the deliverance of an organizational promise at a specific point in time (i.e., during the course of one week; Conway & Briner, 2002).

*Violation feelings* were measured with a single item, rated on a five-point Likert scale ranging from (1) “Not at all” to (5) “To a very great extent.” The stem for this item was the following: “To what extent did the breach of this promise(s) had a negative emotional effect on you during the past week” (Bal et al., 2012). Consistent with the theoretical proposition that feelings of violation are contingent upon PC breach (Morrison & Robinson, 1997; Rousseau, 1989, 1995, 2001), this question was only presented when respondents reported a PC breach. It was coded 0 when no PC breach was reported during the past week. Due to space and time constraints in diary research, the use of such single-item questions is not uncommon nor to be considered a treat to validity or reliability (Bergkvist & Rossiter, 2009; Fisher & To, 2012).

To make a more compelling case concerning the validity of these single-item measures for PC breach and violation feelings, a follow-up (validation) study was carried out. Forty-one volunteers were asked to complete a short questionnaire containing the single-item measures and Robinson and Morrison’s (2000) validated scale to measure PC breach and Diener and Emmons’ (1984) validated scale to measure negative affectivity. Based on the correlations between the single- and multiple-item measures ( $r = .33, p < .01$  and  $r = .19, p < .05$  for PC breach and violation feelings, respectively), we are confident that these single-item measures validly measure perceptions of PC breach and violation feelings.

In the main analyses, we will focus on the above-mentioned measure of violation feelings and not on the abovementioned measure of PC breach, as the former is conditional upon the latter (i.e., one cannot experience feelings of violation without a preceding PC breach; Rousseau, 1989, 1995, 2001) and hence contains information about both PC breach and violation feelings.<sup>2</sup>

Consequently, one can model PC breach and violation feelings in a single variable that can be partitioned in a binary part and a count part, representing PC breach and violation feelings, respectively. The binary part comprises values of 0 representing the absence of PC breach, and values greater than 0 representing at least one PC breach. This binary part (i.e., resembling a logistic probability) can consequently be used to model the *likelihood to detect a PC breach*. The count part comprises values greater than 0 representing the intensity of violation feelings arising from one or more PC breaches. Note that this conceptualization parallels with PC theory as it considers violation feelings as an emotional state *resulting* from a PC breach.

*CWB* comprises both CWB-O and CWB-I. While CWB-O was measured with six items (e.g., during the past week I did not work to the best of my ability), CWB-I was measured using nine items (e.g., during the past week I excluded a colleague from a conversation) (Dalal, Lam, Weiss, Welch, & Hulin, 2009). As our respondents were surveyed on a weekly basis about whether or not they had engaged in each of these CWBs since the previous survey, we used a binary response format (yes or no) and summed the responses. Hence, responses ranged from 0 (no CWB-O items endorsed) to 6 (all CWB-O items endorsed) and from 0 (no CWB-I items endorsed) to 9 (all CWB-I items endorsed). Items were reworded to match a volunteering context (i.e., *work* was reformulated as *voluntary activities*). This measure can be considered a formative construct, rendering the estimation of an internal reliability coefficient obsolete (Coltman, Devinney, Midgley, & Venaik, 2008).

*Momentary LMX* was measured with the LMX-6 (Schriesheim, Neider, Scandura, & Tepper, 1992). Items were reworded to match a volunteering context (i.e., *work* was reformulated as *voluntary activities* and *supervisor* was reformulated as *coordinator*). An example item is “During the past week, this is how I felt about the way my coordinator and I understood each other.” Respondents were asked to rate each of the six items on a 5-point Likert scale ranging from (1) “very dissatisfied” to (5) “very satisfied.” A momentary LMX scale score ranging from 1 to 5 was calculated by averaging all items. Cronbach’s alpha scores—calculated for each measurement moment separately—indicated that the internal reliabilities of the LMX-6 ( $M(\alpha) = .94, SD(\alpha) = .02, \text{range}(\alpha) = .93 \text{ to } .96$ ) were satisfactory.

*A time variable* was created to reflect the position in time of each weekly survey. This variable ranged from 0 (first weekly diary survey) to 4 (fifth weekly diary survey) and was used to control for linear trends (i.e., linear increase or decrease over the five consecutive weeks) in PC breach, violation feelings, CWB-O, CWB-I, and momentary LMX.



A one-week time-lagged variable was created for violation feelings, CWB-O, CWB-I, and momentary LMX. These time-lagged variables were calculated by taking the score of that same variable reported during the previous week. We only created this time-lagged variable when our respondents filled out at least two consecutive weekly surveys. In other words, when respondent  $x$  had a score of 3 on variable  $y$  during week  $z$ , (s)he obtained a score of 3 on the one-week time lagged variable  $y'$  only when that same respondent  $x$  also answered variable  $y$  at week  $z-1$ . This time-lagged variable was used to control for potential confounding effects due to auto-correlations (i.e., the cross-correlation of a variable with itself over the course of the five weekly surveys) in the data and to test our temporal hypotheses (e.g., do violation feelings experienced during one week relate to CWB-O during the next week).

### Analysis

As previously theorized and explained (see section “Psychological contract theory and measures”), we model the PC in one dual variable consisting of (1) a binary part reflecting the likelihood to perceive a PC breach (i.e., perception of PC breach or no perception of PC breach during one week) and (2) an intensity part indicating the intensity of the violation feelings conditional upon the onset of the binary part (for a similar approach, see Griep, Vantilborgh, & Pepermans, 2014; Vantilborgh et al., 2013). In conceptualizing the PC in such a way, we are being more parsimonious as previous studies (i.e., less appropriate modelling of perceptions of PC breach and violation feelings as concepts that are independent from each other) and simultaneously correctly represent the basic premises of PC theory (Rousseau, 1989, 1995, 2001) and the conceptual model of violation feelings (Morrison & Robinson, 1997).

Previous studies examining PC breach as a discrete event (Conway & Briner, 2002; Griep, Vantilborgh, & Pepermans, 2014; Vantilborgh et al., 2013) showed that the binary (i.e., PC breach or no PC breach) and intensity parts (i.e., violation feelings) of the variable are typically highly skewed. In the current study, skewness and kurtosis scores for the binary (3.82 and 15.39, respectively) and intensity (3.59 and 14.71, respectively) parts indicated a similar positively skewed distribution (i.e., a high amount of 0's indicating no perceived PC breach and hence no feelings of violation). Such a skewed distribution clearly violates the assumption of normality and should therefore be taken into account when analysing the data. Consequently, we resorted to Mplus version 7 (Muthén & Muthén, 2013), as it allows estimating a zero-inflated Poisson regression (ZIP) model, in which we could model the PC as consisting of a binary part (i.e., no PC breach versus PC

breach) and a Poisson (i.e., intensity of the violation feelings) part (Lambert, 1992). This model is based on a zero-inflated probability distribution—instead of on a normal distribution—that allows for a high prevalence of zero-valued observations to be taken into account when analysing the data. Note that the characteristics of this ZIP model are once more fully in line with the basic premises of PC theory as it allows modelling one's violation feelings (i.e., count part) as a conditional reaction to a PC breach (i.e., binary part).

In this model, we used a person's violation feelings during the one week (time T-1) to predict that same person's CWB-O and CWB-I reactions during the next week (time T; Hypotheses 1 and 2), and to predict the likelihood to perceive a new PC breach during the next week (time T; Hypothesis 3). To investigate the potential mitigating role of momentary LMX on these relationships (Hypotheses 4 and 5), we computed the interaction term between the intensity of violation feelings at time T-1 and momentary LMX at time T-1, resulting in a *moderated ZIP regression analysis*. To facilitate the interpretation of the interaction between momentary LMX and violation feelings (time T-1), we grand-mean-centred momentary LMX prior to calculating the interaction term (Aiken & West, 1991). Finally, as our data had a nested structure (i.e., weekly observations nested within individuals), we estimated intra-class correlation coefficients (ICCs) of PC breach, violation feelings, CWB-O, CWB-I, and momentary LMX to assess the need for a multilevel modelling approach (Hox, 2010). Results indicated that the largest proportion of the variance in these variables could be attributed to within-person differences (ICC values were .28, .17, .17, .14, and .28, respectively). These results underline that a multilevel model—distinguishing between-person from within-person variations—was required to analyse the data (Hox, 2010). We consequently performed a *moderated two-level ZIP regression analysis* to account for the dependencies due to the nested structure in our data (Maas & Hox, 2005) and to separate the within- from between-person variance (Preacher, Zyphur, & Zhang, 2010).

### Hypothesized and alternative models

In our first hypothesized model, we estimated the direct effect of violation feelings during one week (time T-1) on CWB-O, CWB-I, and the likelihood to perceive a new PC breach during the next week (time T) (see Hypotheses 1–3). In the second hypothesized model, we tested the moderation effect by including an interaction effect between violation feelings and the perception of momentary LMX during one week (time T-1) when predicting CWB-O and the likelihood to perceive a PC breach during the next week (time T) (see Hypotheses 4 and 5). We did not include an interaction effect on the relationship between violation feelings

during one week (time T-1) and CWB-I reactions during the next week (time T) as we—based on the cognitive and behavioural contingency arguments (Heider, 1958; Morrison & Robinson, 1997)—expected no direct relationship between violation feelings during one week (time T-1) and CWB-I during the next week (time T). Next to these two hypothesized models, we tested two alternative models. Both alternative models are similar to the previously discussed hypothesized models, but differ in one aspect, namely the inclusion of the autocorrelation of violation feelings (i.e., the cross-correlation of violation feelings with itself over the course of the five weekly surveys). In other words, in the alternative models, we did not only allow violation feelings during one week to impact one's CWB-O, CWB-I, and likelihood to perceive new PC breaches during the next week (i.e., hypothesized models), but simultaneously allowed for a relationship between violation feelings and itself over time (i.e., autocorrelation of violation feelings). When comparing the Bayesian Information Criterion (BIC), which represents the balance between the number of parameters (i.e., model complexity) and the fit of the model to the data, the BIC values identified the hypothesized models as those that offer the best fit to the data ( $BIC_{\text{hypothesized model without interaction}} = 2671.650 < BIC_{\text{alternative model without interaction}} = 3622.842$ ;  $BIC_{\text{hypothesized model with interaction}} = 2344.627 < BIC_{\text{alternative model with interaction}} = 2370.951$ ) (Aiken & West, 1991). Consequently, we will rely on the hypothesized models when discussing the results without (i.e., Hypotheses 1–3) and with (i.e., hypotheses 4 and 5) interaction effects.

## Results

Despite the arguments of several scholars (e.g., Nichols & Ojala, 2009; Vantilborgh et al., 2011, 2012, 2014) that volunteers expect transactional, relational, and ideological inducements from the organization in return for their

contributions, it remains an empirical question whether the items assessing these inducements tap into the same constructs among volunteers as they do among paid employees. Therefore, we performed a confirmatory factor analysis. Model fit was evaluated using the following fit statistics: (1) the root mean square error of approximation ( $.05 < RMSEA \leq .08$ : reasonable fit;  $0 \leq RMSEA \leq .05$ : close fit), the Comparative Fit Index ( $.90 \leq CFI < .95$ : good fit;  $.95 \leq CFI \leq 1.00$ : excellent fit), the Tucker–Lewis Index ( $.90 \leq TLI < .95$ : good fit;  $.95 \leq TLI \leq 1.00$ : excellent fit), and the standardized root mean square residual ( $.05 < RMSEA \leq .08$ : reasonable fit;  $0 \leq RMSEA \leq .05$ : close fit) (Kline, 2005). When comparing competing models to the theoretical three-factor model (i.e., transactional, relational, and ideological inducements), we relied on the  $\chi^2$  difference ( $\Delta\chi^2$ ) test.

As can be seen in Table 1, the theoretical three-factor model fitted the data well, with each item loading significantly and in the expected direction onto its respective latent factor. Alternative model A ( $\Delta\chi^2 = 50.26$ ,  $\Delta df = 2$ ,  $p \leq .001$ ), in which transactional and relational inducements load onto one latent factor; alternative model B ( $\Delta\chi^2 = 265.94$ ,  $\Delta df = 2$ ,  $p \leq .001$ ), in which transactional and ideological inducements load onto one latent factor; alternative model C ( $\Delta\chi^2 = 218.17$ ,  $\Delta df = 2$ ,  $p \leq .001$ ), in which relational and ideological inducements load onto one latent factor; and alternative model D ( $\Delta\chi^2 = 416.52$ ,  $\Delta df = 3$ ,  $p \leq .001$ ), in which transactional, relational, and ideological inducements load onto one latent factor, fitted the data significantly worse than the theoretical three-factor model. Hence, we are confident that the conceptualization of transactional, relational, and ideological inducements can be used among volunteers.

## Descriptive results

Table 2 provides an overview of the means, standard deviations, zero-order correlations ( $N = 247$ ), and person-centred correlations ( $N = 827$ ) of the variables under study. Given that the Poisson part (i.e., intensity of violation feelings) is conditional upon the onset of the binary part (i.e., likelihood to perceive PC breach) in a

Table 1. Results from confirmatory factor analyses.

Model	$\chi^2$ ( <i>df</i> )	RMSEA	CFI	TLI	SRMR
Theoretical model	405.86 (167)	.07	.90	.88	.08
Alternative model A	456.12 (169)	.08	.87	.85	.09
Alternative model B	671.80 (169)	.11	.76	.73	.15
Alternative model C	624.03 (169)	.10	.79	.76	.14
Alternative model D	822.38 (170)	.13	.69	.66	.16

Notes:

$N = 247$ .

Theoretical model: Transactional, relational, and ideological inducements each load onto one separate latent factor.

Alternative model A: Transactional and relational inducements load onto one latent factor; ideological inducements load onto one latent factor.

Alternative model B: Transactional and ideological inducements load onto one latent factor; relational inducements load onto one latent factor.

Alternative model C: Relational and ideological inducements load onto one latent factor; transactional inducements load onto one latent factor.

Alternative model D: Transactional, relational, and ideological inducements load onto one latent factor.

Table 2. Means, standard deviations, and zero-order correlations among the focal variables.

	<i>M</i>	<i>SD</i>	1.	2.	3.	4.	5.
1. PC Breach	.93	2.00	–	–	.11**	.06	–.07*
2. (Violation   PC Breach)	.24	.43	–	–	.28**	–.08	–.15
3. CWB-O	.38	.45	.10	.31**	–	.05	–.04
4. CWB-I	.18	.41	.17**	.17	.28***	–	–.06
5. Momentary LMX	3.75	.74	–.01	–.17	–.16*	–.17*	–

Notes: \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ . Zero-order correlations are presented below the diagonal ( $N = 247$ ). Person-centred correlations are presented above the diagonal ( $N = 827$ ).

ZIP model (Lambert, 1992), we computed the correlations between violation feelings and all other focal variables on a subset of the data only (i.e., weekly observations in which a PC breach was reported). Moreover, we did not compute a correlation between violation feelings and PC breach, as this correlation would be artificially inflated due to the conditional relationship between both variables.

**Hypothesis testing**

*Hypothesized model without interaction effects*

Figure 1 displays the estimated paths in the ZIP multilevel regression model.

Our results indicated that violation feelings during one week (time T-1) were positively related to CWB-O and not related to CWB-I during the next week (time T) after controlling for levels of CWB-O and CWB-I at time T-1 (i.e., modelling change in CWB-O and CWB-I). These results support Hypotheses 1 and 2. Violation feelings during one week (time T-1) related positively to the likelihood to perceive a PC breach during the next week (time T) after controlling for the likelihood to perceive a PC breach at time T-1 (i.e., modelling change in the likelihood to perceive a PC breach). This finding supports Hypotheses 3.

*Hypothesized model with interaction effects*

Figure 2 displays the estimated paths in the moderated ZIP multilevel regression model.

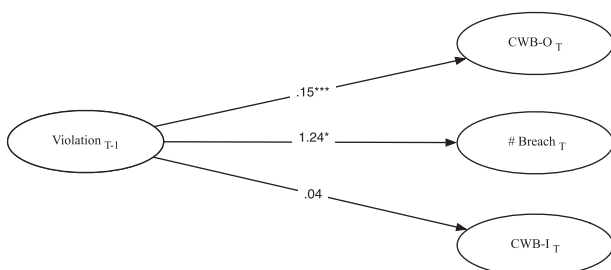


Figure 1. Hypothesized model for the main effects.

Notes: #Breach denotes the likelihood to perceive a PC breach. \* $p < .05$ , \*\*\* $p < .001$ .

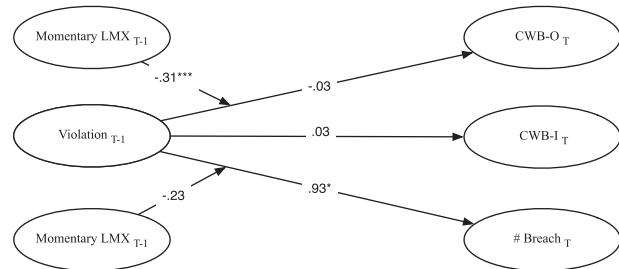


Figure 2. Hypothesized model for the interaction effects.

Notes: #Breach denotes the likelihood to perceive a PC breach. \* $p < .05$ , \*\*\* $p < .001$ .

First, our results indicated that the relationship between violation feelings during one week (time T-1) and (1) CWB-O reactions during the next week (time T) and (2) the likelihood to perceive a PC breach during the next week (time T) was moderated by perceptions of momentary LMX during the one week (time T-1) after controlling for levels of CWB-O and the likelihood to perceive a PC breach at time T-1 (i.e., modelling change in CWB-O and the likelihood to perceive a PC breach). To fully grasp the proposed mitigating role of momentary LMX, we used the regions of significance approach or Johnson–Neyman technique (Johnson & Neyman, 1936) to identify the range of the moderator for which the simple slope of our dependent variable regressed on our independent variable is significant. This technique—which recently regained scholars’ attention (Preacher, Curran, & Bauer, 2006)—continuously plots confidence intervals around simple slopes for all values of the moderator thereby resulting in confidence bands. Momentary LMX moderates the relationship between a dependent variable and an independent variable for values of momentary LMX where the confidence bands do not contain zero. Plotting these confidence bands facilitates the interpretation of the proposed interaction effects (Preacher et al., 2006). While the upper line in such plots indicates the upper region boundaries of significance, the lower line indicates the lower region boundaries of significance. The middle line indicates the relationship between the independent (i.e., violation feelings at time T-1) and the

dependent (i.e., CWB-O and the likelihood to perceive a PC breach at time T) variables for different values of the moderator momentary LMX (time T-1).

Figure 3 shows the plotted confidence bands for the relationship between violation feelings during one week (time T-1) and CWB-O reactions during the next week (time T), taking into account the moderating role of momentary LMX perceptions (time T-1). Results from the estimated moderated two-level ZIP regression analysis indicated that perceptions of momentary LMX (time T-1) during one week mitigated the relationship between violation feelings during the same week (time T-1) and CWB-O during the next week (time T), after controlling for levels of CWB-O at time T-1 (i.e., modelling change in CWB-O). The simple slopes of this mitigating relationship were significant outside the  $-.55$  and  $.63$  regions, as indicated by the dotted line in Figure 3. Interpreting these values in the light of the minimum (i.e.,  $-2.74$ ) and maximum (i.e.,  $1.26$ ) grand-mean centred values of momentary LMX suggests that average levels of momentary LMX suppress the positive relationship between violation feelings during one week and CWB-O during the next week. When momentary LMX levels are low (below  $-.55$ ) or high (over  $.63$ ), we

found a statistically significant positive or negative relationship between violation feelings and CWB-O, respectively. This finding supports Hypothesis 4.

Finally, Figure 4 shows the plotted confidence bands of the relationship between violation feelings during one week (time T-1) and the likelihood to perceive a PC breach during the next week (time T), for different values of the moderator momentary LMX (time T-1). Results from the estimated moderated two-level ZIP regression analysis indicated that perceptions of momentary LMX (time T-1) during one week mitigated the positive relationship between violation feelings (time T-1) during the same week and the likelihood to perceive a new PC breach during the next week (time T), after controlling for the likelihood to perceive a PC breach at time T-1 (i.e., modelling change in the likelihood to perceive a PC breach). The simple slopes of this mitigating relationship were significant inside the  $-1.06$  and  $.47$  regions, as indicated by the dotted line in Figure 4. Interpreting these values in the light of the minimum (i.e.,  $-2.74$ ) and maximum (i.e.,  $1.26$ ) grand-mean centred values of momentary LMX suggests that low (below  $-1.06$ ) or high (above  $.47$ ) levels of momentary LMX suppress the relationship between

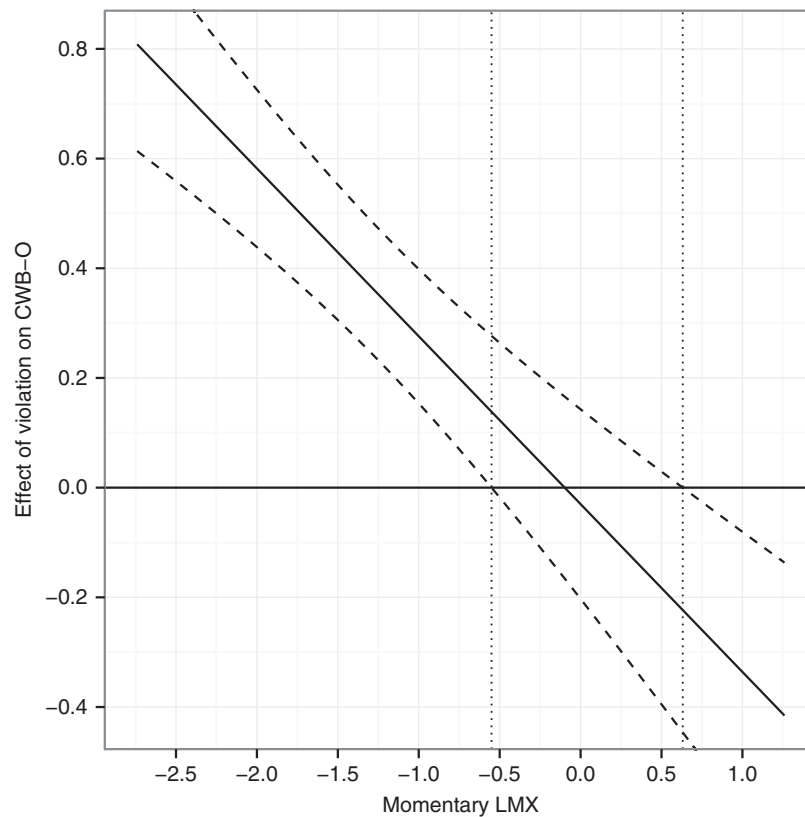


Figure 3. Hypothesized model for the interaction effects: Confidence bands of the mitigating role of momentary LMX in the relationship between feelings of violation and CWB-O.

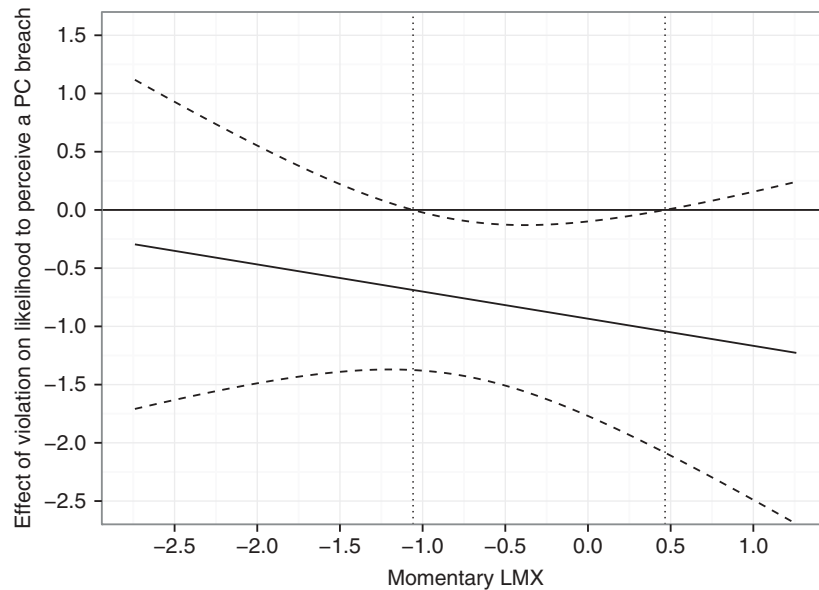


Figure 4. Hypothesized model for the interaction effects: Confidence bands of the mitigating role of momentary LMX in the relationship between feelings of violation and the likelihood to perceive a PC breach.

violation feelings during one week (time T-1) and the likelihood to perceive a new PC breach during the next week (time T). In contrast, only for average levels of momentary LMX (between  $-1.06$  and  $.47$ ) we found a statistically significant positive relationship between violation feelings and the likelihood to perceive a PC breach. Hence, our fifth hypothesis was only partially confirmed.

#### Sensitivity analysis

We carried out a sensitivity analysis, because it has been suggested that employees react differently to transactional and relational PC breach and fulfilment (e.g., Jensen et al., 2010; Montes & Irving, 2008). Given that respondents were asked to check which transactional, relational, and/or ideological promise(s) were breached, a composite score for each PC breach dimension (i.e., transactional, relational, and ideological) was made and used to test for potential differential effects on the outcomes under study, hence testing for multigroup equivalence (Byrne & Van De Vijver, 2010). In a first step, we determined a configural two-level mixture ZIP regression model for the hypothesized model without interaction effects and a configural moderated two-level mixture ZIP regression model for the hypothesized model with interaction effects. In both configural models, no equality constraints were imposed between the three PC breach dimensions, and we estimated separate regression parameters for each PC breach dimension. We then compared these configural models to their respective constrained model, in which the regression

parameters are constrained to be equal for all PC breach dimensions (Byrne, Shavelson, & Muthén, 1989). Because the constrained model is nested within the configural model, we compared these models using a likelihood ratio test. This test revealed that the proposed relationships in our hypothesized model without interaction effects ( $\chi^2(18, N = 247) = 2.95, p = .99$ ) and in our hypothesized model with interaction effects ( $\chi^2(18, N = 247) = 3.47, p = .99$ ) did not differ significantly between the three PC breach dimensions. In sum, this implies that the results from our global PC breach dimension (i.e., binary PC breach score created by summing responses to all three PC breach dimension items) are similar to those obtained from each of the three PC breach dimensions separately.

#### Discussion

This study adopted a dynamic and process-oriented approach to study the mitigating role of momentary LMX in CWB reactions to violation feelings. By doing so, we investigate whether violation feelings influence CWB-O and one's PC evaluation in terms of the likelihood to perceive new PC breaches. In addition, we investigated the moderating role of momentary LMX on both of these temporal relationships. The empirical evidence supported our temporal hypotheses and highlights the role of time in the complex interplay between one's PC, LMX, and CWB-O. It is only by investigating how changes in these variables are related to each other in a dynamic way (i.e., over time and in reciprocal cycles) that



we can truly understand reactions to and antecedents of PC breach and violation feelings.

We build on the basic premises of COR theory (Hobfoll, 2001, 2002) and on the earlier work of Restubog and colleagues (2013) when stating that PC breach and the ensuing violation feelings constitute a threat to or a loss of valued resources, resulting in CWB reactions targeted towards to the perceived source of this resource loss. Although some scholars have argued that aggression can be displaced or spilled-over to targets that are considered similar to the source of frustration (e.g., Bordia, Restubog, Bordia, & Tang, 2010), these studies did not include or did not explicitly distinguish the expected behavioural contingent outcome (i.e., CWB-O) and a conceptually related behavioural noncontingent outcome (i.e., CWB-I). A recent longitudinal study (Conway, Kiefer, Hartley, & Briner, 2014) contrasted a target similarity versus spillover approach and found that coworkers and public service users remain unaffected in the aftermath of PC breach. Conway and colleagues (2014) state that this finding can be explained by a target similarity, rather than a spillover, model. Notwithstanding this strong theoretical and empirical evidence for a behavioural contingent approach (Heider, 1958), we recognize that volunteers could engage in CWB-I as a secondary reaction to violation feelings. That is, engaging in CWB-O—as a primarily reaction to violation feelings—is likely to decrease one's moral threshold towards uncivil behaviour (Bargh, 1989), resulting in an increased accessibility of related aggressive concepts (i.e., CWB-I). Second, we solely stressed a single focus of the PC (i.e., prompting respondents to think about their mutual exchange relationship with their organization), thereby neglecting the potential influence of a multifocal perspective (Marks, 2001). Such a multifocal perspective entails that one tends to hold a PC with several actors in the organization (e.g., immediate manager, colleagues, customers) and consequently can develop different behavioural reactions depending on which focus was judged to be responsible for the PC breach. This rationale allows us to posit that violation feelings within one focus of the PC (e.g., organization) results in CWB-O, while violation feelings within another focus of the PC (e.g., colleagues, immediate supervisor, customers) results in CWB-I reactions.

In addition, when focussing on violation feelings as an antecedent of the likelihood to perceive a PC breach, we relied on COR theory (Hobfoll, 2001, 2002) when arguing that volunteers will vigilantly manage the ongoing state of their remaining resources as a strategy to protect or maximize the remaining resources (Gorgievski & Hobfoll, 2008). In the case of one's PC, this would imply that volunteers vigilantly monitor the extent to which an organization delivers the

promised inducements. Although this mechanism is theorized to protect against a further loss of resources, the reverse effect is expected to occur, resulting in an increased likelihood to perceive a PC breach. Our results indeed indicated that volunteers who experienced violation feelings during one week were more likely to perceive a PC breach during the next week.

While these violation feelings could be considered a drain of resources, momentary LMX could be considered a resource gain, allowing us to propose that a high-quality momentary LMX relationship would mitigate the positive relationship between violation feelings and CWB-O. Our results both underline and expound the suggested pivotal role of one's coordinator in attenuating the adverse behavioural reactions to feelings of violation (e.g., Ng et al., 2014; Restubog et al., 2010). Specifically, a moderate-quality LMX relationship seems to be an interpersonal social support resource that protects a volunteer (and the organization) from engaging in CWB-O (Hobfoll, 2001, 2002). A high-quality LMX relationship, on the other hand, seems to go beyond merely protecting a volunteer (and the organization) from engaging in CWB-O as volunteers engaged in less CWB-O during the next week when perceiving a high-quality LMX relationship.

Our results furthermore indicated that when one perceives a moderate-quality LMX relationship in times of violation feelings, one would be more likely to perceive a new PC breach during the next week. The likelihood to perceive a PC breach during the next week was, however, unrelated to violation feelings in case of low-quality and high-quality LMX. These results challenge the premises of COR theory (Hobfoll, 2001, 2002) stating that social support (i.e., high-quality momentary LMX) operates as a resource reservoir and, hence, holds the potential to buffer against negative consequences of violation feelings (Gorgievski & Hobfoll, 2008). Specifically, our results indicated that those who experienced a moderate-quality relationship with their immediate supervisor are more likely to perceive a new PC breach during the next week. In this case, we assume that the relationship between a volunteer and his/her coordinator is characterized by uncertainty about the extent to which the promised inducements will be delivered. This uncertainty could, in turn, trigger a volunteer's intention to invest personal resources (e.g., attention, cognitive processing) in vigilantly monitoring the extent to which the organization is providing the promised inducements. Our results indicate that those who experienced a high- or low-quality relationship with their coordinator experienced no changes in the likelihood to perceive a new PC breach during the next week. As hypothesized, experiencing a high-quality LMX relationship buffered the relationship between violation feelings and the likelihood to perceive new PC breaches during the next week.

However, this was equally true for a low-quality LMX relationship. When the quality of the LMX relationship is low, it could be argued that one expects other PC breaches to occur and hence is not willing to invest more resources in vigilant monitoring behaviour. Consequently, one will be less likely to perceive a small deviation from what was promised as a breach of the PC.

Finally, we would like to discuss the external validity of the obtained results in the light of the theoretical rationale and empirical support (e.g., Nichols & Ojala, 2009; Vantilborgh et al., 2011, 2012) for the suggested potential generalizability of cognitive and behavioural reactions following the experience of violation feelings among paid workers and volunteers. One should bear in mind that the perceived similarity between a paid worker/volunteer and his/her immediate supervisor might determine the opportunity to effectively redress the negative behavioural and cognitive consequences of violation feelings. Therefore, we extoll research on the role of momentary LMX among both paid workers and volunteers. Ideally, this would be done in a study in which paid workers and volunteers are surveyed simultaneously with regard to the process dynamics underlying the mitigating role of LMX. By doing so, one would be able to empirically determine the external validity of the obtained mitigating results, beyond the volunteering context.

### Limitations

Notwithstanding the methodological and theoretical contributions of this study, some limitations need to be taken into account. First, our theoretical development concerning the relationship between feelings of violation during one week (time T-1) and the likelihood to perceive a PC breach during the next week (time T) was based on the mechanism of vigilant monitoring (e.g., Morrison & Robinson, 1997; Rousseau, 1995), which we did not explicitly measure. We hence recommend future research to investigate how this mechanism causes volunteers to seek out, attend to, and interpret deviations as a PC breach.

On a related matter, the likelihood to perceive a PC breach and vigilant monitoring is most likely influenced by individual factors such as personality or emotion-regulation strategies, which need to be controlled for in future research to further elucidate the processes underlying our proposed relationships. For example, conscientiousness has been found to relate negatively to perceptions of PC breach (Raja, John, & Ntalianis, 2004). In a similar vein, it can be argued that the more adaptive the emotion-regulation strategy, the less attention is being paid to small deviation from what was originally promised, thereby reducing the likelihood to perceive a PC breach (Rousseau, 2001).

The self-reported nature of our weekly measurements might raise concerns about social desirability and common method variance (Podsakoff, MacKenzie, & Podsakoff, 2012). Although the use of other-rated measures would be advisable to overcome the issue of social desirability, we relied on self-reported measurements as (1) the PC is idiosyncratic (Rousseau, 1995) and (2) as many of the CWB-O and CWB-I reactions are purposely emitted in a private or unobservable manner (e.g., whether a volunteer gossiped about a covolunteer). Consequently, other reports of these behaviours may be influenced by a halo bias rather than providing accurate information (e.g., Dalal, 2005). We, however, aimed to minimize risks owing to social desirability by guaranteeing confidentiality and by relying on discretionary participation. To overcome the risks of common method bias, we separated our independent (i.e., violation feelings) and dependent (i.e., CWB-O, CWB-I, and the likelihood to perceive a PC breach) variables in time, using a time lag of one week. Moreover, as Siemsen, Roth, and Oliveira (2010) argue that common method bias cannot explain nor distort interaction effects (i.e., moderating role of momentary LMX), we are relatively confident that our results are not biased by common method bias.

### Suggestions for future research

Our findings open up several new avenues for research. First, although our results emphasized the mitigating role of momentary LMX in the relationship between violation feelings and CWB-O reactions, LMX theory does not describe specific practices to effectively attenuate the negative effects of violation feelings. Therefore, it is advisable for future research to adopt a qualitative approach when exploring momentary and specific supervisory behaviours and/or practices (e.g., providing participation, listening attentively) that might be helpful in minimizing the deleterious effects of experienced violation feelings.

Second, as scholars have recently emphasized the need to focus on “leadership in its context” (e.g., Dóci & Hofmans, 2013; Porter & McLaughlin, 2006), it might be fruitful for future research to take this interplay between a leader, his subordinates, and the broader context into account when assessing the impact of momentary LMX on emotional, cognitive, and behavioural reactions. In this respect, future research might build on the theoretical model of Dóci and Hofmans (2013), which proposes that a leader’s behaviours are triggered by his/her core beliefs and floating appraisals about the world, himself/herself, and others with whom they interact. For example, when an immediate supervisor experiences high work pressure, or considers the world and its actors to be untrustworthy, (s)he might be less likely to display behaviours that could mitigate the adverse consequences of violation feelings.

Finally, we acknowledge that volunteers do not consider one organizational agent (i.e., immediate supervisor) as the sole representative of the organization in their PC (Conway & Briner, 2005). Turnley and Feldman (1999), for example, identified—in addition to immediate supervisors—top management, recruits, and human resource managers as agents of the organization. All of these organizational agents may have their own role in negotiating and upholding one's PC with the organization. We would therefore advise future research to take such a multifocal approach to the PC into account (Marks, 2001).

### Practical implications

Our study underlines the need for organizations to emphasize the influence of one's immediate supervisor or coordinator to a greater extent, instead of overlooking that pivotal role. More practically, organizations should provide practical recommendations to volunteer managers on how to effectively redress the negative behavioural consequences of violation feelings (Mohr & Wolfram, 2008).

Based on LMX and PC literature, we can develop some insightful recommendations for volunteer and non-profit governance and management. Prior to determining the necessary intervention, immediate supervisors and coordinators in social enterprises must determine whether their volunteers are considered more collective (i.e., a lifelong engagement, highly committed, driven by a strong sense of obligations towards the community and high levels of altruism) or reflexive (i.e., sporadic engagement, decreased commitment, and primarily driven by self-interest; Hustinx & Lammertyn, 2003; Vantilborgh et al., 2011). When the organization contains predominately *collective volunteers*, we posit that coordinators are advised to focus on the whole group of volunteers, instead of on an individual volunteer. Specifically, we argue that a top-down, group-oriented approach aligns best with this style of volunteering. For example, we deem it advisable for a coordinator to offer an explanation as to why the organization failed to fulfil one or more obligations (Rousseau, 1995). Empirical research illustrated that providing an honest explanation or communicating with dignity and respect can effectively reduce the negative cognitive and behavioural effects of PC breach and violation feelings (Bies, 2013; Petersitzke, 2009). However, when a social enterprise consists mainly of *reflexive volunteers*, the more traditional group-centred management interventions are no longer in line with a reflexive volunteer's preference for an individual treatment by the coordinator (Hustinx & Lammertyn, 2003). This interpersonal treatment can be achieved by stimulating a transparent two-way communication, listening to a volunteer's concerns, and showing respect for his/her rights. This was found to be critical when redressing PC breach and the accompanying

violation feelings (Koivisto, Lipponen, & Platow, 2013; Norman, Avolio, & Luthans, 2010).

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### Notes

1. We do not formulate a hypothesis concerning the mitigating role of momentary LMX in the relationship between violation (time T-1) and CWB-I (time T) as—based on the cognitive and behavioural contingency arguments (Heider, 1958; Morrison & Robinson, 1997)—no direct relationship between violation (time T-1) and CWB-I (time T) can be expected.
2. When violation feelings are 0, PC breach is also 0 meaning that no PC breach was reported. If violation feelings are not 0, PC breach is 1, meaning that at least one PC breach was reported.

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**Appendix**

## Psychological contract items

	Relational	Transactional	Ideological
Item			
1.	Providing a good working atmosphere	Providing interesting work	Contribute to the stated cause
2.	Ensuring fair treatment by managers and supervisors	Providing opportunities to advance and grow	Commit resources towards advancing the stated cause
3.	Helping in dealing with problems encountered outside work	Allowing to take part in decision-making	Stand behind our corporate ideology, even if it requires a financial sacrifice
4.	Providing a safe working environment	Providing challenging work	Be dedicated to my company's mission
5.	Providing an work environment free from violence and harassment	Improving future prospects	Provide opportunities for involvement in our cause
6.		Providing career opportunities within the work	Encourage employee involvement in the cause
7.			Create internal practices and policies that advance my company's ideals
8.			Act as a public advocate of the espoused cause
9.			Maintain company culture that promotes our corporate principles

Notes: Relational and ideological PC items were derived from Kickul and Lester (2001), Robinson et al. (1994), Robinson and Morrison (1995), and Rousseau (1990). Ideological items were derived from Bingham (2005)