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The relationship between organisational change and being a perpetrator of workplace bullying: A three-wave longitudinal study

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ABSTRACT

While research has unravelled the association between organisational change and being a target of workplace bullying, scholars have still to shed light on the perpetrator perspective of this association. In the current study, we further the literature by investigating the relationship between exposure to organisational change and being a perpetrator of workplace bullying. We introduced perceptions of psychological contract breach as a mechanism that accounts for the process in which exposure to organisational change leads employees to direct bullying behaviours to other members of the organisation. Using three-wave longitudinal data from 1994 employees we estimated a between-subjects mediation model controlling for autoregressive effects. Results confirmed our hypothesis that exposure to organisational change at Time 1 was positively related to being a perpetrator of workplace bullying at Time 3 through perceptions of psychological contract breach at Time 2. These findings suggest that organisations should invest in factors that lower employees' likelihood to perceive psychological contract breach in the aftermath of organisational change because these perceptions may indeed result in the enactment of workplace bullying towards other members of the organisation.

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Introduction

Our current economic reality has been coloured by a range of organisational changes such as restructuring and downsizing (Frese, 2000). Despite their desired positive effects for the organisation, a plethora of studies has linked these changes to impaired employee health and well-being (e.g. Bamberger et al., 2012; Ferrie, Westerlund, Virtanen, Vahtera, & Kivimäki, 2008). Moreover, several studies have pointed toward an increased risk of becoming a target of workplace bullying (e.g. D'Cruz, Noronha, & Beale, 2014). That is, during times of organisational change, employees are more likely to be systematically and persistently (i.e. minimum 6 months) *targeted* with work-related (e.g. devaluation of the employee's

work and effort) and person-related (e.g. ridiculing, social isolation) negative acts at work (Einarsen, 2000). However, very little, if anything, is known about the association between organisational change and being a perpetrator of bullying. It is within this discourse that we contribute to the literature by investigating whether exposure to organisational change may lead to the enactment of workplace bullying.

Furthermore, while some studies have proposed explanatory factors in the association between organisational change and being exposed to workplace bullying – mostly related to a process in which employees become easy or vulnerable targets (Elias, 1986; Salin & Hoel, 2011) – we introduce perceptions of psychological contract breach as a key element underlying the relationship between exposure to organisational change and being a perpetrator of workplace bullying. Psychological contract breach has been widely used to understand how the experience of organisational change negatively influenced employee attitudes and behaviour (e.g. Parzefall & Kuppelwieser, 2012; Virick, Lilly, & Casper, 2007). In this respect, some studies found empirical support for a positive association between perceptions of psychological contract breach and counterproductive work behaviours directed towards the organisation (theft, product deviance, poor quality of work, misuse of information, sabotage, and withdrawal; Chao, Cheung, & Wu, 2011; Griep, Vantilborgh, Baillien, & Pepermans, 2016; Jensen, Opland, & Ryan, 2010; Restubog, Zagenczyk, Bordia, & Tang, 2013; Restubog, Zagenczyk, Bordia, Bordia, & Chapman, 2015) and its members (abuse and upward dissent strategies; De Ruiter, Schalk, & Blomme, 2016; Jensen et al., 2010). While these findings seem to indicate that psychological contract breach relates to negative conduct and milder forms of interpersonal mistreatment (i.e. counterproductive work behaviour), it is yet to be established whether such a breach could also trigger prolonged and systematic negative behaviour that can be considered acts of workplace bullying. Therefore, we aim to contribute to this body of knowledge by studying whether perceptions of psychological contract breach operate as a mediating factor that accounts for employees enacting bullying behaviours toward others when exposed to organisational change. As such, we add to the current knowledge on mechanisms that clarify why employees can be considered perpetrators of workplace bullying more easily when exposed to organisational change.

Finally, whereas to date most studies on factors that may trigger workplace bullying have been cross-sectional in nature (Samnani & Singh, 2012), we additionally aim to develop more insight into the unfolding process that explains why being exposed to organisational change is related to future enactment of workplace bullying through subsequent perceptions of psychological contract breach.

Organisational change and workplace bullying

The link between exposure to organisational change and workplace bullying is a much-discussed topic in which scholars generally position around the idea that organisational change yields a fertile soil for workplace bullying (D’Cruz et al., 2014). In times of organisational change, employees may become targeted with workplace bullying behaviours because managers adopt more autocratic practices to implement the organisational change among their staff (Salin & Hoel, 2011). In addition, organisational change brings along various stressors and changes to the job (i.e. increased workload, role conflict, job insecurity) that typically mould easy or vulnerable targets experiencing

high levels of strain, who may therefore offer little resistance against negative behaviours and bullying (Baillien & De Witte, 2009; Spagnoli & Balducci, 2017). For example, high workload during organisational change interventions has been shown to trigger exposure to bullying via psychological strain (Spagnoli, Balducci, & Fraccaroli, 2017). Furthermore, organisational change has been argued to fuel hostility and competition within the organisation, resulting in the usage of malicious techniques to impede or eliminate competitors (Salin, 2003). Several empirical findings align with these assumptions as they highlight a positive association between exposure to organisational change – including downsizing, lay-offs, and restructuring (Baillien & De Witte, 2009) or work environmental changes, staff and pay reduction (Skogstad, Matthiesen, & Einarsen, 2007) – and being a target of workplace bullying. In addition, targets of workplace bullying have described the start of the bullying process as coinciding with a recent job or managerial change (Rayner, 1997), and reported significantly more exposure to changes during the last six months compared to non-targets (Hoel & Cooper, 2000). More recently, Oxenstierna, Elofsson, Gjerde, Hanson, and Theorell (2012) found that changes in being a target of workplace bullying from 2006 to 2008 were – while controlling for an extensive list of work characteristics and workplace factors – positively associated with prior exposure to organisational change.

Although providing insights into the perspective of being a target of workplace bullying, these studies have neglected an under-investigated perspective in the field, namely being the perpetrator of these bullying behaviours. However, investigating the relationship between exposure to organisational change and being a perpetrator of workplace bullying is valuable because it aligns with the idea that organisational change is a contextual factor which triggers the “broad” phenomenon of workplace bullying, including the different parties involved (Salin, 2003). That is, understanding the association between exposure to organisational change and becoming a perpetrator of workplace bullying, as well as understanding the process underlying this association, will offer further insights in the contextual factors triggering workplace bullying. Moreover, investigating this relationship and its mechanisms ties in with recent evolutions in the field of bullying research in which some scholars (Baillien, De Cuyper, & De Witte, 2011; Samnani & Singh, 2012) have started to study processes contributing to workplace bullying enactment. Therefore, we investigate the relationship between exposure to organisational change – defined as changes including mergers, restructurings, downsizings, or acquisitions – and being a perpetrator of workplace bullying. Moreover, to understand the process underlying this relationship, we introduce psychological contract breach as an explanatory mechanism in the relationship between exposure to organisational change and being a perpetrator of workplace bullying. Whereas being targeted with bullying during organisational change has been related to stressors moulding easy and vulnerable targets (e.g. Baillien & De Witte, 2009; Salin & Hoel, 2011; see also above), we propose that exposure to organisational change may trigger being a perpetrator of bullying through a more active process. Specifically, based on the (Revised) Frustration-Aggression Theory (Berkowitz, 1989) and the theoretical tenets of proxy blaming (Zemba, Young, & Morris, 2006), we posit that employees who experienced a breach in their psychological contract as a result of the organisational change, will be more likely to actively engage in workplace bullying behaviours. Introducing perceptions of psychological contract breach as the underlying mechanism to the relationship between exposure to organisational change and being a

perpetrator of workplace bullying behaviours furthermore aligns with calls from Salin and Hoel (2011) – encouraging researchers to investigate mechanisms that may specifically explain associations between antecedents and enactment of workplace bullying – and from Parzefall and Salin (2010) – inducing scholars to consider concepts related to Social Exchange Theory (Blau, 1964) in bullying research.

Organisational change and workplace bullying enactment: introducing the psychological contract

The psychological contract refers to the set of beliefs about the reciprocal obligations between the employee and his/her employer based on explicit and implicit promises (Rousseau, 2001). Employees' perceptions about the extent to which the organisation has failed to fulfil these obligations, while they have kept their part of the deal, are coined as perceptions of psychological contract breach (Morrison & Robinson, 1997). Such perceptions of psychological contract breach may be particularly prevalent in a context of organisational change. That is, organisational change is likely to modify what the organisation demands from its employees and what it gives back in return. Through its impact on the employee's work situation (e.g. changing demands, altered work circumstances, or new tasks) organisational change may introduce new employee obligations that were not part of the initial psychological contract (Sims, 1994). Moreover, as a consequence of implementing organisational change, an organisation may no longer be able to offer some of its initial obligations to its employees. For example, organisational change brings about feelings of job insecurity and thus challenges the aspect of job security that is generally regarded as an obligation of the organisation and thus part of the psychological contract (Robinson, Kraatz, & Rousseau, 1994; Rousseau, 1990). These propositions and arguments received some empirical support as well. For example, a case study by Pate, Martin, and Staines (2000) showed that organisational change indeed triggered perceptions of psychological contract breach amongst the staff, which in turn fuelled resistance against the change. Similarly, in a three-wave longitudinal study among health-care workers, Freese, Schalk, and Croon (2011) showed that organisational change negatively affected the psychological contract.

These perceptions of psychological contract breach were found to be related to a range of detrimental outcomes including lower job satisfaction, increased withdrawal behaviours, reduced performance, less organisational citizenship behaviour, and more counter-productive work behaviour (e.g. Chao et al., 2011; Griep et al., 2016; Jensen et al., 2010; Restubog et al., 2013, 2015; Zhao, Wayne, Glibkowski, & Bravo, 2007). Despite this well-documented association between perceptions of psychological contract breach and negative employee attitudes and behaviours, little attention, if any, has been paid to the association between psychological contract breach and the enactment of workplace bullying. A plausible reason lies in the fact that these attitudes and behaviours are mainly directed towards the organisation that has broken its part of the deal, instead of towards co-workers who may equally suffer from the psychological contract breach. Nevertheless, there are several theoretical arguments to support the argument that psychological contract breach may also significantly affect the enactment of workplace bullying behaviours targeted towards organisational members. First, following the (Revised) Frustration-Aggression Theory (Berkowitz, 1989), stressors such as perceiving psychological

contract breach trigger negative affective reactions. These negative emotions may be relieved by directing negative acts – such as bullying behaviours – toward others (i.e. a process of venting negative emotions through negative acts). The target of these negative behaviours is often conceived as a “guilty” scapegoat (Thylefors, 1987). Second, the theoretical ideas of displaced aggression (i.e. the kicking-the-dog effect) and proxy blaming (Zemba et al., 2006) allow us to position that such a scapegoat can be found among all members of the organisation, including organisational members that are not responsible for the negative actions. More specifically, following the idea of displaced aggression, the employee confronted with psychological contract breach may – as a way of venting the negative emotions – aggress against a substitute target for the organisation as a whole (Marcus-Newhall, Pedersen, Carlson, & Miller, 2000). Following proxy-blaming, any member of the organisation could be blamed for negative organisational actions even when he/she is known to be causally uninvolved. Indeed, several scholars argued that the reason for displacing aggressive acts toward a substitute target pertains to the fact that “the organisation” is a large and rather impersonal entity (Marcus-Newhall et al., 2000; Solinger, Hofmans, Bal, & Jansen, 2016).

In sum, we have elaborated that organisational change may trigger perceptions of psychological contract breach, which in turn may fuel being a perpetrator of workplace bullying. Therefore, we hypothesise the following:

Hypothesis: There is an indirect relationship between exposure to organisational change at Time 1 and being a perpetrator of workplace bullying at Time 3 through general perceptions of psychological contract breach at Time 2.

Method

Procedure

We collected data among a heterogeneous group of Belgian employees at three points in time, separated by a 6-month time lag. We specifically selected a time lag of six months between the different measurement moments to be in line with the definition of workplace bullying (i.e. the negative acts need to occur at least over the course of *six months*; Einarsen, 2000). At Time 1, we invited readers of a Human Resources magazine to participate in a survey on employee well-being. Interested respondents could enter the questionnaire by clicking an open access link that was placed on the website of the Human Resources magazine. We emphasised that participation was voluntary and that responses would be treated confidentially. At the end of the first survey, we asked respondents who were interested in participating in the remainder of the study to enter their email address. Once data collection was completed, we omitted respondents who filled out the questionnaire multiple times (determined based on e-mail address, a combination of background characteristics, and IP address) as well as unemployed respondents, self-employed respondents, and individuals outside the working-age span of 18–65 years. This resulted in a group of 3415 respondents who completed the survey at Time 1. 2223 respondents entered their email address and were invited to complete the survey at Time 2 and Time 3. At Time 2, 957 respondents completed the survey (response rate of 43.1% relative to Time 1), and at Time 3, 858 employees responded to the survey (response rate of 38.6% relative to Time 1). We omitted 70 respondents who were unemployed at Time 2 and/or Time 3,

and omitted 159 respondents who changed jobs between the different measurements periods because these job transitions may have influenced the lagged relationships (de Lange, Taris, Kompier, Houtman, & Bongers, 2003). However, we did not omit respondents who dropped out at Time 2 and/or Time 3 (i.e. traditionally referred to as listwise deletion) because this approach would result in the loss of valuable information. In contrast, we relied on the Full Information Maximum Likelihood (FIML) method to reduce response bias (Duncan, Duncan, & Strycker, 2006). When using FIML, missing values (either by not having completed a full wave of data collection or just one item or one scale) are not replaced or imputed, but the missing data is handled within the analysis model. This method allows that all available information is used to estimate the model, and is superior to listwise deletion as no information is lost in the estimation of the analysis model. FIML estimates the population parameters that would most likely have produced the estimates from the sample data (see Collins, Schafer, & Kam, 2001). The final sample included 1994 respondents.

Sample

Respondents in the final sample worked in different types of industry (e.g. industry, retail, education, healthcare, IT) of both the private (63.50%) and the public sector (36.50%). Respondents were on average 38.03 years old ($SD = 11.50$) and 64.30% were female. The sample consisted of 10.60% blue-collar workers, 65.60% white-collar workers, and 23.80% managers. Most respondents (88.00%) had a permanent (open-ended) contract and worked on a full-time basis (77.00%).

Measures

We adopted a full panel design, in which we measured the independent variable, the mediator, and the dependent variable in all three measurement periods (Taris & Kompier, 2014). The control variables were assessed at Time 1. Consistent with other studies using a longitudinal design, we used shortened scales to ensure a reasonable length of the survey and to avoid endangering the compliance of respondents. Scale items were counterbalanced to rule out potential order effects in the results (Fisher & To, 2012). Additionally, to reinforce the period over which respondents were requested to report (i.e. six months), we reworded items such that they included “*since the previous survey* (i.e. the specific date of the previous survey was mentioned here)”.

Exposure to organisational change was measured with a single item based on Reisel (2003). The stem of this item was the following: “Did you experience changes in your organisation? By organisational changes we refer to mergers, restructurings, downsizings or acquisitions”. This item was addressed by means of a binary response category (“Yes” = 1; “No” = 0). To make a more compelling case concerning the validity of this dichotomous single-item measure of exposure to organisational change, we included this single-item in a different study ($N = 1878$ Belgian employees) together with the three-item organisational change frequency scale by Rafferty and Griffin (2006). The correlations between the single- and multiple-item measures ($r = .40$, $p < .001$, respectively) confirm the validity of the dichotomous single item measure of exposure to organisational change (Fisher & To, 2012).

Perceptions of psychological contract breach were measured with four items (Robinson & Morrison, 2000). An example item was: “My employer has broken many of his promises to me even though I’ve upheld my side of the deal”. Respondents rated each item on a five-point Likert scale ranging from (1) “totally not agree” to (5) “totally agree”. Reliabilities were satisfactory at all three measurement points: $\alpha_{T1} = .91$, $\alpha_{T2} = .91$, and $\alpha_{T3} = .92$.

Being a perpetrator of workplace bullying behaviours was measured with four items from the short negative acts questionnaire for perpetrating workplace bullying behaviours (see Baillien, De Cuyper et al. 2011; Escartín, Rodríguez-Muñoz, Soram, & Rodríguez-Carbal-leira, 2012). The items referred to person-related bullying acts (2 items) as well as work-related acts (1 item) and exclusion (1 item) (Cowie, Naylor, Rivers, Smith, & Pereira, 2002). For each of the four items, respondents were requested to indicate how frequently they had engaged in each of the following acts in the workplace: gossiping, making repeated remarks about somebody’s private life, making repeated reminders of somebody’s mistakes, and excluding somebody from work group activities. Respondents rated each item on a five-point Likert scale ranging from (1) “never” to (5) “daily”. Because this is a construct with formative indicators (i.e. it is unlikely that one will engage in each of these workplace bullying behaviours, or to the same intensity, over the course of six months; MacKenzie, Podsakoff, & Podsakoff, 2011), it renders the estimation of an internal reliability coefficient obsolete (Coltman, Devinney, Midgley, & Venaik, 2008).

Demographic variables such as age, gender, occupational position, contract type, full-versus part-time employment, supervisory position, sector, and organisational size have been shown to influence workplace bullying (for an overview see Zapf, Escartín, Einarsen, Hoel, & Vartia, 2011). Consequently, we controlled for these variables to make sure that observed variance in the enactment of workplace bullying is not due to variance in these demographical variables. *Age* was measured in years. *Gender* was coded as 0 for “female” and 1 for “male”. *Occupational position* was dummy coded as followed: 1 for blue-collar workers versus 0 for white-collar workers and managers, 1 for white-collar workers versus 0 for blue-collar workers and managers, and 1 for managers versus 0 for blue- and white-collar workers. *Contract type* was coded as 1 for permanent contract and 0 for temporary contract. *Employment type* was coded as 1 for full-time and 0 for part-time. *Supervisory position* was coded as 1 for being in a supervisory position and 0 for not being in a supervisory position. *Sector* was coded as 1 for private sector and 0 for public sector. Finally, *organisational size* was coded based on the definitions of enterprises (e.g. small, medium-sized and micro-enterprises) and coded as followed: 1 for 0–9 employees, 2 for 10–49 employees, 3 for 50–99 employees, 4 for 100–249 employees, 5 for 250–499 employees, 6 for 500–999 employees, and 7 for 1000 employees or more.

Analyses

The three-wave longitudinal data allowed us to examine 1) whether there was evidence for the hypothesised temporal precedence in these aspects (i.e. one of the important conditions of causality), and 2) whether the effect of exposure to organisational change on being a perpetrator of workplace bullying via perceptions of psychological contract breach was stable across time (e.g. whether the cross-lagged path from exposure to organisational change to psychological contract breach was significant from Time 1 to Time 2 as well as from Time 2 to Time 3). In line with these goals, we analysed our data by means of

a longitudinal three-wave autoregressive mediation model (Cole & Maxwell, 2003; MacKinnon, 2008) using Mplus version 7.1 (Muthén & Muthén, 2013). The model is specified in Equations (1) through (6). In these equations, X , M and Y refer to exposure to organisational change, perceptions of psychological contract breach, and being a perpetrator of workplace bullying behaviours, respectively.

$$X_2 = s_1 X_1 \quad (1)$$

$$X_3 = s_1 X_2 \quad (2)$$

$$M_2 = a_1 X_1 + s_2 M_1 \quad (3)$$

$$M_3 = a_2 X_2 + s_2 M_2 \quad (4)$$

$$Y_2 = b_1 M_1 + c'_1 X_1 + s_3 Y_1 \quad (5)$$

$$Y_3 = b_2 M_2 + c'_2 X_2 + s_3 Y_2 \quad (6)$$

Specifically, we estimated a longitudinal three-wave autoregressive mediation model in which each relationship is one time lag apart (i.e. relationships from Time 1 to Time 2, and from Time 2 to Time 3). Second, we assessed the stability of X , M , and Y by including their autocorrelations (i.e. the correlation between a variable and itself at different points in time) as displayed by the coefficient s_1 for $X_{1,2,3}$, coefficient s_2 for $M_{1,2,3}$, and coefficient s_3 for $Y_{1,2,3}$. Third, we included covariances among X , M , and Y at each of the three waves, as well as covariances among the residual variances of X , M , and Y at each wave. Furthermore, we included covariances between the above-mentioned control variables and M and Y at Time 2 and Time 3 to assess the potential influence of these control variables on the mediator and outcome variable. Fourth, by investigating the longitudinal relations between X_1 and M_2 (coefficient a_1) and between M_2 and Y_3 (coefficient b_2) the $a_1 b_2$ coefficient reflects the temporal precedence of the mediation effect. Finally, we inspected whether the longitudinal relations between X_1 and M_2 and M_2 and Y_3 could be replicated by also inspecting the longitudinal relations between X_2 and M_3 (coefficient a_2) and between M_1 and Y_2 (coefficient b_1), respectively. We drew 10,000 bootstrap samples to generate 95% bias-corrected confidence intervals (95% CI_{bc}; Preacher, Rucker, & Hayes, 2007).

Results

Preliminary analyses: descriptive statistics and confirmatory factor analysis

Table 1 shows the means, the standard deviations and the inter-correlations for the control variables and the X (i.e. exposure to organisational change), M (i.e. perceptions of psychological contract breach), and Y (i.e. enactment of workplace bullying) variables at each of the three measurement periods.

We evaluated the construct validity through a series of confirmatory factor analyses (CFAs) in which we tested and compared the theory-based model to different alternative measurement models. We used Dyer, Hanges, and Hall's (2005) conventional standards to assess model fit: Root Mean Square Error of Approximation ($.05 < \text{RMSEA} \leq .08$: reasonable fit; $0 \leq \text{RMSEA} \leq .05$: close fit), the Comparative Fit Index ($.90 \leq \text{CFI} < .95$: good fit; $.95 \leq \text{CFI} \leq 1.00$: excellent fit), and the Tucker-Lewis Index ($.90 \leq \text{TLI} < .95$: good fit;

Table 1. Descriptive statistics and correlations.

	<i>M</i>	<i>SD</i>	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Age	38.03	11.50	–									
2. Gender	.36	.48	–.13***	–								
3. Blue-collar worker	.11	.31	.06**	–.16***	–							
4. White-collar worker	.66	.49	–.08***	.04	–.27***	–						
5. Manager	.24	.43	.07**	–.15***	–.19***	–.44***	–					
6. Contract type	.88	.32	.28***	–.11***	–.01	–.04	.06*	–				
7. Employment type	.77	.42	–.25***	–.26***	–.10***	.06	.12***	.05*	–			
8. Supervisory position	.20	.40	.13***	–.20***	–.04	–.11***	.39***	.13***	.12***	–		
9. Sector	.64	.48	–.10***	–.07**	.14***	–.11***	.02	.13***	–.03	.04	–	
10. Organisational size	4.79	2.10	.12***	–.08*	–.01	–.04	.06	.01	.01	.02	–.12***	–
11. Organisational change T1	.45	.50	.03	–.11***	–.01	–.03	.07***	.05*	.03	.05*	.15***	.15***
12. Organisational change T2	.24	.43	–.06	–.03	.07	–.03	–.03	.01	.03	.01	.13***	.06
13. Organisational change T3	.86	1.35	.04	–.02	.06	–.08	–.04	–.11	–.09	–.07	.03	–.16
14. Psychological contract breach T1	2.58	.81	.05*	–.03	.02	–.04	–.01	.06**	.02	–.01	.01	.07
15. Psychological contract breach T2	2.65	.83	.02	.02	.03	–.04	–.04	.04	.03	–.06	–.06	.04
16. Psychological contract breach T3	2.64	.85	.04	–.01	.03	.01	–.04	.06	.01	–.06	–.05	.11*
17. Workplace bullying T1	1.72	.55	–.10***	.01	–.04	.03	–.02	.03	.05*	.03	–.03	.03
18. Workplace bullying T2	1.63	.50	–.05	.07	.08*	.03	–.09*	.03	–.01	–.01	–.01	.02
19. Workplace bullying T3	1.62	.49	–.05	.04	–.07	.04	–.02	.02	–.01	–.01	.03	.14**
	<i>M</i>	<i>SD</i>	11.	12.	13.	14.	15.	16.	17.	18.	19.	
11. Organisational change T1	.45	.50	–									
12. Organisational change T2	.24	.43	.32***	–								
13. Organisational change T3	.86	1.35	–.07	–.04	–							
14. Psychological contract breach T1	2.58	.81	.16***	.11**	–.14	–						
15. Psychological contract breach T2	2.65	.83	.17***	.16***	–.07	.67***	–					
16. Psychological contract breach T3	2.64	.85	.12**	.19***	–.10	.64***	.63***	–				
17. Workplace bullying T1	1.72	.55	.05*	.07*	–.14*	.14***	.13***	.03	–			
18. Workplace bullying T2	1.63	.50	.03	.06	–.12	.11**	.15***	.08	.62***	–		
19. Workplace bullying T3	1.62	.49	–.01	.03	–.03	.14***	.13**	.12**	.59***	.64***	–	

Notes: Mean values for control variables and organisational change refer to the percentage of respondents. Gender: 0 = women, 1 = men; Contract type: 0 = temporary contract, 1 = permanent contract; Employment type: 0 = part-time, 1 = full-time; Supervisory position: 0 = not in supervisory position, 1 = in supervisory position; Sector: 0 = public sector, 1 = private sector.

* $p < .05$; ** $p < .01$; *** $p \leq .001$.

.95 \leq TLI \leq 1.00: excellent fit). Competing models were compared using loglikelihood ratio tests. We started by estimating a model that matched the theory-based factor structure and included a latent factor for each concept under study. This theory-based model fitted the data well (see Table 2), with each item loading significantly and in the expected direction onto its respective latent factors during all three measurement periods. Next, we estimated three alternative models (see Table 2). Alternative model A fitted equally well to the data as the theory-based model at Time 1 ($\Delta\chi^2(1) = 1.66, p = .20$), Time 2 ($\Delta\chi^2(1) = .97, p = .32$), and Time 3 ($\Delta\chi^2(1) = .83, p = .36$), but was rejected because not all items loaded significantly on their latent factor. Alternative model B fitted significantly worse to the data than the theory-based model at Time 1 ($\Delta\chi^2(1) = 16.32, p < .001$), Time 2 ($\Delta\chi^2(1) = 14.52, p < .001$), and Time 3 ($\Delta\chi^2(1) = 10.28, p < .001$). Finally, alternative model C also fitted significantly worse to the data than the theory-based model at Time 1 ($\Delta\chi^2(2) = 1056.76, p < .001$), Time 2 ($\Delta\chi^2(2) = 289.65, p < .001$), and Time 3 ($\Delta\chi^2(2) = 209.93, p < .001$). Hence, the theory-based model guided our hypothesis testing.

Inferential results

Before presenting the results, we would like to point out that we modelled *change* in each endogenous variable by controlling for the previous level of the same variable (i.e. autoregressive correlation). Figure 1 displays the estimated paths in the longitudinal three-wave autoregressive mediation model.

Results showed that exposure to organisational change at Time 1 was positively related to perceptions of psychological contract breach at Time 2 (95% CIbc [.001; .099], Nagelkerke $R^2 = .47, p < .001$). Similarly, exposure to organisational change at Time 2 was positively related to perceptions of psychological contract breach at Time 3 (95% CIbc [.022;

Table 2. CFA results for theory-based and alternative measurement models.

Model	χ^2 (df)	RMSEA	CFI	TLI	SRMR
<i>T1</i>					
Theoretical model	45.59 (25)	.06	.96	.94	.03
Alternative model A	47.25 (26)	.06	.96	.94	.04
Alternative model B	61.91 (26)	.07	.95	.93	.05
Alternative model C	1118.67 (27)	.14	.77	.69	.12
<i>T2</i>					
Theoretical model	47.16 (25)	.03	.98	.98	.03
Alternative model A	48.13 (26)	.03	.98	.98	.03
Alternative model B	61.68 (26)	.04	.97	.97	.04
Alternative model C	336.81 (27)	.12	.82	.76	.11
<i>T3</i>					
Theoretical model	36.72 (25)	.03	.99	.99	.03
Alternative model A	37.55 (26)	.03	.99	.99	.04
Alternative model B	47.00 (26)	.03	.99	.99	.03
Alternative model C	246.68 (27)	.11	.86	.81	.10

Note: $N = 1994$.

Theory-based model: Exposure to organisational change, general perceptions of psychological contract breach, and being a perpetrator of workplace bullying behaviours each load onto a separate latent factor; Alternative model A: Exposure to organisational change and general perceptions of psychological contract breach load onto one latent factor; being a perpetrator of workplace bullying behaviours load onto a separate latent factor; Alternative model B: Exposure to organisational change and being a perpetrator of workplace bullying behaviours load onto one latent factor; general perceptions of psychological contract breach load onto a separate latent factor; Alternative model C: General perceptions of psychological contract breach and being a perpetrator of workplace bullying behaviours load onto one latent factor; exposure to organisational change load onto a separate latent factor.

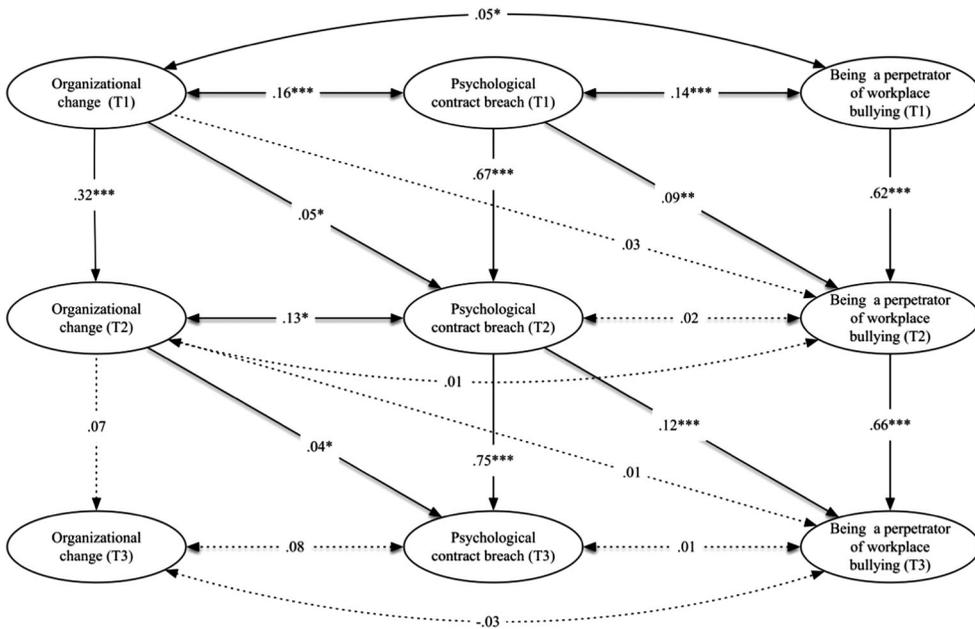


Figure 1. Estimated paths in the three-wave longitudinal autoregressive mediation model. Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Solid lines indicate significant relationships, dotted lines indicate non-significant relationships, and double arrowed lines indicate correlations.

.101], Nagelkerke $R^2 = .56, p < .001$). These results indicated that being exposed to organisational change at one point in time increased perceptions of psychological contract breach at the next point in time. Additionally, our results showed that perceptions of psychological contract breach at Time 1 were positively related to being a perpetrator of workplace bullying at Time 2 (95% CIbc [.023; .145], Nagelkerke $R^2 = .10, p < .01$), and that perceptions of psychological contract breach at Time 2 were positively related to being a perpetrator of workplace bullying at Time 3 (95% CIbc [.058; .184], Nagelkerke $R^2 = .16, p < .001$). These results indicated that having stronger perceptions of psychological contract breach at one point in time increased being a perpetrator of workplace bullying at the next point in time. Finally, and in line with our hypothesis, our results revealed an indirect longitudinal relationship between exposure to organisational changes at Time 1 and being a perpetrator of workplace bullying at Time 3 through perceptions of psychological contract breach at Time 2 (*estimate* = .01; 95% CIbc [.001; .014]).¹ Notably, we did not find a direct relationship between exposure to organisational change and being a perpetrator of bullying 6 months later (see Figure 1).

Of the included control variables, very few correlations were significant (see Table 1).

Discussion

The current study adds to our existing knowledge about workplace bullying in three important ways. First, we aimed to unravel the association between exposure to organisational change and the enactment of workplace bullying. By doing so, we adhered to recent evolutions in the workplace bullying literature in which scholars have started to pay more

attention to the perpetrator's perspective (for a discussion see Samnani & Singh, 2012). This perspective complements the dominant focus on targets of workplace bullying by developing insights into why employees engage in workplace bullying, and by exploring whether the previously found associations between exposure to organisational change and being a target of bullying (e.g. Baillien & De Witte, 2009; Skogstad et al., 2007) could be replicated for being a perpetrator of workplace bullying. As such, we attest to earlier theorising in which organisational change has been regarded as a context that could lead to the broad perspective on workplace bullying including not only targets but also perpetrators (Salin, 2003). Notably, the latter perspective on workplace bullying could enhance the interpretation of workplace bullying findings for targets in a context of organisational change. That is, some targets have been found to apply the label "bullying" to allege issues of power and politics in the organisation (i.e. the "pathologised organisation"; Liefvooghe & Mac Davey, 2001). Because organisational change could initiate or increase the use of the label "bullying" to such aspects of organisational politics, some of the earlier findings regarding the influence of organisational change on being a target of workplace bullying could have referred to perceptions of a pathologised organisation rather than actual bullying enactment by individuals. However, the results of our study indicate that exposure to organisational change does (indirectly) trigger being a perpetrator of bullying behaviours.

Second, we introduced perceptions of psychological contract breach as the explanatory mechanism underlying the relationship between exposure to organisational change and being a perpetrator of workplace bullying over time. Despite calls from workplace bullying scholars (Parzefall & Salin, 2010) to apply concepts related to Social Exchange Theory to workplace bullying, so far this aspect has received very limited empirical attention. Recently, Salin and Notelaers (2017) found evidence of the mediating role played by psychological contract violation in the relationship between workplace bullying and turnover intention. That is, psychological contract violation was conceived as a consequence of bullying explaining its negative impact on targets. Adding to insight in the role of psychological contract violation/breach, we demonstrated that including perceptions of psychological contract breach into the field of workplace bullying also adds value to the explanatory path towards workplace bullying. Our hypothesis in this respect was formulated based on the following findings: (1) perceptions of psychological contract breach seem to be particularly prevalent when exposed to organisational changes, and (2) perceptions of psychological contract breach have been associated with negative behavioural outcomes (e.g. Bordia, Restubog, & Tang, 2008; Griep et al., 2016; Restubog, Scott, & Zagenczyk, 2011). Beyond adhering to the call to include Social Exchange Theory (Blau, 1964) related concepts (Parzefall & Salin, 2010), we add to the mechanisms that have been explored in the organisational change-being exposed to workplace bullying relationship. That is, we believe perceptions of psychological contract breach explain the enactment of workplace bullying in the aftermath of organisational change because such a breach activates employees to vent negative behaviours to other members of the organisation.

Third, another strength pertains to our methodology. That is, we tested our hypothesis in a longitudinal three-wave autoregressive mediation model (Cole & Maxwell, 2003; MacKinnon, 2008). In contrast, most research on the organisational change-workplace bullying relationship to date has been cross-sectional in nature. As a consequence, these

studies were limited in their ability to make statement about the direction of the relationship. By using a longitudinal three-wave autoregressive mediation model, we can provide evidence for one of the most important conditions of causality: the temporal precedence of the organisational change-being a perpetrator of workplace bullying relationship. Our results demonstrated that the temporal precedence of this relationship runs from being exposed to organisational changes at Time 1 to being a perpetrator of workplace bullying at Time 3, via perceptions of psychological contract breach at Time 2. Although our estimates are rather small, they are significant and explain a substantial and significant amount of variance (Nagelkerke's R^2 ranges from .10 to .56 for the mediator and outcome variable). One potential explanation for the rather small nature of our estimates can be found when looking at the 6-month time lag between two subsequent measurement periods. Although these time lags were chosen based on the definition of workplace bullying, they might be somewhat long in view of capturing the process from change to enactment of bullying via perceptions of psychological contract breach. Nonetheless, we found repeated evidence for the positive relationship between exposure to organisational change to perceptions of psychological contract breach, and for the positive relationship from perceptions of psychological contract breach to being a perpetrator of workplace bullying behaviours; demonstrating stability of these findings over time (i.e. from Time 1 to Time 2, and from Time 2 to Time 3).

In general, these results underline the importance of perceptions of psychological contract breach in the indirect organisational change-workplace bullying relationship, attesting for a further cross-fertilisation between psychological contract and workplace bullying research.

Limitations

As in any other study, our study yields some limitations that deserve further attention. First, we collected all variables at the same point in time (i.e. at Time 1, Time 2, and Time 3). This might raise concerns with common method variance (Podsakoff, MacKenzie, & Podsakoff, 2012). However, by analysing our data using a longitudinal three-wave autoregressive mediation model with time lags of six months between our predictor, mediating, and outcome variables, we reduced risks owing to common method bias. In addition, we presented all scale items in a random order within the subsequent blocks. Hence, the presence of significant relationships is most likely a function of the studied constructs rather than methodological artefacts.

A second limitation concerns the self-report nature of the data. Asking respondents to report about being a perpetrator of workplace bullying might be particularly susceptible to social desirability. However, meta-analytical evidence (Berry, Carpenter, & Barratt, 2012) on counterproductive work behaviour indicates that employees are willing to report deviant behaviour. In addition, these authors found that self-reports provide a more reliable and valid assessment of counterproductive work behaviour than did other-reports when surveys were anonymous. Accordingly, and in line with the recommendations of Berry et al. (2012), we used self-reports to assess being a perpetrator of workplace bullying but took steps to assure anonymity.

Finally, despite being consistently significant across the different waves, our estimates were rather small while our sample size was quite large. Hence, our results could have

been determined by the sample size. However, by estimating 95% bias-corrected bootstrap intervals, we essentially accounted for the “inflation factor” in our estimates, which is usually of the order of the sample size (Steck & Jaakkola, 2004). Furthermore, we explained a substantial and significant amount of variance for the mediator and outcome variables.

Future research implications

In the current study, we only investigated the path from exposure to organisational change to being a perpetrator of workplace bullying via perceptions of psychological contract breach. Although we (repeatedly) underlined the importance of perceptions of psychological contract breach as a mediator of this relationship, future studies could provide further insights in the conditions under which the indirect association between exposure to organisational change and workplace bullying via perceptions of psychological contract breach would increase versus decrease. A possible moderator at the employee level could be perceived control (Spector, 1986): low perceived control may increase the association between exposure to organisational change and perceived psychological contract breach stemming from the employee’s idea that the organisation is the active party in the altered agreements rather than the (powerless) employee. Perceived control could also moderate the relationship between perceptions of psychological contract breach and being a perpetrator of workplace bullying. That is, the process of frustration-aggression in response to the perceived psychological contract breach may be particularly strong when seeing oneself less capable to control the desire to retaliate by engaging in workplace bullying behaviours. Alternatively, a possible moderator at the employer level could be organisational change communication: a realistic preview (Schweiger & Denisi, 1991) about the process and consequences of the expected organisational change may prevent employees from interpreting the changes as a psychological contract breach, and thus decrease the association between organisational change and perceived psychological contract breach. And, given that workplace bullying is defined as an imbalance between the parties involved in the bullying situation and that the perpetrator typically holds a more powerful position towards the target, our indirect process could equally well be moderated by managerial or supervisory position. However, contrary to this idea, a more in-depth analysis of our control variables revealed a negative correlation between being a manager and being a perpetrator of workplace bullying at Time 2.

An interesting issue moreover pertains to the eventual target of the frustration-aggression or projection processes, particularly as psychological contract breach refers to the employee’s exchange with the organisation whereas workplace bullying is a social phenomenon between individuals. While some psychological contract scholars have conceived that individuals are unlikely to be the target of corrective behavioural reactions when an employee perceives psychological contract breach (e.g. Heider, 1958), our findings seem to suggest that the damaging social effects of psychological contract breach are not restricted to the organisation. Hereby our results contrast the findings of Conway, Kiefer, Hartley, and Briner (2014) and Griep et al. (2016), but align with previous findings of Bordia et al. (2008) who detected that psychological contract breach initiated revenge seeking that, in turn, triggered workplace deviance. To further illuminate these contrasting findings we suggest that future research on the organisational change-workplace bullying relationship could include measures of workplace bullying enactment, as

well as measures of counterproductive acts toward the organisation. By doing so, future research could contrast a target similarity approach to psychological contract breach reactions (i.e. perceptions of psychological contract breach are targeted toward the organisation) with a displaced aggression or proxy blaming approach (i.e. perceptions of psychological contract breach are targeted toward a more personal and substitute target of the organisation).

Next, exposure to organisational change was assessed using a single-item measure collapsing mergers, restructurings, downsizings and acquisitions. While this method could be valuable to particularly tap employees' conscious exposure to (a range of actions part of) organisational change initiatives – that is, employees are not always fully aware of the specific type of change they are confronted with – the single-item approach does yield some shortcomings. First, it did not allow differentiation between employees that were still experiencing organisational change versus those who had experienced such changes earlier in the 6 months during our assessment. Second, we could not test whether different types of changes would have a different impact on the enactment of workplace bullying over time. Future studies could therefore consider, for example, the measurement suggested by Baron and Neuman (1996) that explicates exposure to a range of organisational changes (see also Baillien & De Witte, 2009; Holten et al., 2017).

Future studies could also advance some other methodological aspects in our study. We used a longitudinal three-wave autoregressive mediation model to test for mediation, while Reichardt (2011) elaborated that applying a design with at least four waves would yield stronger results. Also, data were collected from individuals that responded to an invitation launched in a Human Resource magazine. Alternatively, future studies could assess our study variables in various organisations and their employees, and replicate our hypothesis in a multi-level design with employees nested in organisations. Similarly, future studies could consider a within-subject approach to our research question; however including a well-engineered design with more measurement points and applying a shorter time lag to fully grasp the within-person fluctuating processes. And finally, while advancing the field by focussing on perpetrators of workplace bullying, future research could opt to measure both perpetrators and targets of bullying to fully capture the nature of the relationships between exposure to organisational change, psychological contract breach and the broad phenomenon of workplace bullying.

Practical implications

Two main practical implications become evident when unravelling the longitudinal relationship between exposure to organisational change and being a perpetrator of workplace bullying. First, our study revealed that exposure to organisational change was positively associated with being a perpetrator of workplace bullying at the same point in time, as well as over time. As such, this finding underlines the need for organisations and practitioners to be cautious when implementing organisational change. In line with previous researchers who stressed the role of anti-bullying policies (e.g. communicating disapproval of bullying; Baillien, Neyens, & De Witte, 2011), we would advice management and prevention works to explicitly communicate the organisation's stance toward workplace bullying in times of organisational change. Alternatively, given that exposure to organisational change is generally perceived as a stressor, the organisation could

provide their staff with additional resources – such as autonomy, participation, leader support or opportunities to further develop their competences – to deal with the stressful and demanding situation of change (Bakker & Demerouti, 2008).

Second, our study sheds light on how organisational change led to an increase of bullying enactment over time because exposure to organisational changes brought along stronger perceptions of psychological contract breach amongst employees. Accordingly, we would advise practitioners to be particularly alert for the impact of organisational change on employees' psychological contracts in an attempt to avoid perceptions of breach from arising. Specifically, we would advise prevention workers to focus on factors that actually lower the likelihood to perceive psychological contract breach. For example, they could advise organisations to invest in – amongst others – performance feedback, career management help, clear organisational goals, and inclusion of the staff in the management's decisions about the changes that would affect the staff's job and/or functioning in order to avoid perceptions of injustice. These tactics have been shown to reduce the likelihood to perceive a psychological contract breach (Hartmann & Rutherford, 2015; Kickul, Lester, & Finkl, 2002; Sturges, Conway, Guest, & Liefoghe, 2005).

Conclusion

Our findings indicated that exposure to organisational change increases being a perpetrator of workplace bullying via perceptions of psychological contract breach. The mediating role of psychological contract breach in this relationship aligns with recent calls to include Social Exchange Theory related concepts in the study of the organisational change-workplace bullying relationship (Parzefall & Salin, 2010). We are hopeful that our findings, along with the advanced methodologies used in our studies, will stimulate many novel and exciting avenues of research.

Note

1. An additional test in which relationships between psychological contract breach and enactment of workplace bullying revealed a non-significant relationship between bullying at Time 1 and breach at Time 2 ($\beta = .04$; $p = .16$) and between bullying at Time 2 and breach at Time 3 ($\beta = .01$; $p = .73$), and thus strengthened our conclusion of a unidirectional relationship from psychological contract breach to enactment of workplace bullying over time.

Disclosure statement

No potential conflict of interest was reported by the authors.

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