Person-Environment Fit as a Parsimonious Framework to Explain Workplace Bullying

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Abstract

Purpose This study tested whether person-job fit (PJ-fit), person-group fit (PG-fit) and person-organization fit (PO-fit) relate to exposure to and enactment of workplace bullying (WB), mediated by strain and conflict.

Methodology Data from 1077 employees were analysed using multiple mediator structural equation modelling (Mplus 8.0).

Findings PJ-fit, PG-fit and PO-fit all related to WB. PG-fit accounted for most explained variance. PJ-fit, PG-fit and PO-fit related to bullying through strain; only PG-fit also related to bullying through conflict.

Research limitations/implications PE-fit is valuable to parsimoniously investigate WB's multi-causal nature; and strain and conflict partially explain the associations. Future research may shed more light on the direction of these effects.

Practical implications So far, scholars assumed that job design prevents WB (work-environment hypothesis). Our study revealed that prevention should also focus on the fit between employee and group/organization.

Societal implications WB has high societal costs. We introduce a new angle to WB prevention. To counteract WB, practitioners should also look at PJ-fit, PG-fit and PO-fit. This is not only important for recruitment, but also for tenured employees (e.g. because of changes in employees' needs, the job, the group or the organization).

Originality/value This study was the first to investigate the multi-causal nature of both WB exposure and enactment, by applying the lens of PE-fit, and testing explanatory mechanisms.

Keywords: Workplace bullying, person-environment fit, stress, conflict, multiple mediation

Introduction

Workplace bullying (WB) entails frequent (i.e. weekly) and persistent (i.e. about six months) hostile person-related (e.g. insults) and/or work-related (e.g. withholding information) acts. It contains a power imbalance: the target feels unable to go against the perpetrator. Research has widely documented WB's detrimental impact on the employees (e.g. mental and physical health problems), the organization (e.g. judicial settlements, lowered organizational commitment) and the society (e.g. costs of absenteeism) (Neall and Tuckey, 2014; Nielsen and Einarsen, 2012). A thorough understanding of the causes of WB can prevent these outcomes. Leymann (1990) attributed WB to the organisation and its bad management of critical events (work environment hypothesis). In support, studies revealed factors related to the job, group and organisational quality (e.g. work load, leadership, social climate; Einarsen et al., 1994; Samnani and Singh, 2012). Interestingly, Einarsen et al. (1994) pointed early on to the additional role of person-related factors in WB as a multi-causal phenomenon. However, surprisingly little studies addressed both person-related and work environmental factors in explaining WB (Van den Brande et al., 2016).

In reply, we tie in with Einarsen and colleagues (1994) by introducing person-environment (PE) fit into WB research. This framework suits the idea of multi-causality because it integrates person-related and work environmental (job-related, group-related, and organizational) factors in terms of perceived congruence. PE-fit refers to an employee's unique experience of fit with the work environment (Kristof-Brown and Guay, 2011) that is conceived as multi-dimensional. It involves, for example, the employee's fit with the job, the group and the organization. Thus, a first contribution is that we test the multi-causal nature of WB in an innovative and parsimonious way, through the use of a PE-fit framework encompassing PJ-fit, PG-fit and PO-fit.

Furthermore, we address two other shortcomings. First, most research has investigated targets of WB; few studies have acknowledged the perspective of the perpetrators. Consequently, we know little of why employees engage in WB (Samnani and Singh, 2012). Therefore, another contribution is that we test our PE-fit framework for both targets and perpetrators. Second, empirical research on mechanisms explaining the relationship between WB and its multiple causes is rather limited (Nielsen and Einarsen, 2018). Nonetheless, we can identify two explanatory processes in the WB literature, being stress and conflict (Baillien et al., 2009). However, no study to date has simultaneously tested these processes as mediators between antecedents and WB. Hence, our final contribution is that we investigate whether PJ-fit, PG-fit and PO-fit can be indirectly linked to WB through stress and conflict.

WB and PE-fit

PE-fit attributes outcomes to a well-matched combination of person-related and work-related factors (Kristof-Brown et al., 2005). PE-fit is an innovative approach for studying WB because both person-related and work-related characteristics are integrated in one concept, being the employee's unique experience of fit between him/herself and the work environment (Kristof-Brown and Guay, 2011). Moreover, PE-fit is multi-dimensional (Kristof-Brown et al., 2002): employees do not conceive the environment from an overarching sense of fit. Hence, PE-fit is assessed by measuring separate dimensions in the work environment (e.g. the job). Because each PE-fit dimension has a unique impact on outcomes, scholars agreed upon operationalizing PE-fit using those dimensions that are relevant for the outcome of interest (Kristof-Brown et al., 2002). Following WB models that identify person-related aspects as well as job-related, group-related and organizational triggers (Zapf, 1999), we operationalize the multi-causal perspective on WB using these PE-fit dimensions. First, person-job (PJ-) fit implies the compatibility of the employee's abilities and needs with, respectively, the demands and supplies related to the job. Second, person-group (PG-) fit refers to the interpersonal

congruency of similar values and goals between the employee and his/her work unit. Third, person-organization (PO-) fit stands for congruency of analogue values and goals between the employee and the organization (Kristof-Brown et al., 2005). Consequently, PE-fit provides a suitable framework for testing WB's multi-causal nature in a straightforward and parsimonious way.

Interestingly, some studies pointed out antecedents in the job, the group, and the organization that could be re-interpreted through the lens of PE-fit. For example, low skill utilization—a job-related antecedent indicating that an employee is unable to use his/her skills (Notelaers et al., 2010)—could signal low PJ-fit. Whilst this antecedent has only been investigated for exposure to bullying, scholars argued that it could also be relevant for WB enactment as a way to reduce boredom (Notelaers, et al., 2013). Additionally, low group identification—typically conceived as a lack of fit with the group (i.e. low PG-fit)—has been shown to increase bullying (Escartín et al., 2013). Finally, procedural injustice has been identified as a trigger of exposure to WB (Oxenstierna et al., 2012) and—tying in with the perpetrator's perspective—enacting harmful acts towards others (Fox et al., 2001). Perceived procedural injustice could reflect low PO-fit, as organizations using procedures with unfair regulation of resources may hinder employees in achieving their needs and valued goals (Howard and Cordes, 2010). These findings suggest that WB varies according to the degree of PJ-fit, PG-fit and PO-fit: low fit relates to more exposure to or enactment of WB.

Stress and conflict

Tying in with the Three Way Model (TWM) (Baillien et al., 2009) that maps the mechanisms linking antecedents to WB, we could also derive why PJ-fit, PG-fit and PO-fit may be associated with WB exposure and its enactment. The TWM was developed from a qualitative inspection of WB incidents and integrates several theories into one comprehensive

model. It illustrates that (a) antecedents are situated on the level of the person, the job, the team ànd the organization, (b) these antecedents are indirectly related to WB through the explanatory processes, (c) similar processes predict exposure and enactment of WB and (d) the processes combine in explaining WB. Firstly, the model sketches a stress process: antecedents increase employee strain that may translate into WB. Regarding exposure, the strain adds to withdrawal through which the employee may violate work-related social norms ("Social Interactionism"; Felson and Tedeschi, 1993). Subsequently, this employee may become exposed to bullying by annoyed co-workers (Hoel et al., 1999). Regarding enactment, strain may be vented on others in the form of negative acts and bullying ("Revised Frustration-Aggression theory"; Berkowitz, 1989). Secondly, TWM proposes a conflict process: issues at work can trigger personal conflicts. Conflicts that are not adequately dealt with may result in a conflict escalation process in which the less powerful party loses (target) and the more powerful party applies WB tactics to win (perpetrator) the fight ("Conflict Escalation Model"; Glasl, 1982; Zapf and Gross, 2001). To date, quantitative studies attested parts of TWM (e.g. Van den Broeck et al., 2011). However, introducing a PE-fit perspective into WB research allows us to simultaneously test the TWM's main premises regarding multi-causality and multiple explanatory processes.

First, low PE-fit is regarded as a stressor: a low match between the work context and the employee adds to stress outcomes (Kahn et al., 1964). Empirical support revealed that low PJ-fit and PO-fit related with strain, psychological withdrawal and emotional exhaustion (Howard and Cordes, 2010; Kristof-Brown et al., 2005; Tong et al., 2015). Studies regarding the relationship between PG-fit—a more recently introduced fit-dimension—and strain are scarce. However, low PG-fit may fuel low feelings of belongingness adding to negative psychological responses and strain (Baumeister et al., 2005). Integrating fit research and TWM, we assume that PJ-fit, PG-fit and PO-fit relate negatively with (a) being a target of WB (withdrawal) or (b) being a perpetrator of WB (frustration-aggression) explained by strain.

Hypothesis 1: There is an indirect negative relationship between PJ-fit and exposure to (Hypothesis 1a) as well as enactment of (Hypothesis 1b) WB through strain.

Hypothesis 2: There is an indirect negative relationship between PG-fit and exposure to (Hypothesis 2a) as well as enactment of (Hypothesis 2b) WB through strain.

Hypothesis 3: There is an indirect negative relationship between PO-fit and exposure to (Hypothesis 3a) as well as enactment of (Hypothesis 3b) WB through strain.

Alternatively, low PE-fit challenges social relationships at work: incongruence entails that employees hold different frames when cognitively processing and interpreting events. Consequently, low fit enhances the likelihood of miscommunications and misunderstandings, triggering personal conflicts (Hobman et al., 2003; Meglino et al., 1989). Empirical support shows that PJ-fit, PG-fit, and PO-fit associated negatively with interpersonal conflicts (Jehn et al., 1997; Pseekos et al., 2011). Integrating this with TWM, we assume that PJ-fit, PG-fit and PO-fit relate negatively with (a) being a target of WB (powerless) or (b) being a perpetrator of WB (powerful) explained by conflict.

Hypothesis 4: There is an indirect negative relationship between PJ-fit and exposure to (Hypothesis 4a) as well as enactment of (Hypothesis 4b) WB through conflict.

Hypothesis 5: There is an indirect negative relationship between PG-fit and exposure to (Hypothesis 5a) as well as enactment of (Hypothesis 5b) WB through conflict.

Hypothesis 6: There is an indirect negative relationship between PO-fit and exposure to (Hypothesis 6a) as well as enactment of (Hypothesis 6b) WB through conflict.

Method

Procedure and participants

Data were collected in 22 Belgian organizations that signed an agreement of participation. They belonged to different sectors (government, finance and insurance, social work, education, sales, logistics and manufacturing). The HRM department facilitated access to the organization's employees who they informed about the aim, timing and voluntary nature of the data collection. An anonymous self-report questionnaire entitled "wellbeing at work"[1] was distributed by providing a web-based link to the white-collar workers through their work-related e-mail address. The blue-collar workers received a paper-and-pencil questionnaire from their supervisor that they could post directly to the authors' research group in sealed envelopes. The employees were allowed to fill in the questionnaire during working hours. The sample (N = 1077; response rate of 44.9%) consisted of an almost equal number of men (50%, n = 537) and women. The respondents' mean age was 40 years (SD = 9.87). The majority of the sample (63%, n = 675) went to college or university. Furthermore, the respondents were rather highly positioned in the organization with 9% (n = 96) managers (i.e. supervisors and members of the board), 75% (n = 807) white-collar workers and only 16% (n = 175) blue-collar workers. Finally, respondents have worked on average 12 years (SD = 10) in their current organization and 12 years (SD = 6.00) in their current job within the organization.

Measures

Independent variables. All items regarding *fit* were rated on a five-point scale ranging from "do not agree" (=1) to "agree" (=5).

PJ-fit (Cronbach's α = 0.93) was measured using six items from Cable and DeRue (2002). The respondents rated questions such as "There is a good fit between what my job offers me and what I am looking for in a job" and "The match is very good between the demands of my job and my personal skills". *PG-fit* (Cronbach's α = 0.61) was measured with

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[1] We opted for a more general title in order to avoid selection bias

four items from Vogel and Feldman (2009). To avoid tautology between PG-fit and conflict, we omitted one item[2]. An example item is "I get along well with the people I work with on a day-to-day basis". *PO-fit* (Cronbach's α = 0.89) was measured by six items from Vogel and Feldman (2009). Respondents rated questions such as "My personal values match my organization's values and culture".

Mediators. As strain refers to a range of outcomes of being exposed to stress (Agnew, 1992), we applied an established operationalization in the literature, being *emotional exhaustion* (Cronbach's α = 0.93) (e.g. Van den Broeck et al., 2011). On a seven-point scale from "never" (=0) to "always" (=6), respondents rated 5 items of the UBOS (Schaufeli and Van Dierendonck, 2000), such as "I feel totally exhausted in my job".

Conflict (Cronbach's α = 0.91) was operationalized using four items of *personal conflict* from Jehn (1995). Respondents rated questions as "There are emotional conflicts between my colleagues and I", applying a five-point scale ranging from "never" (=1) to "almost always" (=5).

Dependent variables. WB was measured using the Short Negative Acts Questionnaire (S-NAQ; Notelaers et al., 2019). Regarding *exposure* (Cronbach's α = 0.88), the respondents rated how often during the last 6 months they were exposed to nine bullying behaviours (e.g. "Silence or hostility as a response to your questions or attempts at conversations.") on a five-point scale from "never" (=1) to "now and then" (=2), "monthly" (=3), "weekly" (=4), and "daily" (=5). Regarding *enactment* (Cronbach's α = 0.81), respondents indicated how often during the last 6 months they had enacted these negative acts (e.g. "Silence or hostility as a response to someone's questions or attempts at conversations") on the similar five-point scale.

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[2] The omitted item was "There is not much conflict among the members of my group."

Analyses

Analyses were conducted in Mplus 8.0 (Muthén and Muthén, 2017). First, confirmatory factor analysis (CFA) evaluated the hypothesized measurement model—distinguishing 7 latent factors—as compared to alternative models. Then, our hypotheses were tested using a SEM multiple mediation model (MODEL INDIRECT). Following Preacher and Hayes (2008) the original dataset was resampled a 1000 times and each time providing estimates for the model parameters resulting in the construction of a 99% confidence interval around the estimated effects. The indirect effect was considered significant if the 99% confidence interval did not contain zero. Applying these bootstrapping procedures, we used the Maximum Likelihood (ML) estimator.

Regarding the fit of the measurement model, we first looked at the chi-square (χ^2) that indicates a perfect fit when non-significant. As a perfect (exact) fit is rarely obtained due to sample size sensitivity (Hu and Bentler, 1995), we additionally used the Comparative Fit Index (CFI), the Tucker Lewis Index (TLI), and the Root Mean Square Error of Approximation (RMSEA) (Jöreskog and Sörbom, 1993). For an acceptable model fit, the value of the CFI and TLI should be above .90, while RMSEA needs to be below .08 (Byrne, 2010). In order to compare the alternative measurement models, we used the χ^2 difference test (Weston and Gore, 2006).

Results

Means, standard deviations, and intercorrelations between the scales are reported in Table 1.

[TABLE 1]

The CFA revealed that the hypothesized measurement model (PJ-fit, PG-fit, PO-fit, strain, conflict, target and perpetrator) fitted well (χ^2 (839) = 3241.88, p<.001, CFI=.97, TLI=.97, RMSEA=.05) and better than three alternative models (see Table 2). It also fitted

better or equally well than two models inspecting common method variance: the Harman's single factor model (Harman, 1979) (χ^2 (860)= 23443.13, p<.001, CFI=.71, TLI=.69, RMSEA=.16) and the model in which all measured items loaded on the expected factors as well on a latent common factor with equal loadings (Podsakoff et al., 2003) (χ^2 (838)= 3243.52, p<.001, CFI=.97, TLI=.97, RMSEA=.05).

[TABLE 2]

Figure 1 visualises the estimates of the relationships in our final structural model and the significance for each estimate at the level of α = .01. Table 3 details the results of the multiple mediation test: the "Effects" column denotes the bootstrap results of the direct, total indirect and total effects of the different fit dimensions on respectively exposure and enactment of WB. Being standardized effects, they allow us to highlight the relative importance of the different dimensions in understanding respectively exposure to and enactment of WB. Interestingly, a close inspection of the total effects showed that PG-fit accounted for most of the variance in both WB exposure and enactment. The importance of both PJ-fit and PO-fit was rather low, except for the value of PO-fit in understanding WB enactment. Additionally, we see a remaining significant direct relationship between PG-fit and WB exposure as well as between PO-fit and WB enactment.

The columns Strain (A) and Conflict (B) on the right part of Table 3 list the specific indirect effects and their 99% bootstrapped confidence intervals of the PE-fit dimensions on both exposure to and enactment of WB, explained through strain (A) and conflict (B)[3]. Specifically, Column (A) displays the results of hypotheses 1a, 2a and 3a regarding the negative indirect association between respectively PJ-fit, PG-fit, and PO-fit and *exposure* to WB through strain. We see that strain mediates the association between PJ-fit (β = -.037, 99%

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[3] Including age and gender as control variables did not alter our findings (results are available from the first author upon request).

BCI [-.068;.013]), PG-fit (β = -.054, 99% BCI [-.094;.028]) as well as PO-fit (β = -.033, 99% BCI [-.058;.011]) and WB exposure. Column (A) also shows the findings for hypotheses 1b, 2b and 3b regarding the negative indirect association between respectively PJ-fit, PG-fit, and PO-fit and *enactment* of WB through strain. Strain mediated the associations between PJ-fit (β = -.025, 99% BCI [-.060;.003]), PG-fit (indirect effect = -.036, 99% BCI [-.077;.006]) and PO-fit (β = -.022, 99% BCI [-.047;.003] and WB enactment. All hypotheses regarding the indirect relationship between PE-fit and WB through strain were supported.

Column (B) displays the results regarding the negative indirect association between PJ-fit, PG-fit, and PO-fit and WB through conflict. Regarding WB *exposure*—hypotheses 4a, 5a and 6a—there is no significant indirect relationship of PJ-fit and PO-fit with WB via conflict. Hypotheses 4a and 6a were not supported. However, there was an indirect association between PG-fit and WB through conflict (β = -.177, 99% BCI [-.287;.086]) and hypothesis 5a was supported. Regarding WB *enactment*—hypotheses 4b, 5b and 6b—the results align with those for exposure. That is, there is no indirect relationship from PJ-fit and PO-fit to WB through conflict. Thus, hypotheses 4b and 6b were not supported. However, there was an indirect association between PG-fit and WB through conflict (β = -.184, 99% BCI [-.334;.060]) supporting hypothesis 5b.

[TABLE 3]

[FIGURE 1]

Discussion

This study is the first to investigate the multi-causal nature of WB. First, our results showed that employees perceiving a low fit with their job, group and organization are more likely to become exposed to or enact WB. This expands earlier WB research, indicating the importance of employees' experienced combination of person- and work-related factors.

Second, our findings indicated strain as a valuable explaining mechanism: low PJ-fit, PG-fit and PO-fit wear out employees, who in turn become victimized or act out on a co-worker. Additionally, conflict was found as a second simultaneous explaining mechanism, yet only for PG-fit. Interestingly, while earlier research mainly focussed on job-related and organizational antecedents, we found that the group-related fit-dimension was strongest associated with exposure to and enactment of WB.

Theoretical and empirical implications

Overall, our study substantiates WB as a multi-causal phenomenon by using PE-fit. This addresses earlier calls to combine person-related and work-related (i.e. job-related, group-related and organizational) factors for explaining WB (Einarsen et al., 1994). Our findings indicate that a parsimonious combination of the employee and his/her work environment in PE-fit—grasping the employee's perceived compatibility between these factors—plays a role in WB. Interestingly, our findings show that an employee may be exposed to or enact WB depending on his/her perceived compatibility with the job, group and organization. Thus, for WB, how employees personally see their own fit with the work context matters. This approach differentiates itself from the traditional manner of looking at WB antecedents, which have investigated features belonging to the employee (e.g. personality); or, (predominantly) the job (e.g. workload), the group (e.g. cohesion), and the organization (e.g. safety climate).

Notably, PJ-fit played a small role. This goes against earlier research identifying many job-related antecedents and applying stress models such as the Job Demand-Control Model (Notelaers et al., 2013), and the Job Demand-Resources Model (Van den Broeck et al., 2011) to WB. Our findings add nuance to the strong and significant findings in these studies: perhaps the lack of a multi-causal perspective may have boosted the observed importance of job aspects

for WB. In fact, omitting our mediators and removing PG-fit and PO-fit in a supplemental analysis, PJ-fit indeed related to WB exposure ($\beta = -0.294$) and enactment ($\beta = -0.201$).

Regarding indirect effects, our results correspond with TWM (Baillien et al., 2009): both strain and conflict accounted for the association between PE-fit and WB. This is the first study to investigate these explanatory processes simultaneously and furthers the academic literature: strain explained the association between PJ-fit, PG-fit and PO-fit and WB exposure/enactment. This ties in with Social Interactionism (Felson and Tedeschi, 1993); low PE-fit makes employees withdraw and violate norms, which generate annoyed co-workers bullying them. Our results also tie in with the Revised Frustration-Aggression theory (Berkowitz, 1989); low PE-fit moulds strained employees that may vent their frustration by lashing out through bullying. In conclusion, strain accounts for the relationship between all dimensions in the work environment and WB. Alternatively, conflict only explained the association between PG-fit and WB exposure/enactment. Thus, whereas all PE-fit dimensions may be regarded as stressors in TWM, only low PG-fit is additionally associated with WB through an interpersonal process. PJ-fit and PO-fit were not related to WB through conflict. This is remarkable: while TWM considers the antecedents—person, job, team and organization—to trigger bullying through strain ànd conflict, our results reveal a differentiation. Following the definitions of both PG-fit and conflict we could explain this finding. On the one hand, low PG-fit refers to the incongruence between values and goals of the employee and those of his/her co-workers (Kristof-Brown et al., 2005). On the other hand, in conflict, an employee perceives that a co-worker is negatively affecting something he/she cares about (Thomas, 1992). Consequently, when values or goals are not congruent with those of the group members, this may fuel perceptions of conflict as group members are challenging valued aspects of each other's identity. Alternatively, this result could be explained through empirical findings in PE-fit research. As scholars demonstrated a stronger association between

fit dimensions and outcomes referring to corresponding environmental dimensions (Kristof-Brown et al., 2005), it could be so that—in our study—only PG-fit associated with conflict because both concepts and their corresponding measurements share their reference to interpersonal relationships. This is even more so as we specifically applied the measurement of personal conflict. In contrast, this social aspect is not pronounced in PJ-fit and PO-fit, which respectively include one's match with the own job content and with the overall organizational entity (Kristof-Brown et al., 2005). Both PJ-fit and PO-fit could, thus, have tapped non-social aspects of work which might only under very specific circumstances—for example, getting into a disagreement about the job content under high interdependency—translate into personal conflicts. In all, the theoretical idea that WB is related to an escalated conflict (Zapf and Gross, 2001) finds support in our results. Future studies may nevertheless apply alternative measurements of conflicts (e.g. task conflict, process conflict; Jehn, 1995) and test for possible moderators (e.g. task interdependency) to further fine-grain our results. .

Our findings also yield insights on being exposed to *versus* enacting WB. Regarding PG-fit, both strain and conflict explained the association of PG-fit with both perspectives of WB, with the most profound effect observed for conflict. Regarding PJ-fit and PO-fit, strain was the only mediator. In summary, our study further supports TWM (Baillien et al., 2009) in that both WB exposure and enactment are triggered by similar processes. Moreover, our study expands the contemporary studies based on TWM that have not yet quantitatively investigated WB's multi-causal nature. By successfully introducing the lens of PE-fit we have added a valuable perspective to research on WB and to the TWM in that not only the antecedents on the different levels—personal and work-related—matter, but also the perceived compatibility between these levels. This idea was so far not included in TWM.

Limitations

First, our study included self-reported, single-source data and might be affected by social desirability and common method bias. However, we believe that these biases have not significantly altered our results. Social desirability generally leads to a lack of variance and an underestimation of the statistical effects (Spector, 2006). Also, we followed recommendations to diminish common method biases (Podsakoff et al., 2003), such as reassuring the respondents that there are no right or wrong answers as well as guaranteeing anonymity. Additionally, CFA revealed a better fit of the hypothesized measurement model as compared to the Harman's Single Factor model and a latent common factor model.

Second, we used cross-sectional data and cannot draw conclusions about causality. Despite the theoretical and empirical arguments that PE-fit is an antecedent of WB, it could be that bullying (also) impacts PJ-fit, PG-fit and PO-fit (e.g. change in job content). Moreover, a thorough test of (multiple) mediation benefits from a longitudinal approach to more explicitly unravel explanatory processes (Stone-Romero and Rosopa, 2010). Future studies could apply a multiple wave design to establish insights into the causal order of the relationships observed in this study.

Third, PG-fit yielded a scale reliability of .61, which will likely increase variability. Consequently, the effect sizes could be under- or overestimated. However, being higher than .60, this lower reliability is acceptable for a few items' scale (Eggen and Sanders, 1993). Hence, we proceeded with this scale, though interpreting the results regarding PG-fit with this notion in mind.

Fourth, we found an indirect yet rather small effect of strain in the associations between PJ-fit, PG-fit and PO-fit and WB. Thus, although our results are promising regarding the role of strain in the fit-bullying relationship, future studies may seek to replicate our findings using (a combination of) other indicators of strain. Drawing upon the circumplex framework (Warr,

1994) conceptualizing work-related strain in three dimensions (exhaustion, tension, and dissatisfaction), scholars could additionally include the two latter dimensions in their investigations.

Finally, our findings cannot be generalized to the Belgian work population because highly educated and white-collars are overrepresented in our sample. However, aligning with Hu and colleagues (2010), we reason that a more accurate proportion of blue-collars might have actually strengthened our results. That is, white-collars tend to have more variable jobs including many facets, while blue-collars generally have more monotonous jobs. Consequently, white-collars tend to even out the many good and bad facets in their perceived PE-fit, which might add to a lower variance as compared to blue-collars with less facets and less opportunities to even out good versus bad fit with these (i.e. more variance). Testing such differences between white- and blue-collars was out of the current study's scope. Nevertheless, future studies could further validate our findings by comparing the results from our first introduction of PE-fit to explain WB through strain and conflict in several occupational groups, for different genders, tenure and even sectors.

Future research

First, our results signal the important contribution made by the group to WB. Surprisingly, studies on group factors in WB are scarce as compared to studies on person-related factors and studies about job features (Samnani and Singh, 2012). Therefore, we encourage future research to continue this investigation into the group-related antecedents of WB (e.g. interdependency). Additionally, our study underlines the importance of simultaneously including person-related, job-related, group-related and organizational antecedents when investigating WB (Notelaers et al., 2010).

Second, following the WB literature, we selected PJ-fit, PG-fit, and PO-fit. However, considering the strength of PG-fit, the specific interpersonal fit with the employee's direct supervisor—or person-supervisor (PS-) fit—could be a valuable addition to our model. In fact, a recent study found a significant negative relationship between the perceived level of leader-member exchange (LMX) and WB (Porter et al., 2018). Hence, future research could shed more light on WB by including PS-fit as an additional predictor. Such studies might again add to TWM by more specifically disentangling the role of the supervisor from the group-related antecedents. It would moreover tie in with earlier ideas regarding the work environment hypothesis that refer to the role of leadership behaviour (Hauge et al., 2007).

Finally, even after accounting for strain and conflict, our multiple mediation test showed a remaining direct effect with respect to the relationships between PG-fit and WB exposure as well as between PO-fit and WB enactment. This could signal the existence of other explanatory mechanisms, such as for example psychological contract breach (Baillien et al., 2019; Robinson and Rousseau, 1994). Indeed, employees may perceive low PG-fit and PO-fit as a breach of the psychological contract with the employer.

Practical implications

The financial costs of WB for the UK taxpayer—given its impact on staff health, sickness absence, employee turnover, diminished productivity, presenteeism, compensation, litigation and industrial relations costs—were estimated at £2.281 billion per annum (Kline and Lewis, 2019). Consequently, WB affects not only employees and organizations but also the society. Prevention is of upmost importance. Our findings suggest that such prevention should transcend the current focus on work design that mostly applies a 'one size fits all' idea. In fact, many organizations wish to monitor WB through identifying problematic factors within the work environment—such as workload, social support, etc— using psychosocial risk

assessments. In most situations, the subsequent actions to address the problematic factors are formulated without taking into account the employee's needs. However, is it, for example, really so that we should strive for high social support for all employees? Therefore, including PJ-fit, PG-fit and PO-fit in these assessments delivers further information on the staff's PE-fit as an extra prevention path. When such fit seems low within certain occupational groups or departments, management could gauge possible reasons in the performance interview. Then, they could restore fit through, for example, job redesign, group mediation or organizational participation. Notably, HRM's commitment in recruiting employees who fit well with the job, group, and organization also adds to WB prevention.

Additionally, as our study reveals that low fit and WB associate with strain and conflict, management may consider interventions assisting employees in dealing with stress (e.g. CBT; Schwickerath and Zapf, 2011) or conflicts (e.g. conflict management training; León-Pérez et al., 2016).

Conclusion

This study was the first to investigate PE-fit in testing the multi-causal nature of WB. On the whole, this study found that the employee's fit with his/her job, group and organization were associated with WB exposure and enactment. Specifically, PJ-fit, PG-fit and PO-fit related to strain that, in turn, related to WB exposure and enactment. The association between PG-fit and WB was also explained by conflict. Our findings hint that different work-related characteristics may trigger differential explanatory mechanisms: whereas PJ-fit, PG-fit and PO-fit related to WB through stress, only PG-fit was also indirectly related to bullying through conflict. From a practical point of view, our results support the importance of the role of management in preventing WB through fostering PJ-fit, PG-fit and PO-fit.

References

Agnew, R. (1992), "Foundation for a general strain theory of crime and delinquency", *Criminology,* Vol. 30, pp. 47-87.

Baillien, E., Griep, Y., Vander Elst, T. and De Witte, H. (2019), "The relationship between organisational change and being a perpetrator of workplace bullying: A three-wave longitudinal study", *Work & Stress,* Vol. 33, pp. 211-230.

Baillien, E., Neyens, I., De Witte, H. and De Cuyper, N. (2009), "A qualitative study on the development of work bullying: Towards a three way model", *Journal of Community and Applied Social Psychology,* Vol. 19, pp. 1-16.

Baumeister, R.F., DeWall, C.N., Ciarocco, N.J. and Twenge, J.M. (2005), "Social exclusion impairs self-regulation", *Journal of Personality and Social Psychology,* Vol. 88, pp. 589-604.

Berkowitz, L. (1989), "Frustration-aggression hypothesis: Examination and reformulation", *Psychological Bulletin,* Vol. 106, pp. 59-73.

Byrne, B.M. (2010), *Structural equation modeling with AMOS: Basic concepts, applications, and programming (2nd ed.)*, Routledge/Taylor & Francis Group, New York, NY.

Cable, D.M. and DeRue, D.S. (2002), "The convergent and discriminant validity of subjective fit perceptions", *Journal of Applied Psychology,* Vol. 87, pp. 875-884.

Eggen, T.J.H.M. and Sanders, P.F. (1993), "*Pschycometrie in de praktijk" (Psychometrics in practice),* Arnhem: Stichting Cito Instituut voor Toetsontwikkeling (Arnhem: Foundation Cito Institute for Test development).

Einarsen, S., Raknes, B. R. I., and Matthiesen, S. B. (1994). "Bullying and harassment at work and their relationships to work environment quality: An exploratory study", *European journal of work and organizational psychology*, Vol. 4, pp. 381-401.

Escartín, J., Ullrich, J., Zapf, D., Schlüter, E., and van Dick, R. (2013), "Individual- and group-level effects of social identification on workplace bullying", *European Journal of Work and Organizational Psychology,* Vol. 22, pp. 182-193.

Felson, R. B. and Tedeschi, J. T. (1993), *Aggression and violence: Social interactionists' perspectives,* American Psychological Association, Washington, DC.

Fox, S., Spector, P.E. and Miles, D. (2001), "Counterproductive work behavior (CWB) in response to job stressors and organizational justice: some mediator and moderator tests for autonomy and emotions", *Journal of Vocational Behavior,* Vol. 59, pp. 291-309.

Glasl, F. (1982). "The process of conflict escalation and the roles of third parties", in Bomers, G. B. J. and Peterson, R. B. (Eds.), *Conflict management and industrial relations*, Boston: Kluwer-Nijhof Publishing, pp. 119–140.

Hauge, L. J., Skogstad, A., and Einarsen, S. (2007). "Relationships between stressful work environments and bullying: Results of a large representative study", *Work & Stress*, Vol. 21*,* pp. 220-242.

Harman, H.H. (1979), *Modern factor analysis,* University of Chicago Press, Chicago, IL.

Hobman, E.V., Bordia, P. and Gallois, C. (2003), "Consequences of feeling dissimilar from others in a work team", *Journal of Business and Psychology,* Vol. 17, pp. 301-325.

Hoel, H., Rayner, C. and Cooper, C. (1999), "Workplace bullying", in C.L. Cooper and I.T. Robertson (Eds.), *International review of industrial and organizational psychology,* John Wiley, Chichester, pp. 195-203.

Howard, L.W. and Cordes, C.L. (2010), "Flight from unfairness: Effects of perceived injustice on emotional exhaustion and employee withdrawal", *Journal of Business and Psychology,* Vol. 25, pp. 409-428.

Hu, L-T and Bentler, P.M. (1995), "Evaluating model fit", in Holyle R.H. (Ed.), *Structural equation modeling: concepts, issues, and applications,* Sage Publications, Thousand Oaks, CA, pp.76-99.

Hu, X., Kaplan, S., and Dalal, R.S. (2010), "An examination of blue- versus white-collar workers' conceptualizations of job satisfaction facets", *Journal of Vocational Behavior,* Vol. 76, pp. 317-325.

Jehn, K.A. (1995), "A multimethod examination of the benefits and detriments of intragroup conflict", *Administrative Science Quarterly,* Vol. 40, pp. 256–284.

Jehn, K.A., Chadwick, C. and Thatcher, S.M.B. (1997), "To Agree or Not To Agree: The effects of value congruence, individual demographic dissimilarity and conflict on workgroup outcomes", *International Journal of Conflict Management,* Vol. 8, pp. 1-35.

Jöreskog, K.G. and Sörbom, D. (1993), LISREL 8: *Structural equation modeling with the SIMPLIS command language,* Chicago: Scientific Software International.

Kahn,R. L, Wolfe, D.M, Quinn, R. P., Snoek, J.D. andRosenthal, R.A. (1964). *Organizational stress: Studies in role conflict and ambiguity.* New York: Wiley.

Kline, R., and Lewis, D. (2019), "The price of fear: Estimating the financial cost of bullying and harassment to the NHS in England", *Public Money & Management,* Vol. 39*,* pp. 166-174.

Kristof-Brown, A.L. and Guay, R.P. (2011), "Person-environment fit", in Zedeck, S. (Ed.), *American Psychological Association handbook of industrial and organizational psychology*, American Psychological Association, Washington, DC, pp. 1-50.

Kristof-Brown, A.L., Jansen, K.J. and Colbert, A.E. (2002), "A policy-capturing study of the simultaneous effects of fit with jobs, groups, and organizations", *Journal of Applied Psychology,* Vol. 87, pp. 985-993.

Kristof-Brown, A.L., Zimmerman, R.D. and Johnson, E.C. (2005), "Consequences of individuals' fit at work: A meta-analysis of person-job, person-organization, person-group, and person-supervisor fit", *Personnel Psychology,* Vol. 58, pp. 281-342.

Leymann, H. (1990), "Mobbing and psychological terror at workplaces", *Violence and Victims,* Vol. 5, pp. 119-126.

León-Pérez, J.M., Notelaers, G. and León-Rubio, J.M. (2016). "Assessing the effectiveness of conflict management training in a health sector organization: evidence from subjective and objective indicators", *European Journal of Work and Organizational Psychology,* Vol. 25, pp. 1-12.

Meglino, B. M., Ravlin, E. C. and Adkins, C. L. (1989). "A work values approach to corporate culture: A field test of the value congruence process and its relationship to individual outcomes", *Journal of Applied Psychology*, Vol. 74, pp. 424–432.

Muthén, L.K. and Muthén, B.O. (2017), *Mplus User's Guide*, *Eighth Edition*, Muthén & Muthén, Los Angeles, CA.

Neall, A. M. and Tuckey, M. R. (2014). "A methodological review of research on the antecedents and consequences of workplace harassment", *Journal of Occupational and Organizational Psychology*, Vol. *87*, pp. 225-257.

Nielsen, M.B. and Einarsen, S. (2012), "Outcomes of exposure to workplace bullying: A meta-analytic review", *Work & Stress,* Vol. 26, pp. 309-332.

Nielsen, M.B. and Einarsen, S. (2018), "What we know, what we do not know, and what we should and could have known about workplace bullying: An overview of the literature and agenda for future research", *Aggression and Violent Behavior,* Vol. 42, pp. 71-83.

Notelaers, G., Baillien, E., De Witte, H., Einarsen, S. and Vermunt, J.K. (2013), "Testing the strain hypothesis of the demand control model to explain severe bullying at work", *Economic and Industrial Democracy,* Vol. 34, pp. 69-87.

Notelaers, G., De Witte, H. and Einarsen, S. (2010), "Workplace bullying: A job characteristics approach", *European Journal of Work and Organizational Psychology,* Vol. 19, pp. 487-504.

Notelaers, G., Van der Heijden, B., Hoel, H. and Einarsen, S. (2019), "Measuring bullying at work with the short-negative acts questionnaire: identification of targets and criterion validity", *Work & Stress,* Vol. 33, pp. 58-75.

Oxenstierna, G., Elofsson, S., Gjerde, M., Magnusson Hanson, L. and Theorell, T. (2012), "Workplace bullying, working environment and health", *Industrial Health,* Vol. 50, pp. 180-188.

Podsakoff, P.M., MacKenzie, S.B., Lee, J. and Podsakoff, N.P. (2003), "Common method biases in behavioral research: A critical review of the literature and recommended remedies", *Journal of Applied Psychology,* Vol. 88, pp. 879-903.

Porter, T.H., Day, N., and Meglich, P. (2018), "City of discontent? The influence of perceived organizational culture, LMX, and newcomer status on reported bullying in a municipal workplace", *Employee Responsibilities and Rights Journal,* Vol. 30, pp. 119-141.

Preacher, K.J. and Hayes, A.F. (2008), "Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models", *Behavior Research Methods,* Vol. 40, pp. 879-891.

Pseekos, A.C., Bullock-Yowell, E. and Dahlen, E.R. (2011), "Examining Holland's person-environment fit, workplace aggression, interpersonal conflict, and job satisfaction", *Journal of Employement Counseling,* Vol. 48, pp.63-71.

Robinson, S.L. and Rousseau, D.M. (1994), "Violating the psychological contract: not the exception but the norm", *Journal of Organizational Behavior,* Vol. 15, pp. 245-259.

Samnani, A-K. and Singh, P. (2012), "20 years of workplace bullying research: A review of the antecedents and consequences of bullying in the workplace", *Aggression and Violent Behavior,* Vol. 17, pp. 581-589.

Schaufeli, W.B. and Van Dierendonck, D. (2000), *Maslach Burnout Inventory: Nederlandse Versie* [Maslach Burnout Inventory: Dutch version], Swets & Zeitlinger, Lisse, The Netherlands.

Schwickerath, J., and Zapf, D. (2011), "Inpatient treatment of bullying victims", in Einarsen, S., Hoel, H., Zapf, D. and Cooper C.L. (Eds.), *Bullying and harassment in the workplace: developments in theory, research, and practice,* Taylor & Francis, Boca Raton, FL, pp. 397-422.

Spector, P.E. (2006), "Method variance in organizational research. Truth or urban legend?", *Organizational Research Methods,* Vol. 9, pp. 221-232.

Stone-Romero, E. F. and Rosopa, P. J. (2010). Research design options for testing mediation models and their implications for facets of validity, *Journal of Managerial Psychology*, Vol. 25, 697-712.

Thomas, K.W. (1992), "Conflict and conflict management: Reflections and update", *Journal of Organizational Behavior,* Vol. 13, pp. 265-274.

Tong, J., Wang, L. and Peng, K. (2015), "From person-environment misfit to job burnout: Theoretical extensions", *Journal of Managerial Psychology,* Vol. 30, pp. 169-182.

Van den Brande, W., Baillien, E., De Witte, H., Vander Elst, T. and Godderis, L. (2016). "The role of work stressors, coping strategies and coping resources in the process of workplace bullying: A systematic review and development of a comprehensive model", *Aggression and Violent Behavior*, Vol. 29, pp. 61-71.

Van den Broeck, A., Baillien, E. and De Witte, H. (2011), "Workplace bullying: A perspective from the Job Demands-Resources model", *South African Journal of Industrial Psychology,* Vol. 37, pp. 1-12.

Vogel, R.M. and Feldman, D.C. (2009), "Integrating the levels of person-environment fit: The roles of vocational fit and group fit", *Journal of Vocational Behavior,* Vol. 75, pp. 68-81.

Warr, P. (1994), "A conceptual framework for the study of work and mental health", *Work & Stress,* Vol. 8, pp. 84-97.

Weston, R. and Gore, P.A.Jr. (2006), "A brief guide to structural equation modelling", *The Counseling Psychologist,* Vol. 34, pp. 719-751.

Zapf, D. (1999), "Organisational, work group related and personal causes of mobbing/bullying at work", *International Journal of Manpower,* Vol. 20, pp. 70-85.

Zapf, D., and Gross, C. (2001), "Conflict escalation and coping with workplace bullying: A replication and extension", *European Journal of Work and Organizational Psychology,* Vol. 10, pp. 497-522.

Table 1 Means, standard deviations, reliabilities (Cronbach's alpha's in parentheses on the diagonal) and correlations.

Variable	M(SD)	1	2	3	4	5	6	7	8	9
1.Age	39.73(9.87)	-								
2.Gender (female)	-	.00	-							
3.PJ-fit[†]	3.63(.92)	.10**	.06*	(.93)						
4.PG-fit[†]	3.57(.73)	.02	.08*	.39***	(.61)					
5.PO-fit[†]	3.44(.73)	.14***	.08*	.46***	.35***	(.89)				
6.Strain[‡]	1.82(1.47)	-.14***	.02	-.36***	-.40***	-.34***	(.93)			
7.Conflict[†]	1.90(.70)	.02	.02	-.20***	-.67***	-.19***	.32***	(.91)		
8.Target[†]	1.50(.55)	-.08*	-.09**	-.31***	-.60***	-.28***	.44***	.55***	(.88)	
9.Perpetrator[†]	1.34(.38)	-.13***	-.19***	-.21***	-.41***	-.27***	.32***	.42***	.76***	(.81)

Note. PJ-fit = person-job fit, PG-fit = person-group fit, PO-fit = person-organisation fit; [†] Scales from 1 to 5; [‡] Scales from 0 to 6; * p < .05, ** p < .01, *** p < .001

**Table 2** Goodness-of-fit indices for different measurement models and model comparisons

	χ^2	df	CFI	TLI	RMSEA	$\Delta\chi^2$	Δdf
Model 1: Hypothesized measurement model (PJ-fit; PG-fit; PO-fit; Strain; Conflict; Target; Perpetrator)	3241.88*	839	.97	.97	.05		
Model 2: Fit model (PJ-fit + PG-fit + PO-fit; Strain; Conflict; Target; Perpetrator)	10155.08*	850	.88	.87	.10	6913.2*	11
Model 3: Mediators model (PJ-fit; PG-fit; PO-fit; Strain + Conflict; Target; Perpetrator)	6882.26*	845	.92	.92	.08	3640.38*	6
Model 4: Bullying model (PJ-fit; PG-fit; PO-fit; Strain; Conflict; Target + Perpetrator)	3512.12*	845	.97	.96	.05	270.24*	6

*Note. PJ-fit = person-job fit, PG-fit = person-group fit, PO-fit = person-organisation fit; * p < .001*

Table 3 The results of the multiple mediation test: strain and conflict as mediators of the relationship between the different dimensions of PE-fit and WB (target and perpetrator)

IV	DV		Effects			Specific indirect effects						
						Strain (A)			*Conflict (B)*		
			β	SE	99% BCI	β	SE	99% BCI	β	SE	99% BCI
PJ-fit	**Target**	*Total*	-.073	.036	[-.164;.017]	-.037*	.011	[-.068;-.013]	.014	.010	[-.010;.042]
		Direct	-.050	.032	[-.138;.036]						
		Total indirect	-.023	.015	[-.068;.007]						
	Perpetrator	*Total*	-.007	.043	[-.117;.096]	-.025*	.010	[-.060;-.003]	.014	.011	[-.012;.050]
		Direct	.004	.044	[-.116;.111]						
		Total indirect	-.010	.014	[-.054;.026]						
PG-fit	**Target**	*Total*	-.557*	.035	[-.655;-.477]	-.054*	.013	[-.094;-.028]	-.177*	.040	[-.287;-.086]
		Direct	-.325*	.064	[-.480;-.164]						
		Total indirect	-.231*	.043	[-.346;-.136]						
	Perpetrator	*Total*	-.362*	.045	[-.489;-.234]	-.036*	.014	[-.077;-.006]	-.184*	.051	[-.334;-.060]
		Direct	-.142	.083	[-.357;.097]						
		Total indirect	-.221*	.056	[-.372;-.072]						
PO-fit	**Target**	*Total*	-.048	.036	[-.131;.051]	-.033*	.010	[-.058;-.011]	.008	.009	[-.015;.033]
		Direct	-.024	.033	[-.091;.075]						
		Total indirect	-.024	.015	[-.060;.011]						
	Perpetrator	*Total*	-.142*	.041	[-.237;-.037]	-.022*	.009	[-.047;-.003]	.008	.010	[-.014;.038]
		Direct	-.129*	.041	[-.230;-.021]						
		Total indirect	-.013	.014	[-.049;.022]						

Note. PJ-fit = person-job fit, PG-fit = person-group fit, PO-fit = person-organisation fit; 99% BCI = 99% bootstrapped confidence interval;

*Based on 1000 bootstrap samples; * Estimates* considered significant since the 99% confidence interval does not contain zero
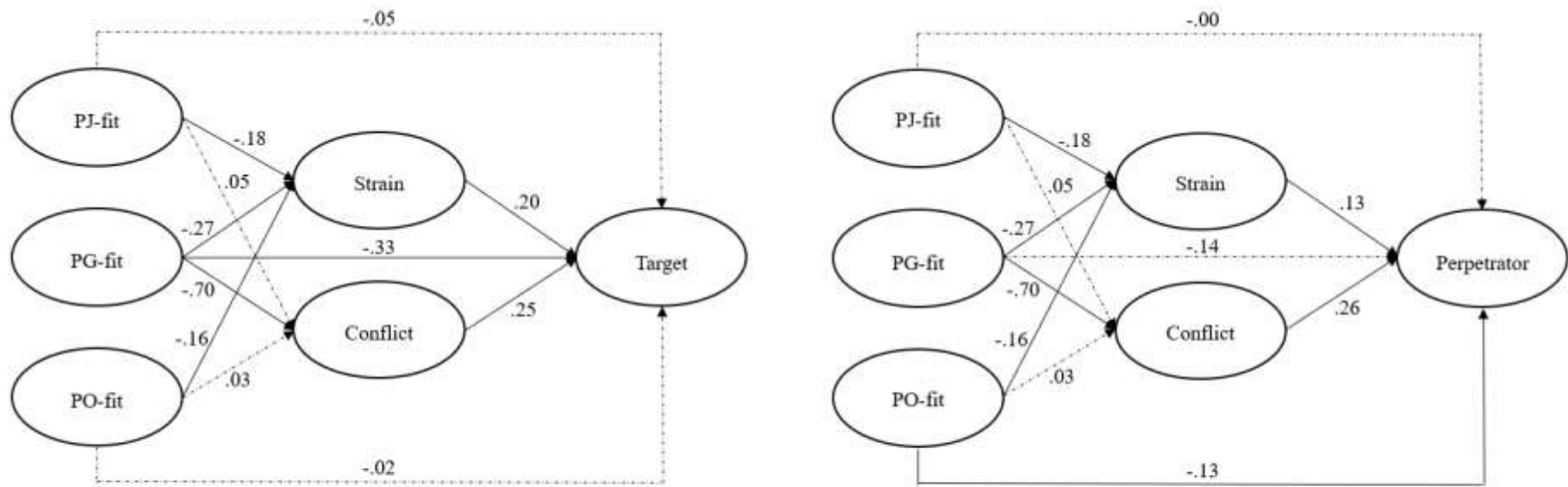
Figure 1 Simplified final structural model.
Note. Solid lines indicate significant relationships and dashed lines indicate non-significant relationships.