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The impact of perceived effort-reward imbalance on workplace bullying: also a matter of organizational identification

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# The impact of perceived effort–reward imbalance on workplace bullying: also a matter of organizational identification

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## Abstract

Work environments characterized by inadequate work conditions have been widely recognized as being particularly prone to the occurrence and exacerbation of bullying behavior. Accordingly, this longitudinal study aimed to explore whether the impact of effort–reward imbalance (ERI) on workplace bullying was mediated by a lower perception of organizational justice, and whether the association between ERI and perceptions of justice was moderated by organizational identification. In the current study, a sample of $N = 195$ Spanish employees from different occupational sectors filled in an online questionnaire at two different times with a time lag of 8 months. In line with the hypothesized moderated mediation model, results showed that organizational justice mediated the impact of ERI on workplace bullying. Moreover, the effect of perceived ERI on organizational justice was stronger for employees with low organizational identification. Overall, this study can contribute to better understanding how and when ERI boosts the risk of workplace bullying. Accordingly, early intervention designed to buffer the negative effects of ERI should focus on increasing individual levels of organizational identification.

**Keywords**

Workplace bullying
ERI model
effort–reward imbalance
organizational justice
organizational identification

## Introduction

Workplace bullying is largely recognized as a systematic and repeated action of harassing, offending and socially excluding an individual with the main consequences of negatively affecting his/her job performance and jeopardizing his/her health (Bowling & Beehr, 2006). The large amount of studies aimed at exploring this phenomenon is justified by the seriousness of its outcomes, such as symptoms of anxiety, depression, post-traumatic stress disorder, sleep problems and musculoskeletal disorders (Vignoli, Guglielmi, Balducci, & Bonfiglioli, 2015). Empirical evidence supported the situational approach to workplace bullying, and therefore deficiencies in work organization and leadership behavior may result in a stressful environment that allows workplace bullying to flourish (Samnani & Singh, 2012). For instance, management practices could shape how individuals experience feelings of shame and pride and, consequently, concur to legitimize bullying behaviors (Braithwaite, Ahmed, & Braithwaite, 2008). Consistently, the stress/emotion/CWB model (Spector & Fox, 2002) states that counterproductive work behavior (e.g. bullying behavior) represents an emotion-based reaction to stressful conditions.

The perception of unfair treatment within the workplace has been shown to trigger detrimental behavior such as sabotage (Ambrose, Seabright, & Schminke, 2002), withdrawal (Blader & Tyler, 2009). In line with the stress/emotion/CWB model, when employees consider the treatment received in the organizational context unfair, they experience unpleasant emotions of anger, humiliation and disappointment, and react with behaviors intentionally aimed at threatening the interests of the organization or its members (e.g. workplace bullying). The perception of low organizational justice could result from an inappropriate balance between effort and rewards within the work environment. In line with the core notion of the effort–reward imbalance (ERI) model (Siegrist, 1996), a lack of correspondence between the effort individuals devote to their job and the reward they receive in exchange may elicit severe psychological distress, which consequently affects both mental and physical health. In the current study, it has been hypothesized that a condition of high effort–reward imbalance could foster employees' perception of a lack of

study, it has been hypothesized that a condition of high effort–reward imbalance could foster employees' perception of a lack of justice. Thus, higher ERI at Time 1 is expected to undermine the perception of justice at Time 2, and low levels of organizational justice may create a fertile ground for workplace bullying to occur at Time 2. Although greater ERI may impair the perception of justice within the workplace, this relationship may vary significantly among employees experiencing different connections with their organization. Empirical evidence suggests that high identification may buffer the impact of factors that trigger an attitude of psychological detachment from the organization, decreasing employees' involvement in the interests of the organization (van Knippenberg, van Dick, & Tavares, 2007). Thus, the current study was aimed to assess whether the relationship between ERI at Time 1 and workplace bullying at Time 2 was mediated by a lower perception of organizational justice, and whether the effect of ERI on organizational justice was moderated by organizational identification.

## Method

### Participants

A total sample of 348 Spanish participants (49% men), whose average age was 37 years (SD = 10.72), filled in the online questionnaire at T1. Eight months later, 196 of participants who took part at T1 (56%) agreed to answer the T2 questionnaire. The majority of employees who participated at both T1 and T2 were women (52.3%), and the mean age was 41.93 years (SD = 9.36). The sample was constituted by supervisors (36.3%), office workers (27.9%), blue-collar (22.9%), self-employed (7.3%), and managers (5.6%). Moreover, the majority of the sample of respondents had a university or college degree (74.4%). The mean job tenure of participants was 9.17 years (SD = 8.97) and they worked on average 36.54 h per week (SD = 8.72).

### Procedure

The present study was carried out with a longitudinal design with two moments of data collection, Time 1 (T1) and Time 2 (T2), which were separated from each other by approximately eight months. The participants were contacted through the collaboration of the Human Resources Departments of various Spanish companies.

### Measures

The T1 questionnaire aimed to explore social-demographic variables, the ERI model variables and the level of organizational identification. The T2 questionnaire evaluated the perception of organizational justice and workplace bullying. The questionnaires were structured as set out below:

*Effort–reward imbalance* was assessed using the questionnaire developed by Siegrist (1996; Spanish version: Fernández-López, Martín-Payo, Fernández-Fidalgo, & Rödel, 2006). *Effort* was measured with 5 items (e.g. 'I have a lot of responsibility in my job') and *Reward* was assessed using 11 items (e.g. 'Considering all my efforts and achievements, my job promotion prospects are adequate'). All items were scored on a 5-point Likert scale ranging from 1 (*It does not affect me at all*), to 5 (*It affects me very much*). A ERI ratio was calculated using the algorithm proposed by Siegrist and colleagues (2004): effort/reward*0.454545. A value above 1 indicates a high-risk imbalance between high efforts and low rewards, whereas a ratio close to 0 denotes a positive condition characterized by relatively low efforts against relatively high rewards.

*Organizational justice* was assessed with the 6-items scale (e.g. 'The procedures for evaluating my work are fair') developed by Martínez-Tur and colleagues (2003). Items were rated on a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

*Organizational identification* was assessed with the scale developed by Mael and Ashforth (1992; Spanish version: Topa, Moriano, & Morales, 2008). This scale consisted of six items (e.g. 'This company's successes are my successes') scored on a 5-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

*Workplace bullying* was measured with the Spanish reduced version of the Negative Acts Questionnaire (NAQ – Einarsen & Raknes, 1997) validated by Jiménez and colleagues (2007). The scale included 11 items (e.g. 'Information that affects my performance has been restricted'). Respondents were asked how often they had been the target of such behaviors during the last six months using a frequency scale from 1 (*never*) to 5 (*daily*).

### Statistical analyses

A moderated mediation model based on 5000 bootstrap re-samples was tested using the PROCESS macro for SPSS (Hayes, 2013). Gender and job tenure were included as covariates.

## Results

Results of descriptive statistics are reported in Table 1. All significant relationships between the variables were in the expected direction.

Table 1. Standard deviations, Cronbach's alphas (on the diagonal), and correlations among all study variables ($N$ = 195).

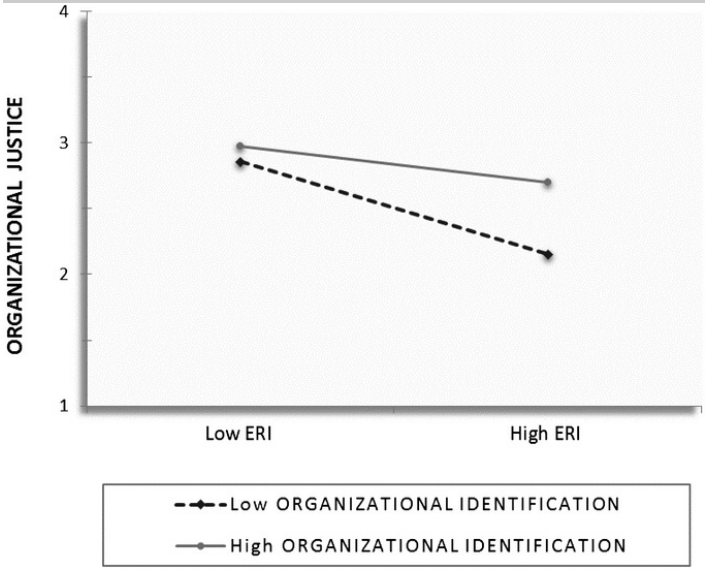
| | *M* | SD | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|
| 1. Gender (1 = male) | 1.52 | .50 | *n.a.* | | | | | |
| 2. Job tenure | 9.17 | 8.97 | −.17* | *n.a.* | | | | |
| 3. T1 ERI | .46 | .21 | .11 | .02 | *n.a.* | | | |

| | M | SD | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|
| 3. T1 ERI | .46 | .21 | −.11 | .02 | *n.a.* | | | |
| 4. T1 Organizational identification | 3.09 | .97 | −.02 | .09 | −.15* | *.87* | | |
| 5. T2 Organizational justice | 2.75 | .91 | .03 | .01 | −.23** | .17* | *.90* | |
| 6. T2 Workplace bullying | 1.63 | 1.52 | −.10 | .01 | .28*** | −.12 | −.44*** | *.83* |

*$p < .05$
**$p < .01$
***$p < .001$.

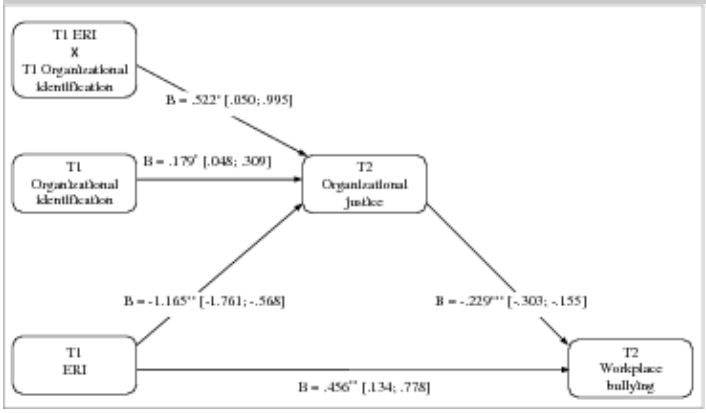
The index of moderated mediation was significant: $B = -.120$, SE = .061, 95% CI [−.259; −.014]). As displayed in Figure 1, this analysis revealed a conditional indirect effect of T1 ERI on T2 workplace bullying through T2 organizational justice, with the indirect effect significant at low (−1SD; $B = .383$, SE = .104, 95% CI [.214; .626]) and moderate (Mean; $B = .267$, SE = .088, 95% CI [.119; .455]) levels of T1 organizational identification.

Figure 1. Interaction of ERI and organizational identification in predicting the perception of organizational justice.




In contrast, this indirect effect was not significant at high levels of T1 organizational identification (+1SD; $B = .151$, SE = .108, 95% CI [−.047; .382]). This result implies that the perceived level of organizational justice mediates the relationship between ERI and workplace bullying for employees characterized by low to moderate levels of identification with their organization, although not in employees that strongly identify with their organization. These results are depicted in Figure 2.

Figure 2. Results of the moderated mediation analysis. The relationship between ERI and workplace bullying through organizational justice was moderated by organizational identification.




Notes: ERI = Effort–Reward Imbalance ratio; [95% CI]; *$p < .05$; **$p < .01$; ***$p < .001$.

## Discussion

The current study aimed to test a moderated mediation model with the main objective of further investigating the mechanism underlying the association between ERI and workplace bullying. The obtained results corroborate the core

assumption of the most recent theoretical perspective on workplace bullying, by showing that inadequate work conditions may give rise to a stressful environment that represents a fertile ground in which bullying can spread (Samnani & Singh, 2012). Furthermore, this research goes one step further by revealing the mediational role of organizational justice within the relationship between ERI and workplace bullying. According to our results, a high imbalance between effort and rewards may negatively influence the perception of organizational justice, which may in turn lower the threshold of bullying occurring in the workplace. Our results indicate that organizational identification may play a buffering role in moderating the detrimental effect of ERI on justice perceptions (van Knippenberg et al., 2007). As shown in Figure 2, the perception of a high imbalance between the amount of effort put into one's work and the resulting rewards (i.e. high ERI) may not undermine the perception of justice only for those employees who strongly identify with their organization. This study presents some limitations that should be acknowledged. First, the use of self-reported questionnaires may be associated to common variance method bias. Moreover, the relatively small sample size may affect the opportunity to generalize the obtained results to the whole working population.

## Conclusions

This study provides further evidence of the role played by an organizational environment perceived as stressful (i.e. characterized by a high effort–reward imbalance) in allowing workplace bullying to flourish. Moreover, this causal relationship has been empirically explained through the perception of impaired organizational justice among employees. On the other hand, our results show that measures aimed at boosting organizational identification will not only avoid a detrimental impact of ERI on perceived organizational justice, but may also decrease the likelihood of bullying behaviors occurring.

## Disclosure statement

AQ2 No conflicts of interest were declared.

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