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**Informational Injustice with Respect to Change and Negative Workplace Emotions:
The Mitigating Roles of Structural and Relational Organizational Features**

Abstract

Purpose – The purpose of this paper is to examine the hitherto unexplored relationship between employees’ perceptions of informational injustice with respect to change and their negative workplace emotions, as well as how this relationship might be mitigated by structural and relational features of the organizational context.

Design/methodology/approach – The paper draws on quantitative data collected through the 2011 Workplace Employment Relations Survey (WERS). The hypotheses are tested with ordered probit analysis using random effects.

Findings – The findings show that informational injustice enhances the development of negative workplace emotions, yet this effect is attenuated at higher levels of job influence, reward interdependence, trust, and organizational commitment.

Research limitations/implications – The findings contribute by identifying several contingencies that attenuate the harmful effect of informational injustice with respect to change on negative workplace emotions. The limitations of the study include the lack of data on change-specific outcomes and the reliance on the same respondents to assess the focal variables.

Practical implications – The study suggests that organizations facing the challenge of sharing complete information about internal changes can counter the employee stress that comes with limited information provision by creating appropriate internal environments.

Originality/value – The study adds to research on organizational change by providing a better understanding of an unexplored driver of negative workplace emotions (i.e., informational injustice with respect to change) and explicating when such informational injustice is more or less likely to enhance these emotions.

Keywords – workplace emotions; organizational change; informational injustice.

Paper type – Research paper

Introduction

Researchers show an increasing interest in the negative emotions that employees may develop in the workplace (e.g., discomfort, tension, depression), because of the negative consequences that such emotions have for both employees and their organizations (Cole et al., 2010; Fischer & Sousa-Posa, 2009; Yang & Diefendorff, 2009; Nicholson & Imaizumi, 1993). Negative emotions harm employees' physical (Danna & Griffin, 1999) and psychological (Van der Doef & Maes, 1999) well-being, as well as their productivity (Motowidlo et al., 1986). Such negative emotions likely arise when employees confront high levels of uncertainty in their jobs (Caroli & Godard, 2014), such as when they experience changes in their work environment, whether those changes are ongoing or discrete (DiFonzo & Bordia, 1998; Foster, 2010; Hansson et al. 2008; Liu & Perrewé, 2005; Stensaker & Meyer, 2012; Stuart, 1995).¹ In particular, employees often react emotionally when they perceive changes as unfair (Fugate et al., 2012; Robinson & Griffiths, 2005). However, explicit examinations of the consequences of perceptions of fairness on workplace emotions have remained relatively limited (Bouckenooghe, 2010; Oreg et al., 2011).

Moreover, studies of the effect of fairness on employees' mental well-being typically focus on the presence of high levels of fairness (Gupta & Kumar, 2013; van Dierendonck & Jacobs, 2012; Camerman et al., 2007; Nowakowski & Conlon, 2005; Ramamoorthy & Flood, 2004). Although insightful, this approach provides only a partial view of the role that fairness perceptions play in employees' feelings, because it overlooks the adversity and stress that employees experience when they do *not* receive fair treatment (Judge & Colquitt, 2004). Thus, few studies inform organizations about the harmful effects of organizational injustice (Dbaibo et

¹ Our theoretical focus is not limited to organizational change as a discrete phenomenon that has a distinct beginning and end or that is caused by a specific event; rather, it acknowledges the ongoing incremental changes that employees might experience in their work environment during the execution of their daily jobs (Dutton et al., 2001; Kiefer, 2005; Reilly et al., 2003).

al., 2010; Rupp et al., 2008), let alone the role that such injustice may play in the context of organizational change. Accordingly, we examine the effect of perceived injustice with respect to change, and particularly “informational injustice” or the perception that inadequate change-related information is available (Copranzano et al., 2002), on the development of negative workplace emotions. Moreover, we consider how distinct structural and relational features of the organizational context may diminish this effect. We define negative workplace emotions as negative feelings (such as tension, worry, or depression) that employees experience when undertaking daily work (Park & Searcy, 2012).

In addition to investigating an unexplored determinant of negative workplace emotions (i.e., informational injustice with respect to change), we also seek to contribute to organizational change literature specifically. In their overview, Oreg et al. (2011) indicate a growing interest in the study of justice perceptions in the context of organizational change, yet we note two gaps in this literature. First, previous research has mostly focused on the role of justice perceptions in predicting change-specific outcomes, such as commitment to (Bouckennooghe et al., 2014; Bernerth et al. 2007) or acceptance of (Armenakis et al., 2007; Paterson & Cary, 2002) change. However, scant research examines how perceptions of (in)justice may influence general workplace emotions that precede these outcomes (Oreg et al., 2011). To better understand these change outcomes, we need to consider explicitly the ways in which perceptions of (in)justice might explain how employees *feel* in the workplace, which in turn could inform specific change-related attitudes and behaviors.

Second, previous research at the nexus of organizational justice and change has mostly considered the roles of distributive and procedural justice (e.g., Armenakis et al., 2007; Bernerth et al., 2007), and when it has considered interactional justice, it has tended to focus on

interpersonal aspects, namely, how respectfully employees are treated during change implementation (Bouckennooghe et al., 2014; Bernerth et al., 2007). Thus, relatively little research has explicitly examined the role of fair information provision in the context of organizational change, with the exception of research that connects change information with enhanced change acceptance (Wanberg & Banas, 2000) or adaptive behavior (Van den Heuvel et al., 2013). This oversight is somewhat surprising, because workplace stress in relation to change appears strongly influenced by the amount of information provided about the change (Bouckennooghe et al., 2010; Milliken, 1987). On the one hand, to counter the stress associated with change, employees ought to be able to make sense of it (Van den Heuvel et al., 2013), which may be facilitated by information about the rationale for and timing of the change. On the other hand, the provision of detailed information about change can make employees more *aware* of the threats that the changes could bring to their personal situation, such that they become more averse to the changes (Oreg, 2006).

In light of this ambiguity about the outcomes of information provision, we investigate several contingencies that might underlie the relationship between informational injustice with respect to change and negative workplace emotions. We consider the contingent roles of both structural features (job influence and reward interdependence) and relational ones (trust and organizational commitment). This consideration aligns with previous research on the role of structural and relational factors as determinants of innovation or change (e.g., De Clercq, Thongpapanl, & Dimov, 2011; Wilson, 2010). First, job influence reflects employees' ability to craft their own jobs (Daniels, 2011). It allows employees to think of meaningful ways to do their jobs and find solutions for organizational problems (Wood et al., 2012). Second, reward interdependence refers to the extent to which employees' rewards depend on the performance of

other organizational members (Wageman, 1995). It reflects the extent to which the work of employees is interconnected with that of their organizational peers, and particularly whether they derive personal benefits when others are successful in their work (Van der Vegt et al., 1999). As socialized individuals, employees' decisions on what actions to undertake are influenced by the implications of these actions on each other, so the interdependence of their rewards reflects that employees are 'in the same boat' and part of a broader collective (Lin, 2010). Third, trust entails the extent to which employees perceive that their managers can be relied on and keep their promises, as well as the honesty in how managers deal with employees (De Clercq et al., 2011; Timming, 2012). Trust thus implies that managers have their employees' best interests at heart (Payne et al., 2011). Fourth, organizational commitment captures the relationship between employees and their organization in general (Meyer et al., 2004). We focus on its affective component, namely, the loyalty that employees feel in relation to their employer, and hence the extent to which they identify with their organization and share its values (Park & Searcy, 2012). Such commitment increases employees' concerns about the well-being of their organization, even if that well-being comes at the expense of personal interests (Meyer et al., 2004).

The glue that binds the aforementioned four organizational features is that they reflect employees' "psychological climate" or perceptions about their organization's internal environment (Brown & Leigh, 1996). In particular, enhancing employees' job control (through job influence) or creating a sense of being in the same boat as colleagues (through reward interdependence) may contribute to the *meaningfulness* of employees' daily work (Kahn, 1990). In turn, stimulating high quality relationships with managers (through trust) or instilling emotional attachment to the organization in general (through organizational commitment) may provide for a *safe* work environment (Edmondson, 1999) in which employees are willing to

make leaps of faith that counter the adversity that comes with informational injustice with respect to change. We posit that the four organizational features attenuate the transformation of such informational injustice into negative workplace emotions.

Theory and hypotheses

Extant research typically casts organizational justice in a positive light, explaining the beneficial effect of perceived justice on employees' self-esteem and engagement, for example (Cameron et al., 2007; Gupta & Kumar, 2013; Lind & Van den Bos, 2002). Yet an alternative view is to consider how a lack of justice may act as a stressor that prevents employees from dealing adequately with their work requirements (Judge & Colquitt, 2004; Vermunt & Steensma, 2001). Previous research indicates several negative consequences of perceived injustice, such as enhanced workplace deviance (Scott & Colquitt, 2007), reduced job satisfaction (Mayer et al., 2007), and lower job performance (Greenberg, 1990). Another important intermediate outcome of injustice is the psychological distress that it fuels in employees (Bezrukova et al., 2010; Greenberg, 2004), manifested in symptoms such as exhaustion (Chênevert et al., 2013) and work alienation (Sulu et al., 2010). Yet the ways in which injustice with respect to organizational change may lead to negative workplace emotions remains understudied (Bouckenoghe, 2010). Because negative emotions can determine how employees react to change (Oreg et al., 2011) and represent significant potential costs for organizations (Bezrukova et al., 2010), it is of paramount importance to understand how perceptions of injustice with respect to change inform employees' workplace emotions.

We focus on one specific aspect of injustice, namely, informational injustice, which reflects a perceived lack of fairness in the provision of adequate information about change

(Colquitt et al., 2001; Timming, 2012). Previous research has considered several justice dimensions related to change: Distributive justice is outcome oriented and compares the inputs with the outputs of change processes; procedural justice captures fairness in relation to the rules applied to make changes in the organization; interpersonal justice reflects the quality of interpersonal treatment that employees receive during these changes; and informational justice is focused on the extent to which employees perceive the availability of adequate information about changes (Herscovitch & Meyer, 2002).

We focus on the latter dimension - and particularly the lack of informational justice in relation to change - because of the negative emotional reactions that employees often display when they confront insufficient information about changes in their work environment (Bouckennooghe, 2010; Wu et al., 2007). Compared with the other dimensions, informational injustice has particular significance, because it reflects employers' discretion regarding how they communicate with employees on a daily basis; as such, employees may be intensely affected when they fail to receive adequate communication about changes (Bezrukova et al., 2010; Scott et al., 2007). Another reason to focus on informational injustice specifically is the possible ambiguity of its effect. On the one hand, extant research on the role of change-related information indicates that detailed information sharing can reduce employees' resistance to change (Wanberg & Banas, 2000) and enhance their willingness to embrace new situations (Van den Heuvel et al., 2013). On the other hand, extensive information provision may have a dark side, causing employees to become more aware of how changes can upset their personal situation (Oreg, 2006). In light of this dual role, organizations should understand the conditions in which informational injustice is more or less likely to lead to negative workplace emotions.

Accordingly, the primary goals of this study are to provide organizations with a better understanding of an unexplored driver of negative workplace emotions (i.e., informational injustice with respect to change) *and* to explicate when such informational injustice is more or less likely to enhance these emotions. We summarize our theoretical framework in Figure 1 and discuss its constitutive hypotheses next.

[Insert Figure 1 about here]

Informational injustice and negative workplace emotions

Previous research suggests that insufficient information provision prevents employees from navigating uncertain work situations (Wu et al., 2007). Thus, employees' stress levels increase significantly to the extent that they receive less detailed and timely information about organizational decisions (Kim, 2009; Bies & Moag, 1986;). Inadequate information provision functions as a stressor because it constrains employees' ability to cope with their job requirements (Judge & Colquitt, 2004; Vermunt & Streensma, 2001). In the context of our study, this argument suggests that employees become more stressed when they receive limited information about changes that take place in their surrounding work environment (Bouckenooghe, 2010). Even if limited information sharing makes employees less aware of the presence of change (Oreg, 2006), information deficiencies are typically considered harmful in the context of organizational change (Bouckenooghe, 2010). Absent fair information provision, employees may perceive the changes as more threatening (Wanberg & Banas, 2000) and start to wonder whether their employer is withholding crucial information, particularly details that might undermine their personal situation (Oreg et al., 2011; Folger & Skarlicki, 1999). That is, employees likely experience stress and suffer emotionally to the extent that they do not know all

the details of the changes that take place around them, including the reasons underlying those changes (Neves & Caetano, 2006).

When managers provide insufficient change-related information, employees also may perceive this information deficiency as a signal that their employer does not respect them (Greenberg, 2004), which further fuels the emergence of negative emotions. In contrast, when managers provide abundant information about changes, employees perceive a greater sense of security and feel more valued by their organization (Folger & Cropanzano, 1998). Finally, informational *injustice* may enhance the belief that organizational decisions are based on politics rather than merit, favoring some employees at the expense of others (Cheung & Law, 2008; Eisenhardt & Bourgeois, 1988), such that associated concerns about the fairness of performance evaluations instill negative emotions in employees. Hence we hypothesize:

Hypothesis 1: There is a positive relationship between employees' perceived informational injustice with respect to change and their development of negative workplace emotions.

Moderating role of job influence

An important structural element of organizations' internal functioning is the influence that employees can exert on how to do their job (Elloy, 2012; Snape & Redman, 2010). We hypothesize that employees' job influence attenuates the positive relationship between their perceptions of informational injustice with respect to change and their negative workplace emotions. Providing employees with opportunities to influence the specifics of their jobs provides meaning to their work (Brown & Leigh, 1996) and gives them more control over how

to undertake daily tasks successfully (Daniels & Guppy, 1994), even with limited information about changes in their work environment. Thus, the emergence of negative emotions due to limited information provision about change should be suppressed to the extent that employees have a greater ability to influence their job tasks (Kristoff, 1996).

Moreover, job influence increases employees' intrinsic motivation (Wood et al., 2012), which can function as a personal resource from which employees draw to cope with stressful situations (Vallerand, 2007). When faced with limited information about changes in their work environment, employees who can influence their jobs have more positive energy available to overcome the stress associated with this adverse situation (ten Brummelhuis et al., 2011). In a related vein, previous research suggests that empowered employees are more persistent in performing job-related tasks, even in the face of organizational hurdles (Ryan & Deci, 2000). Thus, in conditions of high job influence, employees are better positioned to handle information deficiencies effectively, which prevents such deficiencies from escalating into negative emotions. Finally, when granted the opportunity to influence how they undertake job-related tasks, employees may consider it an indication that the organization values their input (Rhoades & Eisenberger, 2002). Because job influence can be interpreted as a signal of organizational support (Eisenberger et al., 2001), it diminishes the channeling of unfair work conditions into negative workplace emotions. Thus:

Hypothesis 2: The positive relationship between employees' perceived informational injustice with respect to change and their development of negative workplace emotions is moderated by their job influence, such that the relationship is attenuated at higher levels of job influence.

Moderating role of reward interdependence

We also expect that informational injustice with respect to change should be less likely to turn into negative workplace emotions when employees' rewards depend on the performance of others in the organization. By emphasizing joint rather than individual rewards, employers indicate that employees should adhere to the collective interest rather than to their personal situation (Collins & Clark, 2003; Bloom, 1999). In turn, such shared responsibility might mitigate the transformation of informational injustice with respect to change into negative emotions, because shared responsibility increases the perceived necessity of the changes for the organization (De Clercq et al., 2011). The implementation of workplace changes, even if they are minor, often requires the transcendence of individual interests (Collins & Smith, 2006). Interdependent rewards can stimulate such transcendence, thereby mitigating the stress that comes with information deficiencies with respect to change and hence reducing the likelihood that such deficiencies lead to negative workplace emotions (Milkovich & Newman, 1990).

Furthermore, because reward interdependence creates a sense of shared "ownership" and adds meaningfulness to employees' work (Kahn, 1990; McDonough, 2000), it may promote the efforts that employees undertake *among* themselves to understand why certain changes are taking place in their workplace (Lee & Ahn, 2007), particularly if their employer has not shared much information. These efforts then can help contain the stress generated by perceptions of informational injustice (Wu et al., 2007). Similarly, the feeling of being "in the same boat", achieved through reward interdependence (Lin, 2010), may decrease the likelihood that negative workplace emotions arise from perceived informational injustice, because employees likely experience stronger emotional support from one another when sharing the concern that limited information could jeopardize their collective performance (Lee & Ahn, 2007). Conversely, at

lower levels of reward interdependence, informational injustice with respect to change should escalate more readily into severe stress, such that the likelihood of negative workplace emotions increases.

Hypothesis 3: The positive relationship between employees' perceived informational injustice with respect to change and their development of negative workplace emotions is moderated by their reward interdependence, such that the relationship is attenuated at higher levels of reward interdependence.

Moderating role of trust

Previous research suggests that trust in organizational authorities is beneficial when employees perceive that organizational decision making generates unfavorable outcomes (Bouckenooghe, 2012; Brockner et al., 1997). When applied to this study's context, this suggests that the trust that employees have in their managers should mitigate the harmful effects of their perceptions of informational injustice with respect to change on the development of their negative workplace emotions. Trustworthy relationships help employees manage and subdue the stress that comes with insufficient information about organizational changes, because employees expect that managers will be fairer in their performance evaluations and recognize that those employees may not have received complete information about changes in their work environment (Liu et al., 2010). Because trusting relationships with managers enhance feelings of psychological safety and reduce antagonism toward the organization (Kahn, 1990), employees should be less likely to develop negative emotions when faced with incomplete information about changes.

Further, because trust reduces the fear of criticism or looking foolish when asking for advice (De Clercq et al., 2011), it may increase employees' propensity to express their discontent

with the lack of information provision. In other words, when trustworthy relationships are in place, employees may be more prone to ask their managers directly why only limited information about the changes taking place around them is available (Tsai & Ghoshal, 1998), which then should increase their ability to fend off the negative emotions that stem from information deficiencies. Conversely, in the absence of trust, employees seek less support from their managers to cope with stressful work conditions and may even become suspicious of their managers' motives for withholding information (Bouckennooghe, 2012). In this case, it becomes more likely that the stress associated with informational injustice gets channeled into negative workplace emotions and persists (Lynch et al., 1999), with particularly salient harmful effects on the development of negative emotions. Hence:

Hypothesis 4: The positive relationship between employees' perceived informational injustice with respect to change and their development of negative workplace emotions is moderated by the trust they have in their managers, such that the relationship is attenuated at higher levels of trust.

Moderating role of organizational commitment

We hypothesize a similar beneficial role of organizational commitment. Employees who are strongly committed to their organization perceive their organizational environment as safer (Kahn, 1990) and are more likely to accept its practices, even if the practices do not directly benefit their personal well-being (Meyer et al., 2004). Similarly, previous studies in the realm of organizational change show that higher commitment levels decrease change-related stress and fuel employees' readiness and acceptance of change (Oreg et al., 2011; Yousef, 2000). Thus, we

expect that organizational commitment helps to counter change-related stress, such that it mitigates the conversion of information deficiencies about change into negative emotions.

This beneficial role of organizational commitment also might be explained by the enhanced knowledge sharing it generates *among* employees (De Clercq et al., 2010). Employees who exhibit a strong attachment to their organization are more likely to engage in frequent communication with one another, because such attachment increases their motivation to apply their collective knowledge bases to the goal of enhancing the organization's well-being (Van den Hooff & Van Weenen, 2004). Enhanced communication in turn can provide employees with more insight into why their employer has instilled certain changes in their work environment and thus mitigate stress due to informational injustice (Bouckenoghe, 2010). Finally, because organizational commitment tends to shift employees' concerns from expecting complete factual information about organizational decision making to working to enhance organizational effectiveness in general (Meyer et al., 2004), highly committed employees should grant relatively less weight to information deficiencies with respect to change. Ultimately, organizational commitment should mitigate the transformation of unfair information provision into negative workplace emotions, because such deficiencies are perceived as less harmful.

Hypothesis 5: The positive relationship between employees' perceived informational injustice with respect to change and their development of negative workplace emotions is moderated by their organizational commitment, such that the relationship is attenuated at higher levels of organizational commitment.

Methodology

Data collection and measures

We used matched employee-employer data from the 2011 Workplace Employment Relations Survey (WERS 2011), a nationally representative, cross-sectional survey based on a stratified random sample of British workplaces (for a detailed discussion, see Deepchand et al., 2013). First, each of the study's focal variables –i.e., the dependent, independent, and moderating variables – were drawn from the WERS Employee Questionnaire (EQ), which is a self-completed questionnaire distributed to a random sample of 25 employees maximum per workplace (response rate = 54%). Second, to account for the effects of additional variables that might drive employees' workplace emotions, we added several individual-level factors (e.g., gender, age, supervisor duties) and organization-level factors (i.e., firm size and industry) as statistical controls.² While the individual-level control variables were captured through this same WERS Employee Questionnaire, the organizational-level control variables came from the WERS Management Questionnaire (MQ), which is based on face-to-face interviews with senior managers responsible for the employment relations in their organization (response rate = 46%). Our analysis used a matched analysis of 1,208 workplaces and 8,523 employees. Following previous work and to enhance context homogeneity and hence internal validity of the results (e.g., Saridakis et al., 2013; Storey et al., 2010), we restricted our sample to private sector workplaces with at least five employees.

Our dependent variable *negative workplace emotions* was measured with a six-item scale that assessed employees' perceptions of how often in the past few weeks their job made them feel tense, worried, uneasy, gloomy, depressed, or miserable (Lai et al., 2013; Park & Searcy,

² The frequency distributions of each control variable—as well as whether the variables came from the Employee Questionnaire or Management Questionnaire—are in the Appendix (Table AI).

2012). The questions used a five-point Likert scale ranging from “never” (1) to “all the time” (5) (mean = 1.992, Cronbach’s alpha = 0.909).

The measure of *informational injustice with respect to change* used three items to capture employees’ assessment of how well their managers kept them informed about changes to the way the organization was being run, changes in staffing, and changes in the way they did their job (Wood & de Menezes, 2011). These items encompassed employees’ fairness perceptions about ongoing or incremental changes in their work environment and were not limited to discreet change events (Kiefer, 2005). The responses varied from “very good” (1) to “very poor” (5) (mean = 2.589, Cronbach’s alpha = 0.911).

Moreover, *job influence* was measured with five items, asking respondents how much influence they had on the tasks they did in their job, the pace at which they worked, how they did their work, the order in which they carried out tasks, and the time they started or finished their working day (Timming, 2012). These responses varied from “no influence” (1) to “a lot of influence” (4) (mean = 3.109, Cronbach’s alpha = 0.844). We assessed *reward interdependence* as a binary variable that equaled 1 when employees indicated that their payments were based on the overall performance (a) of their group, team, workplace, or (b) of their organization in general. The WERS survey does not include a multi-item Likert scale to assess this measure, but it captures objective information about how employees are paid (Deepchand et al., 2013). Employees answered affirmatively to at least one of the two relevant questions in 16% of the cases.

Trust was measured with three questions that assessed employees’ relationships with their managers, particularly in terms of whether their managers could be relied on to keep to their promises, were sincere in attempting to understand employees’ views, and dealt with employees

honestly (Timming, 2012). The responses varied from “strongly disagree” (1) to “strongly agree” (5) (mean = 3.433, Cronbach’s alpha = 0.922). *Organizational commitment* was assessed with three items that captured the affective aspect of employees’ commitment – particularly, whether they shared many of the values of their organization, felt loyal to their organization, and were proud to tell people who they worked for (Park & Searcy, 2012; Saridakis et al., 2013). The responses varied from “strongly disagree” (1) to “strongly agree” (5) (mean = 3.842, Cronbach’s alpha = 0.856).

Analysis

Since the dependent variable was measured with ordered categorical data, we tested the hypotheses using ordered probit models. These models are a generalization of the binary response model and apply a maximum likelihood estimation technique (see Wooldridge, 2002). The signs of the estimated coefficients in these models indicate the direction of the relationships and the *p*-values indicate the significance of the coefficients. For example, a positive coefficient reflects that higher levels of a predictor variable increase the likelihood that negative workplace emotions are observed. Furthermore, since the employee level data were drawn from a number of workplaces, we adopted a random effects estimator to control for unobserved workplace heterogeneity. In short, to test our hypotheses, we conducted an ordered probit analysis using random effects to account for employees’ membership of specific workplaces. Hence, our statistical model is as follows:

$$\begin{aligned} \text{Negative workplace emotions}_{fi} = & a_1 \text{ Informational injustice}_{fi} + a_2 \text{ Job influence}_{fi} + a_3 \text{ Reward} \\ & \text{interdependence}_{fi} + a_4 \text{ Trust}_{fi} + a_5 \text{ Organizational commitment}_{fi} + b' X_{fi} + u_{fi}, \end{aligned} \quad (1)$$

where *Negative workplace emotions*_{*f**i*} represents the propensity of employee *i* in workplace *f* to have negative emotions, and *Informational injustice*_{*f**i*}, *Job influence*_{*f**i*}, *Reward interdependence*_{*f**i*}, *Trust*_{*f**i*}, and *Organizational commitment*_{*f**i*} reflect similar representations. In addition, *X*_{*f**i*} is a vector representing other variables that affect employees' negative workplace emotions, including the interaction terms and control variables (see Table AI). By controlling for several individual and organizational characteristics, we reduced potential specification errors that can lead to biased results (e.g., omitted variable bias), an approach that has also been used in previous applications of WERS data (Storey et al., 2010). Finally, *u*_{*f**i*} consists of two independent components: $u_{fi} = \theta_f + \eta_{fi}$: θ_f is the workplace-specific unobservable effect, and η_{fi} is a random error term with mean 0 and variance σ^2_{η} (see Wooldridge, 2002).

Results

Table I shows the regression results. Model 1 included informational injustice, job influence, reward interdependence, trust, and organizational commitment as the explanatory variables. Models 2–5 added the four interaction terms, one at a time, to avoid potential multicollinearity problems and any masking of true interaction effects (Aiken and West, 1991), as recommended in prior studies that test multiple interactions (e.g., De Clercq et al., 2010; Zahra & Hayton, 2008). Model 6 included the four interaction terms together. As mentioned, each model also included various individual-level and organization-level control variables (see Table AI in the Appendix), but we do not detail them here, due to space constraints. As a check for multicollinearity, we calculated the variation inflation factors (VIFs) for the predictors and interaction terms in each of the models; the highest value (VIF = 2.54) was lower than the

conservative threshold of 5.0 (Studenmund, 1992), so multicollinearity was not a significant concern for this study.

[Insert Table I about here]

The significant likelihood ratios for each of the models indicated that the predictors and interaction terms provided a superior fit compared to the “naïve” baseline model that included the sample mean of the dependent variable (Greene, 2004). Further, to provide a more direct assessment of the goodness of fit, we calculated the McFadden’s and McKelvey & Zavoina pseudo R-squared values. While the former indicates the extent to which a particular model performs better in terms of reduced variance in prediction errors than does the “naïve” baseline model, the latter is an approximation of the squared correlation between the predicted and observed values of the dependent variable. The values that we found (11% and 28%, respectively) indicated appropriate model fit (Freese & Long, 2006; Greene, 2004; Long, 1997).

Hypothesis 1 suggested that employees who perceive higher levels of informational injustice with respect to change are more likely to experience negative workplace emotions. We found support for this hypothesis in the positive effect of informational injustice ($\beta = 0.160, p < .01$, Model 1).³ Even though our conceptual framework does not focus on the direct effects of the four organizational context features, it is interesting to note in Model 1 that job influence ($\beta = -0.110, p < .01$), trust ($\beta = -0.331, p < .01$), and organizational commitment ($\beta = -0.210, p < .01$)

³ The WERS Employee Questionnaire does not assess the *nature* of the changes for which the respondents rate “informational injustice with respect to change”. However, the survey asks the respondents, in another section, whether “any of the following happened to you as a result of the most recent recession, whilst working at this workplace?” (1) my wages were frozen or cut, (2) my non-wage benefits were reduced, (3) my contracted working hours were reduced, (4) access to paid overtime was restricted, (5) I was required to take unpaid leave, (6) access to training was restricted, (7) my workload increased, (8) my work was reorganized, or (9) I was moved to another job. To check whether our results were robust to any of these changes (or lack thereof), we reran the regressions with a binary control variable that equaled 1 when the respondents indicated that at least one of these changes had occurred. The regression results obtained when this additional control variable was included were very similar to the results reported in Table I.

had negative effects on negative workplace emotions; there was no significant effect of reward interdependence on such emotions.

We found support for the hypothesized mitigating effects of the two structural features (job influence and reward interdependence) and the two relational features (trust and organizational commitment). In Model 2, the negative interaction between informational injustice and job influence ($\beta = -0.033, p < .05$) indicated that the positive effect of informational injustice was weaker at higher levels of job influence, which supports Hypothesis 2. Similarly, consistent with Hypothesis 3, Model 3 indicated that the positive effect of informational injustice was attenuated at higher levels of reward interdependence ($\beta = -.050, p < .10$), yet this effect was relatively weak. The results for the relational features mirrored these findings, in that the effect of informational injustice on negative workplace emotions was attenuated at higher levels of trust in Model 4 ($\beta = -0.027, p < .05$) and organizational commitment in Model 5 ($\beta = -0.023, p < .05$).

When we included all four interaction terms simultaneously in Model 6, the four interaction effects were consistent in their negative signs. Previous research suggests that the simultaneous inclusion of multiple interaction terms may obscure the detection of true moderating effects (Aiken & West, 1991; De Clercq et al., 2010; Covin et al., 2006), and that a model that includes multiple interaction terms indicates robustness of the moderating effects, to the extent that the *signs* of the interactions are consistent with those found in the models in which the interaction terms are included separately, irrespective of their significance (Arnold, 1982; Covin et al., 2006), as is the case here.

Although our data came from two different sources – namely, the WERS Employee and Management Questionnaires – most of the variables were collected from the former

questionnaire. To address possible concerns of common method bias in relation to the study's focal variables, we therefore undertook a post hoc analysis in which we applied Harman's single factor test (Podsakoff & Organ, 1986). In particular, we constrained the number of extracted factors to 1 and then examined the unrotated solution. If common method bias were an issue, we would expect that a single factor accounts for the majority of the variance in the data. However, we found that the factor explains only 35% of the variance, suggesting that such bias was not a concern in our models, which is also in line with previous studies using WERS data (e.g. Saridakis et al., 2013). Further, previous research suggests that common method bias is less of a concern in theoretical models that test moderating effects, because respondents cannot easily guess these effects, which decreases the likelihood of spurious findings (Brockner et al., 1997; Simons & Peterson, 2000).

Discussion

Research implications

Previous research has examined how a lack of justice in the workplace may function as a stressor that fuels adverse outcomes such as exhaustion (Chenevert et al., 2013) and reduced job satisfaction (Mayer et al., 2007). Research on organizational change indicates that perceptions of justice may promote positive attitudes toward change (e.g., commitment to change; Bouckennooghe, 2010; Bernerth et al., 2007). Yet less attention has been devoted to explaining the impact of perceptions of (in)justice on the emergence of workplace emotions that may *precede* such change outcomes (Oreg et al., 2011). Moreover, research on fairness in organizational change has mostly focused on the roles of distributive, procedural, and interpersonal justice (e.g., Bouckennooghe et al., 2014; Armenakis et al., 2007; Bernerth et al.,

2007) and less so on the impact of inadequate *information* provision. Our study has addressed these gaps by informing organizations how deficiencies in the provision of change-related information might instill negative emotions in their employee bases. Further, we have demonstrated that this effect is particularly salient in conditions marked by lower job influence, reward interdependence, trust, and organizational commitment—or conversely, that deficient information about change is less harmful at high levels of these organizational features.

Informational injustice with respect to change significantly enhances the emergence of negative workplace emotions. When employees receive limited information about changes that take place in their work environment, their ability to cope with the accompanying uncertainty diminishes (Neves & Caetano, 2006), fueling the development of negative feelings. Such information deficiencies also could be interpreted as manifestations of favoritism if colleagues receive superior information than a focal employee (Cheung & Law, 2008), or else more generally as a lack of respect by the employing organization (Greenberg, 2004). However, we also find that the adverse effect of such informational injustice is attenuated by the presence of critical structural features (job influence and reward interdependence), and relational features (trust and organizational commitment) in their surrounding organizational context.

First, when employees can influence the way they perform their jobs, they experience higher levels of meaningfulness and control (Kahn, 1990), which mitigates their stress about how incomplete change-related information could hinder their successful task execution. In particular, the uncertainty that results from informational injustice is less likely to translate into negative workplace emotions when the level of job influence is high, because employees have more autonomy to find ways to counter the accompanying stress. Thus, high levels of job influence provide employees with better control over the anxiety stemming from information deficiencies

(De Clercq et al., 2011; Van den Heuvel et al., 2013). Conversely, when employees have limited discretion about how to undertake their jobs, the stress that emerges from deficiencies in change-related information escalates, and the harmful effects of informational injustice are felt more strongly.

Second, the attenuating effect of reward interdependence on the informational injustice–negative workplace emotions relationship illustrates that change-related stress can be better contained when employees are in the same boat and share responsibility in terms of their rewards (Lin, 2010; Xie et al., 2003). Deficiencies in the provision of change-related information become less instrumental for fueling negative emotions in employees when their firm’s rewards system emphasizes collective rather than personal interests (Collins & Clark, 2003). In this situation, the mutual dependence of employees may increase intra-employee information sharing about changes, which in turn counters the stress that arises when the employer does not keep employees well informed about changes (Lee & Ahn, 2007). In addition, their common fate may increase the meaningfulness of employees’ work (Kahn, 1990) and provide emotional protection against such stress (Lin, 2010).

Third, employees’ trustworthy relationships with their managers mitigate the challenges of informational injustice. When employees have confidence that their managers will not take advantage of them, even if the opportunity to do so presents itself, they perceive their organizational environment as safer (Kahn, 1990) and are more likely to discuss the limited availability of information about organizational changes with those managers (De Clercq et al., 2013; Tsai & Ghoshal, 1998). When they can count on the trustworthiness of their managers, employees are therefore better protected against the escalation of change-related uncertainty into negative emotions. Conversely, when the trust in their managers is low, employees feel more

hesitant to share concerns about information deficiencies (Payne et al., 2011) or may become distressed by their suspicions about why managers withhold important information (De Clercq et al., 2010), such that it becomes more difficult to divert the negative energy stemming from such deficiencies.

Fourth, employees' organizational commitment also functions as a protection against the stress that emerges from informational injustice with respect to change. This beneficial influence of organizational commitment may be due to its communication-enhancing effect (Van den Hooff & Van Weenen, 2004), whereby employees go out of their way to integrate their personal knowledge with that of colleagues, with the ultimate objective of contributing to the organization's well-being (Park & Searcy, 2012). An outcome of such knowledge sharing is that it can facilitate understanding of why certain organizational changes take place, or even why complete information provision by the employer is not feasible. Moreover, because organizational commitment stimulates the acceptance of "unfavorable" practices (Meyer et al., 2004) and contributes to perceptions of psychological safety (Kahn, 1990), employees may more readily accept information deficiencies and be less likely to develop negative emotions in response.

Overall, the study's findings add significant insights into the individual-level dynamics underlying organizational change. It establishes a more complete understanding of how employees react emotionally to organizational change, specifying the role of an hitherto underexplored driver of negative workplace emotions (informational injustice with respect to change), and revealing several organizational features that mitigate this process.

Managerial implications

For organizations, this study shows that to understand the pitfalls that organizational changes may create for employees, the amount of information provided about such changes, or the lack thereof, must be considered in combination with critical features of the organizational context. Employees likely perceive limited information with respect to change as more stressful when they are not allowed to provide much input in terms of how to undertake their jobs, when their rewards are solely based on their individual performance, when they cannot count on trustworthy relationships with managers, or when they exhibit low emotional attachment to their organization. Organizations that undergo frequent changes in how they operate internally therefore should promote transparency about the nature of these changes; if such transparency is too challenging, they should match the changes with appropriate structural and relational measures.

In particular, organizations with limited opportunities to update their employees about internal changes on a regular basis should take into account how employees' jobs and rewards are designed and acknowledge the role of their relationships with managers and the organization in general. They should create an internal environment that (1) encourages employees to influence the ways they execute their jobs, (2) instills a certain level of shared responsibility in terms of their rewards, (3) fuels employees' confidence that managers will not take unfair advantage of them, and (4) encourages the development of shared values with their organization. For example, making rewards interdependent creates a feeling of shared ownership among employees and improves their interpersonal interactions, which in turn increases their consideration of each other's opinions on how the downturn of informational deficiencies can be countered (Van der Vegt et al., 1999). Overall, when these four organizational features are high,

employees can cope better with the stress that emerges from incomplete information flows about organizational changes, and the accrual of negative emotions will be thwarted.

Limitations and future research directions

This study has some limitations whose consideration offers opportunities for further research. First, our focus was on predicting negative workplace emotions, which we argued may precede specific change attitudes and behaviors. With this focus, we sought to uncover an important mechanism through which stress-inducing work conditions in relation to change could influence change-specific outcomes, even if we did not measure such outcomes directly. Thus, the negative emotions of employees who are stressed by the provision of limited information may determine important workplace attitudes or behaviors with respect to change. Future research could therefore examine how negative workplace emotions (the dependent variable in our study) functions as a critical mechanism that mediates between perceptions of injustice and change-related outcomes, such as employees' commitment or resistance to change (Choi, 2011) or their engagement with change implementation (Sonenshein & Dholakia, 2012). It could also consider more complex models and assess how this mediating effect of negative workplace emotions might be moderated by the four organizational features studied herein. Such "moderated mediation" entails that the mediating role of negative workplace emotions—as a causal mechanism that explains the effect of informational injustice with respect to change on change commitment, resistance or implementation—would be weaker at higher levels of job influence, reward interdependence, trust, and organizational commitment (Preacher, Rucker, & Hayes, 2007).

Further, we focused on four contingency factors, two structural ones (job influence, reward interdependence) and two relational ones (trust, organizational commitment), which

moderated the relationship between informational injustice with respect to change and negative emotions. Additional research could investigate how other structural factors, such as formal information provision mechanisms (e.g., work councils, joint consultative committees), or other relational characteristics, such as the informality of intra-organizational communication, might prevent the stress associated with informational injustice from transforming into negative workplace emotions. Such research could also look at the impact of constellations of multiple work context dimensions (Payne, 2006) on how perceived informational injustice informs employees' feelings in the workplace. In particular, by applying a systems perspective (Drazin and Van de Ven, 1985; Ketchen et al., 1997), it could investigate how various organizational contingencies *collectively* influence the translation of informational injustice into negative workplace emotions, thereby accounting for their mutual dependencies (Payne, 2006). For example, future research could explicate how the proximity to an "ideal configuration" of organizational features that are best suited to reduce the stress associated with informational deficiencies mitigates the conversion of informational injustice with respect to change into negative workplace emotions (Meyer et al., 1993). Conversely, such systems approach could reveal how an organization's deviation from the ideal configuration increases the likelihood that information deficiencies about change generate negative feelings in employees (Ketchen et al., 1993).

Third, although some of the study's control variables were drawn from a second respondent (managers), our reliance on the same respondents (employees) to assess the study's focal variables might raise some concerns about common method bias. Despite the reported statistical evidence that suggests the absence of such bias and the minimal concerns about it when testing moderating effects (Simons & Peterson, 2000), additional research should collect

data from multiple respondents in each firm and thereby assess whether employees and managers have congruent opinions about how much information is provided with respect to change, as well as about key structural and relational features of their organization.

Conclusion

In conclusion, we have extended previous research on organizational change by examining the effect of employees' perceived injustice with respect to the provision of change-related information on their development of negative emotions. The challenge posed by such information deficiencies depends on the organizational context in which employees operate, especially in terms of how much influence they can exert on their jobs, the interdependence of their rewards, the perceived trustworthiness of their managers, and their own commitment to their organization. These features help employees cope with the stress that results from information deficiencies by acting as a protection against negative emotion building. We hope this study prompts further investigations into the processes by which organizations that undergo frequent changes can prevent employees from developing such negative emotions.

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Figure 1. Theoretical framework

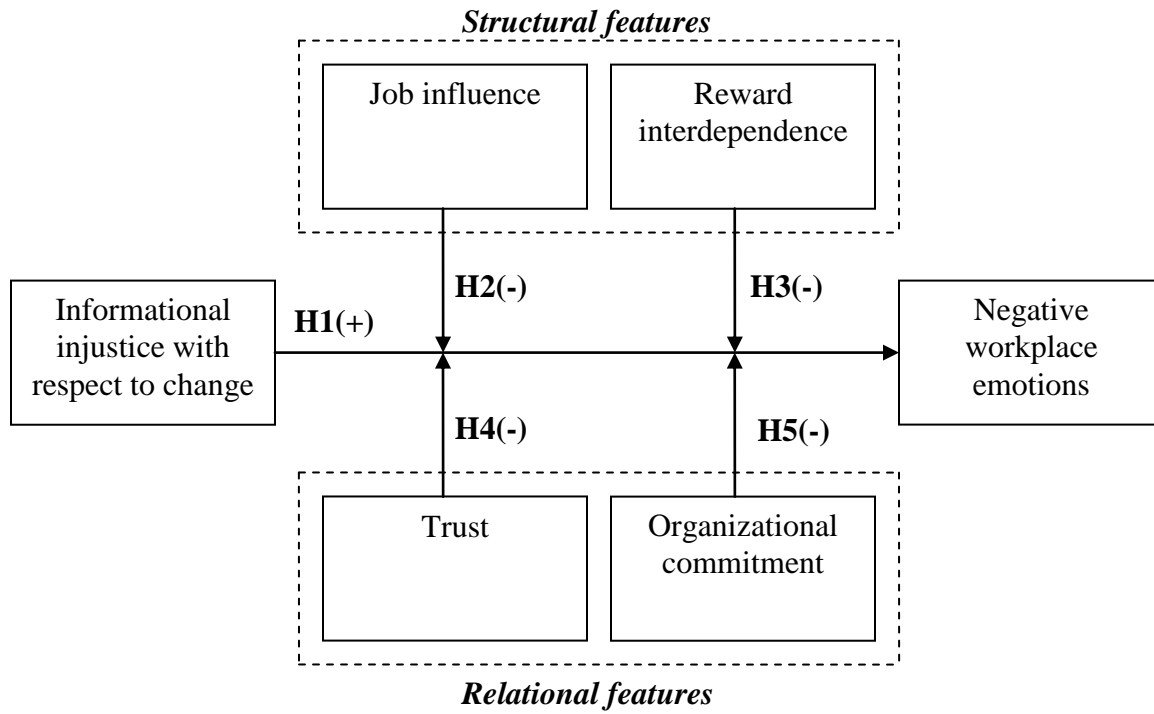


Table I. Random Effects Ordered Probit Models (Dependent Variable: Negative Workplace Emotions)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Informational injustice	0.160**	0.158**	0.167**	0.154**	0.158**	0.161**
Job influence	-0.110**	-0.100**	-0.110**	-0.109**	-0.110**	-0.102**
Reward interdependence	0.018	0.017	0.016	0.017	0.017	0.015
Trust	-0.331**	-0.330**	-0.331**	-0.324**	-0.331**	-0.326**
Organizational commitment	-0.210**	-0.210**	-0.210**	-0.210**	-0.202**	-0.209**
Informational injustice × Job influence		-0.033*				-0.023 ⁺
Informational injustice × Reward interdependence			-0.050 ⁺			-0.018
Informational injustice × Trust				-0.027*		-0.045
Informational injustice × Organizational commitment					-0.023*	-0.002
μ1	1.208**	1.197**	1.204**	1.216**	1.198**	1.201**
μ2	2.497**	2.486**	2.493**	2.504**	2.487**	2.490**
μ3	3.464**	3.455**	3.461**	3.475**	3.457**	3.461**
μ4	4.219**	4.212**	4.214**	4.233**	4.213**	4.221**
Rho	0.042**	0.042**	0.042**	0.0414**	0.042**	0.041**
Log likelihood	-9,194.4	-9,192.7	-9,193.9	-9192.8	-9,193.4	-9,191.1
Likelihood ratio $\chi^2(35)$	2,2177.01**					
Likelihood ratio $\chi^2(36)$		2,181.16**	2,178.6**	2,181.10**	2,179.8*	
Likelihood ratio $\chi^2(39)$						2,184.42**
McFadden's R ²	0.110	0.110	0.110	0.110	0.110	0.110
McKelvey & Zavoina's R ²	0.276	0.276	0.277	0.275	0.276	0.276

Notes: N = 8,523; ** $p < 0.01$, * $p < 0.05$ and ⁺ $p < 0.10$ (one-tailed tests). The models include the individual- and organizational-level controls, but these are not reported for space constraints. The random effects estimators account for the fact that the employee level data are drawn from a number of workplaces. The μ 's (μ_1 to μ_4) are the estimated thresholds in which each category of the dependent variable falls. The rho is statistically significant but relatively small, which implies little unobservable intra-workplace correlation.

Table AI. Control Variables

Variables	Frequency distribution
<i>Individual level-variables</i>	
<i>Gender</i>	
Male	48.4%
Female ^a	51.6%
<i>Employee age</i>	
Age 16-21 ^a	5.6%
Aged 22-59	86.4%
Aged 60 and above	8.0%
<i>Education</i>	
Qualified employee ^a	94.2%
No qualification	5.8%
<i>Ethnicity</i>	
White	93.2%
Non-white ^a	6.8%
<i>Type of contract</i>	
Permanent contract	94.1%
Temporary or fixed ^a	5.9%
<i>Work status</i>	
Supervisor duties	34.8%
Non- -supervisory duties ^a	65.2%
<i>Suitability of skills</i>	
Matched job skills	52.3%
No matched job skills ^a	47.7%
<i>Job training</i>	
No job training received	31.8%
One or more days of training received ^a	68.2%
<i>Log(working hours)</i>	3.48 (mean), 0.47 (S.D.)
<i>Log(weekly wage)</i>	5.86 (mean), 0.74 (S.D.)
<i>Tenure</i>	
< 1 year of tenure	12.7%
1-2 years of tenure	10.9%
2-5 years of tenure	24.6%
5-10 years of tenure	24.2%
10 years or more ^a	27.6%
<i>Organizational-level variables</i>	
<i>Firm size</i> ^b	
Small firms (<50 employees)	21.2%
Medium firms (50-249 employees)	16.1%
Large firms (250 employees or more) ^a	62.7%
<i>Industry</i> ^b	
Manufacturing ^a	39.2%
Electricity & water supply	4.7%
Construction	4.4%
Wholesale and retail	12.8%
Transportation	6.4%
Accommodation and food service	4.9%
Information and communication	3.0%

Financial and insurance activities	2.3%
Real estate activities	4.2%
Professional, scientific and technical	7.5%
Administrative and support service	2.3%
Education and health	4.4%
Arts, entertainment and recreation	3.9%

Notes: ^a Base categories for the regression analysis; ^b Variables assessed through the Management Questionnaire.