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The Relationship Between Organizational Dehumanization and Safety Behaviors

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This is the prepublication version of the following manuscript : Caesens, G., & Brison, N. (in press). The relationship between organizational dehumanization and safety behaviors. *Safety Science*.
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Abstract

This research investigates the negative relationship between organizational dehumanization and safety behaviors (i.e., safety compliance and safety participation). More importantly, relying on a social exchange and a motivational perspective applied to safety, we examined two potential underlying mechanisms of these relations, i.e. felt obligation regarding safety procedures and safety motivation. A total of 221 employees from various occupations, that involve following safety rules and procedures, took part in a cross-sectional survey. Results of structural equation modeling and latent bootstrapping analysis indicated that the indirect effect of organizational dehumanization on safety compliance and safety participation via felt obligation toward safety procedures was significant. In addition, the indirect effect of organizational dehumanization on safety compliance and safety participation via safety motivation was marginally significant. Theoretical contributions for both organizational dehumanization and safety behaviors literatures, as well as practical implications are discussed.

Keywords: organizational dehumanization, safety behavior, safety compliance, safety participation, safety motivation.

1. Introduction

Workplace safety is an important issue for organizations (Yuan et al., 2020). According to the International Labor Organization (2017), over 2.3 million of workers die annually from accidents. Nenonen et al. (2014) also pointed that the economic costs resulting from safety incidents are 4% of the global gross domestic product. Given these massive costs, research and policies makers have been interested in managing employees' safety performance and sought to identify its main drivers. Prior studies have already brought to light the importance of several individual factors (e.g., learning goal orientation, Lu et al., 2018; conscientiousness, Clarke & Robertson, 2005) or contextual factors (e.g., leader-member exchange; He et al., 2021; group norms to safety behaviors, Ju et al., 2016) that foster safety behaviors. In addition, if prior scholars have already underlined the importance to consider organizational factors (e.g., Neal & Griffin, 2006) that affect safety behaviors, past empirical studies predominantly focused on organizational factors specific to safety such as safety climate (e.g., Clarke, 2006; Neal & Griffin, 2006), perceived organizational support for safety (e.g., Liu et al., 2021; Tucker et al., 2008) or safety culture (e.g., Petitta et al., 2017). Less is known about the influence of general negative organizational factors such as organizational dehumanization, that is employees' perceptions that they are objectified by their organization, and made to feel like a tool or instrument for the organization's ends (Bell & Khoury, 2011), on employees' safety performance. Yet, Bell and Khoury (2011, 2016) claimed that organizational dehumanization perceptions "motivate the individual to dissociate from the organization" (p. 184) and should be related to deviant or counterproductive workplace behaviors and might even be related to self-destructive behaviors.

In line with these ideas, the first aim of the present research is to gain a better understanding of the relationship between organizational dehumanization and two dimensions of safety performance, namely safety compliance and safety participation. Safety compliance is typically defined as "core activities that individuals need to carry out to maintain workplace safety", (Neal & Griffin, 2006, p. 947), such as wearing appropriate protective equipment to perform their job or to adhere to safety procedures. Safety participation is described as "behaviors that do not directly contribute to an individual's personal safety but that do help to develop an environment that supports safety", Neal & Griffin, 2006, p. 947). It reflects extra-role safety behaviors (Neal & Griffin, 2006), and includes behaviors such as helping coworkers who work in risky conditions, and voluntarily taking part in tasks or activities that help improving workplace safety. The second aim of this research is to investigate *how* organizational dehumanization and safety behaviors might be related. More precisely, this study aimed to examine two potential underlying mechanisms of this relationship. Based on a social exchange perspective (Blau, 1964) applied to safety procedures, we argue that employees perceiving organizational dehumanization would feel a lesser obligation toward the organization to comply to safety procedures, thus reducing safety performance. Furthermore, based on a motivational perspective applied to safety (Neal & Griffin, 2006), we suggested that organizational dehumanization would reduce employees' safety motivation, ultimately reducing employees' safety behaviors (i.e., safety participation and safety compliance).

As a whole, by examining the relationship between organizational dehumanization and safety behaviors, this research will contribute to the existing literature in at least three important ways. First, this research contributes to the safety literature (e.g., Cui et al., 2013) by exploring for the first time the influence of a negative employee-employer perspective on safety behaviors. Accordingly, in contrast to the bulk of safety research that considered organizational factors specific to safety (e.g., safety climate; Clarke, 2006), we explore the influence of a general negative organizational phenomenon experienced by employees in modern organizational contexts (e.g., Bell & Khoury, 2016; Belmi & Schroeder, 2020). More importantly, by simultaneously examining two psychological underlying processes (i.e., a

social exchange and a motivational perspective) that might explain the organizational dehumanization-safety behaviors relationships, we respond to the call of scholars to provide a better understanding of cognitive mechanisms behind the influence of organizational factors on safety performance (Cui et al., 2013). Second, our findings will contribute to the emerging literature on organizational dehumanization and respond to the recent call of scholars (e.g., Brison et al., 2022; Caesens et al., 2019) to more systematically examine the nomological network of organizational dehumanization, notably its detrimental behavioral and harmful consequences for organizations. Finally, it is essential from a theoretical and pragmatic perspective that researchers and practitioners gain a better understanding of the detrimental effects of organizational dehumanization on employees' safety behaviors. This research will thus have important implications for managers and for practitioners interested in promoting safer workplaces and in reducing accidents and injuries at work.

2. Hypotheses Development

2.1 Organizational Dehumanization and Safety Behaviors

The dehumanization phenomenon is typically described in the social psychology literature as “the result of a process, experience, or attitude by which the person is made to feel less human” (Bell & Khoury, 2011, p. 179). Based on the social psychology literature (e.g., Leyens et al., 2001) and work from Haslam (2006), scholars in organizational psychology have proposed that this phenomenon occurs within organizations. More precisely, they suggested that denying characteristics that separate humans from objects or machines, is prone to occur within organizational settings (e.g., Christoff, 2014; Bell & Khoury, 2016). In line with this, Bell and Khoury (2011) proposed and defined the organizational dehumanization construct as “the experience of an employee who feels objectified by his or her organization, denied personal subjectivity, and made to feel like a tool or instrument for the organization's ends” (p.168). According to several scholars (e.g., Bell & Khoury, 2011) organizational dehumanization is a common experience in modern organizations and is “often viewed as an acceptable, and even necessary, strategy for pursuing personal and organizational goals” (Christoff, 2014, p. 1).

The organizational dehumanization construct has generated an increasing interest in the last years, notably because of its important implications and negative consequences in the workplace such as decreasing employees' health, positive attitudes toward the organization and performance (e.g., Brison et al., 2022; Caesens et al., 2017, 2019; Taskin et al., 2019; Stinglhamber et al., 2021). Accordingly, Christoff (2014) claimed that organizational dehumanization, even subtle, might lead to important detrimental consequences for employees' health and well-being by impairing the ability to satisfy employees' psychological needs. In this perspective, Lagios, Caesens et al. (2022) found that the frustration of employees' fundamental needs (i.e., needs from autonomy, competence, belonging) is a mediator in the relationships between organizational dehumanization and employees' well-being (e.g., increased psychological strains such as headaches) and attitudes (e.g., reduced employees' affective commitment toward the organization). In addition, Bell and Khoury (2016) argued that organizational dehumanization “is a negative experience that diminishes the individual and is therefore likely to motivate the individual to dissociate from the organization” (p. 184). In this perspective, recent empirical evidence has shown that organizational dehumanization perceptions are negatively related to employees' positive attitudes toward the organization, such as decreased affective commitment (Caesens et al., 2019; Stinglhamber et al., 2021; Taskin et al., 2019) and increased employees' turnover intentions (e.g., Bell & Khoury, 2016; Caesens et al., 2019; Nguyen, et al., 2021).

More importantly, employees' perceptions of being dehumanized by their organization have been suggested to influence employees' behaviors and even to self-destructive behaviors (e.g., Bell & Khoury, 2011). More precisely, some scholars (e.g., Brison et al., 2022) suggested that the social exchange theory (Cropanzano & Mitchell, 2005) and the norm of negative

reciprocity might be a relevant framework to explain the negative behavioral consequences of an organizational treatment. In this perspective, organizational dehumanization perceptions have been found to be associated with deleterious behavioral outcomes such as decreasing extra-role performance (e.g., Taskin et al., 2019) and reducing promotive voice behaviors (Stinglhamber et al., 2021). Along similar lines, organizational dehumanization has been shown to positively relate to organizational and interpersonal deviance (Ahmed & Khan, 2016). Corroborating these findings, Sarwar et al. (2021) recently proposed that organizational dehumanization perceptions might foster nurses' counterproductive work behaviors such as triggering abuse, deviance or withdrawal from responsibilities.

Surprisingly, although prior empirical evidence supports the detrimental effects of organizational dehumanization on different conceptualizations of work-related performance such as withdrawal from responsibilities, no prior research has explored the influence of organizational dehumanization on employees' safety behaviors. In the present research, we argue that organizational dehumanization negatively influences employees' safety behaviors, that is safety compliance and safety participation. Accordingly, evidence from the safety literature has reported that organizational factors, and notably perceptions of the employee-employer relationship, have an influence on employees' safety behaviors (e.g., Gyekye & Salminen, 2007; Mearns & Reader, 2008). More importantly, Bell and Khoury (2016) suggested that organizational dehumanization might foster employees' motivation to dissociate from the organization. Since violating safety rules can be considered as a form of unethical behaviors in high-risk organizations (Yuan et al., 2020), employees might engage in less safety behaviors as a way to response to organizational dehumanization.

Based on prior theoretical and empirical evidence, we therefore hypothesized the following:

Hypothesis 1: Organizational dehumanization is negatively related to (a) safety compliance and (b) safety participation.

2.2 Felt Obligation Toward Safety Procedures as a Mediator of the Relationship Between Organizational Dehumanization and Safety Behaviors

Above and beyond examining the influence of organizational dehumanization on safety behaviors, we go one step further by suggesting two empirical mechanisms that may mediate their relationships. First, based on a social exchange perspective (e.g., Blau, 1964), we propose that organizational dehumanization will be negatively related to safety behaviors, notably by reducing employees' feeling of obligation to care about the safety norms and procedures required by the employing organization. Interestingly, the safety literature already suggested that social exchange theory is a relevant theoretical mechanism (e.g., DeJoy et al., 2010; Tucker et al., 2008; Hofmann & Morgeson, 1999; Kath et al., 2010) that might, for instance, explain the relation between safety climate and employees' safety outcomes (e.g., Neal & Griffin, 2006). More precisely, negative reciprocity principles (Gouldner, 1960) suggested that individuals who feel badly considered by their organization, such as by perceiving dehumanizing treatment from their organization, may feel a desire to retaliate these negative treatments by indulging harmful acts (e.g., Brison et al., 2022). When employees work in an environment in which safety is a concern, one concrete way to retaliate toward their organization because of dehumanizing perceptions, might be by reducing their safety behaviors. Specifically, employees would reciprocate the negative treatment from their organization by reducing their safety behaviors because they feel less obligated to care about the safety norms and procedures that are important to the organization.

Hypothesis 2: Felt obligation toward safety procedures mediates the negative relation between organizational dehumanization and (a) safety compliance, and (b) safety participation.

2.3 Safety Motivation as a Mediator of the Relationship Between Organizational Dehumanization and Safety Behaviors

Neal and Griffin (2006) also suggested that safety motivation, defined as “an individual’s willingness to exert effort to enact safety behaviors and the valence associated with those behaviors” (Neal & Griffin, 2006, p. 947) is an important underlying mechanism that might explain the relationship between organizational variables and employee’s safety behaviors. In this perspective, Vatankhah (2021) recently suggested that safety motivation is a cognitive process that should thrive employees’ performance outcomes such as safety behaviors. More particularly, they claimed that “safety motivation can be treated as a mediating proximal factor in the relationship between selected distal determinants of performance [such as organizational climate] and relative safety performance outcomes” (p. 4). In addition, prior scholars claimed that organizational dehumanization is a negative experience that diminishes employees and that leads to a decrease in employees’ motivation toward the organization and work (e.g., Brison et al., 2022). In this perspective, one can reasonably argue that in organizations in which safety is a concern, organizational dehumanization might lead employees to reduce their individual motivation to exert effort to enact safety behaviors. In addition, prior empirical research found that safety motivation is positively related to safety compliance (e.g., Chen & Chen, 2014; Christian et al. 2009; Neal & Griffin, 2006; Probst & Brubaker, 2001) and safety participation (e.g., Chen & Chen, 2014; Christian et al., 2009; Jiang & Probst, 2016; Neal & Griffin, 2006). More importantly, prior study showed that safety motivation acts as a mediator in the relationship between variables related to the organization (i.e., organizational climate, Neal et al., 2000; organizational practices, Chen & Chen, 2014) and safety behaviors, namely safety compliance and safety participation (e.g., Chen & Chen, 2014; Neal et al., 2000).

In line with these prior empirical findings and theoretical arguments, we therefore posited that:

Hypothesis 3: Employees’ motivation toward safety mediates the negative relation between organizational dehumanization and (a) safety compliance, and (b) safety participation.

3. Method

3.1 Participants and Procedure

On March 2021, employees were invited to respond to an online questionnaire using Prolific Academic, a UK-based research crowdsourcing platform that recruits participants. In order to recruit an appropriate sample of participants in regard to our research questions, we only restricted potential respondents to participants (1) who were not self-employed, (2) who had an approval rate of at least 95% on Prolific Academic, (3) were still working on site during the covid pandemic, and (4) whose job tasks are guided by safety rules and procedures. More precisely, following Hu et al. (2020) procedure, only participants who answered “I follow safety procedure every day” and “Almost all my job tasks are guided by safety procedures” to the prescreening question on Prolific titled “To what extent do your job tasks involve the use of safety procedures?” were allowed to complete the questionnaire. Participants were assured the confidentiality and the anonymity of their responses. Over 488 potential participants were invited on Prolific Academic to complete our research survey and received £.50 for the time it took to complete the questionnaire. In total, after two weeks, 235 participants responded to our survey and the response rate remained unchanged. From this initial sample, we removed 14 participants who failed to response to an attentional question (i.e., “It is important that you pay attention to our survey. Please tick strongly disagree”). The final sample was thus composed of 221 participants, 47.5% of whom were males and 52.5% were females. The average age of this sample was 38.77 years ($SD = 10.82$) and the majority of them held a high school degree (46.6%). Participants worked in various occupational domains for 38.33 hours a week on average ($SD = 18.59$). Specifically, participants worked in the area of health, social care, armed forces and emergency services (33.9%), in the accountancy, banking, finance, retail and sales sector (19%), in the domain of engineering, manufacturing, environment, agriculture, property,

construction, energy and utilities (11.3%), in transports and logistics (8.6%), in teaching and education (7.7%), and in the sector of food processing (7.2%). The remaining participants worked in other domains (9.5%) such as administration, IT, information services, science, pharmaceuticals, research laboratories, hospitality, tourism, sport, creative arts, and culture.

3.2 Measures

Unless otherwise indicated, participants responded to all items on a five-point Likert-type scale ranging from 1 (“Strongly disagree”) to 5 (“Strongly agree”).

3.2.1. Organizational Dehumanization ($\alpha = 0.94$). Organizational dehumanization was measured using eleven items developed by Caesens et al. (2017) which display high reliability values (e.g., Caesens et al., 2017; Stinglhamber et al., 2022). This 11-item scale has been previously used in a variety of samples which differed in terms of occupational groups (e.g., penitentiary, tourism, nursing, education, sales, insurance; Lagios, Caesens et al., 2022; Nguyen et al., 2022; Muhammad & Sarwar, 2021; Sarwar et al., 2020; Stinglhamber et al., 2022; Taskin et al., 2019). A sample item is “My organization treats me as if I were an object”. Participants responded on a seven-point scale ranging from 1 (“Strongly disagree”) to 7 (“Strongly agree”).

3.2.2. Felt Obligation Regarding Safety Procedures ($\alpha = 0.84$). Felt obligation toward the organization to follow safety procedures was measured using four adapted items from Eisenberger et al.’s (2001) scale. Similar to prior scholars (e.g., Lorinkova & Perry, 2019), these four items were adapted from the original scale to fit the study context (i.e., safety). More particularly, the target of felt obligation was modified from employees’ “performance” to “safety procedures” to be aligned with the focus of the central variable of our hypothesized model. These items are “I feel a personal obligation to do whatever I can to help my organization regarding safety rules”, “I have an obligation to my organization to ensure that I follow safety procedures”, “I owe it to my organization to do what I can to work in a safe manner” and “I would feel guilty if I did not meet my organization’s safety standards”.

3.2.3. Safety Motivation ($\alpha = 0.87$). Employees’ safety motivation was measured using the 3-item validated scale from Neal and Griffin (2006). This scale shows excellent psychometric properties, notably high internal consistency and high factor loadings (Neal & Griffin, 2006), and is commonly used in safety behavior research (e.g., Chen & Chen, 2014). A sample item is “I believe that it is important to reduce the risk of accidents and incidents in the workplace”.

3.2.4. Safety Compliance ($\alpha = 0.89$). Similar to other scholars in safety behaviors research (e.g., Xia et al., 2018), participants were asked to report their own safety compliance using four items from Griffin and Hu (2013). A sample item is “I use all the necessary safety equipment to do my job”.

3.2.5. Safety Participation ($\alpha = 0.83$). In line with prior research on safety behaviors (e.g., Xia et al., 2018), participants were invited to report their own safety participation with three items from Griffin and Hu (2013). A sample item is “I put in extra effort to improve the safety of the workplace”.

3.3 Data Analysis

First, in order to verify the psychometric properties of our measures and to ensure that all the constructs included in our model are distinct constructs (i.e., organizational dehumanization, felt obligation toward the organization, safety motivation, safety compliance, and safety participation), confirmatory factor analyses (CFA) were performed with Mplus 8 (Muthén & Muthén, 2017) using the robust Maximum Likelihood (MLR) estimator. This MLR estimator provides parameter estimates, standard errors, and goodness-of-fit that are robust to the non-normality of the response scales used in the present research. As it has been shown that the chi-square test of exact fit (χ^2) is sensitive to sample size and minor model misspecifications (e.g., Marsh et al., 2005), the evaluation of model fit was based on several fit indices: the comparative fit index (CFI), the standardized root mean Squared residual (SRMR) and the root mean square error of approximation (RMSEA). Values greater than 0.90 for the CFI designate

acceptable model fit, although values greater than 0.95 are considered as excellent. Regarding RMSEA, values smaller than 0.08 are considered as an acceptable model fit, while values smaller than 0.06 indicate an excellent model fit. SRMR values below 0.08 indicate acceptable model fit. Then, means, standard deviations, reliability coefficients (Cronbach's alphas) and correlations were calculated. Finally, structural models were performed to test the hypothesized model displayed in Figure 1 and standardized indirect effects on the structural model were performed using bootstrap (Cheung & Lau, 2008).

4. Results

4.1 Measurement Models

The results of CFA indicated that the five-factor model fitted the data very well ($\chi^2(265) = 493.394$; RMSEA = 0.063; SRMR = 0.047; CFI = 0.926). More importantly, this five-factor model was superior to all more constrained models that considered constructs combined in pair based on the Satorra-Bentler chi-square difference test (Satorra & Bentler, 2001). Furthermore, all items in this five-factor model display excellent loadings. Indeed, items loaded on their respective factors with loadings ranging from 0.424 to 0.906 for organizational dehumanization, from 0.613 to 0.823 for felt obligation toward safety, from 0.785 to 0.875 for safety motivation, from 0.794 to 0.838 for safety compliance, and from 0.723 to 0.901 for safety participation.

4.2 Descriptive Statistics and Correlations among Variables

The means, standard deviations, reliability coefficients and correlations among all the variables are presented in Table 1. All Cronbach's α 's were satisfactory, above the 0.70 value of Nunnally (1978). In line with hypothesis 1b, organizational dehumanization is negatively correlated with safety participation. In addition, organizational dehumanization is negatively correlated with felt obligation toward safety procedures and marginally negatively correlated with safety motivation. Felt obligation toward safety procedures and safety motivation are also both positively correlated with safety compliance and safety participation. In contrast, organizational dehumanization is not correlated with safety compliance, failing to support hypothesis 1a. Yet, as claimed by several scholars, indirect effects can exist even if there is no significant relationship between the independent variable and the dependent variable (e.g., Hayes, 2009; Rucker et al., 2011). Based on this, we decided to not consider the direct effect of organizational dehumanization on safety compliance as a necessary condition for testing our hypothesized model that deals mainly with indirect effects.¹

4.3 Structural Models

The hypothesized structural model was computed in Mplus. The hypothesized model presented acceptable fit indices ($\chi^2(268) = 524.729$; RMSEA = 0.066; SRMR = 0.086; CFI = 0.917). Yet, an alternative model $\chi^2(267) = 517.965$; RMSEA = 0.065; SRMR = 0.082; CFI = 0.910) adding a direct path between organizational dehumanization and safety participation was found to be superior to the hypothesized model ($\Delta\chi^2(1) = 4.23, p < .05$). This alternative model was thus retained as the best depiction of the data. Standardized parameter estimates of this model are presented in Figure 1. As shown in this figure, organizational dehumanization is negatively related to felt obligation toward safety procedures ($\gamma = -0.30, p < .001$) and marginally to safety motivation ($\gamma = -0.11, p = .09$), which in turn are both positively correlated with safety compliance (respectively, $\beta = 0.30, p = .001$ and $\beta = 0.63, p < .001$) and safety participation (respectively, $\beta = 0.41, p < .001$ and $\beta = 0.31, p < .001$). In addition, organizational

¹ ANOVA's were performed on each of our variables to explore if there were differences between occupational groups. Results indicated that the levels of organizational dehumanization, felt obligation regarding safety procedures, safety motivation, safety compliance and safety participation did not significantly differ across occupational groups (see online supplements for more details).

dehumanization had a negative direct effect on safety participation ($\gamma = -0.18, p = .011$). More importantly, the standardized indirect effects of organizational dehumanization on the two dependent variables (i.e., safety compliance and safety participation) via felt obligation toward safety and safety motivation were tested. To this end, bias corrected bootstrap confidence intervals were computed. Results showed that the indirect effect of organizational dehumanization on safety behaviors (i.e., safety compliance and safety participation) via felt obligation toward safety were significant (safety compliance = -0.09 , 95% CI $[-0.158, -0.034]$; safety participation = -0.12 , 95% CI $[-0.200, -0.052]$), hence supporting hypotheses 2a and 2b. Furthermore, the indirect effect of organizational dehumanization on safety behaviors through safety motivation was marginally significant (safety compliance = -0.07 , 90% CI $[-0.140, -0.001]$; safety participation = -0.04 , 90% CI $[-0.076, -0.001]$), tending to support hypotheses 3a and 3b.

5. Discussion

5.1 Main Findings and Theoretical Implications

The main aim of this research was to contribute to a better understanding of the relationships between organizational dehumanization and the two different ways in which employees might comply with safety procedures (i.e., safety compliance and safety participation). More particularly, drawing on the social exchange perspective (Blau, 1964) and a motivational perspective towards safety (e.g., Griffin & Neal, 2000), we proposed a theoretical model that examined the underlying mechanisms between organizational dehumanization and safety behaviors, namely employees' feeling of obligation to follow safety procedures and safety motivation.

Overall, our results indicated that organizational dehumanization is negatively related to safety participation, supporting hypothesis 1b. In this regard, this study adds to safety literature that is urging for the identification of the determinants of employees' safety performance (e.g., Cui et al., 2013). Specifically, we provided evidence for a new driver related to the negative employee-employer relationship that might be particularly damaging for safety participation. Furthermore, it corroborates scholars' suggestions that a negative employee-organization relationship is negatively associated with safety participation among employees (e.g., Gyekye & Salminen, 2007; Mearns & Reader, 2008). More importantly, these findings go beyond prior studies on safety behaviors that largely identified positive organizational predictors specifically related to safety (e.g., perceived organizational support for safety; Liu et al., 2021), by underlying a general organizational-level predictor of employees' safety behaviors (i.e., organizational dehumanization). Additionally, these findings contribute to the burgeoning literature on organizational dehumanization (e.g., Brison et al., 2022). Indeed, organizational dehumanization is an emerging concept in the organizational and HR literature (e.g., Brison et al., 2022) that has never been considered to have an influence on safety at work. This research is, to the best of our knowledge, the first empirical evidence indicating that organizational dehumanization is detrimental for employees' safety behavior (i.e., safety participation).

Unexpectedly and contrary to hypothesis 1a, the results showed no significant correlation between organizational dehumanization and safety compliance. This absence of correlation may be explained by the fact that safety compliance refers to core activities that are related to safety, while safety participation refers to a form of extra-role behavior toward safety (Neal & Griffin, 2006). These findings are consistent with prior research indicating that employees who feel dehumanized by their organization retaliate against the latter by exerting extra effort benefitting their organization to a lesser extent (Taskin et al., 2019) rather than in reducing their levels of in-role performance. In addition, disengaging from safety compliance would primarily be harmful for the employees themselves rather than for the organization, and

may thus not be considered as the most appropriate behavioral strategy to retaliate against a dehumanizing organization.

More importantly, our results showed that the indirect effects of organizational dehumanization on safety behaviors are mainly explained by the social exchange perspective, through employees reduced feeling of obligation to follow safety procedures and rules. Drawing on scholars' suggestion that the social exchange theory (Cropanzano & Mitchell, 2005) may be a relevant theoretical framework to understand the negative behavioral outcomes of organizational dehumanization (e.g., Brison et al., 2022; Stinglhamber et al., 2021) and to explain safety behaviors (e.g., Laurent et al., 2021), this research adds to the organizational dehumanization and safety literatures by testing this assertion empirically. Indeed, prior scholars have called for research that aims at identifying underlying mechanisms explaining the deleterious consequences of organizational dehumanization (e.g., Stinglhamber et al., 2021) and notably using the social exchange framework (Brison et al., 2022). In the same vein, these findings shed light on the mechanisms underpinning the relationship between organizational-level factors and employees' safety behaviors (Cui et al., 2013). Interestingly, while considering this social exchange perspective, employees' safety motivation only marginally explained the relationship between organizational dehumanization and safety behaviors (i.e., safety compliance and safety participation). This result might suggest that the social exchange perspective may play a more prominent role as compared to the motivational perspective in order to explain the organizational dehumanization-safety behavior relation. Yet, it might be that the effects of organizational dehumanization on safety motivation and safety outcomes might depend on moderating variables such as management commitment to safety (Amponsah-Tawaih & Adu, 2016). In addition, we cannot exclude the fact that our marginal results are due to the relative low sample size. Clearly, future research is warranted to better understand the exact role safety motivation in these relationships.

5.2 Limitations and future research directions

While this research has several strengths, there are several limitations that should be considered and addressed in future research. First of all, this research examined the relation between organizational dehumanization and safety behaviors using a cross-sectional design. Even if cross-sectional designs are suitable and necessary for the initial stages of research development (Spector, 2019), it prevents us from making any inference of causality between the constructs included in our hypothesized model. Indeed, we cannot exclude the possibility that reciprocal or reversed relations might occur between constructs such as, for instance, safety participation might increase safety motivation. Future investigations on the matter should rely on longitudinal methods (e.g., cross-lagged panel designs) to test potential causal or reciprocal relations in the hypothesized model.

Secondly, this research mainly relied on self-reported measures to assess our constructs, which might have induced bias such as social desirability and common method variance bias (e.g., Podsakoff et al., 2003). Nevertheless, during our research planification and in line with Podsakoff et al.'s (2003) recommendations, we ensured participants the anonymity and confidentiality of their responses and we stressed that there are no right or wrong response to the questionnaire. Furthermore, the results of the Harman single factor test indicated that a one-factor model fits very poorly with the data. More importantly, Christian et al. (2009) concluded from their meta-analysis research that "common methods bias may not be a major concern in the safety domain" (p. 1122). Therefore, all in all, the common method variance does not seem to have seriously influenced our data. Yet, future research would greatly benefit from replicating our findings using more objective data such safety compliance behaviors assessed by supervisors or actual reports of accidents or injuries in the workplace.

Thirdly, this research relied on a convenience sample of highly educated workers recruited on the Prolific Academic platform in a variety of organizational contexts and

occupational groups. In addition, this sample remains quite small ($N = 221$), which might have created problems regarding statistical power (Kline, 2011) and thus explain some marginal results that were found. Clearly, it would be important for future research to replicate our finding among more diverse occupational groups and industrial settings using safety procedures in order to contribute to the generalizability of our results. In addition, these future studies should adopt more engaging recruitment procedures in order to obtain a larger sample size.

Finally, the present research focuses on one single predictor of safety behaviors, thereby overlooking the role played by other relevant variables (e.g., individual variables such as emotional exhaustion, Ju et al., 2016; supervisor-related variables such as leader-member exchange, He et al., 2021; organizational factors such as perceived organizational support for safety; Liu et al., 2021). Therefore, it may not be ruled out that the relationship between organizational dehumanization and safety behaviors is not due to a third omitted variable. For instance, prior research consistently highlighted that safety climate (i.e., “the extent to which employees believe that safety is valued within the organization”, Griffin & Neal, 2000, p. 348) is among the strongest determinants of safety performance in the workplace (Clarke, 2006; Nahrgang et al., 2011). A poor safety climate might signal employees that their organization prioritizes production and profits over employees’ safety (Clarke, 2006), which is likely to influence employees’ organizational dehumanization perceptions. Therefore, future research should explore whether the relationship between organizational dehumanization and safety behaviors still holds while controlling for safety climate. Considering both safety climate and organizational dehumanization as predictors of safety behaviors could make valuable contributions to the safety literature. At the theoretical level, such empirical investigation would broaden extant literature by examining several organizational predictors of safety behaviors into more depth (e.g., Hu et al., 2016). It would test the potential hierarchy between the predictors of safety behaviors. Indeed, Hurst et al. (1991) suggested that the quality of the employee-employer relationship (e.g., organizational dehumanization) is a more proximal determinant of accidents than system climate (e.g., safety climate) (Hurst et al., 1991). At the practical level, this study would provide practitioners with guidance as to which levers to prioritize in order to foster safety behaviors at work (i.e., fight against organizational dehumanization or creating safety norms at the organizational level).

5.3 Practical implications

Despite the research limitations, the present study has implications for managers and practitioners interested in evidence-based management toward safety. Indeed, our findings suggest that employees who feel dehumanized by their organization are likely to retaliate against their employer by, for instance, feeling less obliged to care about the required organizational injunctions regarding safety at work. In turn, this decreased feeling of obligation has a negative influence on employees’ safety behaviors. Overall, these findings stress that organizations seeking to improve workplace safety should take great care of minimizing employees’ perceptions of being dehumanized by their organization. Drawing on these results, we strongly recommend organizations dealing with safety to start addressing this challenge by raising awareness regarding the organizational dehumanization phenomenon. More importantly, past research findings provide insightful advice in terms of practical measures aimed at preventing the development of organizational dehumanization perceptions among employees (e.g., Bell & Khoury, 2016; Caesens et al., 2017, 2019; Stinglhamber et al., 2021). Specifically, because leaders have a great influence on followers’ organizational dehumanization perceptions (e.g., Caesens et al., 2019; Stinglhamber et al., 2021) and safety behaviors (e.g., Xia et al., 2020), trainings for supervisors should focus on improving managers’ skills to maintain positive relationships with their subordinates. In addition, organizations should pay particular attention to set up fair organizational procedures (e.g., Bell & Khoury, 2016), to let employees express their point of view (i.e., voice), and to participate in decision-

making processes (Bell & Khoury, 2016; Stinglhamber et al., 2022) in order to lessen organizational dehumanization perceptions. Prior work also highlighted that injunctions and rules perceived as ineffective and unnecessary tend to increase organizational dehumanization perceptions (Lagios, Nguyen et al., 2022). Hence, when it comes to communicating safety rules to employees, efforts should be made to increase the perceived efficiency and usefulness of these rules (Hu et al., 2016; Lagios, Nguyen et al., 2022). Of particular interest for organizations dealing with safety matters, previous research highlighted that the poor quality of the work environment (e.g., high level of noise or poor air quality) positively influences employees' organizational dehumanization perceptions (Stinglhamber et al., 2022). Yet, it may be that, in specific work contexts (e.g., manufacturing plants), practitioners do not have any grip on such factors. In such circumstances, investing in high-quality protective equipment (e.g., helmets, gloves, masks) that is available when needed, comfortable to wear given the work conditions (e.g., heat), and that does not imply time nor financial costs for employees could increase workers' adherence to safety procedures (Damalas et al., 2006). Additionally, ensuring a periodic inspection to check the quality and quantity of these material resources could help further promote overall safety (de Bruin & Swuste, 2008).

6. Conclusion

In conclusion, the present research provides new insight into the relationship between organizational dehumanization and safety behaviors. Indeed, this research has shown for the first time that organizational dehumanization (that is a negative employee-employer relationship) has a detrimental influence on safety behaviors, more particularly on safety participation. Our findings further indicated that the social exchange perspective is an important mechanism explaining the relationship between organizational dehumanization and safety behaviors, while safety motivation plays a marginal underlying role.

7. References

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Table 1*Descriptive Statistics and Correlations among Variables*

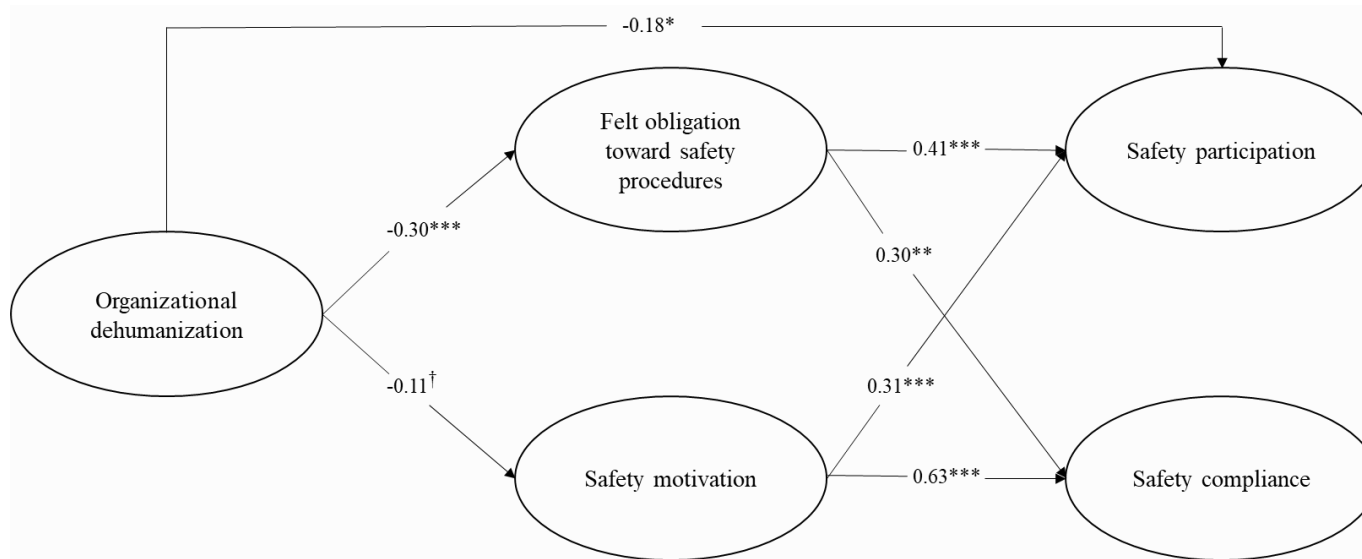
Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Gender	--	--	--							
2. Age	38.77	10.82	-.05	--						
3. Education	--	--	.02	-.15*	--					
4. Organizational dehumanization	4.44	1.50	.09	-.02	-.06	(.94)				
5. Felt obligation toward safety procedures	4.23	0.71	.12	.15*	-.01	-.27**	(.84)			
6. Safety motivation	4.60	0.49	-.04	.25**	-.12	-.11	.37**	(.87)		
7. Safety compliance	4.44	0.51	-.01	.20**	-.02	-.09	.46**	.61**	(.89)	
8. Safety participation	3.72	0.88	.07	.11	.04	.30**	.49**	.41**	.47**	(.83)

Note. $N = 221$. Reliability alpha values are displayed on the diagonal. Gender was coded “0” for male and “1” for female. Education was coded “1” for primary education, “2” for lower secondary education, “3” for upper secondary education, “4” for bachelor’s degree, “5” for master’s degree, and “6” for PhD.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Figure 1

Standardized Coefficients for the Retained Structural Equation Model of Study 1



Note. $N = 221$. † marginally significant.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.