

Organizational metadehumanization and mechanistic self-dehumanization: The role of surface acting

Group Processes & Intergroup Relations

2022, Vol. 25(8) 1983–2002

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DOI: 10.1177/13684302221095757

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Abstract

This research examines the relationship between metadehumanization, that is, perceiving dehumanizing treatments, and self-dehumanization, that is, perceiving oneself as less than human. We argue that, in work settings, this relationship can be explained through a behavioral mechanism. Specifically, organizational metadehumanization would drive employees to engage in more emotional labor (i.e., surface acting), which, in turn, would generate mechanistic self-dehumanizing perceptions. Our hypothesized mediation model is tested across three studies. First, a cross-sectional field study shows that organizational metadehumanization is positively related to surface acting, which is in turn positively associated with mechanistic self-dehumanizing perceptions. Second, an experimental study, manipulating the level of organizational metadehumanization through vignettes, confirms that the more employees feel dehumanized by their organization, the more they engage in surface acting, which, in turn, leads to mechanistic self-dehumanizing perceptions. Third, a longitudinal field study with repeated measures corroborates that the use of surface acting conducts employees to perceive mechanistic self-dehumanization. Overall, these findings highlight that metadehumanization in the workplace is critical in the way employees manage their emotions, which is determinant in the development of mechanistic self-dehumanizing perceptions.

Keywords

cross-lagged panel, metadehumanization, organizational dehumanization, self-dehumanization, surface acting, vignettes

Paper received 26 April 2021; revised version accepted 4 April 2022.

Dehumanization is a sociocognitive process in which individuals deny human characteristics to other individuals or groups (Haslam, 2006). While most studies in the last decades have focused on the perpetrator side of the dehumanization process, the exploration of this phenomenon from

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the victim's perspective, that is, an individual's conscious perception of being treated in a dehumanizing manner (i.e., metadephumanization), remains comparatively understudied (Demoulin et al., 2020). In 2013, Moradi encouraged "a broadening of theory and research that attends to targets not only as objects of dehumanization but also as subjects in dehumanization processes" (p. 155). Responding to her call, researchers have recently begun to empirically explore metadephumanization in various social categories. For instance, metadephumanization has been applied to ethnic groups (e.g., Bruneau et al., 2020; Kteily et al., 2016), low socioeconomic status groups (e.g., Sainz et al., 2020), women (e.g., Chevallereau, Maurice, et al., 2021; Chevallereau, Stinglhamber, et al., 2021b), psychiatric patients (e.g., Demoulin et al., 2021; Fontesse et al., 2020), and employees (e.g., Baldissarri et al., 2019; Caesens et al., 2017).

Literature suggests that one of the main consequences of metadephumanization is the extent to which the victims integrate it into their self-concept, namely self-dehumanization (e.g., Baldissarri & Andrighetto, 2021; Bastian & Haslam, 2010; Demoulin et al., 2020; Loughnan et al., 2017). Yet, the mechanisms underlying this relationship remain underexplored, driving Demoulin et al. (2020) to advocate that "the development of the knowledge on metadephumanization and self-dehumanization . . . should constitute a priority for future research" (p. 271). Accordingly, this research seeks to explain why experiencing dehumanizing treatments can lead to perceiving oneself as less than human, that is to self-dehumanizing.

We propose to study metadephumanization within a population of employees through the concept of organizational dehumanization, which refers to the perception of an employee of being used as a tool or instrument for the organization's ends (e.g., Bell & Khoury, 2011). By opting for such a definition of organizational dehumanization, we focus on the mechanistic form of dehumanization as defined by Haslam in 2006 (see following lines). As a consequence, we also investigate the mechanistic form of self-dehumanization, which is therefore rationally

more likely to occur. It is important to note that we will use the term "organizational metadephumanization" when referring to organizational dehumanization to provide a more systematic naming of the perception of being dehumanized (Demoulin et al., 2020). Using a consensual term will avoid any ambiguity: Organizational (meta) dehumanization refers to the perception of being dehumanized from the perspective of the victim, that is, the employee.

In the present research, we explain the relationship between organizational metadephumanization and mechanistic self-dehumanization through a behavioral mechanism, namely surface acting (i.e., a behavior consisting in expressing unmet emotions at work; Hochschild, 1983). On the one hand, we rely on the emotional labor literature, which indicates that surface acting is a behavior used to cope with the dehumanizing treatment from the organization (e.g., Nguyen & Stinglhamber, 2020), thus linking organizational metadephumanization and surface acting. On the other hand, we draw on the dehumanization literature, which proposes that one's behavior may shape one's self-concept (e.g., Bastian et al., 2012), thus suggesting that surface acting might be linked to mechanistic self-dehumanization. By pursuing this goal, the contribution of this research is twofold. First, at the theoretical level, this study contributes to the literature on dehumanization focused on the victim's perspective by identifying a mechanism (i.e., surface acting) through which metadephumanization leads to perceptions of mechanistic self-dehumanization in work settings. We also contribute to the emotional labor literature by expanding its nomenclological network through the identification of a new consequence of surface acting, that is, mechanistic self-dehumanization. Second, at the empirical level, we rely on a robust methodology to test the hypothesized mediation model. Practically, the latter was first explored through a cross-sectional study. Then, two (quasi)experimental studies (i.e., using experimental vignettes and a longitudinal cross-lagged panel design) were conducted to analyze each path of the mediation model.

Metadehumanization in Organizational Contexts: Organizational Metadehumanization

In the last few years, industrial and organizational (I/O) psychologists have begun to examine the phenomenon of metadehumanization within work contexts. They developed the concept of organizational (meta)dehumanization, directly derived from the social psychology literature on dehumanization. According to the dual model of dehumanization of Haslam (2006), two forms of dehumanization can emerge, depending on the type of humanity that is denied. On the one hand, animalistic dehumanization implies the denial of human uniqueness characteristics (i.e., civility, refinement, moral sensibility, rationality/logic, and maturity) that differentiate humans from animal species. On the other hand, mechanistic dehumanization refers to the denial of human nature attributes (i.e., emotional responsiveness, interpersonal warmth, cognitive openness, agency/individuality, and depth) that distinguish humans from objects or robots. Although I/O psychologists agree that individuals may perceive both forms of dehumanization in work settings, they argue that the perception of being mechanistically dehumanized (i.e., perception of being treated as an object or an instrument) is more prevalent than being dehumanized in an animalistic form (e.g., Bell & Khoury, 2011; Christoff, 2014). Scholars thus defined organizational metadehumanization 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” (Bell & Khoury, 2011, p. 168).

Recently, scholars have started to identify both the antecedents and consequences of employees’ organizational metadehumanization (for a comprehensive review, see Brison et al., 2021). Research has highlighted four main categories of antecedents. First, organizational factors such as organizational justice and perceived organizational support were found to be negatively related to organizational metadehumanization (Bell & Khoury, 2011; Caesens et al., 2017). Second, job

characteristics such as job autonomy or job meaningfulness (e.g., Caesens et al., 2019; Demoulin et al., 2020) were reported to be negatively associated with organizational metadehumanization. Third, empirical evidence supported that environmental factors such as office designs are also important determinants to consider in the prediction of organizational metadehumanization (Taskin et al., 2019). Finally, the last category of antecedents includes interpersonal factors such as the type of supervision received (e.g., Caesens et al., 2019; Demoulin et al., 2020).

Research also showed that organizational metadehumanization affects many important outcomes for both the individual and the organization. First, organizational metadehumanization is negatively related to employee well-being at work (e.g., low job satisfaction, more emotional exhaustion and psychosomatic strains; e.g., Caesens et al., 2017; Nguyen & Stinglhamber, 2020). Second, organizational metadehumanization predicts negative work attitudes and behaviors such as a reduced organizational commitment, more intentions to quit the organization, and less job performance and behaviors aiming at improving organizational performance (e.g., Bell & Khoury, 2011; Caesens et al., 2019; Sarwar & Muhammad, 2020; Stinglhamber et al., 2021). Finally, employees who perceive to be dehumanized by their organization tend to develop negative self-perceptions, such as a reduced organization-based self-esteem and low core self-evaluations (Demoulin et al., 2021; Nguyen & Stinglhamber, 2021). While the consequences of organizational metadehumanization on employee well-being, attitudes, and behaviors are well documented, much less is known about its impact on self-perceptions. In the present research, we thus focus on an outcome belonging to self-perceptions, namely mechanistic self-dehumanization.

Organizational Metadehumanization and Mechanistic Self-Dehumanization

In social psychology, metadehumanization perceptions are considered a determinant of self-dehumanization, which refers to the internalization

of metadephumanization into the self-concept; in other words, one sees and treats oneself as less than human (e.g., Bastian & Crimston, 2014). Indeed, self-dehumanization mainly results from the perception of being dehumanized, as illustrated by many research results across various populations and contexts (for an extensive review, see Demoulin et al., 2020). For instance, Griffiths et al. (2018) found that when individuals with eating disorders perceive that others stigmatize them (i.e., an experience that can be assimilated to mechanistic metadephumanization), they report being more alienated (i.e., a state that can lead to self-dehumanization).¹ In addition, Baldissarri and Andrighetto (2021) experimentally showed that the perception of being treated as an instrument by an experimenter or a fictitious supervisor (i.e., metadephumanization) entails perceptions of self-objectification (i.e., a form of self-dehumanization). Finally, Loughnan et al. (2017) revealed that when women feel objectified by others (i.e., a form of metadephumanization), they internalize their experience of objectification by perceiving themselves as lacking both human uniqueness and human nature attributes (i.e., self-dehumanization). Based on this set of evidence, we argue that employees who experience organizational metadephumanization may consider themselves as mere objects or instruments at the service of the organization, thereby dehumanizing themselves. Despite the growing body of literature on the effect of metadephumanization on self-dehumanization, to the best of our knowledge, there is no direct evidence of the mechanisms underlying this relationship.

The Role of Surface Acting

Surface acting, one of the key strategies of emotional labor, occurs when individuals' inner emotions are not in line with those they need to express. As such, they must profoundly regulate their emotions to behave in ways that display the emotions required by the organizational rules. Surface acting thus represents a behavior in which employees express the required emotions to others by hiding, faking, or amplifying their discrepant felt emotions (e.g., Alabak et al., 2020; Hur

et al., 2020). Most models of emotional labor have suggested that mistreatment in the workplace is an important determinant in the development of surface acting. In particular, recent research has consistently shown that the perception of being dehumanized by the organization (i.e., organizational metadephumanization) engenders the use of surface acting (e.g., Nguyen, Cheung, & Stinglhamber, 2021; Nguyen, Dao, et al., 2021; Nguyen & Stinglhamber, 2020).

The explanation takes root in conservation of resources (COR) theory that postulates that individuals strive to maintain, preserve, or obtain resources that they value when they believe that such resources are being threatened (Hobfoll, 1989). Both social (e.g., good relationships) and personal (e.g., self-efficacy) resources are described as valuable in the workplace because they facilitate the achievement of work objectives, increase psychological well-being, and foster personal development (e.g., Hobfoll, 2002; Holman et al., 2008). From this perspective, in spite of the negative emotions resulting from the perception of dehumanizing treatments from the organization, employees may engage in surface acting when interacting with others to preserve, protect, or at least minimize the loss of social and personal resources (e.g., Nguyen, Besson, & Stinglhamber, 2021). Indeed, not following the organizational display rules could result in a significant loss of resources due to the potential conflicts with others that could arise, and/or the feeling of being ineffective in one's job. As such, by hiding their negative emotions and performing surface acting, employees would thus prevent the loss of social (by maintaining a good work atmosphere; e.g., Brotheridge & Lee, 2003) and personal (by maintaining the idea that one is doing one's job well; e.g., Holman et al., 2008) resources.

We then postulate that the use of surface acting can interfere with perceptions of self-concept, and more specifically, increase perceptions of mechanistic self-dehumanization. Because surface acting involves behaving in a superficial manner (Brotheridge & Lee, 2003; Hochschild, 1983), employees may perceive themselves as merely superficial objects, trying to maintain a good work

climate and to be model employees who perform their role perfectly. In other words, by expressing required emotions that are incongruent with their inner emotions, employees may, to some extent, develop the perception of being a mere tool complying with the organizational rules and incorporate this behavior into their self-concept, thereby dehumanizing themselves. This idea is consistent with a body of literature on dehumanization suggesting that one's behavior can influence one's self-concept perception. For instance, Bastian et al. (2012) showed that the more violent video games individuals play, the less they self-attribute human characteristics (i.e., self-dehumanization). In a similar vein, Bastian et al. (2013) found that when individuals engage in ostracizing behaviors toward others, they tend to view themselves as mechanical, cold, or emotionless, thus dehumanizing themselves. Finally, Baldissarri et al. (2017) experimentally showed that the more employees perform repetitive and fragmented job-related tasks, the less they self-attribute mental states; in other words, they self-objectify (i.e., a form of self-dehumanization). Based on the aforementioned rationales, we thus posit the following:

Hypothesis: Surface acting mediates the relationship between organizational metadehumanization and mechanistic self-dehumanization.

Overview of the Studies

Through our hypothesis, we propose to examine whether the relationship between metadehumanization and self-dehumanization is explained by a behavioral mechanism, namely surface acting. As the study context is organizations and the population investigated is composed of employees, we focus particularly on the mechanistic form of organizational metadehumanization, which is the most prevalent in work settings (e.g., Bell & Khoury, 2011; Christoff, 2014). In addition, we also chose to investigate the mechanistic form of self-dehumanization since it is rationally more likely to occur as a consequence of perceptions of being mechanistically dehumanized by the organization.

The hypothesized model was examined across three studies. Study 1 investigated the mediating role of surface acting in the relationship between organizational metadehumanization and mechanistic self-dehumanization through a cross-sectional field study. While a cross-sectional design has definite advantages, including providing initial evidence that “variables in which we are interested [and that have never been tested together] are related” (Spector, 2019, p. 136), it also has certain flaws when a mediation process (i.e., a process that unfolds over time) is investigated (e.g., MacKinnon et al., 2012). Following the recommendations of several researchers (e.g., MacKinnon et al., 2012; Stone-Romero & Rosopa, 2008), we therefore conducted tests of mediation that yield inferences with greater levels of internal validity. More precisely, we further explored our mediation model by testing the causality of each path of mediation—that is, the direct effect (i.e., $X \rightarrow Y$), the first-stage effect (i.e., $X \rightarrow M$), and the second-stage effect (i.e., $M \rightarrow Y$)—in two (quasi)experimental studies. Specifically, Study 2 examined the mediation model by using an experimental design in which organizational metadehumanization was manipulated through vignettes. However, since it only tested the direct effect (i.e., the effect of organizational metadehumanization on mechanistic self-dehumanization) and the first-stage effect (i.e., the effect of organizational metadehumanization on surface acting), we designed Study 3 to experimentally investigate the second-stage effect (i.e., the effect of surface acting on mechanistic self-dehumanization) of the mediation. Specifically, we relied on a longitudinal field study, adopting a cross-lagged panel design, over a 6-week period. All procedures contributing to this work comply with the ethical standards of the Helsinki Declaration of 1975, as revised in 2008, and were approved by the ethics committee of the authors' home institution.

Study 1

Method

Participants and procedure. Following Kline's (2015) recommendations, sample size in research using

Table 1. Descriptive statistics and correlations among variables: Study 1.

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Organizational metadehumanization	3.92	1.55	(.94)							
2. Surface acting	4.17	1.38	.52**	(.93)						
3. Mechanistic self-dehumanization	2.23	1.50	.58**	.51**	(.93)					
4. Gender	1.62	0.49	.11*	.23**	-.04	-				
5. Age	36.96	10.18	-.03	-.06	-.11	.04	-			
6. Education	3.76	0.93	-.13*	.00	-.07	-.04	-.07	-		
7. Organization size	4.71	2.74	.27**	.07	.15**	.04	.05	.01	-	
8. Organizational tenure	6.41	6.01	.01	-.11**	-.03	-.12*	.42**	-.08	.17**	-

Note. $N = 341$. Reliability alpha values are on the diagonal. Gender was coded 1 = male, 2 = female. Education was coded 1 = did not complete high school, 2 = high school, 3 = some college, 4 = bachelor's degree, 5 = master's degree, 6 = PhD. Organizational size was coded 1 = 1–9 employees, 2 = 10–49 employees, 3 = 50–249 employees, 4 = 250–499 employees, 5 = 500–999 employees, 6 = 1,000–1,999 employees, 7 = 2,000–4,999 employees, 8 = 5,000–9,999 employees, 9 = more than 10,000 employees.

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

structural equation modeling should be at least 5 times the number of parameters to be estimated (i.e., at least 220 participants for the 44 parameters to be estimated in this study). For this reason, we recruited a sample of 350 participants via Prolific Academic. To participate, they had to be native English speakers, employed, and not self-employed. Each participant received £1.20 as monetary compensation. Nine participants were excluded from the data as they failed to at least one attentional check question. The final sample comprised 341 employees. Of these participants, 37.8% were men, and 62.2% were women. They had a mean age of 36.96 years ($SD = 10.18$) and an average tenure in their organization of 6.41 years ($SD = 6.01$). Most of them held a bachelor's degree (48.1%), and worked in medium-sized organizations (37.4%).

Measures

Organizational metadehumanization. Participants' perception of being mechanistically dehumanized by their organization was assessed via the 11-item Organizational Dehumanization Scale ($\alpha = .94$) of Caesens et al. (2017). They indicated their responses via a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*). An example item is "My organization considers me as a tool to use for its own ends."

Mechanistic self-dehumanization. Six items slightly adapted from Bastian and Haslam (2010) were used to assess the extent to which employees mechanistically self-dehumanized at work (e.g., "I feel like I am mechanical and cold, like a robot"; $\alpha = .93$). Participants responded to those items through a 7-point scale (1 = *not at all*, 7 = *very much*).

Surface acting. Four items from Brotheridge and Lee (2003) were used to measure surface acting (e.g., "Fake a good mood when interacting with others"; $\alpha = .93$). Participants reported how frequently they engaged in these behaviors to do their job effectively, using a 7-point scale (1 = *never*, 7 = *always*).

Control variables. We followed Becker et al.'s (2016) recommendations to deal with demographic characteristics. Specifically, we examined the relationships between the demographic variables (i.e., gender, age, education, organizational size, and organizational tenure) and the dependent variables (i.e., surface acting and mechanistic self-dehumanization). Table 1 indicates that gender and organizational tenure were correlated with surface acting, while organizational size was associated with mechanistic self-dehumanization. Consequently, mediation

Table 2. Fit indices for measurement models: Study 1.

Model	χ^2	df	RMSEA	SRMR	CFI	TLI	SCF	$\Delta\chi^2_{SB}$	Δ_{df}
1. Three-factor model	564.94	186	.08	.05	.92	0.91	1.24	-	-
2. Two-factor model (OD–MSD = one factor)	1270.40	188	.13	.10	.77	0.74	1.28	164.78***	2
3. Two-factor model (OD–SA = one factor)	1220.35	188	.13	.10	.78	0.75	1.25	377.89***	2
4. Two-factor model (SA–MSD = one factor)	1221.19	188	.13	.09	.78	0.75	1.26	260.68***	2
5. One-factor model	1853.75	189	.16	.12	.64	0.60	1.29	347.75***	3

Note. *N* = 341. OD = organizational metadehumanization; MSD = mechanistic self-dehumanization; SA = surface acting. RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual; CFI = comparative fit index; TLI = Tucker–Lewis index; SCF = scaling correction factor; $\Delta\chi^2_{SB}$ = strictly positive Satorra–Bentler chi-square difference test.

****p* < .001.

analyses were performed with and without these demographic variables. Given that the inclusion of these variables in the analyses did not change the interpretation of the findings, they were excluded from the analyses presented here for the sake of parsimony.²

Results

Measurement model. We investigated the distinctiveness of organizational metadehumanization, surface acting, and mechanistic self-dehumanization by performing a series of confirmatory factor analyses with Mplus 7.4 and its multiple linear regression (MLR) estimator. Table 2 indicates that the three-factor model had a good fit with the data, $\chi^2(186) = 564.94$, RMSEA = .08, SRMR = .05, CFI = .92, TLI = 0.91, and was significantly superior to all more constrained models. All the factor loadings of the items loaded significantly onto their latent variable.

Mediation model. We tested a structural equation model in which organizational metadehumanization, directly and indirectly, influences mechanistic self-dehumanization through surface acting. Figure 1 displays the hypothesized model, which fitted the data well, $\chi^2(186) = 564.94$, RMSEA = .08, SRMR = .05, CFI = .92, TLI = 0.91. The results showed that organizational metadehumanization was positively related to mechanistic

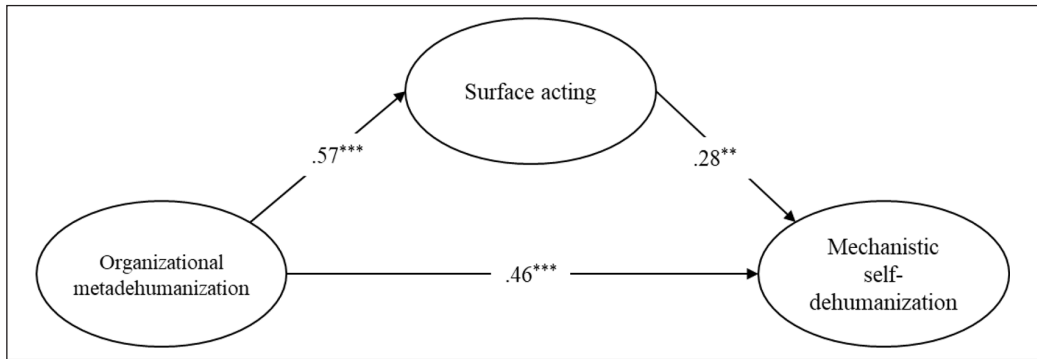
self-dehumanization ($\gamma = .46, p < .001$). In addition, organizational metadehumanization was positively associated with surface acting ($\beta = .57, p < .001$), which, in turn, increased perceptions of mechanistic self-dehumanization ($\beta = .28, p < .01$). To test the significance of mediation, we used bootstrapping analysis on our latent variables using Mplus 7.4 (Cheung & Lau, 2008) by generating 10,000 bootstrapping samples from the original data set. The results indicated that the indirect effect of organizational metadehumanization on mechanistic self-dehumanization through surface acting was significant (indirect effect = 0.16, 95% CI [0.10, 0.22]), which supported our hypothesis.

Discussion

Study 1 brings first evidence for the mediating role of surface acting in the relationship between organizational metadehumanization and mechanistic self-dehumanization. However, its cross-sectional nature raises concerns regarding the causal nature of our mediation. For this reason, Study 2 examined the mediation model by relying on an experimental study based on a vignette procedure.

Study 2

We used vignettes to manipulate employees' perceptions of organizational metadehumanization.

Figure 1. Completely standardized coefficients for the mediation model: Study 1.

Note. $N = 341$.

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

Following Aguinis and Bradley's (2014) best practice recommendations for the experimental vignette methodology, we first pretested our vignettes to ensure their effectiveness in inducing perceptions of organizational metadehumanization.

Method

Pretest

Sample. Forty participants recruited via Prolific Academic, with the same criteria as in Study 1, took part in the pretest. Moreover, those who participated in Study 1 were not allowed to participate in this pretest. The participants received £0.50 as monetary compensation for their time. Participants had a mean age of 38.00 years ($SD = 10.87$). Half of them were men.

Procedure. Participants were invited to take part in a survey on "employer–employee relationships" in which they had to read a short scenario describing the job and work context of a cashier working in a supermarket and put themselves into the role of this employee (see Appendix). First, participants were randomly assigned to the condition of high versus low organizational metadehumanization. After reading the scenario, participants had to describe, in a few lines, a typical working day of the employee in the scenario, to help them project themselves into the work context described. Next, participants were asked to rate the extent to

which, if they were in the situation of the described employee, they would feel dehumanized by their organization, using the Organizational Metadehumanization Scale ($\alpha = .95$) used in Study 1.

Results. To check the effectiveness of the manipulation of organizational metadehumanization, we conducted an independent samples t test. The results revealed that in the high organizational metadehumanization condition, participants displayed higher levels of organizational metadehumanization ($M = 6.12$, $SD = 0.70$) than those in the low organizational metadehumanization condition ($M = 4.53$, $SD = 1.31$), $t(38) = 4.78$, $p < .001$, $d = 1.58$.

Main study

Sample. Similar to Study 1, the number of participants needed to detect a potential mediating effect was determined following the recommendations of Kline (2015). Specifically, sample size should be at least 135 participants for the 27 parameters to be estimated for the mediation model. Recruited via Prolific Academic, the final sample was composed of 200 participants, thus largely above the minimum threshold. We used the same criteria as in the pretest, and participants who took part in the pretest were not allowed to participate in the main study. Participants were offered £0.70 for their participation. Of these participants, 116 were women and 83

Table 3. Descriptive statistics and correlations among variables: Study 2.

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Condition ^a	0.04	1.00	(.96)							
2. Surface acting	5.26	1.36	.28**	(.96)						
3. Mechanistic self-dehumanization	3.95	1.82	.46**	.50**	(.96)					
4. Gender	1.58	0.49	-.18*	.08	-.22**	-				
5. Age	37.31	8.52	.00	-.03	-.08	.05	-			
6. Education	3.91	1.00	.05	.00	.02	-.00	-.07	-		
7. Organization size	4.90	2.58	-.05	.19**	.11	-.05	-.05	.03	-	
8. Organizational tenure	7.10	6.29	.07	.02	.03	-.01	.57**	-.07	.09	-

Note. *N* = 200. Reliability alpha values are on the diagonal. Gender was coded 1 = male, 2 = female. Education was coded 1 = did not complete high school, 2 = high school, 3 = some college, 4 = bachelor’s degree, 5 = master’s degree, 6 = PhD. Organizational size was coded 1 = 1–9 employees, 2 = 10–49 employees, 3 = 50–249 employees, 4 = 250–499 employees, 5 = 500–999 employees, 6 = 1,000–1,999 employees, 7 = 2,000–4,999 employees, 8 = 5,000–9,999 employees, 9 = more than 10,000 employees.

^aExperimental conditions were coded -1 = low organizational metadephumanization, +1 = high organizational metadephumanization.

p* < .05. *p* < .01.

were men. They had a mean age of 37.31 years (*SD* = 8.52).

Procedure. As in the pretest, participants were randomly assigned to the condition of high versus low organizational metadephumanization. After reading the scenario, participants had to describe, in a few lines, a typical working day of the employee described in the scenario. Next, participants were invited to rate the extent to which they would feel dehumanized by their organization if they were that employee (manipulation check). Then, participants evaluated the frequency at which they would engage in surface acting to do their job effectively and the extent to which they would mechanistically self-dehumanize at work. Finally, we provided a debriefing of the study and thanked participants for their participation. The organizational metadephumanization ($\alpha = .96$), surface acting ($\alpha = .96$), and mechanistic self-dehumanization ($\alpha = .96$) scales were identical to those used in Study 1.

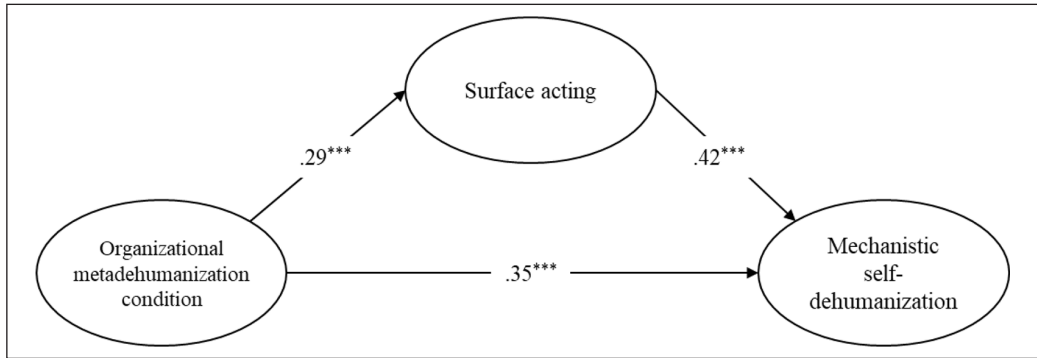
As before, we followed Becker et al.’s (2016) recommendations to deal with control variables (i.e., demographic variables). Table 3 shows that organizational size was correlated with surface acting, while gender was associated with mechanistic self-dehumanization. Again, both demographic

variables were omitted from the analyses presented here as their inclusion did not change the conclusion of findings.³

Results

Manipulation check. To verify the effectiveness of the manipulation of organizational metadephumanization, we performed an independent samples *t* test. The results indicated that in the high organizational metadephumanization condition, participants reported higher levels of organizational metadephumanization ($M = 6.20, SD = 0.78$) than those in the low organizational metadephumanization condition ($M = 4.59, SD = 1.50$), $t(198) = 9.58, p < .001, d = 1.41$.

Measurement model. We examined the distinctiveness of surface acting and mechanistic self-dehumanization by means of confirmatory factor analyses. Results showed that the two-factor model, $\chi^2(34) = 68.36, RMSEA = .07, SRMR = .03, CFI = .98, TLI = 0.97$, was significantly superior to the one-factor model, $\chi^2(35) = 744.35, RMSEA = .32, SRMR = .18, CFI = .60, TLI = 0.48, \Delta\chi^2_{SB}(1) = 3915.34, p < .001$. In addition, all the items loaded significantly onto their latent factors.

Figure 2. Completely standardized coefficients for the mediation model: Study 2.

Note. $N = 200$.

*** $p < .001$.

Main effect. We examined a structural equation model in which the organizational metadehumanization condition (coded $-1 =$ low organizational metadehumanization, $+1 =$ high organizational metadehumanization) (in)directly impacts mechanistic self-dehumanization via surface acting. Figure 2 represents the mediation model, which fitted the data well, $\chi^2(42) = 83.49$, RMSEA = .07, SRMR = .03, CFI = .98, TLI = 0.97. Results indicated that the experimental condition was positively associated with mechanistic self-dehumanization ($\gamma = .35, p < .001$). Furthermore, the experimental condition was positively related to surface acting ($\gamma = .29, p < .001$) which, in turn, increased perceptions of mechanistic self-dehumanization ($\beta = .42, p < .001$). As previously done, we tested the significance of mediation by using bootstrapping analysis on the latent variables (i.e., 10,000 bootstrapping samples; Cheung & Lau, 2008). Results showed that the indirect effect of the experimental condition on mechanistic self-dehumanization via surface acting was significant (indirect effect = 0.12, 95% CI [0.07, 0.18]), which supported our hypothesis.

Discussion

In Study 2, organizational metadehumanization was manipulated through vignettes representing low versus high dehumanization of a cashier in a

supermarket. This experimental study showed that the more employees perceive dehumanizing treatments from the organization (i.e., organizational metadehumanization), the more they report surface acting, which, in turn, leads them to mechanistically self-dehumanize. Specifically, Study 2 brings evidence for the mediating effect of surface acting in the relationship between organizational metadehumanization and mechanistic self-dehumanization. However, Study 2 only experimentally tested the direct and the first-stage effects of the mediation model (i.e., $X \rightarrow Y$ and $X \rightarrow M$, respectively). Yet, as previously stated, to properly test mediation, each causal path involved in the mediation model must, however, be experimentally tested (e.g., MacKinnon et al., 2012; Stone-Romero & Rosopa, 2008). We therefore conducted a third study to test the second-stage effect of our mediation model (i.e., $M \rightarrow Y$).

Study 3

Study 3 tests the causal link between surface acting and mechanistic self-dehumanization. Given that surface acting is complex, if not impossible, to manipulate, this study relied on a longitudinal field study adopting a cross-lagged panel design, which is a form of quasi-experimental design used to explore causal relationships in field studies (Finkel, 1995).

Table 4. Descriptive statistics and correlations among variables: Study 3.

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. Surface acting Time 1	3.85	1.41	(.94)								
2. Surface acting Time 2	3.79	1.42	.76**	(.94)							
3. Mechanistic self-dehumanization Time 1	2.22	1.39	.49**	.44**	(.94)						
4. Mechanistic self-dehumanization Time 2	2.13	1.31	.48**	.49**	.75**	(.94)					
5. Gender	1.61	0.49	.05	.10*	-.13**	-.09	-				
6. Age	42.18	10.70	-.08	-.10*	-.03	-.06	.02	-			
7. Education	3.74	1.00	.13**	.11*	-.05	-.02	-.01	-.14**	-		
8. Organization size	5.32	2.67	.06	.01	.08	.02	-.05	-.10**	.05	-	
9. Organizational tenure	8.43	7.04	-.03	-.07	.04	-.00	-.05	.39**	-.11*	.12*	-

Note. *N* = 436. Reliability alpha values are on the diagonal. Gender was coded 1 = male, 2 = female. Education was coded 1 = did not complete high school, 2 = high school, 3 = some college, 4 = bachelor’s degree, 5 = master’s degree, 6 = PhD. Organizational size was coded 1 = 1–9 employees, 2 = 10–49 employees, 3 = 50–249 employees, 4 = 250–499 employees, 5 = 500–999 employees, 6 = 1,000–1,999 employees, 7 = 2,000–4,999 employees, 8 = 5,000–9,999 employees, 9 = more than 10,000 employees.

p* < .05. *p* < .01.

Method

Participants and procedure. As in Study 1, we followed Kline’s (2015) recommendations to determine the sample size (i.e., at least 260 participants for the 52 parameters to be estimated in this study). Participants were invited to participate in a two-wave survey over a 6-week period via Prolific Academic, with the same criteria as in Studies 1 and 2. Moreover, those who took part in the first or second study (including the pretest) were not allowed to participate in Study 3. Each participant received £1.20 at each time point. At Time 1, 557 employees completed the questionnaire, while there were 491 at Time 2 (response rate: 88.15%). Several participants were withdrawn from the analyses because they changed organizations between Time 1 and Time 2, or because they failed to, at least, one attentional check question at Time 1 or Time 2. After matching responses at both times, the final sample was composed of 436 participants, which was well above the minimum threshold of 260. Most participants were women (61.2%). They had a mean age of 42.18 years (*SD* = 10.70) and an average tenure in their organization of 8.43 years (*SD* = 7.04). Most of them held a bachelor’s degree (47.7%) and worked in medium-sized organizations (33.1%).

Measures. We assessed surface acting ($\alpha_{\text{Time 1}} = .94$, $\alpha_{\text{Time 2}} = .94$) and mechanistic self-dehumanization ($\alpha_{\text{Time 1}} = .94$, $\alpha_{\text{Time 2}} = .94$) with the same scales used in Study 1.

Control variables. As before, we followed Becker et al.’s (2016) recommendations to deal with demographic variables (i.e., gender, age, and education). Table 4 shows that these variables were associated with surface acting at Time 2. Again, they were excluded from the analyses presented here as their inclusion did not change the conclusion of findings.⁴

Results

Measurement model. To examine the distinctiveness of surface acting and mechanistic self-dehumanization at each measurement time, we performed a series of confirmatory factor analyses by computing fit indices with the MLR estimator. The two-factor model showed a good fit to the data, for Time 1: $\chi^2(34) = 83.29$, RMSEA = .06, SRMR = .03, CFI = .98, TLI = 0.97; for Time 2: $\chi^2(34) = 147.53$, RMSEA = .09, SRMR = .03, CFI = .96, TLI = 0.94, and was significantly superior to the one-factor model, $\Delta\chi^2_{\text{SB}}$

Table 5. Measurement invariance: Study 3.

Model	χ^2	<i>df</i>	RMSEA	SRMR	CFI	TLI	Model comparison	SCF	$\Delta\chi^2_{SB}$	Δ_{df}
Model 1: Configural invariance	355.83	154	.06	.03	.97	0.96	-	1.38	-	-
Model 2: Weak invariance	367.17	162	.05	.03	.97	0.96	2 versus 1	1.36	8.90, <i>ns</i>	8
Model 3: Strong invariance	383.01	170	.05	.03	.96	0.96	3 versus 1	1.35	23.78, <i>ns</i>	16
Model 4: Strict invariance	390.89	180	.05	.03	.96	0.96	4 versus 1	1.39	36.27, <i>ns</i>	26

Note. $N = 436$. RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual; CFI = comparative fit index; TLI = Tucker–Lewis index; SCF = scaling correction factor; $\Delta\chi^2_{SB}$ = strictly positive Satorra–Bentler chi-square difference test; *ns* = nonsignificant.

(1) = 164.90, $p < .001$ and $\Delta\chi^2_{SB}(1) = 203.47$, $p < .001$, respectively. All the factor loadings of the items loaded significantly onto their latent variables.

Measurement invariance. To examine the measurement invariance of surface acting and mechanistic self-dehumanization across time points, a series of four models assessing different levels of factorial invariance (i.e., configural, weak, strong, and strict) were performed using confirmatory factor analyses (for more details, see Little et al., 2007). Table 5 indicates that the configural model had a good fit to the data, $\chi^2(154) = 355.83$, RMSEA = .06, SRMR = .03, CFI = .97, TLI = 0.96, and shows that the weak, strong, and strict invariance models were equivalent to the configural invariance model. In addition, the inspection of modification fit indices for each level of factorial invariance did not reveal any partial invariance. Overall, all this suggested that surface acting and mechanistic self-dehumanization were fully invariant across time.

Cross-lagged panel. We conducted a cross-lagged panel by means of structural equation modeling to investigate the effect of Time 1 surface acting on the subsequent temporal change in mechanistic self-dehumanization, and the effect of Time 1 mechanistic self-dehumanization on the subsequent temporal change in surface acting. Following Finkel's (1995) recommendations, we added a

covariance between Time 2 surface acting and Time 2 mechanistic self-dehumanization and covariances between the error terms of identical indicators over time. Figure 3 displays the standardized parameter estimates for the cross-lagged model, which had a very good fit to the data, $\chi^2(154) = 355.83$, RMSEA = .06, SRMR = .03, CFI = .97, TLI = 0.96. Results showed that Time 1 surface acting was positively associated with the subsequent temporal change in mechanistic self-dehumanization ($\gamma = .13$, $p < .001$). In contrast, Time 1 mechanistic self-dehumanization was not related to the subsequent temporal change in surface acting ($\gamma = .07$, $p = .10$).

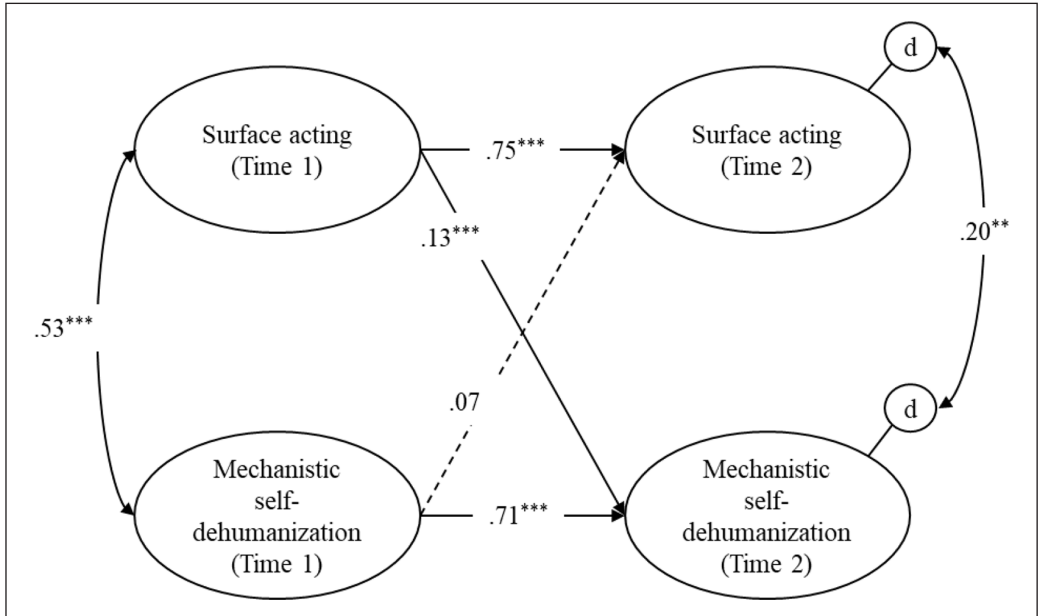
Discussion

By testing the second-stage effect (i.e., $M \rightarrow Y$) of the mediation model, Study 3 establishes the causal link between surface acting and mechanistic self-dehumanization found in Study 1. Specifically, this longitudinal field study, which used a cross-lagged panel design, demonstrated that when employees engage in surface acting, they are more likely to later mechanistically self-dehumanize.

General Discussion

Although the relationship between metadepersonalization and self-dehumanization has begun to

Figure 3. Structural equation model of the relationships between surface acting and self-dehumanization over time: Study 3.



Note. $N = 436$. Dashed lines indicate nonsignificant paths.
 $**p < .01$. $***p < .001$.

garner attention from scholars (e.g., Baldissarri & Andrighetto, 2021; Demoulin et al., 2020), not much is known yet on potential mechanisms underlying this relationship. To fill this gap, the present study investigated, in work settings, the mediating role played by surface acting in the relationship between organizational metadehumanization and mechanistic self-dehumanization. In doing so, this research is a direct response to Demoulin et al.'s (2020) call to develop knowledge on dehumanization focusing on metadehumanization and self-dehumanization.

First, our findings indicated that organizational metadehumanization is significantly and positively associated with mechanistic self-dehumanization. Employees who perceive to be dehumanized by their organization thus tend to incorporate this metadehumanization in their self-concept; in other words, they mechanistically self-dehumanize. This finding is in line with previous research conducted in psychiatric or women populations that found that self-dehumanization perceptions

vary as a function of metadehumanization (e.g., Griffiths et al., 2018; Loughnan et al., 2017). More importantly, this study highlights, once again, that metadehumanization is an important driver of mechanistic self-dehumanization perceptions.

Second, this research establishes the causal link between organizational dehumanization and surface acting. Specifically, by using an experimental vignette procedure, we demonstrated that when employees perceive to be dehumanized by their organization, they engage in more surface acting when interacting with others. This finding is consistent with prior studies that have shown a positive correlation between organizational metadehumanization and surface acting (e.g., Nguyen, Cheung, & Stinglhamber, 2021; Nguyen & Stinglhamber, 2021). More importantly, the direction of this causal link is in line with COR theory (Hobfoll, 1989), which suggests that when employees perceive that their resources are threatened by negative events, they strive to preserve and maintain the resources they value, such

as social or personal ones (e.g., Hobfoll, 2002). Our results are also consistent with models on emotional labor that focus on workplace mistreatment (e.g., Hochschild, 1983) and suggest that any form of mistreatment (from customers, coworkers, or supervisors) conducts employees to engage in more surface acting (e.g., Nguyen & Stinglhamber, 2020).

Third, our longitudinal field study using a cross-lagged panel design showed that surface acting is positively related to the subsequent temporal change in mechanistic self-dehumanization. These results suggest that individuals' use of surface acting undermines their self-perceptions so that they perceive themselves as less than human. This finding is in line with the perspective that one's level of surface acting may influence one's self-appraisals. Indeed, Nguyen and Stinglhamber (2021) found that the more employees engage in surface acting, the less they have positive self-evaluations (i.e., low levels of core self-evaluations). More broadly, the present research supports the view that one's behavior affects one's perception of being less than human (e.g., Baldissarri et al., 2017; Bastian et al., 2013).

In addition, the results showed that the path between mechanistic self-dehumanization and the subsequent temporal change in surface acting is not supported. The absence of this link in the present research does not exclude the possibility that perceptions of mechanistic self-dehumanization may induce surface acting. Since mechanistic self-dehumanization implies the perception of being a mere object or tool, employees may act as such by engaging in surface acting that involves acting superficially. Although this perspective seems to go against previous research indicating that behaviors precede self-dehumanization perceptions (e.g., Baldissarri et al., 2017), it is not completely at odds with recent literature suggesting that the development of negative self-perceptions leads individuals to adopt behaviors that reflect this cognitive state. For instance, Kouchaki et al. (2018) demonstrated across four experiments that the more individuals self-dehumanize, the more they engage in immoral, antisocial, and dishonest behaviors. Based on this

evidence, one can defend the idea that perceptions of mechanistic self-dehumanization may not only be a consequence of surface acting but may also reversely increase the use of surface acting, thereby creating a vicious circle between surface acting and mechanistic self-dehumanization. Therefore, it would be fruitful to examine this possibility in future research.

Finally, as we expected, our findings showed that surface acting partially mediates the relationship between organizational metadepersonalization and mechanistic self-dehumanization. A key strength of these results is that they relied on a robust methodology (i.e., an experimental vignette procedure and a longitudinal cross-lagged panel design) to establish the mediating role of surface acting in the relationship between organizational metadepersonalization and mechanistic self-dehumanization. Indeed, the combination of the results from Studies 2 and 3 establishes the entire causal chain: $X \rightarrow M \rightarrow Y$. Overall, these findings suggest that, by surface acting to cope with organizational metadepersonalization, employees behave in a way that they believe helps them counteract its deleterious effects, but this behavioral state ultimately turns out to undermine their self-concept by yielding mechanistic self-dehumanizing perceptions.

Limitations and Future Directions

Firstly, to the best of our knowledge, it is the first time that a manipulation of organizational metadepersonalization (see Study 2) was conducted in the literature. It is therefore important to comment on the high means of organizational metadepersonalization for both conditions and, in particular, for the one supposed to generate low metadepersonalization. Although surprising, these results may be explained by the fact that the work environment can, by nature, be considered mechanistically dehumanizing because being productive at work is inherently induced by employment. Employees may consider, to a certain extent, that being a tool devoted to the organization's success or valued only through their work performance is indeed part of the job (e.g., Bell & Khoury, 2011;

Nguyen & Stinglhamber, 2021). Although this may partially explain why organizational metadehumanization is high even in the low metadehumanization condition, the vignette associated with this low metadehumanization condition would benefit from being refined to activate less perceptions of dehumanizing treatments in future research.

Secondly, while our research provides an interesting explanation for the link between metadehumanization and mechanistic self-dehumanization, the result of partial mediation suggests that other mechanisms may be at stake and should be explored in future research. Another way to explain this relationship lies in self-determination theory (SDT; Deci & Ryan, 1985). According to this theory, fundamental psychological needs (i.e., competence, relatedness, and autonomy) are essential for individuals. In particular, Deci and Ryan's (1985) cognitive evaluation theory (a subtheory of SDT) suggests that when those needs are undermined, the natural processes of self-motivation, which is determinant for individuals' self-perceptions, are compromised. Since organizational metadehumanization thwarts employees' psychological needs (Lagios et al., 2021), one can assume that, in turn, this would lead employees to experience mechanistic self-dehumanizing perceptions. Supporting this view, Thogersen-Ntoumani and Ntoumanis (2007) found that the unfulfillment of basic psychological needs leads individuals to develop negative self-perceptions. Furthermore, the mentioned relationship can be explained through the lens of ego depletion. According to this theory, individuals possess a limited amount of resources to maintain their self-control, which, when impaired, deteriorates the self (Baumeister et al., 1998). Since organizational metadehumanization drastically reduces resources (Nguyen & Stinglhamber, 2021), it can be argued that this would generate a loss of self-control, leading to experiencing self-impairment, such as mechanistic self-dehumanizing perceptions. Moreover, building upon the current literature, one may argue that emotional exhaustion plays a key role in the organizational metadehumanization–mechanistic self-dehumanization relationship. Specifically,

emotional labor researchers demonstrated that surface acting engenders emotional exhaustion (e.g., Huppertz et al., 2020; Scherer et al., 2020), while social psychologists experimentally showed that emotional exhaustion leads to low self-attribution of human characteristics (i.e., self-dehumanization; e.g., Baldissarri et al., 2014). Given the links between organizational metadehumanization, surface acting, and mechanistic self-dehumanization established in the present study, the aforementioned findings suggest that surface acting, and then emotional exhaustion, may act as serial mediators in the organizational metadehumanization–mechanistic self-dehumanization relationship. Overall, future research should examine the other variables that may intervene in the relationships investigated in the present studies.

In this research, we operationalized organizational metadehumanization through the mechanistic form of metadehumanization. While this approach is consistent with the literature on organizational metadehumanization, we cannot rule out the fact that employees may experience organizational metadehumanization in its animalistic form (e.g., Bell & Khoury, 2011; Christoff, 2014). Accordingly, it would be worthwhile to explore whether employees feel that they are infantilized or treated as immature or underdeveloped beings by their organization, and to examine the predictive power of both mechanistic and animalistic forms of organizational metadehumanization on self-dehumanization. Future research would certainly benefit from addressing this issue.

Finally, while most studies have examined self-objectification as a consequence of objectification (e.g., Baldissarri & Andrighetto, 2021) or organizational metadehumanization (e.g., Sainz & Baldissarri, 2021), our research relied on mechanistic self-dehumanization. By focusing on this concept, the present research sought to investigate self-perceptions that go beyond the instrumental aspect captured by self-objectification. Indeed, the literature on objectification at work relies on the instrumental dimension to define self-objectification, which refers to individuals' perception of being an object (e.g., Baldissarri et al., 2014). Conversely, by taking its roots in Haslam's (2006) dual model of dehumanization, mechanistic self-dehumanization goes beyond the dimension of

instrumentality and focuses more on the self-attribution of specific features characterizing human beings. From this perspective, it would be worthwhile to examine whether our findings apply to the self-objectification literature. As mentioned before, surface acting is a way of behaving in a superficial manner by denying one's emotion or agency. As such, one might wonder whether surface acting, which thus goes beyond behaving like an object, can also be a relevant antecedent of self-objectification. Such a result would certainly refine the literature on self-objectification by better understanding the nature of antecedents of self-objectification.

Practical Implications

At the applied level, this research has several practical implications for organizations and managers. Consistent with prior research on organizational metadehumanization, this research corroborates that the perception of being dehumanized by the organization is damaging for employees (e.g., Bell & Khoury, 2011; Taskin et al., 2019; Väyrynen & Laari-Salmela, 2018). Therefore, strategies should be put in place to lessen employee metadehumanization. In that respect, the burgeoning literature on organizational metadehumanization provides guidelines for action. In particular, perceptions of support from the organization (Caesens et al., 2017), nonabusive supervision (Caesens et al., 2019), positive leader-member exchange (Stinglhamber et al., 2021), and high job autonomy (Demoulin et al., 2021) have been shown to decrease perceptions of dehumanizing experiences. Concretely, organizations should, for instance, offer favorable work conditions, implement training programs on personal development, and encourage their managers to enroll in training to reduce abusive behaviors toward their collaborators.

Conclusion

The present research indicates that when employees perceive to be dehumanized by their organization, they are more likely to engage in surface acting, which, in turn, leads them to develop dehumanizing self-perceptions by seeing themselves as mere robots or instruments at the service of the organization. By demonstrating that organizations have their

share of responsibility in how their personnel self-perceive, this paper urges organizations to implement human resource practices and policies that minimize dehumanizing perceptions, to reduce the use of surface acting that ultimately leads to mechanistic self-dehumanizing perceptions.

Data availability statement

Data are available online on the Open Science Framework (https://osf.io/c9h6j/?view_only=15336a72c5a548eabff273d0272ebc3f).


Funding


The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This study was funded by the Fonds Spéciaux de la Recherche of the Université catholique de Louvain and by Actions de Recherche Concertées (Grant No. 16/20-071) of the French Community of Belgium.

Informed consent

Informed consent was obtained from all individual participants included in this research.

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Supplemental material

Supplemental material for this article is available online.

Notes

1. Blauner (1964) proposed that, in work settings, alienation can lead to a state of self-estrangement where employees no longer express their personality and are reduced to means of production. In line with this perspective, it can be assumed that a state of alienation at work can lead employees to perceive themselves as a mere tool useful for the organization, thereby generating self-dehumanization.
2. Results including the control variables are provided on the Open Science Framework (https://osf.io/c9h6j/?view_only=15336a72c5a548eabff273d0272ebc3f; see Figure S1).

3. Results including the control variables are provided on the Open Science Framework (see Figure S2).
4. Results including the control variables are provided on the Open Science Framework (see Figure S3).

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Appendix

High Organizational Metadehumanization Condition

As a supermarket cashier, you work at Obicus, a supermarket that operates throughout the world for almost five years. Your main job responsibilities are to welcome customers, scan articles, and manage money. At work, you have to wear a uniform provided by Obicus that has on the front your identification number H4875C15. This identification number is useful to check your performance (e.g., scanning speed, number of clients processed per hour), which is displayed on a screen in the lunchroom. Moreover, every month, Obicus spotlights the “employee of the month” who showed to be the most performant. During a workday, when things get calm, Obicus moves you from one department to another to meet workload peaks. For example, you have then to refill grocery sections or unpack the content of boxes. Finally, because Obicus aims to generate

greater and greater profit margins, automatic check-outs have been set up so that more clients could be processed with fewer cashiers.

Low Organizational Metadehumanization Condition

As a supermarket cashier, you work at Obicus, a supermarket that operates throughout the world for almost five years. Your main job responsibilities are to welcome customers, scan articles, and manage money. At work, you have to wear a uniform provided by Obicus that has on the front your first name. For your information and regardless of each employee’s performance, the global performance of your supermarket (e.g., monthly turnover, average number of customers per month) is displayed on a screen in the lunchroom. During a workday, when things get calm, Obicus allows you to take a break time. For example, you can take a coffee break or even have your lunchtime sooner. Finally, because Obicus aims to generate greater and greater profit margins, more check-outs have been set up so that more clients could be processed at the same time without overloading current cashiers.