

Self-dehumanisation in severe alcohol use disorder: Links with self-stigma and environmental satisfaction

Sullivan Fontesse¹, Florence Stinglhamber², Stéphanie Demoulin³,
Philippe de Timary^{1,4}, and Pierre Maurage¹ 

¹Louvain Experimental Psychopathology Research Group, Psychological Sciences Research Institute, Université Catholique de Louvain, Louvain-la-Neuve, Belgium

²Work and Organizational Psychology Lab, Psychological Sciences Research Institute, Université Catholique de Louvain, Louvain-la-Neuve, Belgium

³Psychological Sciences Research Institute, Université Catholique de Louvain, Louvain-la-Neuve, Belgium

⁴Department of Adult Psychiatry, Cliniques Universitaires Saint Luc and Institute of Neuroscience, Université Catholique de Louvain, Brussels, Belgium

Metadehumanisation (i.e., the perception of being considered as less than human by others) is proposed to be widespread in stigmatised populations, such as people with severe alcohol use disorder (SAUD). However, the relations between metadehumanisation, self-dehumanisation (i.e., the self-perception of being less than human), and stigmatisation (i.e., the negative taint applied to some groups) remain unexplored. The aim of this research is thus to investigate the relations between these processes. Metadehumanisation, self-dehumanisation, self-stigma (and its subdimensions) and environmental satisfaction were assessed in 120 inpatients with SAUD and analysed in a mediational model. Stigma awareness was positively associated with metadehumanisation, whereas environmental satisfaction was negatively associated with metadehumanisation. Stigma's application to the self was associated with increased self-dehumanisation. Self-stigma and self-dehumanisation are closely intertwined phenomena. Self-dehumanisation seems to follow a multi-step process suggesting that some steps, such as dehumanisation awareness, are missing from current models of dehumanisation.

Keywords: Infracumanisation; Dehumanisation; Mind attribution; Stigmatisation; Discrimination.

Dehumanisation, defined as the denial of other individuals' humanness, has often been associated with stigma, defined as a profoundly discrediting attitude toward another individual or group (Haslam, 2006; Mak et al., 2007). Both dehumanisation and stigmatisation have been reported against people with mental illness (Harris & Fiske, 2006; Svoli et al., 2018). People with mental illness are perceived as less human and more dangerous than those with organic illness (Martinez et al., 2011). Furthermore, Svoli et al. (2018) showed that

people with mental illness are more dehumanised than healthy individuals. Similarly, people with mental illness face high levels of stigmatisation (Corrigan, 1998). Both dehumanisation and stigmatisation are associated with poor interpersonal treatments. Stigmatisation is linked to reduced helping and increased avoidance tendencies (Corrigan et al., 2009). Dehumanisation has been suggested to be endemic in medicine (Haque & Waytz, 2012; see Diniz et al., 2019 for a review of dehumanisation in health-related contexts) and, in other domains, it

Correspondence should be addressed to Pierre Maurage, Université Catholique de Louvain, Faculté de Psychologie, Place du Cardinal Mercier, 10, B-1348 Louvain-la-Neuve, Belgium. (E-mail: pierre.maurage@uclouvain.be)

All procedures contributing to this work comply with the ethical standards of the Helsinki Declaration of 1975, as revised in 2008. All procedures involving patients were approved by the bioethical committee of the University (Cliniques Universitaires Saint-Luc, UCLouvain, Belgium; approval number B403201732246).

Sullivan Fontesse contributed to conception, collection, analysis, drafting the article and revision. Florence Stinglhamber contributed to conception, analysis and revision. Stéphanie Demoulin and Philippe de Timary contributed to conception and revision. Pierre Maurage contributed to conception, analysis, drafting the article and revision.

is also linked to a wide range of negative interpersonal behaviours such as discrimination, aggression or rejection toward the victims (Haslam, 2006).

The consequences of stigmatisation and dehumanisation processes are thus well established. However, most studies focused on the perpetrator's perspective, thus neglecting the victims (Bastian & Haslam, 2011). Studies on stigmatisation from the victims' perspective (i.e., self-stigma, stigmatisation toward his/herself) nevertheless revealed that self-stigma constitutes a barrier to treatment-seeking and can lead to reduced self-efficacy (Corrigan et al., 2009). Regarding the field of dehumanisation, the few studies on metadehumanisation (i.e., the perception of being dehumanised by others) revealed a wide array of adverse outcomes for victims, including negative emotions, reduced self-esteem, disrupted coping strategies, aversive self-awareness, states of cognitive deconstruction and unsatisfied fundamental needs (Bastian & Haslam, 2011; Nguyen & Stinglhamber, 2021). Furthermore, feeling dehumanised by others can also lead victims to dehumanise their perpetrators in return, leading to vicious dehumanisation cycles (Kteily & Bruneau, 2017). People ostracised by others believe that they are dehumanised by them and tend to dehumanise them in return (Bastian & Haslam, 2009). Self-dehumanisation (i.e., the self-perception of being less than human) has been less investigated, and its consequences are still mostly unknown.

While past studies offered preliminary insights on the relations between dehumanisation and stigma from the perpetrators' perspective (e.g., Harris & Fiske, 2006), nothing is known about the links between metadehumanisation (i.e., the perception of being dehumanised by others), self-dehumanisation (i.e., the self-perception of being less than human), and self-stigma (i.e., stigmatisation toward his/herself) in dehumanisation victims. It thus appears urgent to explore these variables, notably because dehumanisation and stigma are related to relapse factors in severe alcohol use disorder (SAUD) such as negative emotions, negative self-perceptions and disrupted coping strategies (Fontesse et al., 2020).

In addition, previous research has focused on interpersonal factors (e.g., social ostracism predicts metadehumanisation [Bastian & Haslam, 2009]) and situational factors (e.g., being in a low power position is associated with self-dehumanisation [Yang et al., 2015]) related to metadehumanisation, thus, neglecting environmental factors. The proposal that some environments might be dehumanising has long been proposed at the theoretical level only (Liebling, 2011). However, a recent study (Taskin et al., 2019) provided the first empirical support for this proposal by showing that flexible office designs were associated with employees' perception of being dehumanised by their organisation. This link has been interpreted as related to the depersonalised aspect of such designs, employees reporting feelings of

dispossession, abandonment and pressure to adopt new behaviours (Taskin et al., 2019).

Thus, our study aims to complement previous research on self-stigma, metadehumanisation and self-dehumanisation by empirically exploring the relations between these processes and the role of the participants' evaluation of environment in this context. Moreover, these processes will be investigated in patients with SAUD as they report feeling stigmatised (Schomerus et al., 2011) and dehumanised (Fontesse et al., 2020); they thus constitute an ideal population to study these processes.

There is currently no empirically tested model of metadehumanisation and self-dehumanisation in SAUD. However, we capitalised on the most validated tool to measure stigma and self-stigma (i.e., the Self-Stigma in Alcohol Dependence Scale, SSAD) to distinguish four steps in the emergence of self-stigma (Schomerus et al., 2011): (i) becoming aware of the stereotypes existing against one's group (*aware*); (ii) agreeing to some extent with these stereotypes (*agree*); (iii) applying the stereotypes to oneself, through one's belonging to the group (*apply*); (iv) after completion of the three first steps, the integrated self-stigma might harm self-esteem (*harm*). These dimensions of self-stigma are distinctively associated with specific factors among patients with SAUD: agreeing with the stigma is associated with an increased desire for social distance, applying the stigma is linked to increased duration and severity of drinking problems, and depressive symptoms have been associated both with the apply and harm dimensions (Melchior et al., 2019; Schomerus et al., 2011). The subdimensions of the SSAD have never been studied with metadehumanisation and self-dehumanisation; this article thus aims to uncover their relations.

Theoretically, the first dimension of SSAD (*aware*) should be associated with metadehumanisation (Hypothesis 1) while the others (*agree*, *apply* and *harm*) should be associated with self-dehumanisation (Hypotheses 2–4), as they constitute self-perceptions whereas other factors are group-related (people with SAUD) perceptions. Furthermore, the link between metadehumanisation and self-dehumanisation will be investigated to complement the current knowledge of these processes. Theoretically, we expect self-dehumanisation to stem from the integration of metadehumanisation. Namely, because one perceives dehumanisation from others, he/she might integrate this perception in his/her self-perception. Metadehumanisation and self-dehumanisation should thus be positively associated (Hypothesis 5). This study also investigates whether metadehumanisation mediates the links between self-stigma dimensions and self-dehumanisation (Hypothesis 6).

To explore the links between environmental factors and dehumanisation, an additional aim of our research

is to investigate whether patients' environmental satisfaction is associated with meta/self-dehumanisation. We hypothesised that safe, calm, and personalised environments would be more humanising than dangerous, noisy and impersonal ones (Hypothesis 7).

METHODS

Participants

Patients with SAUD, as diagnosed by a psychiatrist following DSM-5 criteria, were recruited during detoxification treatment. To be eligible for recruitment, patients had to be abstinent for at least 14 days (range = 14–421 days) and had to be free from other major medical problems or neurological diseases. We recruited 120 patients with SAUD (mean age = 48.3, $SD = 10.9$, range = 24–74; 86 males). All patients provided written informed consent to participate. Before detoxification treatment, patients had a mean consumption of 19.45 standard alcoholic drinks (containing 10 g of alcohol) per day. Participants had an average SAUD duration of 13.6 years ($SD = 10.88$, range = 0–45). Most of our sample was single (30%) or divorced (21.7%), but a significant part was in a couple (19.2%) or married (15.8%). Regarding education level, most of our sample had a high school education or less (46.7%), but a large amount had a university (or equivalent) diploma (41.1%).

All procedures contributing to this work comply with the ethical standards of the Helsinki Declaration of 1975, as revised in 2008. All procedures involving patients were approved by the bioethical committee of the University (Cliniques Universitaires Saint-Luc, UCLouvain, Belgium; approval number B403201732246).

Informed consent was obtained from all individual adult participants included in the study.

Materials

Metadehumanisation

A 13-item scale ($\alpha = .93$) was developed to assess patients' metadehumanisation (see Supplementary Material 1). This scale focused on how participants felt dehumanised by society (e.g., "As an alcohol-dependent person, society treats me as a sub-evolved being", "As an alcohol-dependent person, society treats me as if I was mechanical and cold, like a robot"); A mean score (range = 1–7) was computed based on participants' answers on this 7-point Likert scale.

Self-dehumanisation

The dehumanisation scale was adapted—items were reworded to assess self-perceptions instead

of others' perceptions—to measure participants' self-dehumanisation with 13 items ($\alpha = .79$, e.g., "As an alcohol-dependent person, I sometimes consider myself as a sub-evolved being"). A mean score (range = 1–7) was computed based on participants' answers on 7-point Likert scales.

Self-stigma in alcohol-dependence

The SSAD (Schomerus et al., 2011) presents 16 stereotypes against alcohol-dependent people (e.g., violent, disgusting, unpredictable) and measure participants' awareness ($\alpha = .92$), agreement ($\alpha = .89$) and application ($\alpha = .86$) of these stereotypes, as well as harm to participants' self-esteem ($\alpha = .88$) using a 7-point Likert scale. A mean score (range = 1–7) was computed for each dimension.

Environmental satisfaction

A scale of environmental satisfaction was developed to assess patients' evaluation of various aspects of the clinical context (i.e., satisfaction regarding the hospital cleanliness/security/noise, intimacy respect and general satisfaction level regarding hospital environment; see Supplementary Material 2) on a 7-point Likert scale (from "Totally unsatisfied" to "Totally satisfied"). A mean satisfaction score (range = 1–7) was computed ($\alpha = .79$).

Procedure

Patients were recruited in six Belgian hospitals during their detoxification stay. They completed a survey in two 1-hour sessions. This study is part of a larger project on metadehumanisation in SAUD. The data used in this paper were extracted from the same large database used in Fontesse et al. (2020). Participants' responses on the metadehumanisation scale have thus been reused. However, all the relations investigated in this paper are completely original.

Statistical analyses

Statistical analyses were conducted on StataSE 15 and SPSS 25. The path analysis model was estimated using maximum likelihood with missing values. This type of analysis allows more complex and controlled model testing than classical regressions; all relations entered in the model are controlled for all other relations considered.

RESULTS

Patients reported a mean metadehumanisation score of 3.2 ($SD = 1.42$) and a mean self-dehumanisation score of 2.86

Table 1
Descriptive statistics, Cronbach's alphas, and pairwise correlations between variables

| | <i>M</i> | <i>SD</i> | 1. | 2. | 3. | 4. | 5. | 6. | 7. |
|-------------------------------|----------|-----------|--------|--------|--------|--------|-------|--------|-------|
| 1. Awareness (SSAD) | 4.51 | 1.22 | (.92) | | | | | | |
| 2. Agreement (SSAD) | 3.34 | 1.04 | .49*** | (.89) | | | | | |
| 3. Application (SSAD) | 2.83 | 0.97 | .40*** | .63*** | (.86) | | | | |
| 4. Harm (SSAD) | 2.90 | 1.05 | .37*** | .55*** | .82*** | (.88) | | | |
| 5. Environmental satisfaction | 5.80 | 0.98 | .13 | .00 | .05 | .12 | (.79) | | |
| 6. Metadehumanisation | 3.20 | 1.42 | .49*** | .31*** | .47*** | .44*** | -.18 | (.93) | |
| 7. Self-dehumanisation | 2.86 | 1.06 | .24* | .43*** | .61*** | .58*** | -.08 | .46*** | (.86) |

Notes: $N = 120$. Cronbach's alphas are between brackets on the diagonal. * $p < .05$; ** $p < .01$; *** $p < .001$. SSAD, Self-Stigma in Alcohol-Dependence scale.

($SD = 1.06$, see Table 1 for means and SD s of all scales and inter-scales correlations).

The path-analysis model examining the regressions between self-stigma' sub-dimensions and metadehumanisation showed that stigma awareness was the only sub-dimension significantly associated with metadehumanisation, $\gamma = .43$, $p < .001$. Other self-stigma dimensions were only marginally associated with metadehumanisation (agree, $\gamma = -.17$, $p = .08$; apply, $\gamma = .24$, $p = .07$; harm $\gamma = .21$, $p = .09$). Environmental satisfaction was negatively associated with metadehumanisation, $\gamma = -.27$, $p < .001$, patients with higher satisfaction experienced lower metadehumanisation.

Regarding self-dehumanisation, applying the stigma to the self, $\gamma = .34$, $p < .05$ and metadehumanisation, $\gamma = .22$, $p < .05$, were significantly associated with self-dehumanisation. No other significant relation was found between self-dehumanisation and other variables. The indirect effect of self-stigma sub-dimensions and environmental satisfaction to self-dehumanisation through metadehumanisation were then investigated: stigma awareness was indirectly linked to self-dehumanisation through metadehumanisation, indirect effect = $.09$, $p < .05$. Metadehumanisation is thus a relevant mediator of the link between stigma awareness and self-dehumanisation (see Figure 1).

DISCUSSION

The present study was the first to investigate how self-stigma, metadehumanisation, and self-dehumanisation are linked in dehumanisation victims, namely patients with SAUD. Our findings highlight that self-stigma and self-dehumanisation demonstrate close associations as similar stages of these processes are linked (stigma awareness with metadehumanisation and stigma application with self-dehumanisation). This research also opens a new avenue by identifying that environmental satisfaction and metadehumanisation are related, thus bridging environmental and social factors.

This study led to three main findings: (1) Stigmatisation sub-components are differentially associated

with metadehumanisation and self-dehumanisation (i.e., stigma awareness with metadehumanisation [Hypothesis 1], stigma application to the self with self-dehumanisation [Hypothesis 3]). Hypotheses 2 and 4 regarding the proposed link between stigma agreement and stigma's impact on self-esteem with self-dehumanisation are not supported by our data. This study provides important theoretical clarification on the relations between (self-)stigmatisation and meta/self-dehumanisation.

(2) Metadehumanisation and self-dehumanisation are positively associated (Hypothesis 5). Experimental designs with manipulations are needed to examine if metadehumanisation leads to self-dehumanisation. Metadehumanisation mediates the links between self-stigma and self-dehumanisation (Hypothesis 6).

(3) Environmental satisfaction is associated with metadehumanisation (Hypothesis 7). The (de)humanising characteristics of hospitals' context should be further explored and considered in clinical settings.

This research thus adds to the current understanding of stigma and dehumanisation. The specific pattern observed here, linking stigma awareness to metadehumanisation and stigma application to self-dehumanisation, suggests that self-dehumanisation might follow an integration process similar to the one described in self-stigma: victims might start by being aware of the dehumanising perception others hold against their group, then they might agree with these perceptions, apply them to their self-perceptions (self-dehumanisation), these three steps finally impacting self-esteem. This result is a promising perspective as there is currently no model linking metadehumanisation to self-dehumanisation. To completely understand dehumanisation, we thus recommend investigating dehumanisation's awareness, agreement, application and harm in relation to interpersonal, situational and environmental factors. Adopting a more precise perspective of dehumanisation integration, detailed in multiple steps, is essential as researchers have been discussing dehumanisation and self-dehumanisation for more than 40 years, but the links between these variables are still poorly understood, limiting research on the topic as well as interventions for victims of dehumanisation.

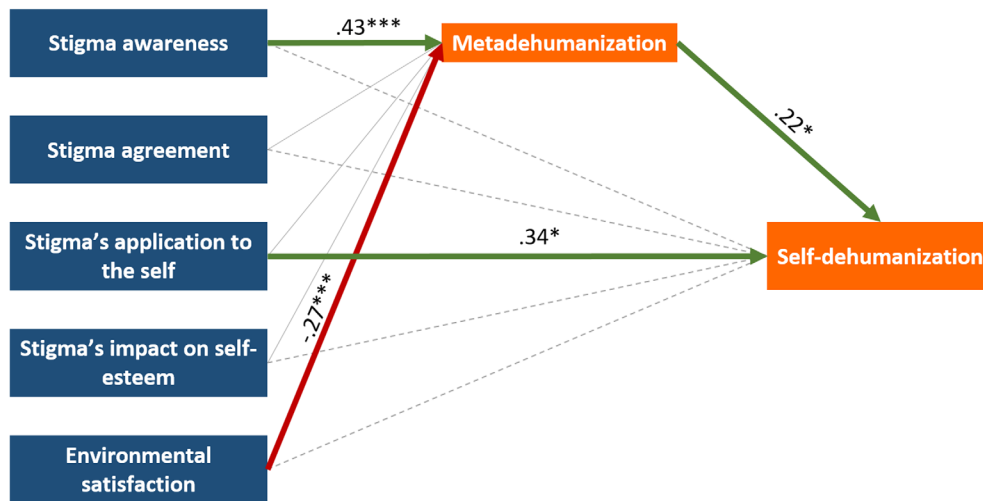


Figure 1. Model tested, $\chi^2(11) = 126.52$; Root Mean Square Error of Approximation = .000; Comparative Fit Index = .1; Significant standardised regressions paths are represented as large arrows, non-significant paths as dotted lines. Covariances (not represented) were entered between Self-Stigma in Alcohol-Dependence scale (SSAD) sub-dimensions. [Colour figure can be viewed at wileyonlinelibrary.com]

For example, as each step expresses an increasing level of integration of dehumanisation, they might be differentially related to patients' suffering. The first steps (awareness and agreement) might only negatively affect patients highly identified with their groups (patients who do not identify with the SAUD group might be unaffected by dehumanisation toward this group). In contrast, later stages might affect every patient as the dehumanisation is integrated and directed toward the self. Developing such a fine-grained model of dehumanisation's integration could lead to identifying factors and strategies acting as buffers against the transition from metadehumanisation to self-dehumanisation, which would be beneficial to patients. It might indeed be easier to prevent the integration of dehumanisation, and its negative consequences, than to lower society's pervasive dehumanising perception toward SAUD. Nevertheless, as dehumanisation awareness is the first step to self-dehumanisation, tackling society's dehumanisation of patients with SAUD should also be a primary goal, undertaken by multiple actors (e.g., researchers, healthcare practitioners, political decision-makers and patients).

Our study also reports an association between environmental characteristics and metadehumanisation, identifying a relationship between clinical context and dehumanisation, beyond the role played by interpersonal factors. This effect was not observed through correlations but through a path-analysis model (controlling for self-stigma), indicating that self-stigma's sub-dimensions play a central role compared to environmental satisfaction. In addition to social factors, healthcare workers willing to improve their patients' humanisation should also consider environmental factors of patients' hospital stay. Moreover, we showed the potential impact of noise, security, cleanliness, intimacy and general environmental

satisfaction, but future studies could investigate other environmental characteristics. The presence of natural scenes and natural light has, for example, been associated with better recovery in physical illnesses (Ulrich et al., 2008). Many hospital physical characteristics (e.g., single-bed rooms, noise-reducing materials, family zone in patient's room) influence various healthcare outcomes (e.g., improved patient satisfaction and sleep, reduced hospital-acquired infections, reduced medical errors, improved social support [Ulrich et al., 2008]). However, such findings have not yet been implemented in psychiatric settings. As a whole, the hospital environment might influence how a patient experiences the hospital stay, and notably how humanised he/she feels during the stay. Other environmental characteristics (e.g., architectural style, individual spaces personalisation, room cosiness) might also be associated with patients' metadehumanisation (Bil, 2016). They should be explored in the future, but the global aim should be to optimise the physical environment in every clinical setting, given its association to patients' humanisation and health. To conclude, we borrow the words of Bil (2016): "Mental health architecture should be neither the architecture of madness nor the architecture of stigma, but an architecture of therapy, humanity and safety."

LIMITATIONS AND PERSPECTIVES

This work is based on cross-sectional data that do not allow for causal interpretations. Some scales have been created for this research and lack validation, which might limit the validity of the findings. The application of our results to other populations should be checked in future research. Nevertheless, this research opens new avenues

for future studies. Namely, the possibility that metadephumanisation leads to self-dehumanisation should be tested experimentally. The characteristics of the hospital environment that contribute to patients' dissatisfaction and to their metadephumanisation should also be identified. Furthermore, other environments might be dehumanising (e.g., prisons, schools, administrations, factories), but research on the topic is almost non-existent. Future research should thus identify and compare dehumanising and humanising environments.

CONCLUSION

Patients' awareness of the stereotypes against people with SAUD (stigma awareness) was associated with more metadephumanisation. Stigma awareness was also indirectly linked to self-dehumanisation through metadephumanisation. Moreover, patients' agreement with the stigma was associated with increased self-dehumanisation. Self-stigma, metadephumanisation, and self-dehumanisation are distinct but closely intertwined concepts, and interventions fighting stigmatisation/dehumanisation may impact both phenomena. Finally, patients' satisfaction with hospitals' environments is associated with lower metadephumanisation. Optimising these environments might constitute a promising way to reduce dehumanisation.

This work was supported by the French Community of Belgium (ARC Grant^o 16/20–071). Pierre Muraige (Research Associate) is funded by the Belgian Fund for Scientific Research (F.R.S.-FNRS, Belgium). Philippe de Timary is funded by the Fonds de Recherche Cliniques from the medical sector of UCLouvain. These funds did not exert any influence or censorship on the present work.

Compliance with Ethical Standards

All procedures contributing to this work comply with the ethical standards of the Helsinki Declaration of 1975, as revised in 2008. All procedures involving patients were approved by the bioethical committee of the University (Cliniques Universitaires Saint-Luc, UCLouvain, Belgium; approval number B403201732246).

Conflicts of Interest

The authors declare that they have no conflict of interest.

Informed Consent

Informed consent was obtained from all individual adult participants included in the study.

Manuscript received June 2020
Revised manuscript accepted April 2021

SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Supplementary Material 1: Metadephumanisation scale

Supplementary material 2: Environmental satisfaction

REFERENCES

- Bastian, B., & Haslam, N. (2009). Excluded from humanity: The dehumanizing effects of social ostracism. *Journal of Experimental Social Psychology, 46*(1), 107–113. <https://doi.org/10.1016/j.jesp.2009.06.022>
- Bastian, B., & Haslam, N. (2011). Experiencing dehumanization: Cognitive and emotional effects of everyday dehumanization. *Basic and Applied Social Psychology, 33*(4), 295–303. <https://doi.org/10.1080/01973533.2011.614132>
- Bil, J. S. (2016). Stigma and architecture of mental health facilities. *The British Journal of Psychiatry, 208*(5), 499–500. <https://doi.org/10.1192/bjp.208.5.499>
- Corrigan, P. W. (1998). The impact of stigma on severe mental illness. *Cognitive and Behavioral Practice, 5*(2), 201–222. [https://doi.org/10.1016/S1077-7229\(98\)80006-0](https://doi.org/10.1016/S1077-7229(98)80006-0)
- Corrigan, P. W., Kuwabara, S. A., & O'Shaughnessy, J. (2009). The public stigma of mental illness and drug addiction: Findings from a stratified random sample. *Journal of Social Work, 9*(2), 139–147. <https://doi.org/10.1177/1468017308101818>
- Diniz, E., Bernardes, S.F., & Castro, P. (2019). Self- and Other Dehumanization Processes in Health-Related Contexts: A Critical Review of the Literature. *Review of General Psychology, 23*(4), 475–495. <https://doi.org/10.1177/1089268019880889>
- Fontesse, S., Stinglhamber, F., Demoulin, S., Chevallereau, T., De Timary, P., Cappeliez, B., Bon, F., Geus, C., Talent, J., Ayache, L., & Muraige, P. (2020). Metadephumanization in severe alcohol-use disorders: Links with fundamental needs and clinical outcomes. *Addictive Behaviors, 107*(106425), 1–7. <https://doi.org/10.1016/j.addbeh.2020.106425>
- Haque, O. S., & Waytz, A. (2012). Dehumanization in medicine: Causes, solutions, and functions. *Perspectives on Psychological Science, 7*(2), 176–186. <https://doi.org/10.1177/1745691611429706>
- Harris, L. T., & Fiske, S. T. (2006). Dehumanizing the lowest of the low: Neuroimaging responses to extreme out-groups. *Psychological Science, 17*(10), 847–853. <https://doi.org/10.1111/j.1467-9280.2006.01793.x>
- Haslam, N. (2006). Dehumanization: An integrative review. *Personality and Social Psychology Review, 10*(3), 252–264. https://doi.org/10.1207/s15327957pspr1003_4
- Kteily, N., & Bruneau, E. (2017). Backlash: The politics and real-world consequences of minority group dehumanization. *Personality and Social Psychology Bulletin, 43*(1), 87–104. <https://doi.org/10.1177/0146167216675334>
- Liebling, A. A. (2011). Moral performance, inhuman and degrading treatment and prison pain. *Punishment and Society, 13*(5), 530–550. <https://doi.org/10.1177/1462474511422159>
- Mak, W. W. S., Poon, C. Y. M., Pun, L. Y. K., & Cheung, S. F. (2007). Meta-analysis of stigma and mental health.

- Social Science & Medicine*, 65(2), 245–261. <https://doi.org/10.1016/j.socscimed.2007.03.015>
- Martinez, A. G., Piff, P. K., Mendoza-Denton, R., & Hinshaw, S. P. (2011). The power of a label: Mental illness diagnoses, ascribed humanity, and social rejection. *Journal of Social and Clinical Psychology*, 30(1), 1–23. <https://doi.org/10.1521/jscp.2011.30.1.1>
- Melchior, H., Hüsing, P., Grundmann, J., Lotzin, A., Hiller, P., Pan, Y., Driessen, M., Scherbaum, N., Schneider, B., Hillemecher, T., Stolzenburg, S., Schomerus, G., & Schäfer, I. (2019). Substance abuse-related self-stigma in women with substance use disorder and comorbid posttraumatic stress disorder. *European Addiction Research*, 25(1), 20–29. <https://doi.org/10.1159/000496113>
- Nguyen, N., & Stinglhamber, F. (2021). Emotional labor and core self-evaluations as mediators between organizational dehumanization and job satisfaction. *Current Psychology*, 40(2), 831–839. <https://doi.org/10.1007/s12144-018-9988-2>
- Schomerus, G., Corrigan, P. W., Klauer, T., Kuwert, P., Freyberger, H. J., & Lucht, M. (2011). Self-stigma in alcohol dependence: Consequences for drinking-refusal self-efficacy. *Drug and Alcohol Dependence*, 114(1), 12–17. <https://doi.org/10.1016/j.drugalcdep.2010.08.013>
- Svoli, M., Sakalaki, M., & Richardson, C. (2018). Dehumanization of the mentally ill compared to healthy targets. *Hellenic Journal of Psychology*, 15(3), 254–273.
- Taskin, L., Parmentier, M., & Stinglhamber, F. (2019). The dark side of office designs: Towards de-humanization. *New Technology, Work and Employment*, 34, 262–284. <https://doi.org/10.1111/ntwe.12150>
- Ulrich, R. S., Zimring, C., Zhu, X., Dubose, J., Seo, H.-B., Choi, Y.-S., Quan, X., & Joseph, A. (2008). A review of the research literature on evidence-based healthcare design. *Health Environments Research and Design Journal*, 1(3), 61–125.
- Yang, W., Jin, S., He, S., Fan, Q., & Zhu, Y. (2015). The impact of power on humanity: Self-dehumanization in powerlessness. *PLoS One*, 10(5), 1–19. <https://doi.org/10.1371/journal.pone.0125721>