Power increases dehumanization

Joris Lammers[1] and Diederik A. Stapel[1]

Abstract

The current paper shows that the experience or possession of power increases dehumanization—the process of denying essential elements of "humanness" in other people and perceiving them as objects or animals. A position of power entails making difficult decisions for other people that may cause pain and suffering. Dehumanization helps to downplay this pain and suffering and thus to justify these decisions. Study 1 shows that powerful people dehumanize an outgroup more. Study 2 replicates that powerful people dehumanize an outgroup more and shows that this is especially likely after making a tough decision that is painful for that outgroup. Study 3 replicates this in a medical context. Together, these studies show that dehumanization—although by itself a very negative phenomenon—can also have functional elements: it helps powerful people to make tough decisions in a more distant, cold, and rational manner.

> At May 11 [1942] a transport of a 1000 pieces of Jews entered Minsk from Vienna. They were directly taken from the railroad station to the pit and shot.
>
> (Translated from Gottwaldt & Schulle, 2005, p. 238)

So reads part of the May 17, 1942 entry of the war diary of Arlt, a *Waffen-SS Unterscharführer* who supervised the mass murder of Jews in Maly Trostinez (near Minsk, Belarus). The shockingly impersonal and dry description of this act of mass murder almost makes us read past an unusual word in the first sentence: "*pieces*." *Unterscharführer* Arlt does not describe his Jewish victims as humans, but as pieces—objects that need to be disposed of.

The act of denying humans their human nature and treating them like objects is called *dehumanization*.

It involves denying to other people essential elements of "humanness"—qualities that set humans apart from objects or animals (Bar-Tal, 1989; Struch & Schwartz, 1989). An important distinction is that between animalistic and mechanistic dehumanization. Animalistic dehumanization means denying to other people essential qualities that separate men from animals, such as morality and culture. Here, dehumanized people are seen as impulsive, childish

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[1] Tilburg University, the Netherlands

Corresponding author:
Joris Lammers, Tilburg Institute for Behavioral Economics Research (TIBER), Social Psychology Department, Tilburg University, Warandelaan 2, 5037 AB Tilburg, the Netherlands. [email: j.lammers@uvt.nl]

and irrational. In contrast, mechanistic dehumanization means denying to other people those qualities that separate men from machines, such as interpersonal warmth, emotions, and individual agency. Here, dehumanized people are seen as insensitive to pain (Haslam, 2006; Haslam, Bain, Lee, Douge, & Bastian, 2005; Haslam, Loughnan, Kashima, & Bain, 2008). A concept that is theoretically related to dehumanization is infrahumanization. This concept is used to indicate a lesser or more subtle form of dehumanization (Leyens, Demoulin, Vaes, Gaunt, & Paladino, 2007; Leyens et al., 2000) in which people attribute less human characteristics to the outgroup, rather than to *deny* them. That is, other people are seen as less human, but not nonhuman. Infrahumanization can for example be expressed by ascribing less higher order or secondary emotions to an outgroup. Emotions such as anger, fear, and pleasure humans are thought to share with animals, but higher order emotions such as love, guilt, or hope are often seen as exclusively human. It has been frequently observed that people may attribute less of these higher order emotions to groups that they dislike or feels rivals with (Demoulin et al., 2004; Gaunt, Leyens, & Demoulin, 2002; Gaunt, Sindic, & Leyens, 2005; Leyens et al., 2000, 2001, 2007; Vaes, Paladino, Castelli, Leyens, & Giovanazzi, 2003).

Power and dehumanization

In the current paper, we investigate the effect of power on dehumanization and infrahumanization. We do not delve into the distinction between dehumanization and infrahumanization and simply use the word *dehumanization* to indicate both. Although our studies focus on a mild form of dehumanization (and therefore, strictly taken, on infrahumanization) we use the word dehumanization simply because it is a more common and often-used word (Leyens et al., 2007). Furthermore, in recent years the concept of dehumanization is increasingly used to also indicate more moderate forms of dehumanization that were formerly exclusively called infrahumanization (Haslam, 2006; Haslam et al., 2008), thus bringing the two concepts theoretically even closer. We borrow

insights from both the literature on dehumanization and on infrahumanization.

We aim to show here that a feeling or position of power can increase dehumanization. We expect this link for two reasons. First, we expect that positions of power can lead to dehumanization because it can help powerful people to justify tough decisions. Second, we expect that the experience of power facilitates dehumanization, because it induces a series of psychological phenomena that are associated with increased dehumanization. Below, we explain these two reasons in more detail.

Dehumanization justifies decisions

Dehumanization has often been linked to genocide and war. Dehumanization allows people to suppress emotions that they would normally feel toward other human beings. As a result, it is easier to abuse, torture, or kill them (e.g., Chalk, & Jonassohn, 1990; Fiske, Harris, & Cuddy, 2004; Kelman, 1976). Although this might seem cynical, this also means that dehumanization is *functional*. Without the ability to dehumanize, people would see their victims as humans like themselves with similar qualities as themselves (sensitivity to pain, own will, agency, etc.). As a result, they would experience feelings of empathy and compassion if they would abuse these people or otherwise cause pain and suffering (Haslam, 2006; Kelman, 1976).

Although often linked to genocide and war, dehumanization should not necessarily be limited to such extreme settings. As already briefly mentioned, central to the literature on infrahumanization is the realization that people on a daily basis attribute more or less humanness to other people (Leyens et al., 2000, 2001). For example, infrahumanization can already arise from relatively innocent feelings of competition or rivalry between groups (Cortes, Demoulin, Rodriguez, Rodriguez, & Leyens, 2005; Leyens et al., 2003). And—as also briefly mentioned—recent dehumanization literature similarly proposes that the functional side of dehumanization is not limited to extreme cases of intergroup antipathy but can be found in

many mundane and daily situations (Haslam, 2006; Haslam et al., 2008). This is not to say that people simply dehumanize everyone. People dehumanize for a specific purpose. For example, people may dehumanize as a response to collective guilt. If people are confronted with information that in the past their ingroup has perpetrated mass violence or genocide against an outgroup, this can hurt their collective identity. In such a situation, denying the full humanness of this outgroup downplays their suffering. In effect, it has not been fully felt. As a result, the implications for the past abuse of the ingroup—and therefore the implications for the collective identity—are decreased (Castano & Giner-Sorolla, 2006).

Because infrahumanization and (everyday) dehumanization can help to justify decisions that are painful for others, we expect that power increases dehumanization. This is because powerful people often make decisions for other people. In fact, the ability to make decisions for other people is a classical definition of power (Emerson, 1962; Fiske & Berdahl, 2007; Lukes, 1974; Russell, 1938/1960; Weber, 1922/1978). For example, generals have a lot of power over their soldiers because they can decide whether the soldiers should attack or not, at what time, in what manner, and in what direction. Powerful people are strongly inclined to reach a decision (Galinsky, Gruenfeld, & Magee, 2003; Guinote, 2007; Keltner, Gruenfeld, & Anderson, 2003) even if this requires bypassing direct consequences for people involved (Lammers & Stapel, 2009). But they also may realize that their decisions will lead to suffering and pain. Because dehumanization can help to justify such decisions, it should be particularly attractive to the powerful. To conclude, a first reason why we expect that power leads to dehumanization is that it helps powerful people to downplay the potential suffering of other people and therefore to justify their decisions.

Power facilitates dehumanization

In addition, we believe that dehumanization is more likely among the powerful because the experience of feeling powerful is associated with three psychological phenomena that may disinhibit dehumanization. First, research has shown that the experience of power decreases participants' inclination to spontaneously adopt the other person's perspective (Galinsky, Magee, Inesi, & Gruenfeld, 2006; although for an exception see Schmid Mast, Jonas, & Hall, 2009). A crucial part of dehumanization is that it leads people to ignore the individual viewpoints of others (Haslam, 2006). Also, dehumanization can be blocked by forcing participants to focus more on the other person (Haslam & Bain, 2007). Second, the powerful also tend to be more psychologically closed to other people (Anderson, Keltner, & John, 2003; Cast, 2003; Lammers, Gordijn, & Otten, 2008) and keep more interpersonal distance to others (Lammers, Galinsky, Gordijn, & Otten, 2010; Lee & Tiedens, 2001). The recognition that the other person can be psychologically close to the self and share interpersonal warmth decreases dehumanization (Haslam, 2006). Third, a wealth of literature has shown that power increases deindividuation (e.g., Dépret & Fiske, 1999; Fiske, 1993; Goodwin, Gubin, Fiske, & Yzerbyt, 2000; Goodwin, Operario, & Fiske, 1998; Gruenfeld, Inesi, Magee, & Galinsky, 2008; although for exceptions see Lammers, Stoker, & Stapel, 2009; Overbeck & Park, 2001, 2006) and effortless processing in general (Guinote, 2009; Weick & Guinote, 2008). Dehumanization often increases if the target is deindividuated (Haslam & Bain, 2007). To conclude, we expect that power also can directly increase dehumanization because of psychological processes associated with the experience of feeling powerful.

Summary and overview of studies

To summarize, we propose that power is associated with increased dehumanization, because powerful people often have to make tough decisions on behalf of other people and dehumanization justifies those decisions by downplaying the suffering that comes with them. In addition, the experience of power decreases perspective-taking, makes people more closed to others, and increases deindividuation—three psychological processes

associated with increased dehumanization. To test this relation, we perform three empirical studies. In the first study we will simply measure a sense of power and test its association with a tendency to dehumanize others. This study aims to simply show the relation between power and dehumanization. Based on the fact that power decreases perspective-taking, makes people more closed to others, and increases deindividuation, we expect a general effect of power on dehumanization. In the next two studies we aim to show that the link between power and dehumanization is especially strong when powerful people make tough decisions. We aim to show that powerful people are more inclined to make tougher decisions, and that making such decisions is associated with increased dehumanization. That is, we expect that dehumanization acts as a psychological response to making a decision that is tough and painful for the target.

We already mentioned the distinction between animalistic and mechanistic dehumanization (Haslam, 2006; Haslam et al., 2008). Animalistic dehumanization means denying to others essential qualities that separate men from animals, such as morality and culture. Here, dehumanized people are seen as impulsive, childish and irrational. An example of animalistic dehumanization is the way in which African slaves were seen and treated during the times of slavery and slave trade (Goff, Eberhardt, Williams, & Jackson, 2008; Wilson, 1996). Here a subjugated, low-status group was portrayed as lacking the skills to make proper decisions and as people who need strong and strict guidance in order to do something useful. It makes it easy to use such a group for one's own purposes, for example to do hard work. In contrast, mechanistic dehumanization means denying to other people those qualities that separate men from machines, such as interpersonal warmth, emotions, and individual agency. Here, dehumanized people are seen as passive objects that are insensitive to pain. The concept of mechanistic dehumanization is frequently used in research about coping strategies of medical doctors. Many doctors routinely work with terminally ill and dying patients. In order

not to be overcome by feelings of empathy, they may start to view their patients as medical cases. This allows them to make tough, painful decisions, such as to administer chemotherapy, radiation, or amputation in order to save or extend the life of a patient (Schulman-Green, 2003).In the current manuscript we focus on both forms of dehumanization. In Studies 1 and 2, the target that participants are confronted with is a low-status group and the dilemma (in Study 2) shares similarities with slavery. We expect that in this setting, participants will be susceptible to animalistic dehumanization and we therefore focus on this form of dehumanization. In Study 3, we present participants with a tough decision in a medical setting. We expect that in this setting, participants will be susceptible to mechanistic dehumanization and we therefore focus on this form of dehumanization. That is, we expect that in both studies, irrespective of the exact form of dehumanization, power increases dehumanization in response to a tough decision.

In these studies, we will not only measure items associated with dehumanization, but we will also measure items that are unrelated to dehumanization. We do this, to show that our predicted effect of power on dehumanization is not part of a general effect in which power increases stereotyping or general superficial processing (e.g., Dépret & Fiske, 1999; Fiske, 1993; Goodwin et al., 1998, 2000).

Study 1: Dehumanizing the Aurelians

In our first study we wanted to demonstrate the basic effect of power. We first measured participants' personal sense of power, using the scale designed by Anderson, John, and Keltner (2010). Next, participants were exposed to a low-status outgroup and completed a measure designed to tap in their spontaneous inclination to dehumanize this low-status group.

Method
Participants and design Participants were 102 university students who participated in the

experiment as part of a course requirement. All participants completed the same questionnaire.

Procedure Participants first completed a translated version of the Personal Sense of Power Scale (Anderson et al., 2010) which consists of five 7-point scale items, e.g., "To what degree does your opinion typically affect other people's opinions?", $\alpha = .65$, $M = 4.25$, $SD = .63$.

Next, we measured participants' spontaneous inclination to dehumanize social targets. Participants completed a questionnaire aimed at measuring their preference for political dilemmas. They read about a (fictional) South-American-sounding country Aurelia and its inhabitants. They were told that Aurelia is a poor country, that there is large unemployment, and that many people live in slums. Therefore it was told it would be good if the inhabitants of these slums would leave their futureless situation and move to the underdeveloped interior parts of Aurelia, but that many were yet unwilling to do so.

To measure dehumanization, participants were asked to indicate how they thought about the Aurelians, from a list with 14 personality items. This list included 10 items that measure animalistic dehumanization, taken from Haslam (2006). These items are: lacking self-control, childish, irrational, unmannered, having self-control (reverse scored), having decency (reverse scored), polite (reverse scored), civilized (reverse scored), rational (reverse scored), and mature (reverse scored) ($\alpha = .78$). As described in the Summary and Overview of Studies section, in this study we only measured animalistic dehumanization. We also included four filler items that are unrelated to dehumanization (like to sing, like to dance, play soccer, passionate, $\alpha = .69$). We chose these items as they are commonly used stereotypes of South Americans but do not touch upon essential human qualities (as in Haslam, 2006). After all, we would not consider someone who does not sing or play soccer less human. Also, we found that these items did not correlate with the dehumanization scale, $r = -.11$, $p = .28$.

Results and discussion

Dehumanization

Using simple correlations, we found that personal sense of power was positively related to the dehumanization scale, $r = .26$, $p = .009$, showing that participants with a higher personal sense of power described the inhabitants of Aurelia in more dehumanized terms than participants with a lower personal sense of power.

Stereotyping

There was no correlation between personal sense of power and endorsement of the unrelated filler items, $r = -.04$, $p = .70$. Given that participants strongly endorsed these unrelated stereotypes ($M = 5.73$, $SD = 1.15$) and overall endorsed them even more compared to the dehumanization items ($M = 4.42$, $SD = .93$, $t(101) = 8.03$, $p < .001$), this demonstrates that the observed effect of power on dehumanization is not simply caused by increased stereotyping among the powerful (as in e.g., Fiske, 1993). These findings show that a general feeling of power is associated with increased dehumanization.

Study 2: The treatment of the dehumanized Aurelians

Study 1 showed that a personal sense of power is positively correlated with participants' spontaneous dehumanizing of inhabitants of a far-away, South American country. In our next study we aim to test whether manipulating the experience of power has the same effect. More importantly, we wanted to test the role that dehumanization plays in justifying decisions. We presented participants with the same scenario as in Study 1, but now presented them with a tough policy decision. Specifically, we told participants that a plan was drawn up to forcefully move the inhabitants to the more uninhabited areas (for their own benefit). We expected that a feeling of power would increase the likelihood of making that tough decision (Galinsky et al., 2003; Guinote, 2007) even if this requires bypassing direct consequences for

the Aurelians involved (cf. Lammers & Stapel, 2009). Furthermore, we expected that if participants would indeed make the decision to forcefully move the Aurelians, then they would be more inclined to justify that decision by dehumanizing them. That is, the more participants feel powerful, the more they will advocate to forcefully move the Aurelians, and the more they are inclined to dehumanize them. In statistical terms, we expected that a feeling of power would increase dehumanization and that this effect would be statistically mediated by the decision to forcefully move the Aurelians.

In this study we induced either feelings of increased power, decreased power (powerlessness condition), or no power (control condition). We did so in order to demonstrate that feelings of power increase dehumanization, but feelings of powerlessness do not affect it. We therefore expect a difference between the high-power condition and the low-power and control conditions, but no difference between the latter two.

Method

Participants and design   Participants were 70 university students who participated in the experiment as part of a course requirement. Participants were randomly assigned to one of three conditions (powerless, control, powerful).

Procedure

Manipulation   The experiment was conducted in individual cubicles, using paper and pencil. First, participants were asked to complete a task to assess their writing style. In reality, this task was designed to prime the experience of power. Following Galinsky et al.'s (2003) experiential power prime instructions, participants were given a small sheet of paper. In the powerful condition participants were asked to recall and describe a personal experience in which they had power over another individual or individuals. In the powerless condition participants were asked to recall and describe a personal experience in which someone else controlled them. Participants in the

control condition were asked to write about the last time they visited the supermarket.

Dependent measures   Next, participants read again about the fictional country Aurelia that we used in Study 1. Again, they were told that Aurelia is a poor country, that there is large unemployment, and that many people live in slums in a futureless situation. Therefore, it was told, Aurelia's Minister for Economic Affairs had drawn up a plan to move the inhabitants of these slums to the underdeveloped interior parts of Aurelia—if need be against their will. Participants were asked to what degree they agreed with the minister and would support his policies (1 = not at all, 9 = completely). Both items ($r = .78$, $p < .001$) were combined into one measure. We expected that high-power people would be more inclined to agree with this plan.

Next, we again measured the degree to which participants dehumanized those inhabitants using the same 10 dehumanization items ($\alpha = .85$) and four unrelated stereotypes ($\alpha = .64$) used in Study 1. Again, we found that the unrelated stereotypes were unrelated to the scale measuring dehumanization, $r = -.11$, $p = .36$. Finally, participants were asked to guess the aim of the research and were thanked for participation.

Results

Support for forced migration

No participant guessed the true aim of the experimental manipulation. An analysis of variance (ANOVA) using experimental condition as a between-participant factor on the main dependent variable of support for forced migration showed the expected effect of the experimental condition, $F(2, 67) = 5.00$, $p = .009$, $\eta^2_{part} = .13$. Planned contrast analyses showed that participants in the high-power condition showed stronger support for forced relocation ($M = 4.19$, $SD = 1.79$) than participants in the other two conditions, $t(67) = 3.13$, $p = .003$. As expected, the control condition ($M = 3.00$, $SD = 1.61$) and
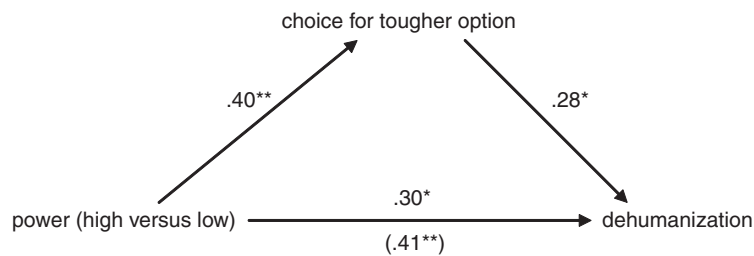
Figure 1. Results of mediation analysis of Study 2. Numbers indicate standardized regression coefficients and associated one-sided p-values (* < .05, ** < .01).

low-power condition ($M = 2.73$, $SD = 1.62$) did not differ, $t(67) = 0.55$, $p = .58$.

Dehumanization

An ANOVA using experimental condition as a between-participant factor on the proposed mediating variable of dehumanization showed the expected effect of experimental the condition, $F(2, 67) = 5.04$, $p = .009$, $\eta^2_{part} = .13$, replicating Study 1. Planned contrasts showed that participants in the high-power condition had a more dehumanized view of the inhabitants ($M = 4.87$, $SD = 0.78$) than participants in the other two conditions, $t(67) = 2.84$, $p = .006$. As expected, participants in the control ($M = 4.37$, $SD = 0.90$) and low-power condition ($M = 3.93$, $SD = 1.28$) did not differ, $t(67) = 1.50$, $p = .14$.

Stereotyping

There was also no effect of power on the other stereotypes ($p = .95$). Again, because participants strongly endorsed these stereotypes ($M = 5.73$, $SD = 1.02$) and overall endorsed them more than the dehumanization items ($M = 4.40$, $SD = 1.06$, $t(69) = 7.16$, $p < .001$), this demonstrates that the found effect of power on dehumanization is not simply caused by increased stereotyping among the powerful (as in e.g., Fiske, 1993).

Mediation pattern

We then checked whether making a tougher decision was associated with increased dehumanization.

To do so, we performed a mediation analysis on the two experimental conditions using bootstrapping (5,000 resamples) to test for the strength of this proposed indirect effect (Preacher & Hayes, 2004). For simplicity, we left out the control condition in this analysis.[1] Figure 1 shows the parameters of the mediation model. As can be seen, we found a reliable indirect effect with a 95% confidence interval between .002 and .35. As this confidence interval does not include 0, it is significant at $p < .05$. After adding the mediator, the direct effect of power on dehumanization dropped from $\beta = .41$, $p = .004$, to $\beta = .30$, $p = .04$, showing at least partial mediation.

Discussion

These results show that powerful people were more likely to make a tough decision and—as a result—were more likely to dehumanize the Aurelians. This supports our predictions that dehumanization can act as a justification for making a tough decision. It is interesting to note that we found this effect even while the actual decision was made in a fictional scenario and for fictional people. Clearly, there was no real pain involved. Nonetheless, our results suggest that participants felt the need to justify these decisions.

Study 3: Power and "biting the bullet"

In Study 3 we wanted to replicate the effect of power on dehumanization, but now by assigning participants to either a high- or a low-power role rather than by priming them with the experience

of power. As explained in the introduction, we also chose to change the setting from an intergroup dilemma, associated with animalistic dehumanization, to a medical-institutional dilemma, associated with mechanistic dehumanization (Haslam, 2006; Haslam et al., 2008). Specifically, participants were administered to either a high- (surgeon) or one of two low-power (nurse or junior surgeon) roles. We chose to use two low-power roles to minimize the effect of role demands (Galinsky et al., 2003). In the second comparison condition (junior surgeon) we tried to only change the level of power, while keeping the role similar to the high-power condition (being a surgeon) with the same role expectations.

Next, participants were given a medical sheet and chose between two medical treatments. One of these was painful but also more effective while the other was painless but less effective. Like in Study 2, we expected that high-power participants would prefer the former tougher option and—as a justification—would dehumanize the patient more, compared to participants in the two control conditions (whom we did not expect to differ). Also, consistent with Study 2, we expected that the effect of power on dehumanization would be mediated by a choice for a tougher option.

Method
Participants and design   Participants were 50 university students who participated in the experiment as part of a course requirement. Participants were randomly assigned to one of three experimental conditions (high power or one of two comparison conditions).

Procedure
Manipulation   Participants entered the lab and were instructed they would participate in a study on medical decision-making, in which they would be presented with medical files of patients and would be asked for their opinion about the best way to treat patients. In the high-power condition participants read that they would play the role of senior surgeon. This meant that they would have

to make important decisions concerning matters of life and death. Participants in the first comparison condition read that they would play the role of nurse. This meant that they would only have to care for patients and not have to make any important decisions. Participants in the second condition read that they would play the role of junior surgeon, who makes similar and equally important decisions as a senior surgeon, but is supervised by a board (and hence less powerful).

Measures   After allowing our participants some time to let the power manipulation sink in, we presented them with a medical file. This file presented the case of a 56-year-old man, who is diagnosed with a rare abnormality in his abdominal wall which in the long run will cause problems. Two treatments were available. The first treatment (A) was painless but less effective: the abnormality had a considerable chance (20–25%) of recurrence. The second, tougher treatment (B) was much more effective (0% chance of recurrence) but had the disadvantage that anesthesia was impossible. This meant that the patient would experience both distress and pain.

Thus, as in Study 2, we created a dilemma between a softer and a tougher option. Although the latter option requires the patient to "bite the bullet," it is more effective as any further treatment in the future is unnecessary. We again expected that high-power participants would be more inclined to choose the tougher option and as a justification would dehumanize the patient more. Participants indicated their preference for the treatments on a 9-point scale between 1 (strongly prefer treatment A) and 9 (strongly prefer treatment B).

We then measured dehumanization of the patient in a similar way as in the previous two studies, by asking participants to complete a sheet that measured mechanistic—and not animalistic—dehumanization. We used only six items in this study (cold, lacks responsiveness, passive, superficial, lacks depth, sensitive [reverse coded], $\alpha = .64$). Again, participants used 9-point scales (1 = not at all, 9 = very much) to indicate whether the traits applied to the patient. Again, among the
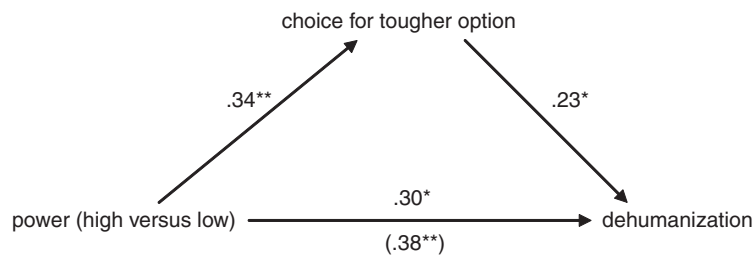
choice for tougher option

.34**   .23*

power (high versus low) ——————— .30* ———————→ dehumanization
                                        (.38**)

Figure 2. Results of mediation analysis of Study 3. Numbers indicate standardized regression coefficients and associated one-sided p-values (* < .05, ** < .01).

list were four items unrelated to dehumanization (funny, smart, sober, and generous). We chose these items as they do not touch upon essential human qualities (as in Haslam, 2006) and we would not consider someone who is funny or generous more or less likely to feel pain. Also as expected, these items did not correlate with the dehumanization scale, $r = -.17$, $p = .24$. After completing the experiment, participants were thanked for participation.

Results

Treatment preference

An ANOVA showed the expected effect of the experimental condition on treatment choice, $F(2, 47) = 3.24$, $p = .048$, $\eta^2_{part} = .12$. Planned contrast analyses showed that participants in the high-power (senior surgeon) condition had a stronger preference for treatment B ($M = 6.94$, $SD = 2.01$) than participants in the two low-power comparison conditions, $t(47) = 2.50$, $p = .02$. The two low-power comparison conditions did not differ (nurse: $M = 5.47$, $SD = 2.24$; junior surgeon: $M = 5.12$, $SD = 2.23$), $t(47) = -0.47$, $p = .64$.

Dehumanization

The expected effect of the experimental condition also emerged on dehumanization of the patient, $F(2, 47) = 3.90$, $p = .03$, $\eta^2_{part} = .14$. Planned contrast analyses showed that participants in the high-power (senior surgeon) condition had a more dehumanized view of their

patients ($M = 5.09$, $SD = 1.42$) than participants in the two control conditions, $t(47) = 2.79$, $p = .008$. Again, as expected, the contrast between the two low-power comparison conditions (nurse: $M = 4.03$, $SD = .87$; junior surgeon: $M = 4.09$, $SD = 1.33$) was not significant, $t(47) = 0.14$, $p = .89$.

Filler items

As in Studies 1 and 2 there was no effect on the items unrelated to dehumanization ($p = .43$). Again, given that overall participants did believe that these items applied to the patient ($M = 5.40$, $SD = .59$) and even more so than the dehumanization items ($M = 4.39$, $SD = 1.29$, $t(49) = 6.34$, $p < .001$), this suggests again that the effect of power we observed on dehumanization is not simply caused by a generally more superficial form of processing among the powerful (as in e.g., Fiske, 1993).

Mediation pattern

We then checked whether making a tougher decision was associated with increased dehumanization. For simplicity and statistical power, we combined the two low-power conditions to compare them together with the high-power condition.[2] A mediation analysis using bootstrapping (5,000 resamples) showed a reliable indirect effect with a 95% confidence interval between .01 and .28. As this confidence interval does not include 0, it is significant at $p < .05$. See Figure 2 for parameters and their significance. After adding the mediator, the direct effect of power on the preference for

the tougher option dropped from β = .38, *p* = .01 to β = .30, *p* = .04.

This replicates the general finding of Study 2. Again we found that high-power participants were more likely to favor the tougher option and let the patient "bite the bullet." Again, making this decision was associated with increased dehumanization. Like in Study 2, we found this effect by offering participants a scenario about a fictional patient. Any decision made by participants therefore had no real outcomes. Nonetheless, we again found that participants who chose the tougher treatment seemed to feel a need to dehumanize the patient to justify their decision.

General discussion

In this paper we proposed that power is associated with increased dehumanization for two reasons. First of all, power is often associated with increased dehumanization because powerful people often have to make tough decisions that may lead other people to suffer. Dehumanization downplays this suffering and thus justifies those decisions. In addition, the experience of power decreases perspective-taking, makes people more closed to others, and increases deindividuation—three psychological processes associated with increased dehumanization.

We used three studies to show this link between power and dehumanization. In these studies we measured existing feelings of power (Study 1), we primed the experience of power (Study 2) and we allocated participants to high- or low-power roles (Study 3) and we did so in both an intergroup situation and in a medical-institutional setting. Following Haslam (2006; Haslam et al., 2008) we measured animalistic dehumanization (in Studies 1 and 2) and mechanistic dehumanization (Study 3). Irrespective of these differences, in all three studies we found the same (although sometimes small) but consistent effect that power increases dehumanization. We also found that these effects were not due to a general effect of power on stereotyping, as our effect was unrelated to any effect on stereotypical or other filler items that were unrelated to dehumanization.

Dehumanization and tough decisions

In the last two studies, we also tested the role that dehumanization plays in justifying tough decisions. We predicted that following a tough decision, (high-power) participants would be especially likely to dehumanize the target. In Study 2 this decision was about forcing a group of slum inhabitants to an area with more economic opportunities. In Study 3 it was about a medical dilemma and the need to administer a painful procedure. In both studies, high-power participants were more inclined to make a tough decision and this led to a more dehumanized view of the social target. These mediation patterns underscore the functional role that dehumanization can play in situations of unequal power. Dehumanization makes it easier to make tough decisions by downplaying the consequences.

Our results suggest that dehumanization should not be seen as an exclusively negative force (at least in moderate amounts). By treating other people as objects or tools, the emotional consequences of the powerful people's actions are downplayed and become irrelevant. One does not consider the emotional distress of a hammer when driving in a nail. Although this can lead people to abuse others, it may also facilitate the powerful in making tough decisions. Powerful people sometimes have to make decisions that on the short term cause suffering but on the longer run generate benefits. Without dehumanization, they would be overcome by the pain and suffering that result from their decisions.

Limitations and suggestions for future research

Admittedly, our paper has several limitations which may be addressed in future research. First, in all our studies we exclusively focused on one dimension of dehumanization. That is, we measured only that dimension of dehumanization (animalistic or mechanistic) that we thought to be relevant for the specific domain (a low-status group or a medical dilemma). In retrospect, it

would have been interesting to also measure the other domain and check whether making a tough decision in a certain situation activates only one specific or both forms of dehumanization. In addition—if it would have led to the activation of both—it would have been interesting to check whether both or only one would be correlated with making a tougher decision.

Second, we limited ourselves to (animalistic and mechanistic) dehumanization, but it would also be interesting to study whether effects associated with infrahumanization can act in a similar manner. It would be interesting to test whether power also decreases the attribution of secondary, abstract emotions to the outgroup (Leyens et al., 2000, 2001). Given that research has shown that the experience of power is associated with an increased ability to think in an abstract manner (Smith & Trope, 2006), such a finding would mean that the power-abstraction effect can be reversed.

We did not administer any manipulation checks across our studies and therefore have no direct evidence that our power manipulation was successful. Nonetheless, we are confident that the manipulations achieved their intended effects as these very same manipulations—a measured sense of power (Anderson et al., 2010), experiential priming (Galinsky et al., 2003) and created power roles (Anderson & Berdahl, 2002)—have been used frequently in past literature and have repeatedly shown to overlap in their effects.

A fourth limitation in our research was that we did not fully uncover the process behind the power–dehumanization link. Although both last studies showed the role of dehumanization as justification after making a tough decision—thus demonstrating the role of dehumanization in reaching those decisions—we did not further investigate the power–dehumanization link itself. Strikingly, in the mediation models of both Study 2 and 3, there remained a significant direct effect of power on dehumanization after controlling for the mediator. We interpret this as evidence that power can also increase dehumanization for other reasons than to justify decisions. In the Summary and Overview of Studies section, we identified various processes associated with the experience of power, such as lack of perspective-taking, increased distance, and increased deindividuation, that can all contribute to the power–dehumanization link. We would cautiously propose that depending on the exact setting or social situation, some factors will be more important than others. In close interpersonal relations perspective-taking and psychological distance most likely will play a more important role. But in more intergroup relations, deindividuation will play a more central role. Future research may want to test these tentative ideas and investigate in more detail which factors contribute to dehumanization in what situations. We hope such future research can build on the base we provided.

A final important limitation about our work is that we used abstract experimental manipulations and materials, such as nonexisting groups and fictional medical scenarios. Of course, this has the advantage that we could exclude the role of pre-existing ideas and demonstrate causality. But the question remains how well these findings describe real examples of dehumanization in the outside world. Future research should determine the role of power in real examples of dehumanization. Pending those findings, we do note striking parallels between our findings and some real examples that suggest power and dehumanization are related. Much research on dehumanization has been devoted to uncover its role in the cruelty and barbarism of dictatorships (e.g., Kelman, 1976; Landau, 2006; Voegelin, 1999). Given our findings, this is not surprising: in dictatorships, power is highly monopolized by a few individuals and democratic constraints on the use of power are lacking. Also, a wealth of literature has pointed to dehumanization in the work place. Especially in the bigger corporations with enormous power differences, employees are reduced to dehumanized, exchangeable links in the production chain (Adams & Balfour, 2004; Montague & Matson, 1983). Finally, we witness the link between power and dehumanization in social power differences. Low-power groups, such as the handicapped (O'Brien, 2003) or ethnic minorities (Jahoda, 1999), are more likely to be dehumanized, in particular by high-power groups. In these examples,

it is hard to see the functional side of dehumanization, other than perhaps helping powerful groups to keep the status quo. These examples do demonstrate our main point, though, that power and dehumanization are intrinsically linked phenomena.

Notes

1. A mediation analysis for the difference between control and high-power conditions shows a comparable mediation pattern. For a detailed description on mediational analysis using bootstrapping, Statistical Package for the Social Sciences (SPSS) syntaxes, and an explanation for why bootstrapping is to be preferred over normal theory tests of mediation in an experiment like this, see Kristopher Preacher's website at http://www.psych.ku.edu/preacher/.

2. Two separate mediation analyses for the two low-power conditions (each with the high-power condition) show comparable mediation patterns.

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Biographical notes

JORIS LAMMERS is Assistant professor of Social Psychology at the Department of Social Psychology, University of Tilburg, the Netherlands, and member of the Tilburg Institute of Behavioral Economics Research (TIBER). His research focuses on the many ways in which social inequality is exercised and maintained; through power, morality, stereotyping, prejudice, etcetera. He believes that by uncovering basic effects of power, social change can be achieved.

DIEDERIK A. STAPEL is Research Professor of Consumer Science and Director of the TIBER. His research includes norm activation, motivational processing, impression formation, self-regulation, emotion regulation, and stereotyping. Recently, he has become involved with a series of projects that all center on using social cognition to further our understanding of consumer behavior. He is especially interested in how consumer cues (consumerism) lead to egocentric, unhealthy attitudes and behavior and how they impair intellectual performance. He is Senior Associate Editor of *Personality and Social Psychology Bulletin* and Associate Editor of *Psychological Science*.