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# **Falsifying the dehumanisation hypothesis**

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## **Abstract**

In my original article, I posed seven challenges for the dehumanisation hypothesis. I argued that the construct of dehumanisation may not accurately characterise the psychological mechanism by which people denigrate and commit harm against outgroups. What appears to be a psychological process of dehumanisation may be better explained in terms of outgroup animosity and stereotyping. In answer to these challenges, proponents of the dehumanisation hypothesis suggest that their hypotheses are probabilistic and that there are many moderating variables. Sometimes we dehumanise outgroups but sometimes we dehumanise ingroups. Sometimes we even dehumanise ourselves! Dehumanisation sometimes leads to harm, but sometimes it does not. In response, I argue that it is premature to search for moderators if the construct of dehumanisation is flawed. I challenge proponents of the dehumanisation hypothesis to specify conditions that would falsify their claims. I outline a series of studies which I believe would distinguish between the dehumanisation hypothesis and my alternative. It may be that some variant of the dehumanisation hypothesis will emerge stronger from these tests. It may be, however, that existing theories of dehumanisation obscure more than they reveal about intergroup bias.

## **Falsifying the dehumanisation hypothesis**

Discrimination is a pressing, global problem (Smith, 2011; 2016). Like the commentators on my original article, I believe that understanding the psychological causes underlying discrimination will bring us one small step closer to reducing its prevalence and impact. A particularly influential idea within the social sciences is that a psychological process of dehumanisation is one important cause of discrimination (Harris & Fiske, 2011; Haslam, 2006; Smith, 2016). According to the dehumanisation hypothesis, victims of intergroup harm are perceived as similar to non-human entities. As a result, they are rendered more vulnerable to harm.

In my original article, I questioned the dehumanisation hypothesis and argued that the construct of dehumanisation may have less explanatory power than it initially appears (Over, 2020). I posed seven challenges for proponents of the dehumanisation hypothesis to answer. I was glad to receive four commentaries on these challenges. For the most part, the commentators defended the dehumanisation hypothesis. Thus, while the commentators and I are united on the need to understand and reduce discrimination, we remain divided on how best to characterise psychological processes that contribute to it.

I begin this response by contrasting different variants of the dehumanisation hypothesis with my alternative viewpoint. Following this, I turn my attention to suggestions for future research. I focus on future research because I believe that, in cases of continuing disagreement, the most constructive route forward is empirical work that distinguishes between the various alternatives.

I am grateful to the commentators for their important work on these topics and for engaging with my challenges. I hope the continued debate will be productive for the field, and ultimately for the crucial task of reducing discrimination.

## **The dehumanisation hypothesis and the alternatives**

In my original article, I summarised the dehumanisation hypothesis as two inter-related claims. First, victims of intergroup harm are perceived as similar to non-human entities. Second, as a result, they are rendered more vulnerable to harm. The commentators each echo a point I tried to articulate in my original article but perhaps did not convey clearly enough. The dehumanisation hypothesis is not a single theory but rather a family of theories. Sometimes, these theories disagree. The philosopher Smith argues that to dehumanise a group is to “conceive of [them] as subhuman

creatures". Vaes, Paladino and Haslam, on the other hand, state that "no psychological account presents dehumanization as a categorical or qualitative denial of humanity to humans".

I maintain that, despite these differences, the various conceptualisations of the dehumanisation hypothesis share similar flaws. First, it is not at all clear that the construct of dehumanisation, in any of its current formulations, accurately characterises how people think about outgroups. Second, it is not clear why conceiving of a group as less than human (Smith, 2011; 2016), or somewhat less human (Haslam, 2006; Haslam & Loughnan, 2014; Leyens et al., 2007; Vaes et al., 2012), should increase the risk of harm against them.

I presented an alternative view. Considering examples of extreme intergroup harm, I argued that it is premature to attribute dehumanising beliefs to perpetrators. When propagandists describe a target group as similar to rats, lice and parasites, it is undoubtedly dangerous and deeply offensive. However, it might not reflect a belief that these groups are less human, but rather be one strategy among many to present them as low status, threatening and homogenous in character (Bloom, 2017; Manne, 2016). I also argued that apparent evidence for subtle forms of dehumanisation from lab-based studies may, in fact, collapse to ingroup preference and stereotyping. Rather than attributing more human traits to our ingroups (Haslam, 2006; Haslam & Loughnan, 2014), I suggest that we attribute more positive characteristics to them. Rather than perceiving our ingroups to experience human-like emotions more strongly (Leyens et al., 2007), I suggest we perceive our ingroups to experience prosocial emotions more strongly.

The commentators responded to my critique of the dehumanisation hypothesis by outlining a wide range of data that they believe support their various formulations. There is data suggesting that we sometimes dehumanise racial groups, national groups, individuals who attend different universities, cyclists, artists, businessmen, asexuals, individuals with mental health problems, doctors, and people with particularly wide faces (Delbosc, Naznin, Haslam, & Haworth, 2019; Deska, Lloyd, & Hugenburgh, 2017; Goff et al., 2008; Haslam, 2006; Leyens et al., 2007; Loughnan & Haslam, 2007; MacInnis & Hodson, 2012; Schroeder & Fishbach, 2015).

The commentaries by Vaes et al., Goldenburgh, Courtney and Felig, and Giner Sorolla and Burgmer all voice a second defence. That is, there are many

moderating variables at play in these complex social situations. Thus, only some outgroups are dehumanised, and these outgroups are only dehumanised some of the time. For example, right-wing people (but not left-wing people) tend to dehumanise Muslim terrorists and do so more strongly when their own mortality has been made salient to them (Sanchez & Garcia, 2016).

However, there is little value in demonstrating that many groups appear to be dehumanised, or in showing that additional variables appear to moderate these effects, if the way that the construct of dehumanisation is operationalised is itself problematic. I argue that, because all of these previous studies have been based on similar underlying formulations of dehumanisation that fail to distinguish the phenomenon from stereotyping and prejudice, they each share similar flaws.

Looking to the future, I issue one further challenge to proponents of the dehumanisation hypothesis. That is, to outline the conditions that would falsify their various theories. I use the remainder of this commentary to take the first steps down this path of falsification. To avoid any confusion, some of the studies I suggest apply to some formulations of the dehumanisation hypothesis more than others. I begin by discussing the research of Smith (2011; 2014; 2016). I then move on to discuss how to falsify inhumanisation theory (Leyens et al., 2007; Vaes et al., 2012) and Haslam's dual route model (Haslam, 2006; Haslam & Loughnan, 2014; Haslam, 2019).

### **Testing Smith's theory**

Smith (2011; 2016) argues that when we dehumanise others, we conceive of them as 'less than human'. As evidence for this theory, Smith draws on historical data. For example, propagandists in Nazi Germany sometimes referred to their Jewish victims as rats, lice and parasites. In the American South, African American slaves were referred to as sub-human and ape-like. Smith (2011; 2014; 2016) has collated a huge number of horrifying examples like this from diverse geographical locations and time periods. In some of these examples, the writers appear to intend their words to be taken literally (Smith, 2016). In his commentary, Smith argues that we should take these examples seriously and I agree. Indeed, many psychologists seem to agree as these examples are regularly cited as cases of extreme dehumanisation in the psychological literature (Harris & Fiske, 2011; Haslam & Loughnan, 2014; Haslam, 2019).

However, to take a hypothesis seriously is not the same as to endorse it. It is possible that these examples, numerous though they may be, are the product of a confirmation bias (Nickerson, 1988). Proponents of the dehumanisation hypothesis have meticulously searched the historical record for examples of propaganda and writing in which outgroups are compared to non-human entities. What about counter examples and how common are they? In an earnest attempt to find evidence in favour of the theory, counter examples may have been overlooked. One class of counter examples are cases where ingroups refer to themselves as similar to non-human entities. For example, referring to themselves as lions, rats or rattlesnakes in pro-ingroup propaganda. These examples are problematic for Smith's (2011) dehumanisation hypothesis because they suggest that there might not be a unique, or even a probabilistic, relation between being compared to a non-human entity and being discriminated against. Another class of counter examples are where outgroup members are referred to in terms that only really make sense when applied to humans, for example, as enemies, criminals and traitors. These cases are equally problematic for Smith's (2011) dehumanisation hypothesis because they suggest that the targets of propaganda might, at least implicitly, have been represented as human (Bloom 2017; Manne, 2016). In their commentary, Gina-Sorola and Burgmer speculate that confirmatory examples might be more common than the counter-examples I highlight. At present, however, it is impossible to know because the literature has not yet been systematically searched for both types of example.

Needless to say, claims from historical data cannot be tested in the same way as hypotheses from lab-based research. The methods of experimental psychology are ill-equipped to understand extreme intergroup harm of the type Smith studies. Smith's commentary rightly emphasises the scale of the challenge involved in understanding the historical data. However, if scientists are going to use data such as these to inform their psychological theories, then it is important to start to test them with the best tools we have available to us. One way to start to test the claim that victims of historical atrocities are subject to extreme dehumanisation would be to pre-register content analyses of historical documents in which confirmatory and disconfirmatory examples are both coded. For example, Nazi propaganda from the 1930s and 1940s and Rwandan radio broadcasts from before and during the 1994 genocide could be coded. Such content analyses would be informative because they would uncover the relative frequency of 'dehumanising' language. The claim that the

victims of this propaganda were dehumanised would gain support from a relatively high frequency of comparisons between outgroups and non-human entities.

As Goldenburg et al. point out in their commentary, it is possible that victims of propaganda might sometimes be dehumanised and sometimes be marginalised in other ways that do not involve dehumanisation. This is a reasonable hypothesis and one it is possible to start to test. If this is the case, then we might expect to see a relatively high frequency of comparisons to non-human entities in some texts and a paucity in others. If, however, comparisons between outgroups and non-human entities are merely one form of slur among many, then we might expect these comparisons to appear alongside other types of slur. For example, references to the outgroup as enemies and traitors would appear in the same text as references to these groups as rats and lice.

Smith (2016) has revised his theory to account for some of these concerns. In more recent work, Smith (2016) argues that victims of dehumanisation are viewed as simultaneously human and subhuman and, as a result of this simultaneous membership in two categories, appear horrifying to us. This new theory can explain the existence of the counter-examples highlighted by myself and others (Bloom, 2017; Manne, 2016; Lang, 2020; 2010). However, other counter examples appear to present themselves. Anthropomorphised characters, such as those in cartoons, could be considered simultaneously human and non-human and yet we do not typically regard them as horrifying. Nor do we seem to find ingroup members horrifying when they are referred to as lions or bears. Regardless, the same need for falsification applies to this new theory from Smith too. What type of evidence would falsify the claim that dehumanised individuals are viewed as both human and subhuman? I hope the field will address this difficult but important question in future work.

### **Testing infrahumanisation theory**

Leyens and colleagues (2007; Vaes et al., 2012) claim that dehumanisation can take place in subtle ways and that these subtle forms of dehumanisation are prevalent within Western society. They term this hypothesised subtle form of dehumanisation 'infrahumanisation'. According to this account, when outgroups are infrahumanised, they are thought to experience uniquely human or 'secondary' emotions, such as pride and nostalgia, to a lesser extent than do the ingroup. Leyens and colleagues



(2007) explicitly argue that infrahumanisation is separable from ingroup preference because outgroups are thought to experience both positive and negative secondary emotions to a lesser extent than do ingroups. For example, outgroups are thought to experience the negative emotion of guilt to a lesser extent than do the ingroup (Demoulin et al., 2009; Leyens et al., 2007; Leyens et al., 2003).

This, however, is a conceptual misunderstanding. Guilt is a negative emotion in the sense that it is negative to experience. However, it is prosocial in character. Guilt is thought to foster prosocial, reparative responses. As a result, individuals who experience guilt are thought to be nicer than individuals who do not experience guilt (Stearns & Parrott, 2012). Thus what appears to be evidence for a psychological process of infrahumanisation may, in fact, be evidence that individuals tend to attribute more prosocial traits to their ingroup.

One way to distinguish these two alternatives would be to compare participants' judgments of how uniquely human secondary emotions that are prosocial (e.g., compassion) and antisocial (e.g., hostility) in character, rather than positive and negative to experience, apply to different groups. If participants believe that ingroup members typically experience secondary emotions more strongly, then this should hold true regardless of whether the emotions are prosocial or antisocial. If what appears to be evidence for infrahumanisation is, in fact, evidence for more basic processes of ingroup preference and stereotyping, then participants should report that ingroup members experience prosocial emotions to a greater extent and outgroup members experience antisocial emotions to a greater extent.

### **Testing Haslam's dual route theory**

Haslam (2006) sought to characterise dehumanisation by first establishing the content of the lay category 'human'. Haslam (2006; Haslam & Loughnan, 2014) argues that there are two forms of humanness. Qualities such as civility, refinement, moral sensibility, rationality and maturity are thought to be specific to humans (so called 'Human Unique' traits). Qualities such as emotional responsiveness, interpersonal warmth, openness, individuality and depth are thought to be characteristic of humans (so called 'Human Nature' traits). When a group is dehumanised, they are hypothesised to be attributed some or all of these traits to a lesser extent.

The trouble is that Haslam's account appears not to accurately characterise the content of the category 'human'. I suggest that, because of errors in how the content of the category was measured, Haslam's characterisation of human traits weighs positive and prosocial characteristics too heavily. That is, the particular questions Haslam asked of participants may inadvertently have put the focus on more positive attributes of humanity at the expense of more negative ones. I am not suggesting that negative and anti-social traits are completely absent from Haslam's characterisation of human traits, but rather that they are under-represented.

I do not doubt that humans are sometimes viewed as deep, rational and civilised, but what of more negative human characteristics? Surely there are situations in which humans are viewed as spiteful, arrogant and disloyal. In their commentary, Vaes et al. defend Haslam's model against this critique by arguing that whereas rationality, civility and depth are human traits, spite and disloyalty are ways of evaluating other humans. The subtlety of this distinction may be lost on many. Fortunately, however, Vaes et al. suggest an empirical test for this claim. In order to be considered human traits, attributes such as spite, arrogance and jealousy would have to be considered more human than other character traits. Such a test is easily devised.

An undue reliance on positive traits in characterising the lay category of 'human' is problematic because it means that apparent evidence for dehumanisation is confounded with ingroup favouritism. The tendency to attribute positive traits such as warmth, depth and civility more strongly to ingroup members could represent a tendency to subtly dehumanise the outgroup, but it could also represent a tendency to make more positive attributions towards the ingroup.

These two explanations for the observed pattern of results in previous dehumanisation studies can be disentangled by incorporating more negative and antisocial human characteristics into the stimulus set. If outgroups are subtly dehumanised, then participants will report that outgroups possess positive human attributes (such as warmth and depth) to a lesser extent than do the ingroup but also negative human attributes (just as spite and jealousy). If apparent evidence for dehumanisation can be explained by ingroup favouritism, then participants will attribute positive human traits more strongly to the ingroup and negative human traits more strongly to the outgroup.

## **Testing the hypothesised connection between dehumanisation and harm**

Although there are many reasons to be interested in the construct of dehumanisation, much of the interest in the field stems from the idea that dehumanisation plays a causal role in intergroup harm. For example, Smith (2016, p. 46) eloquently describes dehumanization as “a psychological lubricant for the machinery of violence”. Similarly, Haslam and Loughnan (2014) argue that “dehumanization is important as a psychological phenomenon because it can be so common and yet so dire in its consequences” (p. 401). The hypothesised causal relation between dehumanisation and harm is further underlined by recent articles entitled “The many roles of dehumanisation in genocide” (Haslam, 2019) and “How dehumanisation promotes harm” (Haslam & Loughnan, 2016).

In my original paper, I argued that the hypothesised causal connection between dehumanisation and harm is suspect for at least two reasons. First, viewing a group as less than human is not necessary for harm – outgroups are often harmed because of their uniquely human characteristics such as their alleged disloyalty, cunning or spite (Lang, 2020; Lang, 2010; Rai, et al., 2017). Second, viewing a group as less than human does not seem sufficient for harm - family pets are considered ‘less than human’ and yet they are cherished.

The commentaries by Goldenberg et al. and Gina-Sorolla et al. actually suggest further reasons to doubt the hypothesised causal connections to harm. According to work they reference, individuals sometimes dehumanise outgroup members, but sometimes they dehumanise ingroup members. Sometimes they even dehumanise themselves (Morris, Goldenberg, & Heflick, 2014). If we sometimes dehumanize individuals we like and protect, then why should we assume that dehumanisation ever has a causal relationship to harm?

Lab-based research has attempted to test the hypothesised relationship between dehumanisation and harm by investigating variations in prosocial behaviour. For example, work stemming from infrahumanisation theory has claimed that when a group is infrahumanised they are less likely to be the recipients of help. In one highly cited study on this topic, Vaes et al. (2002) either described someone in humanised terms or not and measured the influence on participants’ prosocial intentions towards this person. In order to do this, the experimenters sent participants an email that either began with a secondary emotion (e.g., expressing the sender’s disappointment) or with a primary emotion (e.g., expressing the

sender's anger). Participants reported that they would be more likely to reply to the message if it started with a secondary emotion than a primary emotion. Vaes et al. (2002) interpret these results as evidence that people are more helpful when they are interacting with individuals who highlight their humanity through the use of secondary emotion terms. An alternative interpretation, however, is that individuals who start emails by expressing their disappointment are viewed as somewhat nicer than individuals who start emails by expressing their anger. It is straightforward to envisage an experimental paradigm that could distinguish between these two hypotheses. In a future study, the sender could express themselves in terms of uniquely human secondary emotions that are antisocial in character. For example, referencing feelings of scorn or hostility. It seems unlikely that using such terms would increase prosocial behaviour, uniquely human though they may be.

Given the many problems with the hypothesised causal connection between dehumanisation and harm, it may be that several proponents of the dehumanisation hypothesis now believe that dehumanisation is particularly interesting as a post hoc explanation offered by perpetrators of harm (see the commentary by Vaes et al). It seems plausible to me that perpetrators might sometimes seek to excuse their behaviour by claiming that their victims were less than human. However, if dehumanisation is merely an excuse, it would tell us little about the causes of intergroup bias.

### **Concluding thoughts**

To be valuable contributions to scientific debate, theories of dehumanisation must be falsifiable (Popper, 1959). It may be that the dehumanisation hypothesis, or some variants of it, can withstand the challenges I outlined in my original paper and in this response. It may be that we do not need to reject the dehumanisation hypothesis, but rather to refine it (as Smith and Gina-Sorola and Burgmer suggest in their commentaries). Whatever the case, the field will benefit from further theoretical clarification and empirical data as we continue to address our shared goal of reducing the terrible, real-world consequences of intergroup bias.

## References

- Bloom, P. (2017). The root of all cruelty? *The New Yorker*, November issue. Retrieved from: <https://www.newyorker.com/magazine/2017/11/27/the-root-of-all-cruelty>.
- Delbosc, A., Naznin, F., Haslam, N., & Haworth, N. (2019). Dehumanization of cyclists predicts self-reported aggressive behaviour toward them: A pilot study. *Transportation Research Part F: Traffic Psychology and Behaviour*, 62, 681- 689. doi: <https://doi.org/10.1016/j.trf.2019.03.005>
- Demoulin, S., Cortes, B., Viki, T., Rodriguez, A., Rodriguez, R., Paladino, M., & Leyens, J.-P. (2009). The Role of in-group identification in infra-humanization. *International Journal of Psychology : Journal International de Psychologie*, 44, 4-11. <https://doi.org/10.1080/00207590802057654>
- Deska, J. C., Lloyd, E. P., & Hugenberg, K. (2018). Facing humanness: Facial width-to-height ratio predicts ascriptions of humanity. *Journal of Personality and Social Psychology*, 114, 75-94. doi: 10.1037/pspi0000110. Epub 2017 Aug 28.
- Goff, P. A., Eberhardt, J. L., Williams, M. J., & Jackson, M. C. (2008). Not yet human: implicit knowledge, historical dehumanization, and contemporary consequences. *Journal of Personality and Social Psychology*, 94, 292-306. doi: 10.1037/0022-3514.94.2.292
- Harris, L. T., & Fiske, S. T. (2011). Dehumanized perception: A psychological means to facilitate atrocities, torture, and genocide? *Zeitschrift für Psychologie/Journal of Psychology*, 219, 175-181. doi: 10.1027/2151- 2604/a000065
- Haslam, N. (2019). The many roles of dehumanization in genocide. In Newman, L.S. (Ed). *Confronting Humanity at Its Worst: Social Psychological Perspectives on Genocide*. (pp. 199-139). Oxford University Press.
- Haslam, N. (2006). Dehumanization: An integrative review. *Personality and Social Psychology Review*, 10, 252-264. doi: 10.1207/s15327957pspr1003\_4

Haslam, N., & Loughnan, S. (2016). How dehumanization promotes harm. In A. G. Miller (Ed.), *The Social Psychology of Good and Evil* (2nd ed., pp. 140–158). New York: Guilford.

Haslam, N., & Loughnan, S. (2014). Dehumanization and infrahumanization. *Annual Review of Psychology*, *65*, 399-423. doi: 10.1146/annurev-psych- 010213-115045.

Lang, J. (2020). The limited importance of dehumanization in collective violence. *Current Opinion in Psychology*, *35*, 17-20. doi: <https://doi.org/10.1016/j.copsyc.2020.02.002>

Lang, J. (2010). Questioning dehumanisation: Intersubjective dimensions of violence in the Nazi concentration and death camps. *Holocaust and Genocide Studies*, *24*, 225-246.

Loughnan, S., & Haslam, N. (2007). Animals and androids: Implicit associations between social categories and nonhumans. *Psychological Science*, *18*, 116–121. <https://doi.org/10.1111/j.1467-9280.2007.01858.x>

Leyens, J.-P., Cortes, B., Demoulin, S., Dovidio, J. F., Fiske, S. T., Gaunt, R., Paladino, M.-P., Rodriguez-Perez, A., Rodriguez-Torres, R., & Vaes, J. (2003). Emotional prejudice, essentialism, and nationalism: The 2002 Tajfel lecture. *European Journal of Social Psychology*, *33*, 703–717. <https://doi.org/10.1002/ejsp.170>

Leyens, J. P., Demoulin, S., Vaes, J., Gaunt, R., & Paladino, M. P. (2007). Infra-humanization: The wall of group differences. *Social Issues and Policy Review*, *1*, 139-172. doi: 10.1111/j.1751-2409.2007.00006.x

MacInnis C, Hodson G. (2012). Intergroup bias toward “Group X”: evidence of prejudice, dehumanization, avoidance, and discrimination against bisexuals. *Group Processes and Intergroup Relations*, *15*, 725–43. doi: <https://doi.org/10.1177/1368430212442419>

Manne, K. (2016). Humanism: A critique. *Social Theory and Practice*, 42, 389-415. doi: 10.5840/soctheorpract201642221

Morris, K.L., Goldenberg, J.L., & Heflick, N.A. (2014). Trio of terror (pregnancy, menstruation, and breastfeeding): An existential function of literal self-objectification among women. *Journal of Personality and Social Psychology*, 107, 181-198. doi: 10.1037/a0036493.

Nickerson, R.S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology*, 2, 157-220.

Over, H. (2020). Seven challenges for the dehumanisation hypothesis. *Perspectives on Psychological Science*.

Popper, K.R. (1959). *The logic of scientific discovery*. New York: Harper, Torch Books.

Rai, T.S., Valdesolo, P., & Graham, S. (2017). Dehumanisation increases instrumental violence, but not moral violence. *Proceedings of the National Academy of Sciences*, 114, 8511-8516. doi: <https://doi.org/10.1073/pnas.1705238114>

Sanchez, R. P. & Garcia, C. Y. (2016). Mortality salience, political orientation and minimization of terrorists' secondary emotions. *Psicothema*, 28, 47-52. doi: 10.7334/psicothema2015.147.

Schroeder, J., & Fishbach, A. (2015). The “empty vessel” physician: Physicians’ instrumentality makes them seem personally empty. *Social Psychology and Personality Science*, 6, 940-949. <https://doi.org/10.1177/1948550615597976>

Smith, D.L. (2016). Paradoxes of dehumanisation. *Social Theory and Practice*, 42, 416-443. doi: 10.5840/soctheorpract201642222

Smith, D.L. (2014). Dehumanization, essentialism, and moral psychology. *Philosophy Compass*, 9, 814–824. doi: <https://doi.org/10.1111/phc3.12174>

Smith, D.L. (2011). *Less than human: Why we demean, enslave, and exterminate others*. New York: Macmillan.

Stearns, D. C., & Parrott, W. G. (2012). When feeling bad makes you look good: Guilt, shame, and person perception. *Cognition and Emotion*, *26*, 407–430.  
<https://doi.org/10.1080/02699931.2012.675879>

Vaes, J., Leyens, J. P., Paladino, M. P., & Miranda, M. P. (2012). We are human, they are not: Driving forces behind outgroup dehumanisation and the humanisation of the ingroup. *European Review of Social Psychology*, *23*, 64-106. doi:  
10.1080/10463283.2012.665250

Vaes, J., Paladino, M.-P., & Leyens, J.-P. (2002). The lost e-mail: Prosocial reactions induced by uniquely human emotions. *British Journal of Social Psychology*, *41*(4), 521–534. <https://doi.org/10.1348/014466602321149867>