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ON LOW-STATUS GROUPS: PERVASIVENESS AND BOUNDARIES OF DEHUMANISATION

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ABSTRACT

Humanness is an important social dimension that groups strive for (Bain, Vaes, & Leyens, 2014; Haslam, 2006; Leyens, Demoulin, Vaes, Gaunt, & Paladino, 2007). A first research program designed by Leyens and colleagues (2000) has shown that ingroup members tended to consider themselves as uniquely human while outgroups fell short on that dimension. Importantly, dehumanization was thought to be dependent on ethnocentric motives and, as such, could be observed in both low and high status groups (Leyens et al., 2003). Whereas an initial set of data confirmed this assumption (Demoulin et al., 2005; Leyens et al., 2001; Paladino et al., 2002; Paladino & Vaes, 2009), this assumption has come under increased pressure as new data seem to suggest that, at least in some situations, group status is significantly linked to dehumanisation (Cappozza, Andrighetto, Di Bernardo, & Falvo, 2012; Harris & Fiske, 2006; Iatridis, 2013; Jones-Lumby & Haslam, 2005; Vaes & Paladino, 2010).

To test the role of intergroup status on the attribution of uniquely human features to ingroups and outgroups, a first research paper aimed at experimentally varying the social perception of an ingroup and an outgroup on competence – as a proxy of status – and warmth (Fiske, Cuddy, Glick, & Xu, 2002). Furthermore, we have done so in an otherwise minimal intergroup situation to control for possible confounding variables. Results confirmed that only members of groups high on competence dehumanised the outgroup. Interestingly, this moderation was observed on the attribution of uniquely human emotions, an operationalisation of humanness that is thought to be less influenced by intergroup differences on socio-structural variables (Leyens, 2009).

In the two subsequent papers we focus on the perspective of low status groups explaining when and why low status groups sometimes do and other times do not dehumanize others. We started to explore the role of outgroup identification, confirming in a correlational study with Gypsy minority members that those who wish to assimilate dehumanise the majority outgroup less (Study 1). Studies 2 and 3, conducted with immigrants in Portugal and Italy, confirmed that this result is extendable to an acculturation framework based on contact and culture adoption. Again, immigrants who preferred to assimilate with the host culture tended to dehumanize the majority group less. As such, we identified a first source of variability in dehumanization processes perpetrated by low-status groups.

Subsequently, the pervasiveness of intergroup dehumanisation was tested disentangling group status and power. As such, power was manipulated among low status groups in a laboratory (Study 1) and in a natural setting (Study 2). Results confirmed that when low status groups were given some control on the outcome's of a high status outgroup (i.e. power) they dehumanise the members of this outgroup to a greater extent than when they were given no control at all.

Results are discussed in terms of the extent to which ethnocentric motives underlie dehumanisation and future research is outlined.

Keywords: Dehumanisation; Status; Acculturation; Power.

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Section I

Introduction

Chapter I. Dehumanisation

"Are we not human beings too?" - asks A., an asylum seeker, whose open letter was published on the website of the Scottish Refugee Council (2011). A.'s question represents the query underlying all the research undertaken within the scope of this thesis.

This is not a new question within Social Psychology. Long has been the tradition of exploring the conditions in which other groups are seen on the outside boundary of humanity. This work translated into concepts as delegitimation (Bar-Tal, 1989), the psychology of Evilness (Staub, 1989; 1999) or moral exclusion (Opotow, 1990), and was mostly described in intergroup contexts that were marked by violence and conflict. More recently, however, the concept of dehumanisation[1] has been adapted to a subtle bias that consists in the scaling of groups in terms of humanness (for reviews see Demoulin et al., 2004b; Haslam, 2006; Haslam, Loughnan, Kashima, & Bain, 2008; Leyens et al, 2000; 2001; 2003; Leyens, Demoulin, Vaes, Gaunt, & Paladino, 2007; Vaes, Leyens, Paladino, & Miranda, 2012). It is under that framework that the research presented here will be conducted.

Returning to A's. query, this thesis will focus on the dynamics between the boundary conditions of dehumanisation and its pervasive tendency among low status groups: Are low status groups human too? When does ones' placement within the hierarchy of a given society influence the ascription of a deep seated dimension of value that is humanness?

Emotional Infrahumanisation Theory

In the turn of the millennium humanness was thrown to the spotlight as a social resource that groups strive for (Leyens et al, 2000). Leyens and colleagues developed a theory that starts from the recognition that there are features identified in lay theories as uniquely human. These include among others intelligence, uniquely human emotions (i.e., '*sentimentos*'), language, and sociability (Chulvi & Perez, 2003; Leyens et al., 2000; Miranda, 2006). Some of these features had already been accounted for in the dynamics of social competition (e.g., intelligence by Crocker, Major, & Steel, 1998). Furthermore, at the time there was a renewed interest in understanding the emotional component of intergroup differences (Brewer, 1999; Fiske, Xu, Cuddy, & Glick., 1999; Smith, 1993). As such, the road was paved for an enduring focus on the study of uniquely human emotions as a proxy of people's humanness and further extending the work on emotional prejudice.

[1] A recent surge of interest into the research on dehumanisation has led to a correspondent abundant amount of terms to name the phenomenon. For reasons of simplicity we will use the term dehumanisation to refer to this subtle bias, using specific terminology only when referring directly to specific theories.

The reliability of this idea was tested in a cross-cultural normative study on lay theories of emotion (Demoulin et al, 2004a). The results reinforced the proposed distinction between primary or non-uniquely human (e.g., joy, anger) and secondary or uniquely human emotions (e.g., admiration, disappointment). These emotions varied not only on human uniqueness, but also on other core dimensions. Uniquely human emotions are shared less across cultures, considered less visible to others, less durable and experienced later in human development. Additionally Rodriguez-Torres and colleagues (2005) found evidence of the spontaneous use of the uniquely human vs. non-uniquely human categorisation of emotions. Adapting the 'w*ho says what to whom'* paradigm (Taylor, Fiske, Etcoff, & Ruderman, 1978), the authors demonstrated that the proposed categorisation of emotions behaved like other meaningful categorisations. This result contested the interpretation of the differentiation between uniquely and non-uniquely emotions as an experimental artefact.

The validity of the emotional infrahumanisation theory was analysed testing the hypothesis that uniquely human emotions are preferentially linked with the ingroup rather than with outgroups. At the same time, no bias should be expected regarding the association of non-uniquely human emotions to groups, as they are shared by both humans and animals.

Resorting in a first moment to an attribution paradigm, Leyens and colleagues (2001) showed a greater attribution of uniquely human emotions to the ingroup in comparison to the outgroup, while the non-uniquely human emotions were equally attributed to both groups. The paradigm consisted in a list of uniquely and non-uniquely human emotions (controlled for differences in desirability) and filler words, which participants had to ascribe to both the ingroup or the outgroup. The effect was further replicated using an attribution paradigm in a within-subjects design (Cortes, Demoulin, Rodríguez-Torres, Rodríguez-Pérez, & Leyens, 2005; Gaunt, 2009), rating the likelihood of ingroup and outgroup members experiencing those emotions (Castano & Giner-Sorolla, 2006) and asking participants to forecast the emotional reactions of ingroup and outgroup members (Gaunt, Sindic, & Leyens, 2005).

The emotional infrahumanisation effect was subsequently tested in various association paradigms. In four experiments Paladino and colleagues (2002) recurred to the implicit association test (Greenwald, McGhee, & Schwartz, 1998) and verified for positive and negative emotions that participants are quicker responding to tasks in which ingroup names and uniquely human emotions and outgroup names and non-uniquely human emotions need to be categorized with the same response key (compatible tasks), compared to the reverse pairs (incompatible tasks). Boccato, Cortes, Demoulin and Leyens (2007) further contributed to this

argument by determining if the aforementioned IAT effect was indeed driven by the hypothesised association between ingroup and uniquely-human emotions and not by the alternative link between outgroup and non-uniquely human emotions. Their use of a lexical decision task (Wittenbrink, Judd, & Park, 1997) followed other adaptations of other well established empirical paradigms retrieved to further solidify the emotional infrahumanisation effect.

This was the case of the Process-Dissociation Procedure (Jacoby, 1991) through which Gaunt, Leyens and Demoulin (2002) found evidence that participants intentionally recalled more outgroup uniquely human emotions than uniquely human emotions experienced by the ingroup. Again this effect did not extend to non-uniquely human emotions. This means that while uniquely human emotions are automatically associated to the ingroup, only through a control process, requiring an effort, can people associate them to the outgroup. In line with this finding, Gaunt, Leyens and Sindic (2004) asked participants to rate the extent to which an ingrouper or an outgrouper did indeed experience a given uniquely or non-uniquely human emotion, as expressed in an essay. The experimental situations were built in such a way that participants were given the possibility of a situational discount. Specifically, in half of the conditions the actor had been constraint to express a particular emotion or had been given free choice. As hypothesised, participants were motivated to reason that an outgrouper had not experienced any uniquely human emotions, and recurred to situational explanations when they were available. Demoulin and colleagues (2005), using the Wason Selection Task (Wason, 1968), also contributed to establish that the motivation to humanise the ingroup and infrahumanise an outgroup influences information processing of pairs of ingroup and outgroup members and uniquely and non-uniquely human emotions.

One alternative explanation of the pattern of preferential attribution of uniquely human emotions to the ingroup compared to the outgroup could lie in the fact that people have a greater familiarity with members of the first compared to those of the latter group. In fact, uniquely human emotions are less visible and thus might only be inferred in contexts familiar to the individual. In a series of studies, Cortes and colleagues (2005) discarded this alternative explanation, showing that participants did not attribute more secondary emotions to the highly familiar self compared to the ingroup or the outgroup (Study 1 and 2), nor did they attribute secondary emotions proportionally to outgroups that differed in terms of familiarity (Study 3).

The last assumption of the Infrahumanisation Theory is that what is at stake in the differential attribution of uniquely and non-uniquely emotions to ingroup and outgroups is to

definition of one's group as fully human. Sustaining this argument is the work by Vaes, Paladino and Leyens (2006), in which participants used more uniquely human words in a word fragment completion task when primed with uniquely human emotions expressed by ingroup (vs. outgroup) members. Boccato, Capozza, Falvo and Durante (2008) advanced this argument by showing that associations of the ingroup (compared to the outgroup) and humans (compared to animals) are always stronger.

Emotional Infrahumanisation Theory was first extended to include the denial of outgroup humanness based on non-emotional human features. Viki, Winchester, Titshall and Chisango (2006) accomplished this task by using human-related (e.g., citizen) and animal-related (e.g., creature) words. The studies consisted of an IAT or of an attribution task and in all studies participants differentiated the ingroup from the outgroup based on human-related words, whereas no such distinction was made regarding animal-related words. Another operationalisation of uniquely humanness was used in the work by Vaes and Paladino (2010), in which the authors resorted to traits deemed stereotypical of the groups considered.

Infrahumanisation was conceptualised as deriving directly from Social Identity Theory (SIT, Tajfel & Turner, 1979). However, it represented an innovation as it extended the need for intergroup differentiation to a non-valence-based relevant dimension of comparison. The results obtained by Leyens and colleagues (2001) reinforced infrahumanisation's independence – and often coexistence – from a valence-based ingroup bias, as participants ascribed both desirable and undesirable uniquely human emotions to their ingroup. Kofta, Mirosławska and Błogowska (2008) found indeed that both an ingroup bias and an infrahumanisation bias were elicited in an adapted version of the minimal group paradigm, but independently from one another. Demoulin and colleagues (2009) further explored the role of mere social categorisation on infrahumanisation, describing its absence when the categorisation criterion was random. However, when adding even little meaning, to this criterion (e.g., colour preferences), an infrahumanisation pattern was observed.

SIT is a theory of ingroup love, as Brewer (1999) labelled it. In the classic minimal group paradigm (Tajfel, Billig, Bundy, & Flament, 1971), participants only had the opportunity to favour their ingroup, even if more than the extent to which they favoured the outgroup. They were not experimentally allowed to only derogate the other social category. Infrahumanisation, on the other hand, is theorised as directly descending from ethnocentrism. After Sumner (1906), Levine and Campbell (1972) defined ethnocentrism as a syndrome composed of facets related to ingroup favouritism (e.g., evaluate one's group as strong), but

also to outgroup derogation (e.g., referencing the outgroup as a bad example in young people's education). As such, ethnocentrism refers to the lay theory through which values are scaled in terms of the ingroup and was translated in the Infrahumanisation Theory as the assumption that ingroups are experienced as fully human while outgroups are not.

Concurrently, Leyens and colleagues (2000; 2001; 2003) linked infrahumanisation to psychological essentialism. Allport (1954) was the first to describe a group essence as an output of the simplifying nature of social categorisation that refers to the belief that there is something indwelling to the group at hand. Understanding why groups are perceived different by substance and not contingency has to pass through Rothbart and Taylor's (1992) contribution. According to these authors lay theories distinguish natural and artificial categories and social categories are modelled after the first type. As such, they share natural categories' properties, as high inductive potential and high *unalterability* of group characteristics and of memberships. Haslam and colleagues tested the extent to which uniquely human traits can be defined in terms of essentialist beliefs (Haslam, Bain, Douge, Lee, & Bastian, 2005, Study 1). Drawing on Haslam, Bain and Bissett's (2004) operationalization of essentialist beliefs, the authors found that only one out of four correlated positively with uniquely humanness (immutability), whereas the others correlated negatively or not at all (consistency, inherence and informativeness). In response, Leyens (2009) raised the possibility that infrahumanisation can still be conceptualized as the denial of the human essence, if we take into consideration a classical or broader definition of essence (Medin, 1989), or what Gelman and Hirschfeld (1999) name the *sortal* sense. However, no empirical evidence sustains this association with essence (for a review see Bain, 2014). As such infrahumanisation should be understood in terms of differences, which need not to be discrete, but can be graded. So that, differences in humanness can be represented in relation to the degree to which groups are seen as examples of humanity (Bain, 2014; Leyens, 2009).

Infrahumanisation Theory is indeed in line with Self Categorisation Theory (Turner, 1987/1990) to the extent that it considered "humanity" as an example of the superordinate category. According to this theory, there are three levels of abstraction of the self: the interpersonal, the intergroup and the superordinate or interspecies. These levels are interdependent in the sense that the definition of the self at one level reflects comparisons in relation to the next higher level. Drawing from the metacontrast principle (Campbell, 1958), Turner (1987/1990) introduces the concept of prototypicality referring to the quality of an individual being representative of the group or a group being representative of the

superordinate level. Self Categorisation Theory defends that the evaluation of a group depends on its' degree of prototypicality from the superordinate level and as such a group is evaluated favourably when it is representative of humanity and vice-versa. Deriving from this theory, the Ingroup Projection Model (Mummendey & Wenzel, 1999) defends that ingroup members consider their group more prototypical of the superordinate category than the outgroup, which is seen as less inclusive of that category. This account is still in line with an ethnocentric motivation in infrahumanisation, to the extent that the human superordinate category can be represented in an ethnocentric way, that is, through the projection of ingroup features.

Human Nature and Human Uniqueness

Haslam and colleagues (2005) broaden the definition of dehumanisation by comprehending other senses of humanness in the analysis of dehumanisation. Specifically they resorted to Kagan's (2004) analysis of the definition of any object in general, and of humanness in particular. Kagan (2004) signals how humanness can be defined through the listing of its core traits, but also – and most frequently – by its comparison to other related categories (e.g. apes). Haslam and colleagues (2005) have drawn from the personality traits organized in five dimensions (agreeableness, consciousness, extraversion, neuroticism and openness) of the Five Factor Model (Costa & McCrae, 1992) and values organized according to Schwartz's (1992) taxonomy (openness to change, self-enhancement, conservation and self-transcendence). The authors showed, first of all, that the rating of these traits on their uniquely humanness, i.e., human uniqueness, and their centrality in the definition of humanness, i.e. human nature, represented indeed different constructs, which were either not or even negatively correlated. The concept of human nature involves emotionality, warmth, cognitive openness, agency, and depth, whereas human uniqueness comprehends civility, refinement, moral sensibility, rationality and maturity. Most importantly these two different senses of humanness fuel different types of dehumanisation: mechanistic dehumanisation takes place when outgroups are deprived of human nature traits and animalistic dehumanisation when uniquely human traits are denied to others, drawing a direct parallel with the infrahumanisation bias (for a review see Haslam, Loughnan et al., 2008).

These two senses of humanness distinguish themselves from one another in two aspects. One the one hand, human nature traits are, unlike uniquely human traits, associated with essentialist believes, such as consistency, inherence, informativeness (Haslam et al., 2005) and having nature as cause (Bain, 2014). One the other hand, a self-humanisation

effect, meaning that the self is ascribed more in terms of humanness compared to a generalized other, can be observed on human nature traits, while there is no evidence of such effect regarding human uniqueness (Cortes et al., 2005; Haslam et al., 2005, Studies 3 and 4; Haslam, Loughnan, Reynolds, & Wilson, 2007; Loughnan et al., 2010).

Finally, the two types of humanness are contextually determined, meaning that different groups use human nature (e.g., Australians), uniquely humanness (e.g., Chinese) or both (e.g., Italians) to differentiate from their ingroup from several outgroups (Bain, Park, Kwok, & Haslam, 2009; Bain, Vaes, Haslam, Kashima, & Guan, 2012).

Attribute, Metaphor and Target Based Approaches to Dehumanisation

It is possible to describe two approaches to the process of dehumanisation: an attribute- and a metaphor-based approach (Longhnan, Haslam, & Kashima, 2009). The first is represented by most of the aforementioned research and constitutes the denial of traits (attributes) to an outgroup. The second is already possible to foresee when Haslam, Loughnan and colleagues (2008) linked the denial of uniquely human and human nature attributes to the association with animals and robots. Loughnan and Haslam (2007) used a go/no-go association task to verify the proposed implicit association with animals and members of an animalistically dehumanised group (i.e., artists) and the one with automata and a mechanistically dehumanised group (i.e., business men). This aspect was further tested in subsequent research (Haslam, Kashima, Loughnan, Shi, & Suitner, 2008; Loughnan et al., 2009; Saminaden, Loughnan, & Haslam, 2010).

A similar reasoning lies at the basis of yet another theoretical contribution in the dehumanisation area. Pérez, Moscovici and Chulvi (2002; 2007) proposed the concept of ontologisation as a stage where groups are represented outside the social map. This would take place through the link between culture and nature traits to the human and the animal identity. The representation of minorities through (positive) nature traits is argued to accommodate more than their view as animals, but as wild animals, which in turn would lead to their expulsion from any human/domestic category.

Goff, Eberhardt, Williams and Jackson (2008) embodied the metaphoric approach by testing the association between a particular group and a pervasive animal metaphor: the black-ape association. In one of their studies the subliminal priming of black faces (compared to white faces) facilitated the identification of degraded images of big apes (compared with other animals). Also, Capozza, Boccato, Andrighetto and Falvo (2009) asked participants to

categorise ambiguous human, ape and ambiguous faces that were present varying their membership. As hypothesised participants were less prone to exclude ambiguous human/ape faces from outgroup membership.

Despite the theoretical interchangeability of attribute-based and metaphor-based dehumanisation in the literature, Loughnan and colleagues (2009) were the first to test this assumption. Four novel groups were presented as lacking uniquely human attributes, human nature attributes, depicted as animals or robots. Participants were capable, when asked to infer the attribute-based from the metaphor-based dehumanisation and vice-versa.

A third approach to dehumanisation was labelled target-based approach (Vaes & Paladino, 2010) and proposes that not only are uniquely human features more attributed to the ingroup, but that ingroup attributes are per se judged to be more uniquely human. This can be considered an extension of the ingroup projection model (Waldzus, Mummendey, Wenzel, & Boettcher, 2004; Wenzel, Mummendey, Weber, & Waldzus, 2003), in the sense that the projection of group features to the superordinate category can accommodate an operationalization of this latter category as humanness. Paladino and Vaes (2009) presented participants with a set of equally human traits that were said to be characteristic of ingroup or outgroup members. As hypothesised, ingroup traits were considered more uniquely human across three different intergroup contexts.

Dehumanisation and its Consequences

The novelty of these new approaches to dehumanisation comes from its pervasiveness in daily life interactions between groups. However, the subtle nature of dehumanisation does not reflect necessarily in subtle consequences for the dehumanised.

Vaes, Paladino and Leyens (2002) were the first to explore what is at stake in the differential attribution of uniquely human emotions. Drawing from research that links the perception of affective similarity to feelings of empathy (Houston, 1990) and empathy to prosocial behaviour (Batson, Duncan, Ackerman, Buckley, & Birch, 1981), the authors argued and demonstrated that perceiving uniquely human emotions in others would increase prosocial behaviour towards them. Vaes, Paladino, Castelli, Leyens, and Giovanazzi (2003) were able to extend this effect to an intergroup context, showing the benefits of the expression of uniquely human emotions only for the ingroup (Studies 1 and 2) and asserting the meditational role of similarity in this process (Study 3). Moreover, the author's last study allowed establishing that the consequences of expressing uniquely human emotions are dual,

as it leads participants to approach members of the ingroup and simultaneously to avoid members of the outgroup. This is especially relevant as it again stresses the double nature of ingroup favouritism and outgroup derogation involved in dehumanisation (Leyens et al., 2003). An ecological validation of this argument was obtained by Cuddy, Rock and Norton (2007), who demonstrated how inferences of uniquely human emotions of victims of Hurricane Katrina predicted helping behaviours towards them.

Concurrently, the perception of uniquely human emotions was described as improving the ability to take others' perspective (Vaes, Paladino, & Leyens, 2004), as increasing conformity towards political messages transmitted by a candidate of the same affiliation (Vaes, Paladino, & Magagnotti, 2011), as increasing intergroup forgiveness in post-conflict situations (Tam, et al., 2007), the support for reparation policies after wrong doing (Zebel, Zimmermann, Viki, & Doosje, 2008) and of the empathy felt for a victim group (Cehajic, Brown, & Gonzalez, 2009). Also, an interesting path has been taken by Wohl, Hornsey and Bennett (2012) in establishing the role of such emotions in the success of outgroup apologies. In order for an outgroup apology to succeed one has to infer some specific uniquely human emotions (as guilt). However, in line with Vaes and colleagues (2003), the expression of those emotions by an outgroup member decreases the trustworthiness of the apology, condemning it to failure. Interestingly, the authors found that this effect can be reserved if an ingroup member serves as a proxy of the outgroup apology.

Also, Leyens and colleagues (2003) originally associated infrahumanisation and nationalism, conceptualising the first as an implicit facet of the latter. Viki and Calitri (2008) tested this proposed association and described a positive correlation between nationalism, but not patriotism and the differential attribution of uniquely human emotions, further reinforcing the co-existence of ingroup favouritism and outgroup derogation. Leyens and colleagues (2003) also argued that this outgroup derogation component could work as a defensive mechanism, which allowed people to be in contact on a daily basis with news of genocides and war perpetrated against some outgroups. Resuming this line of reasoning, Vaes and Muratore (2013) have studied a health care workers cohort and shown that describing the suffering of a (fictitious) terminal patient in terms of uniquely human emotions is positively correlated with the burnout levels of those professionals.

Bastian, Laham, Wilson, Haslam and Koval (2011) compared the two senses of humanness focussing on the extent to which they might have different consequences, particularly in the realm of moral status. The authors found some major differences, as

persons seen as lacking human nature are not considered responsible enough to be blamed and should therefore be rehabilitated. On the other hand, an agent high on human uniqueness is deemed responsible and can therefore be accounted and punished for his/her actions.

Despite the predominance of research on the consequences of dehumanisation of an attribute-based, and particularly and emotional-based, approach, Goff and colleagues (2008) contributed to the understanding of the consequences of the persistence of dehumanizing metaphors in the case of the black-ape association. The authors demonstrated in a laboratory setting how the activation of apes, increased the perceived legitimacy of a police battering regarding a black individual (Study 5). Also, a last study allowed linking dehumanising metaphors in actual news referring to alleged black criminals and the severity of their convictions.

Considering its widespread nature, its consequences in everyday life contexts and the fact that it emerges as early as 6/7 years old (Martin, Bennett, & Murray, 2008), it is important to understand the boundary conditions of processes of subtle dehumanization. As Leyens and colleagues (2003) have pointed out: “Because infra-humanization exists does not mean that it has to exist. However, to help fostering its absence, it might be beneficial to realize its existence first” (p. 714). And it is exactly with that in mind that we move forward to the next chapter.

Chapter II. Pervasiveness and Boundaries of Dehumanisation

In the last years we have witnessed an effort to study the conditions that might constitute a boundary to the otherwise pervasive phenomenon of dehumanization (Leyens, 2009; Vaes et al., 2012).

Paladino, Vaes, Castano, Demoulin and Leyens (2004) were the first to identify a variable fitting this purpose. These authors showed that when group members' identification is low, they will dehumanise to a lesser extent. Leyens (2009) interprets identification as a necessary, but not a sufficient condition for dehumanisation, as there is evidence of the same group only dehumanising some outgroups (e.g. Cortes et al., 2005; Vaes & Paladino, 2010). Demoulin and colleagues (2009) further contributed to this argument introducing the meaningfulness of the criterion for intergroup categorisation. In fact, only when provided with a meaningful categorisation (compared to a random one) did participants dehumanise the outgroup, and this effect was mediated by ingroup identification. Gaunt (2009) extended the moderating effect to include identification with a superordinate category and the perception that the outgroup identifies with that category. In two studies with Israeli Jews and Israeli Arabs the identification with the superordinate category of Israeli significantly decreased dehumanisation between both groups.

Moving away from an emotional infrahumanisation paradigm present in the previous studies to a measure of the attribution of humanlike mental states (e.g., being capable of doing things on purpose), Waytz and Epley (2012) found that when one feels connected to significant others, the distance towards remote others increases, leading to a dehumanisation of the latter.

As mentioned before, Viki and Calitri (2008) also found a positive correlation between dehumanisation and one of the expressions of identification towards national groups, nationalism. Roccas, Klar and Liviatan (2006) proposed an approach to ingroup identification that encompassed both an attachment to the ingroup and its glorification, the latter reflecting a comparative superiority with outgroups. Leidner, Castano, Zaiser and Giner-Sorolla (2010) explored the role of both aspects of ingroup identification and found that ingroup glorification, but not ingroup attachment was associated with a higher dehumanisation of outgroups. There is, however, a substantial difference between these studies in the way they impact and inform the dehumanisation process. While ingroup identification influences dehumanisation by increasing the degree to which the ingroup is considered human,

nationalism and ingroup glorification especially decrease the humanness that is attributed to the outgroup.

Vaes and colleagues (2012) proposed a framework to classify the moderators of dehumanisation differentiating between variables that are related to the boundaries between groups, the nature of the relations between those groups and the ideologies of their members. The studies described until this point can be grouped in the "boundary" class, as identification in its different expressions is an expression of social categorisation and the way we are attached to these categories.

One other variable must however be considered in this domain, that is, existential concerns. Belonging to a group can indeed constitute a psychological buffer for the existential terror of death as its existence is less finite compared to that of the individual (Castano, Yzerbyt, Paladino, & Sacchi, 2002). Vaes, Heflick and Goldenberg (2010) extended this idea showing that people emphasise the uniquely human aspects of their ingroup when death-thoughts are made salient. These findings suggest that attributing uniquely human characteristics to the ingroup that set us apart from our animal and finite nature helps to fence off people's existential fear of death.

A second class of moderators relates to people's ideologies, i.e. shared believes that influence our interpretation of the world (Jost, 2006). Ideologies have shown to account for half the variability in prejudice measures (Hodson & Esses, 2005). In line with this finding, high right-wing authoritarianism (Hodson & Costello, 2007; Leidner et al., 2010) and conservatism (DeLuca-McLean & Castano, 2009) have shown to increase dehumanisation. Also, drawing on Social Dominance Theory (Sidanius, Liu, Shaw, & Pratto, 1994), Leidner and colleagues (2010) reported that an individual's endorsement of a hierarchical conception of society is positively related to the dehumanization of immigrants. In addition, both Hodson and Costello (2007) and Esses, Veenvliet, Hodson and Mihic (2008) showed that dehumanisation has a meditational role in explaining the association between social dominance orientation and prejudice.

The last class of moderators in the framework proposed by Vaes and colleagues (2012) pertains to the socio-structural relations between groups. According to Realistic Conflict Theory (Sherif, Harvey, White, Hood, & Sherif, 1954/1961) it is the nature of the relationships between groups that determine the presence or absence of prejudice and discrimination. Alike ingroup bias (Tajfel et al., 1971), intergroup conflict is not a necessary condition for the emergence of dehumanisation (e.g., Demoulin et al., 2009). On the other

hand, there is cooperation, which has been neurobiologically induced and proved to increase ingroup humanness (De Dreu, Greer, Van Kleef, Shalvi, & Handgraaf, 2011). These authors have shown that the administration of oxytocin led to an increase of cooperation only regarding ingroup members and the correlated association between uniquely human emotions and the ingroup (but not the outgroup).

One of the variables that pertain to the relation between groups is the perception that an outgroup constitutes a symbolic threat, that challenges ingroup values, costumes and its identity. A serious of correlational studies were conducted where the relation between symbolic threat and dehumanisation was demonstrated (Castano & Giner-Sorolla, 2006; Cehajic et al., 2009; Cuddy et al., 2007; Delgado, Rodriguez.Pérez, Vaes, Leyens, & Betancor, 2009; Tam et al., 2007; Zebel et al., 2008). However, Pereira, Vala and Leyens (2009) were the first to test it experimentally. These authors manipulated the perception of humanness of an outgroup which resulted in a greater perception that that outgroup did not conform to the values of society. Moreover, this perception of symbolic threat mediated the relationship between dehumanisation and the willingness to engage in discriminatory behaviour only when an egalitarian (vs. a meritocratic) norm was active. This suggests that participants perceive the outgroup as a threat to justify the behavioural output of their derogatory attitude.

Finally, we wish to discuss the role of variables that rank groups vertically on the dehumanisation process. This discussion will be held in a separate section because it relates directly to the goals of this thesis.

Dehumanisation and Group Status

Status has been a central construct in the study of intergroup relations and represents a particular challenge to dehumanisation theory. The publication of the minimal group paradigm (Tajfel, Billig, Bundy, & Flament, 1971) led however to a period of intense research on the socio-psychological variables which determine intergroup behaviour. Tajfel (1982) himself alerted to the fact that “the focus on ethnocentric variables sometimes led to a neglect of the role of social constrains of social situations” (p.18). According to Social Identity Theory (Tajfel & Turner, 1979) status is a result of intergroup comparison and is of symbolic nature as it refers to a relative position of groups in a social hierarchy based on prestige. Most societies are made of different social classes and ethno-linguistic groups that can in fact be ranked according to perceived prestige.

There is a long tradition of analysing the relation – or conflict – between this motivation and the social contingencies of intergroup behaviour (Jost & Banaji, 1994; Tajfel, 1982). The differences in the discrimination patterns between high and low status groups, both in natural (Doise & Sinclair, 1973) and in laboratory settings (Sachdev & Bourhis, 1987, for a review see Brown, 2000), are not interpreted as the passive acceptance of an inferior status (Turner & Brown, 1978). For instance, Reichl (1997) found that low status groups differentiate positively in dimensions unrelated to status, suggesting that the motivation to favourably compare one's group with outgroups is still present in low-status groups despite structural and realistic hardships in pursuing this goal.

Another point of view, however, is made by System Justification Theory contesting the idea that "the advantaged are relentlessly looking to cash in on their dominance and the disadvantaged are proud revolutionaries-in-waiting" (Jost, Banaji, & Nosek, 2004, p. 883). Jost and Banaji (1994) argue that people engage in ego, group and system justifications. In the case of dominant groups, the motivation to hold a favourable image of one's group and the motivation to defend and legitimate the status quo are aligned. However, as to dominated groups, Jost and Banaji (1994) posit that the later motivation may withhold low status groups from favourably differentiating from high-status outgroups.

Leyens and colleagues (2000) initially considered that this debate does not need to be extrapolated to the realm of dehumanisation. In fact, dehumanisation was described as a pervasive process, 1) that is independent from ingroup favouritism; 2) driven by ethnocentric motives; and 3) given that the attribution of uniquely human emotions was proposed to be independent from status, and social creativity processes, it is also available to low status groups. Indeed in a first study, Leyens and colleagues (2001) demonstrated that both high-status (mainland Spanish) and low-status groups (Canarians) did differentiate their group from the proposed outgroup attributing them less uniquely human emotions. The authors argued that whereas some uniquely human features, as intelligence and language (Crocker, Major, & Steel, 1998), are bounded to social structure of society, emotions are less so. As such, uniquely human emotions paved the way for a use of a social creativity strategy which allowed low-status group to dehumanise high-status groups too. Following this initial endeavour, several studies already described in Chapter I, demonstrated through different experimental paradigms that dehumanisation based on uniquely human emotions did take place regardless of group status (Cortes et al., 2005; Demoulin et al., 2005; Paladino et al., 2002). All these studies based this conclusion on perceptions towards national/regional groups

(e.g. Flemish vs. Dutch speaking Belgians), as did the first study that extended this effect to non-emotional dehumanisation. Specifically, Paladino and Vaes (2009) showed that typical traits of the ingroup are also considered more uniquely human, regardless of the fact that the ingroup had a high or a low status compared to the outgroup.

Despite this initially straightforward evidence that status did not constitute a boundary condition of dehumanisation, more recent insights raised doubts on the tenability of this claim. Haslam and colleagues (2005; 2008), for example, discussing the content of the two senses of humanness referred to the fact that uniquely humanness includes some dimensions related to competence (e.g., intelligence). This fundamental dimension of social perception is in turn considered informative of group status and as is often used as a proxy of the latter (Fiske, Cuddy, Glick, & Xu, 2002). Jones-Lumby and Haslam (2005) drew a map of the two senses of humanness and the fundamental dimensions of social perception and observed that high status social groups are often considered concomitantly high on one or both senses of humanness.

Specifically drawing on the Stereotype Content Model (SCM, Fiske et al., 2007), Harris and Fiske (2006; 2009) predicted that members of groups which are both low on competence and warmth (e.g. homeless) would be dehumanised. Moving beyond self-reports, the authors presented participants with a set of images of people varying according to their group membership within the four quadrants of the SCM, together with control objects that were pretested to elicit the same emotions in participants. Through a functional magnetic resonance imaging, these authors found that both low competence – low warmth group members and their control pictures (e.g. vomit), elicited disgust reactions, and, unlike group members that were located in the in other quadrants, they did not activate the medial pre-frontal cortex, an area known to be associated with social cognition.

Vaes and Paladino (2010) followed this argument testing a large set of intergroup contexts that varied in terms of competence and warmth of the proposed outgroups (e.g. Germans, Brazilians, Gypsies). The authors described an overall pervasive tendency to dehumanise the outgroups in comparison to the ingroup. Furthermore, there was a consistent trend to dehumanise those outgroups considered low on competence to a greater extent.

Capozza, Andrighetto, Di Bernardo and Falvo (2012) tested the status effect of dehumanisation in minimal intergroup contexts. Manipulating ingroup status directly. These authors showed through and IAT that only high status group members dehumanised the lower status outgroup and through a GNAT that this effect was driven by both a greater association

between the ingroup and humanness and between the outgroup and animality. Given that this was the first evidence that low status groups did not dehumanise the high status outgroup, these authors referred to the impossibility of using a social creativity strategy in non-emotional dehumanisation to explain their findings.

Iatridis (2013) further explored the role of status on emotional dehumanisation, advancing the hypothesis that low-status groups do not attribute more uniquely human emotions to their group in comparison to the high status outgroup. The author argues that a claim for the generalizability of dehumanisation should stand in empirical evidence in intergroup setting defined through diverse categorisation criteria. Following this argument, his studies took place in the context of occupational groups (e.g. blue-collar vs. white-collar workers), in which low status groups were found to manifest an outgroup favouritism bias. Iatridis (2013) argues that it might be the case that occupational categories endow consensually accepted status differences and that, as such, both high and low status groups legitimize the status differences (Jost & Banaji, 2004; Tajfel & Turner, 1979).

The picture of the role of this relational variable is completed, considering the work of Lammers and Stapel (2011) who focused on another stratification variable, that is, power. Participants' personal sense of power was measured (Study 1) or manipulated (Study 2) using a power priming paradigm (Galinsky, Gruenfeld, & Magee, 2003). In both cases, the greater the sense of power, the greater the dehumanization of the outgroup.

Taken together, the literature on intergroup dehumanisation shows an important inconsistency, especially considering the nature of group status as its boundary condition.

Overview of the Studies

Despite the large number of studies that vary in many ways, it is still not possible to definitely state to what extent and under what conditions status constitutes a boundary condition that moderates outgroup dehumanisation.

The inconsistent effects cannot be limited to the operationalization of humanness in emotional and non emotional terms, as there is evidence of independence from status using the former (e.g., Leyens et al., 2001) and the latter (Paladino & Vaes, 2009) operationalization. At the same time, also the dependence of outgroup dehumanization on status differences has been verified using both types of measures (e.g., Iatridis, 2013; Vaes & Paladino, 2010, respectively). Capozza and colleagues (2012) made an important contribution by transferring this debate to the laboratory, in which a minimal group setting helped to

surpass the plethora of variability and minimized the influence of confounding variables that are typically found in real intergroup contexts. Yet, in doing so, the authors did not include an emotional-based operationalisation of dehumanisation, leaving the door open to interpret the absence of dehumanisation by low-competence groups in terms of a lack of ability to be socially creative.

As such, the first goal of this thesis is to contribute to further understand the moderating role of competence (as a proxy of status) in the process of dehumanisation. This goal is tackled in Paper 1 - "Stereotypes and Dehumanisation: Competence (but not Warmth) Moderating the Attribution of Uniquely Human Emotions in a Minimal Group Paradigm" (Miranda, Gouveia-Pereira, & Vaes, 2014a) – in which we build on the previous literature by extending the moderating role of competence/status in several ways. Like Vaes and Paladino (2010), the design includes a wide range of social groups that vary on the fundamental dimensions of social perception – competence and warmth – manipulating not only the social perception of the outgroups but also of participants' ingroup. As in Capozza and colleagues (2012), the intergroup setting will be an otherwise minimal one, but the proposed differentiation will be based on the classic emotion attribution paradigm by Leyens and colleagues (2001).

The second goal of this thesis is to open different pathways with the aim to integrate the above-mentioned inconsistent findings on the role of status on dehumanization processes. In Paper 2 – "When in Rome... Identification and Acculturation strategies among minority members moderate the dehumanisation of the majority outgroup" (Miranda, Gouveia-Pereira, & Vaes, 2014b) – we focus on low status group members and investigate the impact of the identification with the outgroup. We argue that this variable is relevant in some intergroup contexts (e.g., migrants, cultural minorities and even some occupational groups) in which intergroup mobility might be a desirable outcome. Building on insights from research on ingroup identification (Demoulin et al., 2009; Paladino et al., 2004) and from identification with a superordinate category (Gaunt, 2009), we predict that identifying oneself with a high-status outgroup, while distancing from the original ingroup will make members of low-status groups dehumanise the high status outgroup to a lesser extent.

Specifically, we will ground our research on the typology of group acculturation (Snauwaert, Soenens, Vanbeselaere, & Boen, 2003), drawing a parallel between group identification studies in dehumanisation and an identification approach to acculturation (Hutnik, 1986). A parallel can be drawn between the fourfold model of identification (Hutnik,

1986) and the boundaries moderators that Vaes and colleagues (2012) proposed as a framework in dehumanisation. We will test if this categorisation effect is extendable to other approaches of acculturation - contact (Berry, 1980) and ideology (Bourhis, Moïse, Perrault, & Senécal, 1997) - which in turn can be directly linked to relations and ideologies moderators, according the aforementioned framework.

In parallel, another integration hypothesis will be assessed. In Paper 3 – "When the small feel strong enough: The role of power in outgroup dehumanization by low status groups" (Miranda, Vaes, & Gouveia-Pereira, 2014) – we tested the hypothesis that another, yet undetected, confounding variable was responsible for the inconsistency in dehumanisation patterns amongst low-status groups, that is, power. For instance, even if Italians perceive that they are less competent than Japanese, we might expect them to feel nevertheless in control over their own future (Vaes & Paladino, 2010). On the contrary, the same logic might not apply to blue collar workers working with white collar workers. As described above, power increases dehumanisation processes (Gwinn, Judd, & Park, 2013; Lammers & Stapel, 2010) and power is often (Fiske, 2010), but not always (Boldry & Gaertner, 2006), associated to status. Furthermore, while the latter is of symbolic nature, the first refers to an instrumental aspect, a resource that allows control over group results (Fiske, 1993). As such, our goal is to extend Sachdev and Bourhis' (1991) findings that power allows low status groups to display ingroup bias to the realm of outgroup dehumanization.

While the rational for each specific hypothesis will be thoroughly addressed in each paper, we wish to highlight that a transversal question underlies all the research that is presented here: Even if the universal display of a dehumanisation bias is under pressure, does this challenge the assumption of an ethnocentric motivation to dehumanise? That is, even if low-status groups do not dehumanise high-status outgroups, do they do so because they consensually accept their inferiority and are motivated to justify it to sustain the larger social system (Jost & Banaji, 1994)? Or, in contrast, when outgroup identification is not at stake or when given sufficient resources (like power), will low-status groups be able to differentiate from high status groups on the basis of the fundamental dimension of perception that is humanness?

Section II

Empirical Section

Stereotypes and dehumanisation: Competence (but not warmth) moderating the attribution of uniquely human emotions in a minimal group paradigm*

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Abstract

The issue whether group status and competence moderate the differential attribution of uniquely human features to ingroups and outgroups is yet unresolved, with empirical evidence pointing either way. The existing studies on this issue vary in design, intergroup context and operationalizations of the main dependent measures. Our aim is to experimentally vary ingroup and outgroup competence and warmth in an otherwise minimal intergroup situation. Results confirmed the hypothesis that high ingroup competence, but not low ingroup competence, was accompanied with a differential attribution of uniquely human emotions to ingroup and outgroup, but not of non-uniquely human emotions. Moreover, we found that warmth does not predict the same emotional dehumanisation pattern, being however associated with both granting and denying emotions based on their desirability. Results will be discussed within a stereotype content account of the dehumanisation bias.

Key-words

Dehumanisation, Competence, Warmth, Emotions, Intergroup relations

Infrahumanisation theory has contributed to the field of intergroup relations introducing humanness as a relevant dimension of social comparison (Demoulin et al., 2004b; Leyens et al., 2000; 2001; 2003; Leyens, Demoulin, Vaes, Gaunt, & Paladino, 2007). Their focus was primarily on emotions, complementing the trend of turning emotions central to the analysis of social identity and intergroup differentiation (Brewer, 1999; Fiske, Xu, Cuddy, &

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Glick., 1999; Smith, 1993). The authors proposed a distinction between primary or non-uniquely human (e.g., joy, surprise, fear, anger) and secondary or uniquely human emotions (e.g., hope, admiration, remorse, disappointment). These emotions have been shown to vary in lay theory in the extent to which they are uniquely associated with human beings, with primary emotions being associated with both animals and humans, while secondary emotions are seen as an exclusively human capacity (Demoulin, Leyens, Paladino, Rodriguez, Rodriguez, & Dovidio 2004a). Based on this typology, Leyens and colleagues (2001) developed an attribution paradigm that allowed them to identify an emotional dehumanisation effect which translated in to a greater attribution of uniquely human emotions to the ingroup in comparison to the outgroup while the non-uniquely human emotions are attributed equally to both groups. Moreover, this effect was not qualified by the desirability of the emotions, presenting itself as an independent effect from a valence based group bias (Tajfel & Turner, 1979).

This effect was further established in other experimental paradigms. Paladino and colleagues (2002) adapted the implicit association test (Greenwald, McGhee, & Schwartz, 1998) and found that participants were quicker to associate uniquely human emotions to the ingroup and non-uniquely human emotions to the outgroup compared to the reverse combination. Bocatto, Cortes, Demoulin and Leyens (2007) using a lexical decision task (adapted from Wittenbrink, Judd, & Park, 1997) demonstrated that the latter effect was driven by the association between the ingroup and uniquely human emotions and not by the association of outgroups with non-uniquely human ones. More evidence of an emotional dehumanisation effect came from Vaes, Paladino and Leyens (2006), who primed participants with ingroup and outgroup members expressing either uniquely or non-uniquely human emotions, and found that when primed with uniquely human emotions expressed by a member of the ingroup, participants completed a word fragment completion task using more uniquely human words.

This focus on emotions created some ambiguity as to whether the social-structural relations that define the intergroup context could moderate the dehumanisation effect. On the one hand, previous emotion research accentuated the degree to which emotion perception is tied to socio-structural relations and in particular to power and status (Kemper, 1999). For instance, Tiedens and colleagues have found that group status is linked to the perception of specific emotions and that perceiving specific emotions determines the conferral of status (Tiedens, 2001; Tiedens, Ellsworth, & Mesquita, 2000). On the other hand, Leyens and

colleagues (2001) provided evidence for the idea that both low and high status groups can claim uniquely human emotions to the same extent. Leyens and colleagues (2003) argued that a social creativity process in choosing the dimension of social comparison could be what allowed low status groups to favourably compete with high status groups to claim full humanness through the attribution of uniquely human emotions. As such, dehumanisation based on the ascription of uniquely human emotions to the ingroup should, unlike other uniquely human features (e.g. language and intelligence), take place regardless of variations in group status. Indeed, a first set of studies showed that group status was unrelated to emotional dehumanisation (Boccato, Cortes, Demoulin, & Leyens, 2007; Cortes, Demoulin, Rodríguez-Torres, Rodríguez-Pérez, & Leyens, 2005; Demoulin et al., 2005; Leyens et al., 2001; Paladino et al., 2002; Paladino & Vaes, 2009).

Meanwhile, the study of dehumanisation has been extended to measuring other uniquely human traits besides emotions (Vaes & Paladino, 2010; Viki, Winchester, Titshall, & Chisango, 2006) and including other dimensions of humanness (Bain, Park, Kwok, & Haslam, 2009; Haslam, Bain, Douge, Lee, & Bastian, 2005)[4]. Haslam and his team presented an analysis of humanness that encompasses two dimensions. On the one hand, uniquely humanness is defined by comparison with non-humans (i.e., animals) and its denial to a group was named animalistic dehumanisation. On the other hand, mechanistic dehumanisation can also be observed and consists in the denial of core – not necessarily unique - traits of humanness, coined as human nature (see Haslam, Loughnan, Kashima, & Bain, 2008 for a review).

The authors mapped these two dimensions of humanness onto the two fundamental dimensions of social perception, warmth and competence, proposed by Fiske, Xu, Cuddy, and Glick (1999). Initially, they based their analysis on the correlation of both dimensions of humanness with the traits of the five-factor model (Costa & McCrae, 1989). Human nature is related to a general sense of emotionality that does not confine itself to warmth or agreeableness, including both positive and negative traits. Human uniqueness, while also including non-competence related characteristics (e.g. refinement), also encompasses dimensions related to competence (e.g. intelligence and consciousness) (Haslam et al., 2005; 2008).

[4] Recently the term dehumanisation has been gaining ground to refer to any difference in viewing others as less human in detriment of the term infrahumanisation. In this article we will therefore use dehumanisation as the scaling of groups in terms of humanness.

The attribution or denial of warmth and competence are directly related to the socio-structural relations between the groups at hand (Fiske et al., 2007). While the level of competition between groups is inversely related with the attribution of warmth, status prescribes whether a group and its members will be seen as competent or not. Therefore, differences in competence have been interpreted often as a proxy of status differences. More evidence that status, through its link with competence, does have an impact on dehumanisation comes from Harris and Fiske (2006). Focussing on the neural correlates of dehumanisation, these authors observed that members of low competence (and low warmth) outgroups do not activate the medial pre-frontal cortex, a part of the brain that is exclusively associated with social (compared to object) perception.

More recently, Vaes and Paladino (2010) measured dehumanisation comparing different intergroup contexts according to the dimensions of the Stereotype Content Model (Fiske et al., 2002). The authors described a persistent dehumanisation effect in favour of the ingroup, but the strength of this effect varied as a function of the perceived competence, but not the perceived warmth of the outgroup. The more the outgroup was perceived as competent, the less the outgroup was seen as less human. Following these findings, other recent studies have found status effects reporting that the outgroup was only dehumanised relative to the ingroup when the former had lower status or was seen as less competent compared to the ingroup (Capozza, Andrighetto, Di Bernardo, & Falvo, 2012; Miranda, Gouveia-Pereira, & Vaes, In press). Focusing on emotional dehumanisation, Iatridis (2013; see also Rohmann, Niedenthal, Brauer, Castano, & Leyens, 2009) managed to demonstrate a similar effect showing that people refrained from attributing more uniquely human emotions to the ingroup when confronted with a higher status outgroup. His explanation focused on the different nature of the group categorizations. Iatridis (2013), unlike previous researcher who focused on national, regional or ethnical intergroup contexts, looked at the role of status differences in occupational groups. Given that status differences are more consensual and perceived as legitimate in occupational groups, status will be especially important in these intergroup situations.

Taken together, the literature on dehumanisation shows an important inconsistency surrounding the moderating role of intergroup status differences. It is important to note, however, that this inconsistency is accompanied by a great deal of variation in study designs, intergroup contexts and operationalizations of the dependent measures.

The Present Research

With the aim to resolve the above-mentioned inconsistencies, it is important to analyse the emotional dehumanisation effect in an intergroup setting that only systematically varies the perceived competence and warmth of an ingroup and an outgroup. Capozza and colleagues (2012) have already used an experimental design that included a status manipulation in a minimal group setting. Nevertheless the dependent variable used was unrelated to emotions. As such, it is still possible to argue that low status participants in this study were unable to dehumanise a high status group because uniquely humanness was operationalised in terms of traits that are too closely lined up with the stereotype of a high status group (e.g., intelligence, rationality). In this way, using the original measures that were proposed by Leyens and colleagues (2001), we can verify whether perceived differences in status and competence are indeed central to observing an emotional dehumanisation effect. Moreover, the only study that manipulated both warmth and competence was that of Vaes and Paladino (2010), in which, however, the ingroup was kept the same. Producing systematic variations or at least controlling for both competence and warmth is especially relevant when considering the possibility of a compensation effect so that low competence groups are perceived to be warm and low warmth groups are seen as highly competent (Kervyn, Yzerbyt, & Judd, 2010). Taking into consideration the primacy of warmth over competence in the perception of others (Abele & Wojciszke, 2007), measuring or manipulating only competence or status (e.g., Iatridis, 2013) may be obscuring an effect of warmth. As such, we will experimentally create groups using the minimal group paradigm that will only vary in terms of these fundamental dimensions of social perception.

Considering the established relationship between competence and status and uniquely humanness (Haslam et al., 2005; Vaes & Paladino, 2010), we hypothesise that variations in competence associated to the ingroup will produce variations in the attribution of uniquely human emotions to the ingroup and the outgroup. Specifically, we expect that the differential attribution of uniquely human emotions, when controlling for the non-uniquely human emotions, will only take place when its members can be perceived as high in competence. Importantly, we operationalised dehumanisation using uniquely and non-uniquely human emotions, since they are theoretically the most conservative in revealing an effect of competence on dehumanisation (Leyens et al., 2001).

Given that ingroup identification is correlated with perceptions of competence and warmth (Leach, Ellemers, & Barreto, 2007) and with the dehumanisation effect as well

(Demoulin et al., 2009; Miranda et al., in press; Paladino, Vaes, Castano, Demoulin, & Leyens, 2004), in our analyses ingroup identification will be controlled for.

Method

Participants and design.

Participants were 127 undergraduate Psychology students at a Portuguese university, 17 of whom were excluded as not being Portuguese native speakers. 80% were female and the sample's mean age was 24.85 years old (*SD* = 8.23). Based on the quadrants of the Stereotype Content Model (Fiske et al., 2002), participants were assigned to one of three ingroups: high competence and high warmth, high competence and low warmth or low competence and high warmth. No low competence and low warmth ingroup was proposed as there is no evidence such ingroups exist in a natural setting (Cuddy et al., 2009). These ingroups were compared with an outgroup that could represent all four of the quadrants varying competence and warmth. Importantly, however, and given our focus on asymmetries in warmth and competence, no intergroup settings where groups were symmetrical on both competence and warmth were created. As a result, participants were randomly assigned to one of nine experimental conditions. Cell size ranged from 10 to 14 participants. Also, the order in which the dependent variables were answered for the ingroup first or for the outgroup first was counterbalanced.

Procedure and materials.

Participants were greeted upon arrival at the laboratory and took part in the study in exchange for course credits. They were informed that the International Agency for Global Solutions in Development formed a method for creating work groups, through individual profiles. Also, participants were told that research had allowed the Agency to compare these groups and predict both the interactions of its members and their way of managing their tasks. The bogus test was presented as a free association task and participants were asked to generate new words from the "verbal stimuli" that were presented. These were in fact twenty non-words pre-tested as neutral (Domingos & Garcia-Marques, 2008; sample stimulus: "cantasia"). Subsequently, participants were told to read a news story (neutral as to mood, Garcia-Marques, 2005) to allow enough time for the computer to compare individual results and generate the working groups. After around 3 minutes had elapsed, participants were given false feedback on the fake ingroup and a fake outgroup that had been formed. The feedback comprised information related to high or low competence and warmth, following the

experimental design. The feedback of a low competence, high warmth ingroup sounded as follows:

Your group is made up of easygoing people. So, they often organise social gatherings outside the work context. Also, they are welcoming when they meet people outside their group. Whenever they have to choose which task to work on, the members of this group select tasks that are related to environmental topics, but that do not have high visibility or importance. There is no investment in the detailed planning of the tasks, so often the deadlines are not met. However, all members cooperate with each other in all phases of the task completion. Due to their commitment to issues that are unrelated to the task, namely the positive interaction between its members, this group is not a group of high prestige. This reflects itself in the fact that they are hardly ever invited to lectures in conferences.

After reading the feedback for the ingroup and for the outgroup, participants were asked to complete the ingroup identification scale, an emotional dehumanisation measure and the manipulation checks for ingroup and outgroup competence and warmth. Finally, participants were asked to provide some demographic information. All rating scales were presented in a 7-point format. At the end, all participants were thanked and fully debriefed.

Identification scale.

The identification scale consisted of six affirmations (Miranda et al., in press; sample item: "Belonging to the ingroup is important to me") and participants indicated their agreement to each one of them using a seven points scale, ranging from 1 = totally disagree to 7 = totally agree (α = .91).

Emotional dehumanisation measure.

The measure used here was adapted from Leyens and colleagues (2001). As such participants saw a list of 16 emotions and were asked to pick those they would use to describe the ingroup. The same was done for the attribution of emotions to the outgroup.

A pretest was conducted in order to identify four groups of four emotions: the uniquely human ($_{uh}$) desirable ($_{des}$) emotions (e.g. "esperança" [hope]; M_{uh} = 5.80, SD_{uh} = 0.81, M_{des} = 6.51, SD_{des} = 0.37); the uniquely human undesirable emotions (e.g. "angústia" [anguish]; M_{uh} = 5.39, SD_{uh} = 0.87, M_{des} = 1.90, SD_{des} = 0.69), the non-uniquely human desirable emotions (e.g. "prazer" [pleasure]; M_{uh} = 3.41, SD_{uh} = 1.15, M_{des} = 6.65, SD_{des} = 0.42) and the non-uniquely human undesirable emotions (e.g. "medo" [fear]; M_{uh} = 3.42, SD_{uh} = 1.02, M_{des} = 1.90, SD_{des} = 0.61). The analysis performed assured that these emotions were

orthogonal as to their level of uniquely humanness and desirability. As such uniquely human emotions were judged as more uniquely human than the non-uniquely human emotions (F(1, 26) = 130.830, $p \leq .0001$, η_p^2 = .834), but did not differ in terms of valence (F(1, 26) = 1.367, p = .253). At the same time, the desirable emotions were evaluated as more desirable than the undesirable emotions (F(1, 28) = 2231.481, $p \leq .0001$, η_p^2 = .988) and this effect was not qualified by the human uniqueness of the emotions (F (1, 28) = .215, p = .646).

Manipulation checks.

In order to check our manipulations, participants were asked to attribute 5 competence and 5 sociability traits (adapted from Fiske et al., 2002) to both the ingroup and the outgroup, using 7-point rating scales (all α*'s* $\geq$ .832).

Results

The order factor did not show any consistent pattern in the analyses and was therefore discarded from the following analyses.

Manipulation checks.

We performed a MANOVA with the rating given to ingroup and outgroup competence as a dependent variable, introducing the high or low competence manipulation feedback as a between-subject factor[5]. Results show that when the ingroup was given high competence the rating of competence for the ingroup (M = 5.90, SD = 0.92) was indeed higher than when in presence of a feedback of low ingroup competence (M = 5.22, SD = 1.00, F(1, 106) = 8.087, p = .005, η_p^2 = .071). The outgroup competence feedback had no impact on the ingroup competence ratings (F(1, 106) = 1.988, p = .161). When looking at the outgroup competence ratings, they were higher when outgroup competence feedback was also high (M_{high} = 5.03, SD_{high} = 1.43, M_{low} = 3.96, SD_{low} = 1.35, F(1, 106) = 11.391, p = .001, η_p^2 = .097). Again the ingroup competence feedback did not affect the outgroup competence ratings (F(1, 106) = .652, p = .421).

A second MANOVA was carried out, this time to account for the groups' perception in terms of warmth as a function of the warmth manipulation. Once more the manipulation worked, as ratings of outgroup warmth were higher when the feedback for the outgroup was high in this dimension (M_{high} = 5.01, SD_{high} = 1.26, M_{low} = 2.79, SD_{low} = 1.15, F(1, 106) =

[5] As explained in the method section, no equal competence and warmth intergroup settings were created, leading to an incomplete design. Analyses were run separately for competence and warmth manipulations, so to produce interpretable GLM without empty cells.

75.875, $p \leq .001$, $\eta_p^2 = .417$) and there was no influence of the ingroup warmth manipulation ($F(1, 106) = .562$, $p = .445$). In addition, ingroup warmth ratings were higher when the given feedback was in accordance ($M_{high} = 5.93$, $SD_{high} = 0.90$, $M_{low} = 4.29$, $SD_{low} = 1.\ 15$, $F(1, 106) = 39.276$, $p \leq .0001$, $\eta_p^2 = .270$). However, here the manipulations were not completely independent as there was also an influence of the feedback given on outgroup warmth on the ingroup warmth ratings. Specifically, these ratings for the ingroup were higher when the outgroup was depicted high rather than low in warmth ($F(1, 106) = 4.022$, $p = .047$, $\eta_p^2 = .037$).

Ingroup identification.

Ingroup identification was calculated taking the mean of the six identification items. The mean ingroup identification was 5.05 ($SD = 1.39$), there was however a significant variation between the nine different intergroup settings, that ranged from the middle point of the scale (3.47) to almost the maximum (6.18) ($F(1, 101) = 6.579$, $p \leq .0001$, $\eta_p^2 = .952$). Hence, ingroup identification will be considered as a covariate in the remaining analyses.

Emotional dehumanisation and stereotype content.

Since we have an incomplete design, the analysis on the dehumanisation effect will be carried out separately for group competence and warmth.

We performed an ANCOVA with uniquely humanness, desirability and target group as within-subject factors, ingroup and outgroup competence feedback as fixed between-subject factor and identification as a covariate. Results revealed no overall dehumanisation effect. The uniquely humanness of emotions interacted marginally with the target group ($F(1, 105) = 2.800$, $p = .097$, $\eta_p^2 = .026$) suggesting that participants differentiated the ingroup from the outgroup to a greater extent when attributing non-uniquely human ($F(1, 105) = 11.037$, $p = .001$, $\eta_p^2 = .095$) compared to uniquely human emotions ($F(1, 105) = 3.047$, $p = .084$, $\eta_p^2 = .028$).

Concerning our hypothesis that competence moderates dehumanisation, the attribution of emotions interacted significantly with ingroup competence ($F(1, 105) = 4.459$, $p = .037$, $\eta_p^2 = .041$), but not with outgroup competence ($F(1, 105) = 1.206$, $p = .275$) or with both ($F < 1$). Importantly, this significant interaction was not qualified by the desirability of the emotions ($F(1, 105) = .674$, $p = .413$), as none of the other effects were (all F's < 1.17). As such, we will focus on the variations in the ingroup analysing the emotional dehumanisation in high and low competence ingroups separately (see Table 1).

Emotions	*Target*	*High Ingroup Competence*		*Low Ingroup Competence*	
		Mean [a]	*Std. Error*	*Mean* [a]	*Std. Error*
Non-Uniquely Human	Ingroup	1.337	.062	1.511	.091
	Outgroup	1.263	.075	1.046	.098
Uniquely Human	Ingroup	1.290	.073	1.106	.120
	Outgroup	1.079	.067	1.037	.112

a. Covarying for identification.

Table 1: Mean and standard errors of the attribution of uniquely human and non-uniquely human emotions to the ingroup and outgroup in the conditions of high and low ingroup competence.

When the ingroup is depicted as having low competence there is no significant interaction between emotions and group target ($F < 1$). As predicted, the same interaction was significant when ingroup competence is high ($F(1, 73) = 3.383$, $p = .07$, $\eta_p^2 = .044$). Contrast analysis with Sidak adjustment shows that this effect indeed corresponds to a greater attribution of uniquely human emotions to the ingroup in comparison to the outgroup ($F(1, 73) = 6.056$, $p = .016$, $\eta_p^2 = .077$). Furthermore, the difference in attribution did not extend to the non-uniquely human emotions ($F < 1$). Moreover, this effect is not qualified by ingroup identification ($F(1, 73) = 2.597$, $p = .111$) nor can it be explained by the desirability of the emotions ($F < 1$).

The same analyses were carried out looking at variations in the attribution of uniquely human and non-uniquely human emotions to the ingroup and outgroup in terms of ingroup and outgroup warmth, but no significant effects emerged (all F's < 1).

Despite the fact that ingroup and outgroup warmth did not predict an emotional dehumanisation effect, it did correlated with the attribution of desirable and undesirable emotions to both ingroup and outgroup. An exploratory analysis of bivariate correlations showed that when ingroup warmth was high, participants attributed more desirable traits to the ingroup ($r(110) = .335$, $p \leq .001$), more undesirable traits to the outgroup ($r(110) = .367$, $p \leq .001$), less undesirable traits to the ingroup ($r(110) = -.212$, $p \leq .026$), and less desirable traits to the outgroup ($r(110) = -.438$, $p \leq .001$). Results as to the effect of the manipulation of outgroup warmth perfectly mimic this pattern, as can be seen in Table 2. On the other hand,

no associations were found between the competence manipulation and the attribution of desirable and undesirable emotions (all *p*'s ≥ .238).

Emotions	*Target*	*Competence manipulation*		*Warmth manipulation*	
		Ingroup	*Outgroup*	*Ingroup*	*Outgroup*
Desirable	Ingroup	,039	-,085	,335**	-,257**
	Outgroup	,078	,052	-,438**	,442**
Undesirable	Ingroup	-,052	,114	-,212*	,190*
	Outgroup	,046	-,086	,367**	-,406**

* $p \leq .05$; ** $p \leq .01$;

Table 2: Bivariate correlations between competence and warmth manipulations and the attribution of positive and negative emotions to ingroup and outgroup.

Discussion

This study aimed to isolate the role of perceived competence in determining the dehumanisation bias. As expected, the reported results showed that perceiving one's group high in competence is a necessary condition for the display of a dehumanisation bias.

This is particularly relevant when considering the fact that some group members locate their ingroups and their reference groups in quadrants other than the high competence – high warmth one. In a cross-cultural study, Cuddy and colleagues (2009) verified that ingroups and reference groups in individualistic societies are stereotypically viewed as high in both competence and warmth, while participants in more collectivist societies stereotype these groups in a less favourable way. In fact, much like the intergroup settings we recreated in our design, these groups could be found in a high competence – low warmth quadrant, a low competence – high warmth quadrant, or a middle competence – middle warmth area.

Also, adding to the work by Iatridis (2013) and Capozza and colleagues (2012), we ruled out the possibility that variations in perceived group warmth have any effect on dehumanisation. One indeed needs to know others' intentions (Fiske et al., 2002) to be able to position a group with respect to its warmth and predict patterns of prejudice and discrimination (Cuddy, Fiske, & Glick, 2007). However, perceived warmth in this study was

only related to a likability bias showing that perceived warmth was associated with the general attribution of positive emotionality. Group members who perceived their ingroup high on warmth or the outgroup low on this dimension attributed a significant greater amount of desirable emotions to their ingroup. This effect, however, did not influence the differential attribution of emotions based on their humanness.

Intergroup differences in perceived competence, on the other hand, showed to predict the attribution of emotions on the basis of their humanness, independently of their desirability. Even though we do not want to claim that competence is never associated with a valence based intergroup bias, as has been frequently argued throughout the literature (e.g. Tajfel & Turner, 1979), our results suggest that when people are presented with emotions that can be simultaneously classified in terms of their desirability and human uniqueness, members of high competence groups chose to differentiate their group from the other based only on the latter dimension.

In this study we did not find any evidence that variations in perceived outgroup competence were linked to changes in dehumanisation, a finding that is both in contrast with our hypothesis and results reported in previous research (Harris & Fiske, 2006; Vaes & Paladino, 2010). A post hoc explanation could be found in some of the specificities that characterise natural and minimal group settings. In fact, most of the former research was conducted in a natural setting studying national outgroups or chronically marginalized outgroups like homeless people. All these groups have a clear history and often a negative or conflicting relationship with the ingroup. In the minimal group paradigm adopted here, instead, it is likely that ingroup information took primacy over outgroup information limiting the effects of outgroup competence on dehumanisation.

Finally, the results of the current study might provide new explanations for the inconsistent dehumanisation findings in group settings that are marked by asymmetries in perceived competence and status relations. From this study, one can conclude that low competence ingroups in the absence of any other socio-structural differences between groups will refrain from dehumanising a more competent outgroup. On the basis of this result, one could argue that low status groups consensually internalise their inferiority, and are motivated to maintain this inequality (Jost & Banaji, 1994), even renouncing to claim the humanness dimension to describe their ingroup. However, the multiple cases in which lower status groups do in fact dehumanise the higher status outgroups points otherwise. This is found to be the case of asymmetric national groups (Boccato, Cortes, Demoulin, & Leyens, 2007; Cortes,

Demoulin, Rodríguez-Torres, Rodríguez-Pérez, & Leyens, 2005; Demoulin et al., 2005; Leyens et al., 2001; Paladino et al., 2002; Paladino & Vaes, 2009), where the existence of other variables might compensate the absence of status. For instance, the control over one's group's fate or power – which can be expected to be present in national groups, but not in minimal groups – has been shown to have an impact on dehumanisation (Lammers & Stapel, 2011). Power is indeed associated to status in natural intergroup settings (Fiske, 2010) and in a context in which they are disentangled, granting a low status group control over the fate of a high status outgroup has shown to produce the significant dehumanisation of that outgroup (Miranda, Vaes, & Gouveia-Pereira, 2014).

It is true that in the present minimal group paradigm, low competence participants had no other contextual cue to be socially creative. As such, this study clearly shows that the operationalisation of dehumanisation through uniquely human emotions is not sufficient to promote such social creativity, as first assumed (Leyens et al., 2001). The door is therefore opened for explaining competence/status inconsistencies in non-emotional terms. This can be an advantage considering that predictions of emotion attribution among high and low status groups are sometimes contradictory. For instance, in the face of negative outcomes, Tiedens (2000) has shown that people expect high status people to experience anger, whereas low status are perceived as guilty. These differences occur because some emotions are stereotypically related to status, partially because of differential agency appraisals. However, Demoulin and colleagues (2004a) have shown that anger is a prototypical non-uniquely human emotion, whereas guilt is a prototypical uniquely human emotion. As such, a prediction based on the dehumanisation literature would sustain the reverse effect of that reported by Tiedens (2000).

All in all, this study further contributes to the understanding of the role of competence and status in moderating a dehumanisation bias. For the first time the role of this variable was investigated simultaneously with the other fundamental dimension of social perception – warmth – and limiting the influence of other confounding variables through the adoption of a minimal group paradigm. The observed results pave the road for the re-introduction of socio-structural determinants, like status and competence, for a better understanding of the dynamics of people's tendency to dehumanise.

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When in Rome… Identification and acculturation strategies among minority members moderate the dehumanisation of the majority outgroup*

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Abstract

The study of humanness as a dimension of social judgment has received extensive attention over the past decade. Although the common reported finding is that people attribute more human characteristics to their ingroup than to the outgroup, similar tendencies are expected to be tempered for minority groups when judging the host society. In Study 1, carried out with Gypsy minority members, we tested the hypothesis that those group members who adopt an assimilative strategy identifying more with the host compared with the heritage culture will display the lowest levels of dehumanisation. In Studies 2 and 3, conducted with immigrants in Italy and in Portugal, respectively, the hypothesis was extended from an identification conceptualisation to an acculturation one. Despite significant variability in intergroup settings andmeasures, results confirmed our hypothesis that immigrants who choose to assimilate with the host culture dehumanise the outgroup less compared with those who adopt any of the other acculturation strategies. Implications for the ethnocentric nature of dehumanisation biases and for intergroup relations in general are discussed.

Key-words

Dehumanisation, Identification, Acculturation, Minorities

Humanness is a fundamental dimension of social judgment in intergroup relations and beyond (Bain, Vaes, & Leyens, 2014; Haslam, 2006; Leyens, Demoulin, Vaes, Gaunt, & Paladino, 2007). In the past decade, a considerable amount of research has been developed on

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the basis of this idea. Arguably, the first research programme designed by Leyens and his colleagues focused on intergroup relations and started from the principal Q2 of ethnocentrism (Leyens et al., 2000). These researchers hypothesised and found that ingroup members tended to consider themselves as uniquely human, whereas outgroups fell short on that dimension (for review, see Demoulin, Rodríguez-Torres, et al., 2004; Leyens et al., 2007). Even though this finding has been replicated many times in a large variety of intergroup settings, a purely ethnocentric explanation of dehumanisation effects has come under increased pressure. When focusing on low-status ingroups, recent findings suggest that these groups may dehumanise high-status outgroups to a lesser extent or even not at all (Capozza, Andrighetto, Di Bernardo, & Falvo, 2012; Iatridis, 2013; Vaes & Paladino, 2010). The exploration of variability among low-status group members in dehumanising high-status outgroups has therefore gained a renewed interest. In this paper, we will focus on the combined role of ingroup and outgroup identifications in shaping the dehumanisation of the majority outgroup among cultural minorities and immigrants. Furthermore, we will bridge our findings from a group identification perspective to a framework in which acculturation strategies are analysed.

Infrahumanisation and Dehumanisation

Although early theories in intergroup relations emphasised the radical nature of the process of dehumanisation and its role in explaining violent conflict, genocide and war (Staub, 1989), more recent accounts have extended the concept proving its relevance in more subtle and everyday intergroup contexts. Infrahumanisation theory (Leyens et al., 2000) was introduced to give evidence of such subtle forms of dehumanisation. Leyens and colleagues used the distinction between secondary, or uniquely human and primary, and non-uniquely human emotions (Demoulin, Leyens, et al., 2004) to show that individuals do attribute more secondary emotions to the ingroup than to the outgroup, whereas no differences were observed in the attribution of primary emotions (Leyens et al., 2001). Ethnocentric motives have always been proposed to underlie this intergroup bias. Group members scale and rate others in reference to their own group that is seen as fully human, implying that others are designated as less human than the ingroup. Importantly, this effect was independent from the valence of the emotions, showing that this proposed infrahumanisation process was distinct from the well-established ingroup positivity bias (Tajfel & Turner, 1979). Subsequent research extended the infrahumanisation results to other methodological paradigms (Boccato, Cortes, Demoulin, & Leyens, 2007; Paladino et al., 2002; Vaes, Paladino, & Leyens, 2006)

and to non-emotional uniquely human attributes (Vaes & Paladino, 2010; Viki, Winchester, Titshall, & Chisango, 2006).

Besides uniquely human characteristics that set us apart from animals, Haslam and colleagues proposed that humanness could also be defined in a non-comparative way, through its core traits (Haslam, Bain, Douge, Lee, & Bastian, 2005). These core or central human attributes that involve emotionality, warmth, cognitive openness, agency and depth are referred to as human nature. Both senses of humanness, uniquely humanness and human nature, fuel differentiations between groups and are respectively referred to as animalistic and mechanistic dehumanisation (for a review, see Haslam, Loughnan, Kashima, & Bain, 2008). The current studies focus on the relative denial of uniquely human traits between an ingroup and an outgroup, a process that can be named infrahumanisation or animalistic dehumanisation. For reasons of simplicity, we will adopt the term dehumanisation throughout the article to refer to the scaling of others on the uniquely human dimension (see also Vaes, Leyens, Paladino, & Miranda, 2012).

Considering the negative outcomes that dehumanisation produces in the dehumanised (Goff, Eberhardt,Melissa, & Jackson, 2008; Vaes, Paladino, Castelli, Leyens, & Giovanazzi, 2003), the search for limiting conditions of this effect attains an enhanced significance. Recent efforts have indeed explored the limits of the process of dehumanisation in general (for a review, Leyens, 2009), and of ingroup humanisation and outgroup dehumanisation separately (Vaes et al., 2012).

Group Identification and Dehumanisation

The degree to which one recognises to belong to a group and the value that is attributed to one's group membership are both correlates of intergroup differentiation (Brown, Condor, Mathews, Wade, & Wiliams, 1986; Tajfel & Turner, 1979). Paladino, Vaes, Castano, Demoulin, and Leyens (2004) extended this reasoning to the field of dehumanisation. Applying the emotional infrahumanisation paradigm, they showed that if members identify poorly with their group, they dehumanise to a lesser extent. Demoulin and colleagues (2009) replicated this effect, manipulating the meaningfulness of the categorisation underlying the social context—mere random categorisation or quasi-meaningful group choices based on favourite colour or job preferences. Results showed that dehumanisation only took place when the categories had some degree of meaningfulness and that this effect was mediated by ingroup identification (Demoulin et al., 2009).

A similar reasoning but applied to identification with theoutgroup was recently suggested to limit outgroup dehumanisation (Leyens, 2009). Indeed, if a person desires to belong to an outgroup, there should be no dehumanisation of that outgroup compared with the ingroup. To our knowledge, this hypothesis has never been empirically tested, but some indirect support stems from Gaunt's (2009) research. Drawing from the common ingroup identity model (Dovidio, Gaertner, & Kafati, 2000), the author argued that recategorising the ingroup and the outgroup in a higher order, inclusive category would reduce dehumanisation. Comparing Israeli Jews and Israeli Arabs, Gaunt showed that the more one identifies with the superordinate—Israeli—category (Study 1) or the more one perceives the outgroup as identifying with this superordinate category (Study 2), the less the outgroup was differentiated in terms of uniquely human emotions.

Despite Leyens' (2009) suggestion that outgroup identification might be an important moderator of dehumanisation, until now, research has only focused on ingroup identification and identification with the superordinate category. This lacuna is likely because managing one's identification with outgroups is psychologically relevant only for some groups. This tends to be the case of minority and/or immigrant group members (Berry, 2003; Hutnik, 1986), who tend to occupy a low rank in the status hierarchy of a given society. Moreover, status studies within the dehumanisation framework have shown that low-status group members do dehumanise high-status outgroups (Boccato et al., 2006; Demoulin et al., 2005; Leyens et al., 2001; Paladino et al., 2002; Paladino & Vaes, 2009), drawing attention away from this socio-structural variable. However, recent findings within the context of different intergroup relations have emerged showing that low-status groups, in both natural settings and experimentally, dehumanise high-status outgroups to a lesser extent or even not at all (Capozza et al., 2012; Iatridis, 2013; Vaes & Paladino, 2010). These latest results diverge from a purely ethnocentric explanation of dehumanisation and warrant further research on when and why low-status groups stop dehumanising the dominant outgroup.

Therefore, this paper aims to broaden our understanding of the relationship between identification and the dehumanisation bias among low-status groups, introducing outgroup identification in the equation. To do so, we will bring into play Hutnik's (1986) quadripolar model, in which the author argues in favour of analysing ethnic minority's identities through their identification with both the minority and majority groups. As such minority group members could be classified as acculturatives (high in both ingroup and outgroup identifications), dissociative (high in ingroup identification and low in outgroup

identification), assimilative (low in ingroup identification and high in outgroup identification) or marginal (low in both group identifications).

We specifically hypothesise that all minority group members who identify with the majority outgroup, that is, acculturatives and assimilatives, should lower their tendency to dehumanise members of the host society to the same extent. Alternatively, one might expect that when both ingroup and outgroup identifications are high, the effect of outgroup identification on dehumanisation might be attenuated by a strong sense of ingroup identification. If identification with the ingroup can indeed exacerbate the relative diferences between the ingroup and the outgroup on the human dimension (Demoulin et al., 2009; Paladino et al., 2004), this variable could reduce the effects of outgroup acculturation on outgroup dehumanisation. Also, experiments on merging group identities have shown that ingroup bias is an apprehensive reaction in defence of the pre-merged ingroup identity following the merger even in a minimal group paradigm. This valence-based intergroup differentiation is therefore enhanced when pre-merger ingroup identity is higher (van Leeuwen, van Knippenberg, & Ellemers, 2003).

Study 1: Ingroup and outgroup identification and dehumanisation

Study 1 was designed to test the hypothesis that an assimilative identity strategy is associated to a lesser degree with relative group dehumanisation. Participants were members of the Gypsy minority group living in the Lisbon metropolitan area, and the proposed outgroup was the Portuguese majority. Gypsies constitute a minority in the Portuguese culture for approximately 500 years (Costa, 1993). In the last 20 years, we have witnessed the settlement of Gypsy families in social housing (e.g. through the National Special Re-housing Programme) and an increased contact with host institutions. Because of the implementation of a social integration policy, many Gypsy families benefitted from subsidies if they enrolled their school-aged children in public schools.

The dehumanisation measure was defined using a bottomup approach, which allowed us to guarantee an ecologically valid representation of what human uniqueness means in this sample.

Participants.

Eleven female and 19 male (N = 30) participants, who belonged to the Gypsy minority in Portugal ranging in age from 12 to 18 years old (M = 13.83, standard deviation [SD] =

1.74) volunteered to participate. They were all enrolled in Portuguese schools, attending the third to eight grades (*Median* = fourth grade), with 96.6% having failed at least one time.

Questionnaire.

We started by asking participants to list uniquely human features. Afterwards, each participant rated, on a 7-point scale, the probability that each of the uniquely human features that they themselves had listed described the members of the ingroup (typical Gypsies) and the members of the outgroup (typical Portuguese). Participants were then asked to rate the valence of each uniquely human characteristic (from 1 = *very negative* to 7 = *very positive*). This dehumanisation measure has the benefit of being ecologically valid and the best fit for a population with limited literacy.

The questionnaire continued with two identification scales, one for the ingroup and one for the outgroup. Each of them comprised six questions (‘Belonging to the ingroup/outgroup is important to me’; ‘I am proud of belonging to the ingroup/outgroup’; ‘Sometimes, I feel uncomfortable when I think I am a member of the ingroup/outgroup’ (reverse-scored); ‘Overall, I feel happy for being a member of the ingroup/outgroup’; ‘I feel I would not like to belong to the ingroup/outgroup’ (reverse-scored); ‘I identify with the ingroup/outgroup’), which participants answered using a 7-point scale, ranging from 1 = *totally disagree* to 7 = *totally agree*. Demographic information (gender, age and information about school attendance) was asked at the end of the questionnaire.

Procedure.

A non-Gypsy Portuguese experimenter approached participants in the area of Lisbon, Portugal. The questionnaire was presented as a game. Because of the overall low literacy abilities of participants, each questionnaire was collected individually, and each question was read out loud. On the other hand, confidentiality of answers was assured by covering the questionnaire to experimenter eyes each time participants gave an answer. The completion of the questionnaire took from 30 minutes to 1 hour, after which participants were thanked and debriefed

Results and discussion.

Participants listed a mean of 5.2 uniquely human characteristics (*SD* = 2.38), which were positive overall (*M* = 6.05, *SD* = 1). Two indices comprising the attribution of human uniqueness were calculated, averaging the scores of ingroup and outgroup typicality of all the uniquely human attributes. The dehumanisation index was computed by subtracting the

outgroup uniquely humanness index from that of the ingroup. As a result, positive values correspond with the dehumanisation of the outgroup, whereas negative values indicate that the ingroup was dehumanised. Results show that overall the Gypsy participants did not differentiate their ingroup from the high-status Portuguese outgroup on the human dimension. Indeed, the dehumanisation index was not significantly different from zero, indicating that both groups are seen as equally human (M = -0.004, SD = 1.26, $t(29)$ = -0.017, p = .99).

After reversing negative items, an ingroup identification index was computed by averaging the six items of the ingroup identification scale (α = .59, M = 5.93, SD = 0.96). The same was carried out for the outgroup identification items (α = .79, M = 4.29, SD= 1.65). The two group identification scales were not significantly correlated (r = .068, p = .723), and ingroup identification was significantly higher than participants' identification with the outgroup, $t(29)$ = 4.87, p <.001, d =1.81.

The association between ingroup and outgroup identifications and dehumanisation was tested in a hierarchical multiple regression, after centring the predictor variables. Results show that ingroup identification was positively associated to dehumanisation (b = 0.385, SE = 0.219, p = .03) and that outgroup identification predicted dehumanisation negatively (b = -0.271, SE = 0.128, p = .04). This first step model accounted for 25.5% of variance in participants' dehumanisation scores, $F(2, 27)$ = 4.62, p = .02. The interaction between ingroup and outgroup identifications was inserted as a predictor in the second step. Neither the change in R-square ($F_{change}(1, 26)$ = .000, p = .997) nor the interaction term itself (b = 0.001, SE = 0.186, p = .997) proved to be significant.

Even though the interaction effect was not significant, our hypothesis that argued in favour of a decrease of the dehumanisation bias in minority group members who prefer an assimilative strategy was tested by looking at the influence of the four different identification strategies in more detail. Therefore, the ingroup and outgroup identifications variables were re-coded through a median split, mapping the preferred identification strategies from the combination of these two new variables. Following Hutnik's (1986) typology, we defined four clusters according to participants' identification strategy, which showed variations in the dehumanisation bias (Figure 1): the acculturative (M = 0.06, SD = 1), the assimilative (M = -0.85, SD = 1.05), the dissociative (M = 0.93, SD = 1.43) and the marginal (M = -0.15, SD = 1.14).

A direct test of our hypothesis was conducted through a planned contrast analysis, in which we compared the dehumanisation bias in participants with an assimilative strategy to

all other clusters (-3, 1, 1, 1). Results show that as hypothesised, the dehumanisation bias is lower in the assimilative cluster, $t(26) = 2.25$, $p = .033$, $d = 0.88$. In this cluster, participants even tended to humanise the majority outgroup compared with the minority ingroup.

An alternative hypothesis was discarded as the planned contrast testing an acculturative identity reflecting a lower score in the dehumanisation index proved non-significant ($t(26) = -0.176$, $p = .862$). We also contrasted the dissociative identity against all other identification strategies, and results show that participants in this quadrant mimic majority behaviour, dehumanising the Portuguese outgroup ($t(26) = 2.49$, $p = .019$, $d = 0.98$).[8]

The results of this first study replicate previous findings on ingroup identification (Demoulin et al., 2009; Paladino et al., 2004), confirm Leyens's (2009) theoretical hypothesis that outgroup identification would decrease dehumanisation and, most importantly, give support to our hypothesis that an identity strategy based on identification with the outgroup but not with the ingroup is associated with the higher humanisation of the outgroup in comparison with the ingroup.

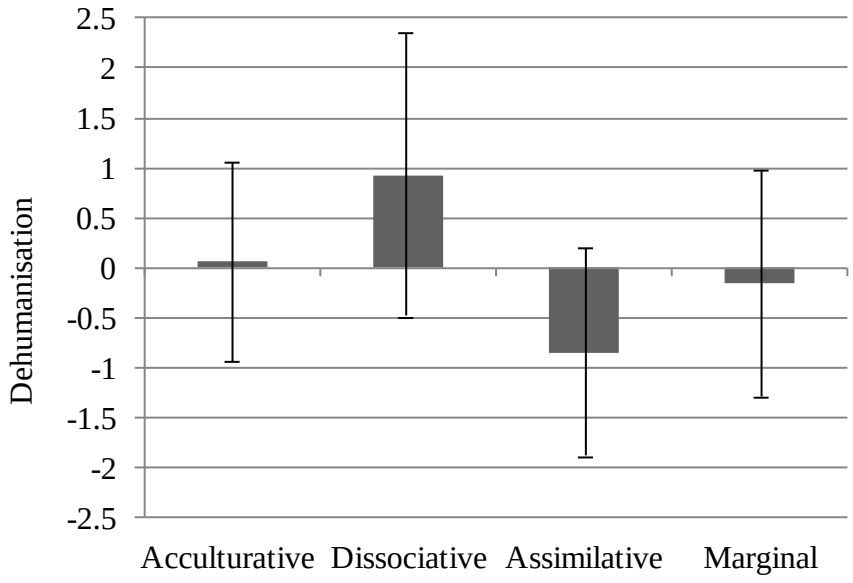

Figure 1: Mean (and standard deviation) of dehumanisation of the Portuguese majority by the Gypsy minority, in function of their preferred identification strategy.

[8] An analysis was not computed, contrasting the marginal identity quadrante mainly for two reasons: We already computed the limit number of contrasts ($k - 1 = 3$), and, most importantly, there is substantial disagreement as to the meaning and motivations behind this identification strategy, making it difficult to interpret any result.

Study 2: Acculturation and Dehumanisation

When analysing intergroup differentiation among minority groups and immigrants, a natural parallel has to be drawn between a more cognitive closeness/distance between heritage and host groups, that is, identification, and a relational or ideological conceptualisation of such socio-psychological realities. This is, in effect, our aim in the forthcoming set of studies. The quadripolar model, and in particular Hutnik's (1986) work, has been linked to a more general process that encloses a wide range of processes that take place within and between different cultural groups while dynamically adapting to one another, that is, acculturation (Brown & Zagefka, 2011).

Within the multiple elements of acculturation, recent focus has been given to both dominant and dominated group preferences, and also to acculturation outcomes on the basis of the fit between such preferences (see, e.g. the Interactive Acculturation Model by Bourhis, Moïse, Perrault, & Senécal, 1997) or the fit between the minority preference and the perceived majority preference (Zagefka & Brown, 2002). However, to test the role of acculturation strategies within the dehumanisation framework in line with results of Study 1 on group identification, we will focus solely on immigrant and cultural minorities' acculturation orientations. Also, here, acculturation is acknowledged as a bidimensional process, where acculturation to the heritage and to the host culture are conceptualised orthogonally (Berry, 1980; Ryder, Alden, & Paulhus, 2000; Sayegh & Lasry, 1993).

A great amount of acculturation models have been proposed in the literature (for a review, see Rudmin, 2003). Probably, the best well-known model is that of Berry (1980, 1997, 2003). According to this model, four acculturation clusters emerge from two yes or no questions, the first related to one's desire to maintain one's heritage culture and the second refers to the willingness to engage in social contact with members of the host culture. Cultural minority members can therefore be classified according to an orientation of integration (yes/yes), assimilation (no/yes), separation (yes/no) or marginalisation (no/no; Berry, 2003). A second conceptualisation comes from the work of Bourhis and colleagues (1997), who focus on cultural minorities' adoption not only of their heritage culture but also of the host culture. Several authors (Liebkind, 2001; Snauwaert, Soenens, Vanbeselaere, & Boen, 2003) who analysed the facets of different acculturation models distinguished a third one. This is exactly the one that emphasises an individual's identification with both the minority and majority groups and is best embodied by Hutnik's (1986) work.

The similarities and dissimilarities between these three conceptualisations are not straightforward. Snauwaert and colleagues (2003) made this very clear, showing that opting for one conceptualisation over the other can yield different results when mapping acculturation orientations (see also Hutnik, 1986). Overall, however, the contact and adoption models appear repeatedly together in the definition of the construct underlying acculturation measurements (Ryder et al., 2000). Their relationship to the identification model is less evident, the reason that Liebkind (2001) emphasised the need to disentangle ingroup and outgroup identifications from orientations towards the endorsement of those cultures. Still, a significant amount of research uses identification to measure acculturation (Abu-Rayya, 2009; Sánchez & Fernández, 1993; Snauwaert et al., 2003), and correlations between ethnic identification and other conceptualisations of acculturation are frequente throughout the literature (Hutnik & Barrett, 2003; Nesdale & Mak, 2000; Piontkowski, Florack, Hoelker, & Obdrzálek, 2000). Badea and colleagues tested a model that included group identification as a predictor of preferred acculturation strategy (Badea, Jetten, Iyer, & Er-Rafiy, 2011). The authors specifically concluded the positive association between ingroup identification and integration and separation strategies and its negative association with an assimilation strategy. As to outgroup identification, it was included as a negative predictor of separation, while being positively associated to integration and assimilation.

In line with this conceptualisation, we argue that the term ‘identification’ should not be used interchangeably with the term ‘acculturation’, but nonetheless, both should be considered legitimate operationalisations of the process (Berry, 1997; Phinney, 2003). It is in this argument that we hypothesise that the results of Study 1, in which a lower degree of dehumanisation is evident in the assimilative cluster, will hold when changing from an identification conceptualisation to an acculturation one.

Despite the fact that assimilation has not been contrasted with the other acculturation strategies in the realm of intergroup dehumanisation, some evidence supports the hypothesis that the more members of cultural minorities are willing to adopt and get in contact with the host culture, the less they should tend to dehumanise them. Zagefka and Brown (2002) demonstrated that acculturation to the host culture was negatively associated with ingroup bias. Further support comes from a longitudinal study in which emotional infrahumanisation was directly measured (Brown, Eller, Leeds, & Stace, 2007). Despite the fact that acculturation, that is, desire for contact, was not measured, authors did collect information on the quantity of contact with members of the outgroup, which can be a corollary of the first

(Brown & Zagefka, 2011). Results showed that the quantity of contact with an outgroup at time 1 predicted less emotional infrahumanisation at time 2, but not the reverse, giving us an important hint for the definition of the direction of the association of the variables we propose to analyse.

In Study 2, we will test whether the effect of ingroup and outgroup acculturation as identification can be extended to other conceptualisations of acculturation that involve contact with and the adoption of the heritage and host culture (Ryder et al., 2000). At the same time, changes to the dehumanisation measures were introduced, making it more implicit than in Study 1, where social desirability concerns could have influenced participants' responses. Moreover, the current measure allows a more stringent control of positivity biases in the attribution of humanness to the ingroup and the outgroup.

Data were collected in Italy, a country in which the migration fluxes inverted about 30 years ago when immigration surpassed emigration. The most numerous national group came from Albania but were recently outweighed by immigration from Romania (Italian National Institute of Statistics [ISTAT], 2014). The income of these immigrant families represents only 50% to 60% of an average Italian families' income (ISTAT, 2011).

Participants.

Participants were 41 (63.4% female) immigrants living in Italy, 92.7% of which resided legally in the country. Twenty came originally from Albania, 19 from Romania, one from Nigeria and one from Russia. They had been in Italy for 10.38 years on average (*SD* = 5.57), and the overall self-rated proficiency in Italian was good (*M* = 5.15, *SD* = 1.40, on a 7-point scale). Participants were 37.71 years old on average (*SD* = 10.76).

Questionnaire and procedure.

An Italian experimenter approached participants individually in an immigration centre where immigrants who live in the Italian territory can receive help to find work or arrange paper work. When they agreed to participate, they were handed over a questionnaire written in Italian that they completed on their own. The questionnaire started by asking participants some demographic information (age, gender, nationality, stay permit, length of stay in Italy and proficiency in Italian). It continued with an acculturation attitudes scale taken from Ryder and colleagues (2000). This scale consists of 20 questions, 10 of which regard the heritage culture (ingroup), whereas the other 10 questions asked the same issues but regarding the host culture. All questions assessed acculturation attitudes in different domains (values, social

networks, etc.). Sample items are 'I am comfortable working with people from my heritage/host culture', 'I often behave in ways that are typical of my heritage/host culture' and 'I am interested in having friends from my heritage/host culture'. All questions were answered on a 9-point Likert-type scale, ranging from 1 = *not important* to 9 = *very important*.

Participants then completed a dehumanisation measure taken from Vaes and Paladino (2010). We presented them with a set of 24 desirable (e.g. 'lavoratori' [hard-working], 'amichevoli' [friendly] and 'affidabili' [trustworthy]) and non-desirable traits (e.g. 'ignoranti' [ignorant], 'freddi' [cold] and 'cattivi' [bad]). These traits were taken from the work of Vaes and Paladino (2010) and were selected because they differentiated well between Italians and the low-status outgroups that were judged in their work (e.g. Gypsies, Albanians and Moroccans). For each trait, participants had to indicate the extent to which it was seen as typical in describing people from their heritage culture and of Italians, in two 7-point Likert-type scales (1 = *totally disagree* to 7 = *totally agree*). Subsequently, traits were evaluated on the extent to which they were uniquely human (1 = *shared with animals* to 7 = *uniquely human*) and desirable to possess (1 = *very undesirable* to 7 = *very desirable*).

After completing the questionnaire, which took around half an hour, participants were thanked and fully debriefed.

Results and discussion.

The amount of human uniqueness that was attributed to the ingroup and the outgroup was derived by calculating withinsubject correlations between the groups' typicality ratings and the human uniqueness ratings of the same traits (see Vaes, Heflick, & Goldenberg, 2010, for a similar procedure). In order to ensure that participants' attribution of humanness could be disentangled from a mere positivity bias, the desirability ratings were partialled out from these correlations. Both the resulting ingroup and outgroup correlations were subsequently transformed into Z-Fisher values, in order to normalise distributions. The dehumanisation index was computed by subtracting the outgroup humanness correlations from those of the ingroup.[9] Therefore, positive values stand for a greater attribution of humanness to the ingroup when compared with the outgroup (i.e. outgroup dehumanisation), values close to

[9] We were unable to compute within-subject correlation of three participants because of a large portion of missing data in human uniqueness and desirability ratings in one case, absence of human uniqueness ratings in a second case and because the same human value was attributed to all traits in the last case.

zero for an absence of a dehumanisation bias and negative values for the lower attribution of humanness to the ingroup, when compared with the outgroup (i.e. ingroup dehumanisation).

As in Study 1, low-status immigrants attributed the highstatus Italian outgroup an overall equal amount of uniquely human traits, given that the dehumanisation index was not significantly different from zero (M = -0.042, SD = 0.315, $t(37)$ = -0.827, p = .414).

An ingroup acculturation index was computed by averaging the 10 items of the ingroup acculturation scale (α = .934, M = 6.68, SD = 1.70). The same was performed for the outgroup acculturation index (α = .643, M = 6.34, SD = 1.21). Again, there was no correlation between the two acculturation scales ($r(41)$ = .067, p = .679), but in this intergroup context, participants' ingroup acculturation was not significantly higher than their willingness to acculturate with the host outgroup, $t(40)$ = 1.05, p = .301.

As in Study 1, a hierarchical multiple regression was performed by inserting ingroup and outgroup acculturation indices as predictors of the dehumanisation index in the first step. Results show that outgroup acculturation did not significantly predict dehumanisation (b_{outgroup} = -0.077, SE = 0.05, p = .138) and that ingroup acculturation did only marginally so (b_{ingroup} = 0.091, SE = 0.05, p = .080). The full model was only marginally significant (R^2 = .126, $F(2, 35)$ = 2.52, p = .095) and was improved when, in a second step, the interaction term was added (R^2 = .276, $F(3, 34)$ = 4.33, p = .011, $F_{change}(1, 34)$ = 7.07, p = .012). The interaction between ingroup and outgroup acculturation yielded a significant effect ($b_{\text{interaction}}$ = 0.119, SE = 0.045, p = .012).[10] Following Aiken and West's (1991) recommendations, simple slopes of the link between outgroup acculturation and dehumanisation were calculated at three established cut-off points in ingroup acculturation: the mean, the mean plus and the mean minus one SD (Figure 2).

Results showed that outgroup acculturation was not significantly linked with dehumanisation when ingroup acculturation was high (b = 0.03, SE = 0.06, p = .62). When ingroup acculturation was low, however, the more participants acculturated to the Italian host culture, the more this group was humanised in comparison with their heritage ingroup (b = -0.21, SE = 0.06, p = .003). A marginally significant link was observed at the mean of ingroup acculturation (b = -0.09, SE = 0.05, p = .07).

[10] In the second model, when adding the interaction term, we found a reverse pattern of main effects, as ingroup acculturation was not significantly correlated to dehumanisation (b = 0.052, SE = 0.049, p = .294), and outgroup acculturation was only marginally so (b =_0.087, SE = 0.047, p = .07).

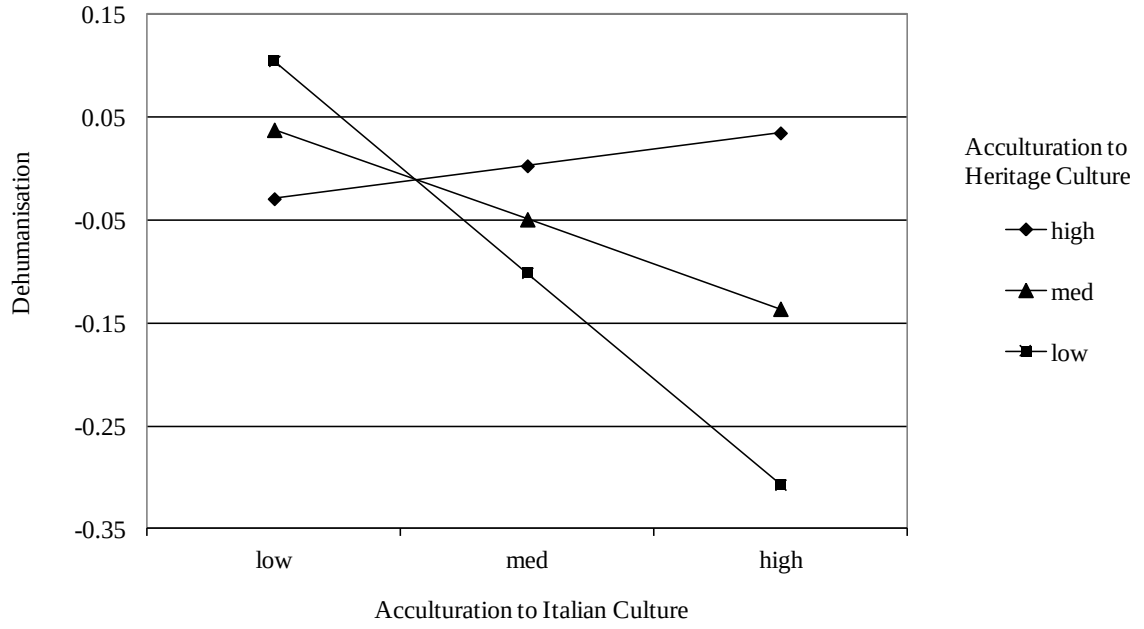

Figure 2: Relative dehumanisation as a function of the interaction between acculturation to participants' heritage culture and their acculturation towards the Italian culture.

Drawing a parallel with the fourfold typology of acculturation, the present results suggest that those group members who prefer to assimilate with the host culture show the lowest level of dehumanisation. Following Berry's (2003) typology, groups were defined by calculating the median split of ingroup and outgroup acculturation and dividing them in one of the four resulting quadrants. A direct test of our hypothesis was carried out contrasting (-3, 1, 1, 1) participants' dehumanisation bias in the assimilation cluster (M = -0.25, SD = 0.39), to the dehumanisation displayed by participants in the integration (M = -0.01, SD = 0.28), separation (M = -0.02, SD = 0.24) and marginalisation clusters (M = -0.03, SD = 0.32). Results show that there is indeed a tendency to dehumanise the host culture less compared with the heritage cluster in immigrants who wish to assimilate to the host culture, $t(34) = 1.942$, $p = .060$, $d = 0.67$.

Again, the alternative hypothesis that especially those immigrants who express a preference to acculturate display the lowest level of dehumanisation was discarded ($t(34) = -0.633$, $p = .531$). Also, and unlike in Study 1, the separation strategy did not reflect in a higher humanisation of the heritage group compared with the host group ($t(34) = -0.434$, $p = .667$).

Marginal effects do not, however, allow us to soundly confirm the hypothesis that the assimilation effect measured through group identification can be generalised to the acculturation to the outgroup on the basis of desired contact and culture adoption. To establish whether these differences are mainly linked to the actual change in the chosen intergroup context, to the change in the conceptualisation of acculturation or both, we will conduct a third study, using the same measurement of acculturation in a different intergroup setting.

Also, acculturation to the ingroup only marginally predicted the dehumanisation effect, whereas ingroup identification did in Study 1. Unlike the preceding study, there were no differences in preference between ingroup and outgroup acculturation strategies. Also, the fact that we never named the exact heritage culture (i.e. Albanians and Romanians), given that our participants came from different national groups, could have made the ingroup less salient. Therefore, in the next study, the meaning of the ingroup in the intergroup setting will be explicitly mentioned.

Study 3: Acculturation and Dehumanisation, a Replication

A third study was conducted to replicate the assimilation effect operationalised according to the contact and adoption conceptualisations of acculturation on dehumanisation in a different intergroup context: Brazilian immigrants in Portugal. Brazilians are the largest foreign national group in Portugal (Portuguese Immigration and Borders Service, 2013). Several waves of immigration can be differentiated, and the latest is mostly made up of a low qualified work force. Brazilians are, however, the immigrant group that Portuguese perceive as the closest to them, mainly because of their colonial history and shared language (Malheiros, 2007).

Particular care was given to the definition of the group labels, so that the ingroup and the outgroup were defined at the same categorisation level. Another limitation of both Studies 1 and 2 was the fact that the experimenter was a member of the majority outgroup. This, on the one hand, could have led to the expression of an acculturative identity on the part of minority group members in order to make a good impression (Barreto, Spears, Ellemers, & Shahinper, 2003). On the other hand, the presence of an outgroup member could have activated self-presentational motivations that could have attenuated the differences between the evaluation of the ingroup and the outgroup (Klein & Azzi, 2001; Marques, Yzerbyt, & Rijsman, 1988). Therefore, in this study, the experimenter was a minority ingroup member.

Participants.

Thirty-one Brazilian immigrants (18 women and 13 men) in Portugal completed this study. Two participants had a double nationality – Brazilian and Portuguese – and were therefore excluded. A bit more than half of the participants (58.1%) resided legally in the country (one participant did not answer this question), and their average age was 32.29 years old (*SD* = 8.73).

Questionnaire and procedure.

A pilot study was conducted in order to determine which traits would be used in this study. We asked seven Brazilian immigrants (three men and four women), with ages ranging from 20 to 56 years (*M* = 37.86, *SD* = 12.78), to list up to five stereotypical and five counter-stereotypical traits for the ingroup (Brazilians) and outgroup (Portuguese). Seventy-four different traits were gathered for the Brazilian group and 73 different traits for the Portuguese outgroup. Each trait was then evaluated on the extent to which it was typical in describing both groups by another 20 Brazilian immigrants (11 women and nine men that were on average 38.27 years old, *SD* = 10.86) who were not part of the main sample and received €2 for their participation. We then selected the 10 most stereotypical traits for the Brazilian (e.g. '*alegres*' [joyful], '*extrovertidos*' [extroverts] and '*sexuais*' [sexual]) and for the Portuguese groups (e.g. '*desconfiados*' [suspicious], '*trabalhadores*' [hard-working] and '*idealistas*' [idealists]) and 10 most counter-stereotypical again for the Brazilian group (e.g. '*egoístas*' [selfish], '*ignorantes*' [ignorant] and '*mal-educados*' [rude]) and for the Portuguese group (e.g. '*tolerantes*' [tolerant], '*descontraídos*' [relaxed] and '*insensíveis*' [insensible]).

Apart from the difference in selecting the traits of the dehumanisation measure, the questionnaire of the third study was identical to the one of Study 2. Given that all participants were Brazilian immigrants, the heritage and host culture in the acculturation attitudes scale (Ryder and colleagues, 2000) were directly referred to as the Brazilian culture and the Portuguese culture, respectively.

A Brazilian experimenter (ingroup member) approached participants in several associations working with Brazilian immigrants in Lisbon. All participants were approached individually and completed the questionnaire on their own. The questionnaire took about half an hour to complete, and afterwards, participants were thanked, fully debriefed and paid €5.

Results and discussion.

As in the previous study, within-participant correlations between the human uniqueness ratings of the 40 traits and their ascription to both the ingroup and the outgroup were computed, partialling out the desirability of possessing these traits. The dehumanisation index was calculated by subtracting the outgroup correlation from the one of the ingroup.[11] As such, positive values represent a tendency to dehumanise the outgroup, values close to zero an equal attribution of humanness to the ingroup and the outgroup, and negative values a tendency to dehumanise one's group in comparison with the outgroup. Results show an overall tendency to dehumanise the low-status ingroup in comparison with the high-status outgroup, as the mean dehumanisation index is significantly below zero (M = -0.17, SD = 0.25, $t(27) = -3.65$, $p < .001$, d = 1.40).

Two group acculturation indices were computed by averaging the 10 items of the ingroup acculturation scale (α = .85, M = 5.32, SD = 1.14) and the 10 items of the outgroup acculturation scale (α = .82, M = 4.33, SD = 1.23). There was no correlation between the two group acculturation scales (r = .21, p = .26), and ingroup acculturation was significantly higher than outgroup acculturation, $t(30) = 3.71$, $p < .001$, d =1.35.

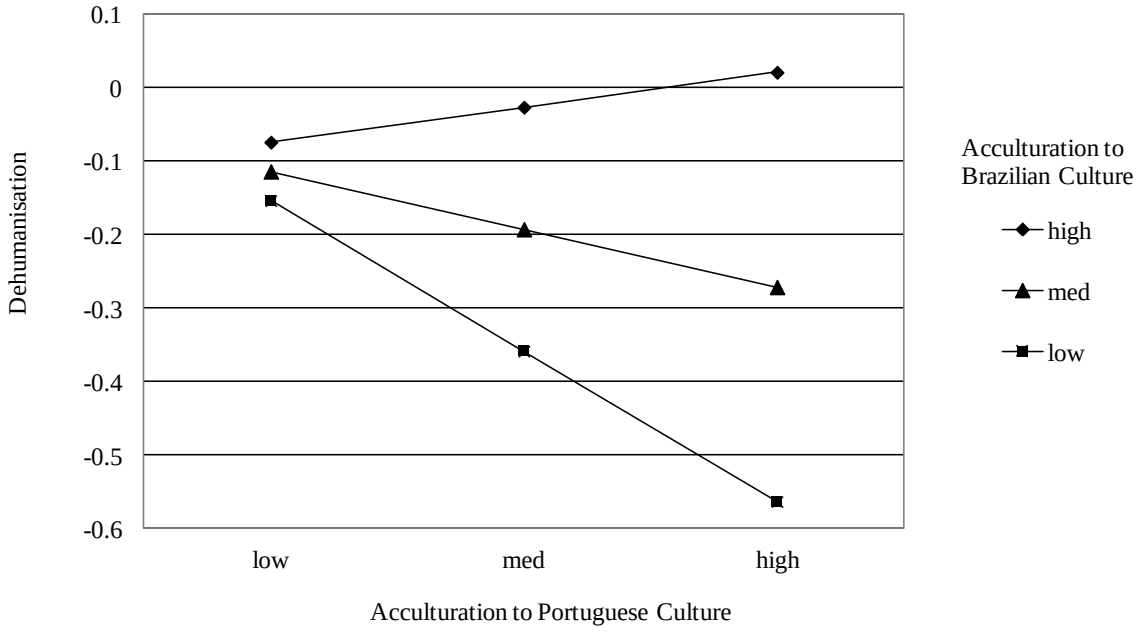

Figure 3: Relative dehumanisation as a function of Brazilian immigrants preference to acculturate to the Brazilian and the Portuguese culture

[11] The dehumanisation variable had not a normal distribution ($W(28) = 0.265$, $p \leq .001$). Normality of the distribution was restored ($W(28) = 0.995$, $p = .263$) after the exclusion of three extreme observations.

A hierarchical multiple regression equation was computed. The first block with ingroup and outgroup acculturation predicting dehumanisation was only marginally significant (R^2 = .17, F(2, 25) = 2.57, p = .10). Here, ingroup acculturation positively predicted biases in dehumanisation (b = 0.09, SE = 0.040, p = .032), whereas outgroup acculturation was not a significant predictor (b = -0.015, SE = 0.040, p = .70), replicating the main effects of Study 2. The second model, in which the interaction between ingroup and outgroup acculturation was added, not only proved to explain a significant amount of variance (R^2 = .22, F(3, 24) = 3.46, p = .03), but it also showed to be a significant improvement compared with the first one (F_{change}(1, 24) = 4.52, p = .04). The interaction between the two acculturation indices did significantly predict relative dehumanisation (b = 0.090, SE = 0.042, p = .04; Figure 3).

Results replicated the effects described in Study 2 showing that only when ingroup acculturation was low was outgroup acculturation significantly and negatively associated with relative dehumanisation (b = -0.18, SE = 0.09, t(24) = -2.08, p = .05). As such, outgroup acculturation was not correlated with dehumanisation when ingroup acculturation was high (b = 0.042, SE = 0.05, t(24) = 0.82, p = .42) or medium (b = -0.07, SE = 0.05, t(24) = -1.40, p = .17). To confirm whether the assimilation cluster was driving the effect, the same analysis used in Studies 1 and 2 was conducted. Four groups of acculturation strategies were first defined through the combination of ingroup and outgroup acculturation variables after median splits. A planned contrast (assimilation = -3, integration = 1, separation = 1, marginalisation = 1) showed that the Brazilian immigrants who assimilate (M = -0.36, SD= 0.31) do display lower and negative levels of dehumanisation against the Portuguese majority than the ones who integrate (M = -0.04, SD = 0.25), separate (M = -0.06, SD = 0.2) or feel marginalised (M = -0.21, SD = 0.18), t(24) = 2.4, p = .024, d = 0.98. Also, the planned contrast that compared the dehumanisation pattern in the integration quadrant with all other preferred acculturation strategies did not yield significance (t(24) = -1.605, p = .122), nor did the one contrasting the separation quadrant, t(24) = 1.365, p = .185.

General Discussion

In this paper, we presented three studies, in which our hypotheses were tested in natural settings using correlational designs. Between participants' variability in acculturation orientations was expected, even within the same cultural group, as the preference for certain acculturation strategies also depends on individual factors (Berry, 2003; Kosic, Kruglansky,

Pierro,& Mannetti, 2004). Moreover, we conducted our analysis in three different intergroup settings, gathering responses from cultural minorities and immigrants, who vary extensively in overall acculturation strategies, time in the host country, and their linguistic and cultural similarity with members of the host society. Despite this heterogeneity,minority group members consistently showed to dehumanise the majority outgroup to a lesser extent when they preferred an assimilative strategy (Study 1) or an assimilation strategy (Studies 2 and 3) in comparison with all other strategies of acculturation.

Interestingly, these lower levels of dehumanisation that were observed in the assimilation quadrant seem to suggest to the attribution ofmore humanness to the host rather than the heritage group (M_{Study1} = -0.85; M_{Study2} = -0.25, M_{Study3} = -0.36). As such, this finding does not necessarily pose a limit to the existence of an ethnocentric motive in explaining intergroup dehumanisation. Rather, what seems to happen is an inversion of the group on which it is centred. It this sense, the assimilation effect reported here does not represent a limit to the classical understanding of the dehumanisation bias (Leyens et al., 2000). If anything, it reinforces its pervasiveness despite the presence of a contextual modulation. Already, Cohen (1956, cit. by Rudmin, 2003) argued that separation together with assimilation is a form of ethnocentrism, as it entails the rejection of other cultures. On the other hand, Lambert (1967) specifically used the label ‘nonethnocentric’ to describe a high acculturation towards both the host culture and the heritage culture.

Also, the absence of an overall dehumanisation bias in the three studied intergroup contexts is interesting in this regard and is in line with similar reports of an absence of dehumanisation biases of some low-status groups (Capozza et al., 2012; Iatridis, 2013). Still, it seems unlikely that these findings are the result of an internalisation of one’s own group inferiority, in a consensual and legitimised system (Jost & Banaji, 1994). Indeed, separatist Gypsies did dehumanise the majority outgroup and ingroup identification/acculturation was positively related to outgroup dehumanisation in all studies. Instead, we proposethat cultural minorities and immigrant groups often refrain from dehumanising members of their host culture because some of them desire to abandon psychologically and culturally their heritage group and blend in with the host society. Furthermore, these results help us to integrate inconsistent findings regarding the moderating role of status on dehumanisation, in the sense that identification with or acculturation to the higher status host society varies across different low-status groups and their members and might determine (more than status) whether members of a low-status ingroup dehumanise the high-status outgroup.

At the same time, the reported results confirm previous findings on the role of ingroup identification on dehumanisation (Demoulin et al., 2009; Paladino et al., 2004). Indeed, in Study 1, despite the assimilation effect diminishing outgroup dehumanisation, ingroup identification showed to increase it. Furthermore, Studies 2 and 3 extended the effects of ingroup identification to the willingness to adopt the ingroup culture and maintain a relation with its members. In both studies, ingroup acculturation was positively related to the dehumanisation of the host society.

Two further sets of findings deserve our attention. First of all, despite the stable confirmation of our hypotheses, the results of some variables showed some variation in between studies. Namely, the assimilation effect on dehumanisation resulted from two independent effects of ingroup and outgroup identifications in Study 1 and from an interaction between ingroup and outgroup acculturation in the following studies. Descriptive analyses seem to suggest that this difference is due to the dissociative cluster, which displays a higher outgroup dehumanisation effect (the only positive average) in the Gypsy sample, than in the separation cluster in the other two. This finding seems to mirror identification preferences. We suggest that this can be due to either a difference in the conceptualisation of acculturation or a difference in the intergroup settings. In the first case, the explanation revolves around the idea that contact with outgroup members is a less conservative measure than outgroup identification. When mapping acculturation strategies in the same sample using different conceptualisations, Snauwaert and colleagues (2003) showed that integration was the preferred strategy when based on the desire for maintaining contact with the host culture, but separation was the preferred one when participants were asked about their identification with the ingroup and the host culture.

A second explanation might be found in the specific history of the Gypsy minority in Portugal. Despite a long list of measures designed to force their assimilation, Gypsies have demonstrated a remarkable resistance to change (Moscovici & Pérez, 1999). According to our results, a dissociative identity was the preferred acculturation strategy in the Gypsy sample, followed by an acculturative identity, probably motivated by public policies that recently encouraged this group to send their kids to public schools. Similar results were described by Alexandre (2003), who reported that Gypsy children in Portugal self-identified mainly as only Gypsy, or as both Gypsy and Portuguese. In contrast, the minority group members in the other studies clearly preferred an integration strategy.

It is important to note, however, that we do not want to claim that one identity or acculturation strategy is preferable to another. There is a general understanding that sustaining different group memberships in an integrated fashion provides better adaptation (e.g. Berry, 2003; Iyer & Jetten, 2011; Iyer, Jetten, Tsivrikos, Postmes, & Haslam, 2009). For instance, a perceived fit between new and old identities, that is, identity compatibility, has been described as positively associated with well-being (Iyer et al., 2009). However, there is still much debate on this point, as empirical data steaming from acculturation literature do not mimic this assumption consistently (for a review, see Brown & Zagefka, 2011). Bourhis and colleagues (1997) proposed that this effect depends on the larger cultural context that endorses multiculturalism. Support for this hypothesis comes from Zagefka and Brown's (2002) work, in which intergroup favourability was best achieved when there was a fit between the acculturation strategies of minorities and the majority (especially in favour of integration or assimilation). Nonetheless, the current results suggest that the most favourable outcomes in the intergroup context might be expected when minority group member wish to acculturate (Study 1) or integrate (Studies 2 and 3). It was these minority group members who most consistently displayed an equal distribution of humanness to the heritage and host groups, resulting in the absence of an intergroup bias ($-0.04 \leq M \geq 0.06$), a finding that is in line with that reported by Gaunt (2009).

Finally, the present analysis only allows to make comparative judgments regarding the humanisation of the ingroup and the outgroup. Therefore, we should refrain from understanding the decrease in dehumanisation as a strait improvement in intergroup perceptions. We should pay special attention to the potential loss of the beneficial aspects of considering one's group fully human—for instance, as a buffer against existential concerns (e.g. Vaes et al., 2010)—particularly when assimilation does not directly result in social mobility—as is the case of the described groups. It is also important to replicate this pattern of findings beyond a Western European context, in which a prominent assimilationist ideology has been reported among majority members (for a review see Dovidio, Gaertner, & Saguy, 2007).

All in all, the present findings constitute an importante extension of our knowledge on both processes of dehumanisation and intergroup relations demonstrating that minority group members who prefer to assimilate with the host society dehumanise the majority outgroup to a lesser extent.

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When the small feel strong enough: The role of power in low status groups on outgroup dehumanisation*

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Highlights

- Low status reduces the dehumanisation of high status outgroups.
- We analysed the effect of power on dehumanisation for low status groups.
- Low status groups dehumanised the high-status outgroup only when given power.

Abstract

Status differences between groups have shown inconsistent effects in the dehumanisation literature creating the need to identify those intergroup variables that make members of low status group dehumanise a higher status outgroup. Here, the role of power is investigated testing whether a high status outgroup will be dehumanised more when low status group members are given the resources to control the fate of that outgroup. Two studies supported this prediction. The first was conducted in a quasi-minimal group setting, manipulating group power and controlling group status. The second investigated natural groups, with asymmetric status relations, and where power was manipulated. Implications for the relationship between universal ethnocentric motives and socio-structural variables of intergroup dehumanisation are discussed.

Key-words

Dehumanization; Status; Power; Ethnocentrism; Intergroup Relations.

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Levine and Campbell (1972) built on Sumner's (1906) work, to define ethnocentrism as the lay theory through which values and beliefs are scaled in reference to the ingroup. There is a long tradition of analysing the relation – or conflict – between this motivation and the social contingencies of intergroup behaviour (Jost & Banaji, 1994; Tajfel, 1982). Recently, this debate has been adapted to people's general tendency to humanise one's ingroup and dehumanise other groups (Iatridis, 2013; Leyens et al., 2001; for a review Vaes, Leyens, Paladino, & Miranda, 2012). In this paper we will disentangle group status from another stratification variable - group power - already known to be associated with outgroup dehumanisation (Lammers & Stapel, 2010; Gwinn, Judd, & Park, 2013). Focusing on groups ranked low on the social hierarchy, we will confront the symbolic aspects of social ranking (i.e., status) to a more objective socio-structural variable, like power (Magee & Galinsky, 2008).

Dehumanisation

Leyens and colleagues (2000; 2001) introduced the term infrahumanisation in intergroup relations to stress a subtle, but pervasive form of dehumanisation (Staub, 1989). They presented a paradigm based on the attribution of uniquely human (e.g., hope, resentment) and non-uniquely human emotions (e.g., joy, anger) (Demoulin et al., 2004), in which participants showed to differentiate their group from the outgroup on the basis of the first, but not the latter. This finding was replicated using other research paradigms (Boccato, Cortes, Demoulin, & Leyens, 2007; Paladino et al., 2002; Vaes, Paladino, & Leyens, 2006), measuring the attribution of non-emotional uniquely human attributes (Vaes & Paladino, 2010; Viki, Winchester, Titshall, & Chisango, 2006) and other senses of humanness, i.e., human nature (Haslam, Bain, Douge, Lee, & Bastian, 2005). The wide dissemination of this line of research led to a proliferation of terminology to name the scaling of others on the human dimension, which we will name dehumanisation, for reasons of simplicity.

Dehumanisation and Socio-Structural Variables

Since its first formulation, dehumanisation was considered the result of ethnocentric motives (Leyens et al., 2000). As such, the ingroup became the central point of reference representing what it means to be uniquely human and all other groups are scaled in comparison (see also, Paladino & Vaes, 2009). Being independent from ingroup favouritism (Tajfel & Turner, 1979) and dealing with a deep-seated dimension of social judgment, differentiating the ingroup from the outgroup on a human dimension was thought to be independent from socio-structural constrains. Indeed, in a first set of studies group status did

not impact dehumanisation (Boccato et al., 2007; Cortes, Demoulin, Rodríguez-Torres, Rodríguez-Pérez, & Leyens, 2005; Demoulin et al., 2005; Leyens et al., 2001; Paladino et al., 2002).

More recently, however, Vaes and Paladino (2010) tested a large sample of intergroup contexts, showing variations in the dehumanisation of the outgroup in relation to status and competence. Other studies using different paradigms provided evidence of low status groups that do not privilege at all their ingroup in terms of humanness (Capozza, Andrighetto, Di Bernardo, & Falvo, 2012; Iatridis, 2013; Miranda, Gouveia-Pereira, & Vaes, in press).

Iatridis (2013) argued that some status differences are more consensually accepted than others (e.g., occupational vs. national groups). Tajfel and Turner (1979) already proposed that in the case of a long lasting status asymmetry, low status group members might not perceive cognitive alternatives to the intergroup situation and therefore stop showing an ethnocentric bias. Such mechanisms have been described by system justification theory as well, interpreting the absence of this ethnocentric bias of low status groups as an expression of their support for the existing status quo (Jost & Banaji, 1994). Accordingly, members of low status groups preferred to accept the existing status system granting the outgroup better outcomes even against their own interest. Still, it is conceivable that low status groups have "an implicit conflict between ingroup favouring tendencies and the acknowledged realities of social differentials in power, status, rank, or privilege" (Tajfel, 1982, p.19). This postulation suggests that members of low status groups would favour their ingroup if given the resources to do so.

Focusing on ingroup favouritism, Sachdev and Bourhis (1985; 1987; 1991) showed that this might be the case. Status differences manipulated in a minimal group setting led a low status group to show outgroup favouritism on status relevant dimensions. However, when group power was manipulated simultaneously with group status (Sachdev & Bourhis, 1991), low status groups with power demonstrated a greater tendency to favour their ingroup than low status and low power ingroupers. As such, power constitutes a resource that allows low status group members to perceive themselves more favourably than high status outgroups.

There is often a strong correlation between variables that rank social categories vertically (Fiske, 2010). Nevertheless, status and power represent different constructs that have been disentangled both in natural settings and experimentally (Boldry & Gaertner, 2006; Bruins, Ellemers, & De Gilder, 1999; Sachdev & Bourhis, 1991; Willer, Youngreen,

Troyer, & Lovaglia, 2012). If status refers to a relative position of groups in a social hierarchy based on prestige (Tajfel & Turner, 1979), power differentials in intergroup settings can be defined as the control one group has over his and another group's fate (Fiske, 1993; 2010; Sachdev & Bourhis, 1991; Thibaut & Kelley, 1959). Thus, whereas status is of symbolic nature, power is a resource, which according to Social Identity Theory (SIT, Tajfel & Turner, 1979) confers the ability to function freely from constrains.

The Present Research

Georgesen and Harris (1998) performed a meta-analysis of power effects on social perception, demonstrating its negative correlations with evaluations of other persons or groups. As to dehumanisation, Lammers and Stapel (2011) showed that the greater the sense of power, the greater the dehumanisation of the outgroup. Gwinn and colleagues (2013) re-enacted power differentials between dyads, confirming a lower attribution of uniquely humanness to a low power pair, compared to a high power one.

The following studies were designed to go beyond the reported findings on the relationship between power and dehumanisation in two ways. First, and given that some of the power manipulations used in previous work might overlap with status differences (e.g., the dyad of a manager versus an assistant, Gwinn et al., 2013, Study 1), we aim to provide evidence of the influence of power on dehumanisation independently of other stratification variables, like status. More specifically, the current studies take the point of view of low status groups, both in a laboratory (Study 1) and in a natural setting (Study 2). This power manipulation aims to clarify the inconsistent effects of status on intergroup dehumanisation that were reported above. In line with Sachdev and Bourhis (1991), having power is expected to increase the tendency of low status group members to dehumanise a high status outgroup, while no dehumanisation should occur in the absence of power.

Second, dehumanised perceptions of the outgroup need to be disentangled from a negativity bias, something that was only accounted for indirectly in previous research in an intergroup setting (Lammers & Stapel, 2011).

Study 1

Study 1 was designed to test the effect of power among low status group members on the dehumanisation of the outgroup. Using a quasi-minimal group paradigm (cfr. Sachdev & Bourhis, 1991), participants had a (constant) low status membership and perceived group power was manipulated. Following Boldry and Gaertner (2006), unrelated tasks were

introduced to inform participants of their status and power ranking to make sure that our manipulations were orthogonal.

Method.

Participants and design.

Participants were 45 undergraduate Psychology students at a Portuguese University, two of which were excluded for not being Portuguese native speakers. Most (76.7%) were female and their mean age was 21.62 years old (*SD* = 4.65). All participants were assigned to a low status condition and randomly assigned to two experimental power conditions, either high (*n* = 21) or low (*n* = 22).

Procedure.

Participants arrived at the laboratory in groups of 5 to 13 and received course credits for their participation. The experiment started with a study on "social perception", in which they were told an intergroup context would be recreated. Groups would differ in terms of status, and group status would be determined on the basis of the results of a "very well known and frequently used creativity test", chosen because "levels of creativity are highly associated with social and occupational status that people have or will have" (Bruins et al., 1999; Sachdev & Bourhis, 1991). The bogus test was presented as a free association task and required participants to generate words from "verbal stimuli", which consisted of ten non-words pre-tested as neutral (Domingos & Garcia-Marques, 2008; sample stimulus: "cantasia").

Subsequently, participants read a news story (neutral in mood; Garcia-Marques, 2005), while they waited for "the computer that was comparing individual results and generating two groups". All participants were assigned to the low status group (group K), composed of people who had the lowest scores on the creativity test. They were informed that the outgroup, named W, included all participants with the highest scores.

Participants were then informed about the existence of a second unrelated study that was presented as a stimulus pre-test (15 minutes to complete). Only half of the participants were required to respond to this pre-test and the decision of who would have to participate was the basis for the power manipulation. The computer randomly selected one of the two groups formed earlier, and the chosen group would be able to decide whether it would be their group or the members of the outgroup who would participate in the second study. In the high power condition, the selected group consisted of the ingroup, the K group and participants

were asked to decide individually which group had to do the pre-test. In the low power condition, the W group was selected and the ingroupers had to wait a few seconds while the decision was being made by the members of the outgroup. While "the computer was generating the final decision", participants were asked to complete the first study, judging each group on several dimensions in the following order: 1) ingroup identification; 2) ingroup and outgroup human uniqueness; 3) manipulation checks of ingroup and outgroup power; 4) and ingroup and outgroup status. At the end participants were asked questions about the power manipulation, namely: 1) legitimacy; 2) feelings of injustice and frustration; and 3) their expected and desired outcomes in line with the cover story. Participants were informed that there would not be a second study, were thanked and debriefed.

Materials.

Ingroup identification. The identification scale comprised 6 items (Miranda et al, in press) and participants indicated their agreement with them on 7-point scales (α = .76).

Ingroup and outgroup humanness. Participants completed a dehumanisation measure taken from Vaes and Paladino (2010). A list of 20 traits was put together, encompassing the two fundamental dimensions of social perception (Fiske et al., 2002): five competence, five incompetence, five warmth and five negative warmth traits. Participants were then asked to ascribe each of these traits to the K (in)group and to the W (out)group (1 = *Not at all*; 7 = *Totally*). Afterwards, they were asked to evaluate each of these traits on their level of human uniqueness (1 = *Animal heritage* to 7 = *Uniquely human*) and desirability (1 = *Very undesirable* to 7 = *Very desirable*).

Manipulation checks. Four affirmations regarding ingroup and outgroup power tested the effect of the power manipulation (sample item: "The members of my [the other] group have control over my group participation in the second study"). Two indexes of ingroup power (α = .71) and outgroup power (α = .75) were computed from the mean of the respective four items. Ingroup and outgroup status indices were computed by averaging the participants' responses on two items: "The members of my [the other] group had high scores on the creativity test" and "My [the other] group occupies a low position" (reversed) (r_{ingroup} = .443, p = .003, r_{outgroup} = .464, p = .002). 7-Point scales were used throughout (1 = *Totally disagree*; 7 = *Totally agree*).

Real, expected, desired outcomes. We recorded not only the actual decision made by the high power group members, but also the extent to which all participants wanted and expected to take part in the second study (1 = *Not at all*; 7 = *Totally*).

Legitimacy measure, feelings of frustration. Participants also answered two questions concerning the legitimacy of the criterion that decided which group would participate in the second study and concerning their feelings of frustration (1 = *Not at all*; 7 = *Totally*).

Results and discussion.

In order to verify the success of our manipulations we started analysing the power differentials between conditions. An ANOVA with power (low vs. high) as a between subject factor and group as a within subject factor revealed a target main effect, showing that ingroup power (M = 3.66, SD = 1.16) was judged marginally lower than outgroup power (M = 4.06, SD = 1.40, $F(1, 41) = 3.103$, $p = .086$, $\eta_p^2 = .070$). Also, the predicted interaction between power and group was significant ($F(1, 41) = 6.068$, $p = .018$, $\eta_p^2 = .129$). Contrast analyses show that outgroup power was indeed lower when power was granted to the ingroup (M = 3.58, SE = .25) compared to outgroup (M = 4.51, SE = .29, $F(1, 41) = 5{,}181$, $p = .028$, η_p^2 = .112). However, the power manipulation did not significantly change participants perception of ingroup power ($M_{\text{LowPower}} = 3.58$, $SE_{\text{LowPower}} = .25$, $M_{\text{HighPower}} = 3.74$, $SE_{\text{HighPower}} = .26$, $F(1, 41) = 0.196$, $p = .660$ $\eta_p^2 = .005$). This absence of a power effect was somewhat unexpected as a similar manipulation also changed the perception of ingroup power in other research (Sachdev & Bourhis, 1991). We can only assume that the resource over which participants had gained control did not have an empowering effect. Indeed, further analyses revealed that the power manipulation did not affect participants' identification with the ingroup (M_{overall} = 3.26, SD = 0.98, $t(41) = 0.919$, $p = .364$), one of the necessary components to feel empowered (Van Zomeren, Drury, & Van Der Staaij, 2014). As such, these manipulation checks reinforce the need to analyse ingroup and outgroup ratings separately to determine the effects of our power manipulation.

Importantly, the status manipulation checks allowed us not only to verify that ingroup status (M = 2.99, SD = 1.45) was overall significantly lower than outgroup status (M = 5.24, SD = 1.47, $F(1, 41) = 32.100$, $p <. 001$, $\eta_p^2 = .439$), also the power manipulation did not influence ingroup or outgroup status, $F(1, 41) = .206$, $p = .653$, $\eta_p^2 = .005$.

An index of ingroup and outgroup humanness was computed for each participant following the procedure described in Vaes, Heflick and Goldenberg (2010). Within subject

correlations between ingroup typicality and uniquely humanness ratings were calculated partialling out the desirability ratings of the 20 traits presented in the questionnaire. The variable was subsequently Z-transformed, to assure normality of the distribution. This procedure was repeated to create the outgroup uniquely humanness index[14]. As such, positive values stand for the humanisation of the ingroup, whereas negative values correspond to its dehumanisation.

Both humanness indices were analysed in a 2 (Group: ingroup vs. outgroup) X 2 (Power: high vs. low) mixed ANOVA. The expected Group X Power interaction was not significant ((*F(*1, 36) = 2.387, *p* = .131, η_p^2 = .062). Still, given that the power manipulation check only showed variance in the perception of outgroup power, we looked at the effect of power only on the attribution of human uniqueness to the outgroup.

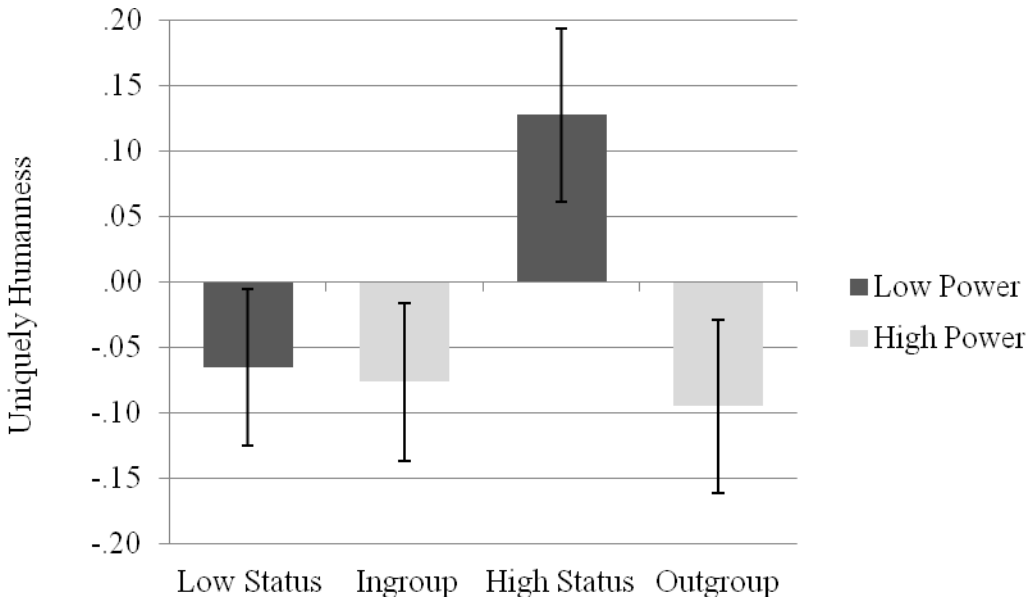

Figure 1: Mean (and standard errors) of the low status ingroup and high status outgroup uniquely humanness ratings in the low and the high power conditions.

Results confirm our hypothesis that in the high power condition the outgroup was perceived as significantly less uniquely human (*M* = -.10, *SE* = .07) compared to the low power condition (*M* = .13, *SD* = .07, *F(*1, 36) = 5.677, *p* = .023, η_p^2 = .136). This increase in

[14] We were unable to compute within-subject correlation of five participants because they assigned the same value to all traits when judging the outgroup (4) or uniquely humanness (1).

the dehumanisation of the outgroup as a function of power was nonetheless insufficient to produce a significant differentiation between the ingroup (M = -.08, SE = .06) and the outgroup (M = -.10, SE = .07) in human terms in the high power condition, i.e., a dehumanisation bias, F (1, 36) = 0.036, p = .851 (see Figure 1).

The choice participants made in the high power condition about who would participate in the announced pre-test was even-handed (43%, ingroup; 57%, outgroup). Neither the expected, nor the desired outcome varied according to the power manipulation (t's < 1). Perceived legitimacy of the random criteria for power differentials (M = 4.47; SD = 1.75) was ruled out as a potential alternative explanation of the effect of power on attributions of humanness towards the outgroup, as no differences in legitimacy were found between power conditions (t(41) = -1.454, p = .154). The same was found for feelings of frustration (M = 2.67; SD = 1.69, t(41) = 0.933, p = .357).

Despite the confirmation of our hypothesis, our manipulation check did not have an impact on ingroup power. Nonetheless, changing perceived outgroup power seemed to be enough for low status group members to increase the dehumanisation of a high status outgroup. However, this change in power perception was not enough to make members of the low status group to dehumanise the high status outgroup relative to the ingroup. A look at Figure 1 suggests that this was mostly due to the fact that the ingroup was never truly humanised. One possible post-hoc explanation is that ingroup identification among participants was low due to a minimal group setting. Ingroup identification is necessary for ingroup humanisation to occur (Demoulin et al., 2009; Miranda et al., in press; Paladino et al., 2004) and as we were unable to motivate participants to identify with the ingroup, a differentiation between ingroup and outgroup in human terms proved to be challenging. The forthcoming study will take place in a natural group setting, where pre-existing low status is known to coexist with high ingroup identification.

Study 2

In Study 2, we tested whether granting power (vs. no power) in a natural setting to members of a low status group would allow them to dehumanise a high status outgroup. If we are able to overrule the absence of dehumanisation using a situational resource as power, further insight can be gained about the universality of the tendency to dehumanise other groups relative to the ingroup. In order to compare and extend our findings with those of Iatridis (2013), this study will use occupational groups.

Method.

Participants and design.

One hundred and thirty eight Italian Psychology students from a large Italian University (84.1% female; M_{age} = 23.07, SD_{age} = 3.68) took part in this study. Participants were randomly assigned to one of four experimental conditions: either a high power (n = 71) or a low power (n = 67) condition and either evaluating their ingroup first (n = 70) or the outgroup first (n = 68).

Procedure.

Participants were approached individually in common areas within the Psychology Department and presented with two separate studies. The first consisted in a "survey on academic life" conducted by the central offices of the University inquiring Psychology and Medicine[15] students. This part contained the power manipulation. The second part was presented as a study on social perception and included the main dependent variables. The experimenter explained that because she was working for the University collecting data for the survey with Psychology and Medicine students, she asked the students from those faculties to participate in a study for her graduation thesis on the topic of social perception. The dependent measures were presented in the following order: 1) an ingroup identification scale; 2) attribution of humanness to the ingroup and the outgroup; 3) ingroup and outgroup status; 4) legitimacy; and 5) socio-demographic information. At the end participants were thanked and fully debriefed.

Materials.

Power manipulation. Participants were told that the University was conducting a year-round survey on some aspects of academic life, and in this phase, Psychology and Medicine students were being asked to give their opinion about the "management of the students' academic career"[16]. Participants were then asked to complete the survey, which consisted of ten questions on that topic (e.g., "It is important to be able to attend advanced classes or

[15] A pilot-study asserted which intergroup context to use. We asked 20 Psychology students (95% female, M_{age} = 22.45, SD_{age} = 1.73) to rate the status of groups of students from six different faculties, including their own. Participants responded on 5-point scales (1 = *Not at all*; 5 = *Totally*) how prestigious and economically successful they thought the usual occupations of the members of these faculties were. The groups were listed in two different random orders. Psychology students' status rates were averaged (r = .538, p = .014, M = 3.00, SD = .56) and perceived significantly lower than the highest status outgroup: Medicine students (r = .394, p = .086, M = 4.28, SD = .57, $t(19)$ = 9.575, $p \leq .001$, d = 2.265).

[16] In the pilot-study mentioned before, participants were also asked to judge on a 5-point scale how important (1 = *Not at all*; 5 = *Totally*) it was to be able to decide on a set of ten different topics related to academic life. The management of students' academic career was considered the most relevant (M = 4.45; SD = .510).

seminars for free"). At the end, participants read that given the differences in the number of Psychology and Medicine students, different weights would be given to each group when assessing the final opinion from the students of the University. After this justification, a power manipulation following Sachdev and Bourhis (1991) was introduced. Half of the participants were assigned randomly to the high power condition and were told that the answers of the Psychology students would weigh for 80% of the final decision and the answers from the Medicine Students would only weigh for 20%. The other half were in the low-power condition and the presented weight given to each group was reversed.

Ingroup and outgroup uniquely humanness measures. Participants completed the same uniquely humanness measures as in Study 1, judging both "Psychology students" (ingroup) and "Medicine students" (outgroup).

Status measures. Participants answered the same status questions as in the pre-test and two indices were computed by averaging those two items for Psychology (r = .527, $p \leq .001$) and Medicine Students (r = .467, $p \leq .001$).

Ingroup identification and legitimacy measures. Participants answered an ingroup identification scale (Cadinu & Cerchioni, 2001), which consisted of four items answered on 7-point scales (1 = *Not at all*, 7 = *Totally).* We then computed an index from the mean of the four items (α = .82). Participants were also asked to judge the legitimacy of the University's decision rules using the same 7-point scale.

Results and discussion.

Ingroup and outgroup humanness was computed following the same procedure described in Study 1[17]. To test our hypothesis we computed an ANOVA, with power (high vs. low) and order (ingroup first vs. outgroup first) as a between and target (ingroup vs. outgroup) as a within-subjects factor. Results showed that only the interaction between target and power yielded a significant effect, $F(1, 129) = 8.251$, $p = .005$, $\eta_p^2 = .06$ (all other F's < 1, see Figure 2). Contrast analyses, with sidak adjustments, revealed significant differences between the attributed human uniqueness of the outgroup in the low power (M = .09, SE = .04) and the high power conditions (M = -.03, SE = .37, $F(1, 129) = 5.407$, $p = .022$, $\eta_p^2 = .040$), Also, in the high power condition the ingroup (M = .11, SE = .39) was considered significantly more

[17] We were unable to compute within-subject correlation of five participants due to a lack of variance in participants responses on uniquely humanness ratings (2), ingroup ratings (1), and outgroup ratings (1). One participant did not provide any outgroup ratings.

human that the high status outgroup (M = -.03, SE = .37, F(1, 129) = 5.976, p = .016, η_p^2 = .044).

To verify whether status varied as a function of our manipulation, we ran an ANOVA with ingroup vs. outgroup status as a repeated measure and the power manipulation as a between-subjects factor. Psychology students do see their ingroup (M = 4.10, SD = 1.26) as lower in status compared to medical students (M = 6.00; SD = 0.81, F(1, 136) = 238.972; $p \leq$ .001, η_p^2 = .637) and this effect did not change and was not qualified by the power manipulation (F(1, 136) = 2.635; p = .107, η_p^2 = .019). The role of other alternative variables was excluded, as neither identification with Psychology students (M=5.08; SD=1.10, t(136) = .959; p = .342), nor legitimacy (M=4.57; SD=1.53, t(136) = -.262; p = .794) were affected by the power manipulation.

Moreover, in this natural intergroup setting and compared to Study 1, identification with the low status ingroup was higher, as was the attribution of humanness to the ingroup. This increase in ingroup humanness was sufficient to produce a significant differentiation between ingroup and outgroup in human terms when power was given to the low status ingroup.

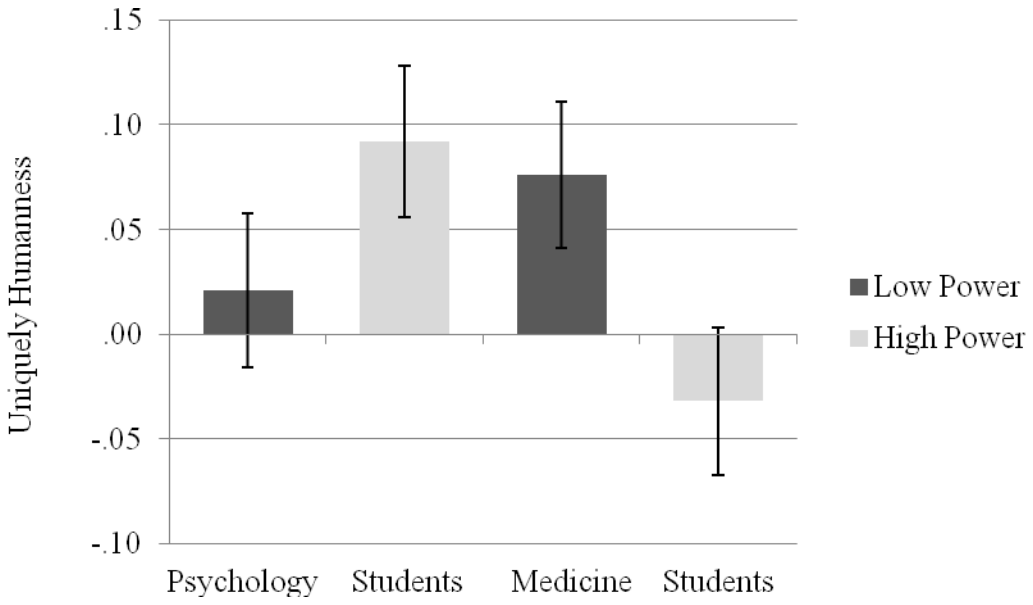

Figure 2: Mean (and standard errors) of the Psychology Students ingroup and the Medicine Students outgroup uniquely humanness ratings in the low and the high power conditions.

General Discussion

The results reported confirm that granting power to members of a low status ingroup is a sufficient condition to dehumanise a high status outgroup.

The independence of effects as to status and power reinforces the first as a subjective dimension that depends on other's agreement, and the latter as a more objective construal. We argue that this distinction helps clarify the inconsistent pattern of results on outgroup dehumanisation (e.g., Leyens et al., 2001; Paladino & Vaes, 2009, vs. Capozza et al., 2012; Iatridis, 2013). Iatridis (2013) explained the lack of dehumanisation in lower status occupational groups through the role of consensus in the distribution of social value. However, in his work neither legitimacy, nor power was measured. Also, when we accounted for these variables in the present paper, the role of legitimacy was not confirmed. On the contrary, only power seemed to make a difference corroborating the contextual dependency of dehumanisation effects (e.g., Pereira, Vala, & Leyens, 2009). We could indeed argue that in the context of national and regional groups, in which low status groups dehumanised a higher status outgroup, participants felt powerful enough to do so. Leyens and colleagues (2001) found that Canary Island Spanish do dehumanise the higher status mainland Spanish, but one might argue that due to their political status as an autonomous community together with their representation in the national Spanish parliament, these ingroupers perceived a relative larger control over their fate and that of the outgroup compared to participants in a minimal group setting (Capozza et al., 2012).

As such, our data are in line with SIT that states that a conflict exists between individuals' acknowledgment of lasting status differences and their strive for a favourable social identity (Tajfel & Turner, 1979) and concur with research that shows a direct relation between indices of social change and the decrease of outgroup preferences (Vaughan, 1978). We do not state that low status groups never internalise inequality, or even reinforce it behaviourally (Jost, Banaji, & Nosek, 2004). However, even when describing the endorsement of an hierarchical system across society, low status groups do endorse it less (Sidanius, Liu, Shaw, & Pratto, 1994), or are less motivated to believe in a just world (Krauss & Keltner, 2013).

In addition to the effects on outgroup dehumanisation, a measure of ingroup humanness was included. The latter was never significantly influenced by our power manipulation reinforcing the idea that the attribution of humanness to ingroups and outgroups is governed by different processes (Vaes et al., 2012). The fact that we only found variations

in the attribution of humanness to the outgroup is in line with other work that looked at the impact of processes of re-categorisation (Gaunt, 2009), conservative ideologies (DeLuca-McLean & Castano, 2009), and status (Vaes & Paladino, 2010). As reported here, none of these studies found any effects on ingroup humanisation.

Altogether and in line with Ng (1982) - "instead of asking what causes intergroup discrimination, we ask what makes it possible" (p. 180) - this paper strongly suggests that power makes outgroup dehumanisation possible, even in low status groups.

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Section III

General Discussion

General Discussion

The thesis presented here deals with the dynamics between the pervasive nature of the dehumanisation process and the socio-structural disadvantages low status groups face in a hierarchical society. Specifically, two overarching goals were outlined.

The first goal aimed at testing the existence of a moderating effect of group status in intergroup dehumanisation. In the initial studies on dehumanization, status was defined as a non-sufficient and non-necessary condition (Leyens, 2009), but new evidence has put this assertion under increased presure showing the moderating role of status diferences on the dehumanisation process (Capozza et al., 2012; Iatridis, 2013).

In the first paper presented here we contributed to this debate by systematically varying the competence and the warmth of the ingroup and the outgroup to test their impact on emotional dehumanisation. Results seemed to suggest that ingroup competence, which served as a proxy for status, did moderate the display of emotional dehumanisation. On the one hand, high competence ingroup members did attribute more uniquely human emotions to their group in comparison to outgroups, while non-uniquely human emotions were attributed equaly to both groups. On the other hand, members of a low competence ingroup did not differentiate their ingroup from the outgroup in terms of uniquely human emotions. This pattern of results not only replicated the findings of Vaes and Paladino (2010), Capozza and colleagues (2012) and Iatridis (2013), they also extend them in several ways.

While Vaes and Paladino (2010) selected and Capozza and colleagues (2013) manipulated intergroup contexts that systematically varied in terms of competence, their operationalization of dehumanisation consisted in a trait measure. Leyens and colleagues (2001; 2003) theoretically based their hypothesis that status is neither a sufficient, nor a necessary variable for dehumanistation to occur, sustaining that emotions and their attribution are independent from socio-structural variables. However, even at a conceptual level, this argument has been contested (Kemper, 1991; Tiedens, 2001; Tiedens, Ellsworth, & Mesquita, 2000). One significant difference between the material presented in the selection task in the study in the first paper and in Leyens and colleagues' work (2001), is that the latter also included traits in the attribution measure that were directly related to competence (e.g., competence, intelligence). It is possible that the comparison with the set of competence traits lessened the association of the emotions to the status dimension.

As such, our first study has strengthened the argument already forwarded by Iatridis (2013) that uniquely human emotions are not sufficient to promote social creativity led dehumanisation in low status groups (Leyens et al., 2001). Moreover, and unlike Leyens and colleagues' studies, we have shown it in a minimal group context. This approach allowed us to isolate the competence effect and to disentangle it from other variables. Indeed, we found that the effect of warmth did not not qualify the competence effect on dehumanisation. Moreover, differences in warmth between the ingroup and the outgroup showed to consistently predict the valence-based differentiation between both groups, but not the attribution of uniquely human emotions. This is especially significant considering that these variables do not behave orthogonally in non-experimental contexts (Kervyn, Yzerbyt, & Judd, 2010).

Despite the fact that Paper 1 was the only one designed to respond directly to our first goal, that is, asserting whether belonging to a low status group refrains people from dehumanizaing high status outgroup members, additional confirmation can be gathered from the studies performed in Papers 2 and 3. In all these studies the low status ingroup was never considered more uniquely human than the high status outgroup. This was true in the correlational data gathered with Gipsies, immigrants in Italy and Brazilian immigrants in Portugal in Paper 2 and again in the low status (and low power) conditions with Psychology Students and in a quasi-minimal group reported in Paper 3.

Together these results can inform us that status is a boundary condition for dehumanisation processes in intergroup relations. Moreover, status differences seem to exert their influence regardless of the categorisation criteria (national, cultural, occupational or minimal) or of variations within these criteria (different nations, cultures or occupations). Nevertheless, dehumanisation is still described as an intergroup phenomenon that occurs independently of group status in the literature. So, how can we explain this difference between the current literature and the data presented in this thesis? A first analysis of the different experiments that have been conducted on this topic seems to suggest the answer might be linked to the definition of a group typology.

When defining the future challenges to Social Identity Theory, Brown (2000) highlighted the necessity of comprising in its theoretical formulation different kinds of groups. There has been an initial effort to define taxonomies of different groups on a large set of characteristics. Lickel and colleagues (2000), for example, identified different groups which properties varied, namely: intimacy groups, task groups, social categories and loose

associations. Specifically, when comparing task groups (e.g., Blue collars) and social categories (e.g., Americans), some differences were highlighted, like: entitativity, importance for the self, interaction, goals, outcomes, similarity among group members being perceived as higher in the first and duration and size being greater in the latter case. A similar pattern of results had been obtained by Deaux, Reid, Mizrahi and Ethier (1995). These authors defined different types of groups based on perceived similarity. The first two types can be directly linked to the typology of Lickel and colleagues (2000): personal relationships and vocations/avocations groups. However, these authors further distinguished between three types of social categories: national/religious, political affiliations and stigma-based groups. Focusing on national/religious groups, only one important dimension of differentiation emerged, that the authors labelled as people of colour (e.g., African Americans) and people not of colour (e.g., Caucasians).

Following Brown (2000) one might be inclined to sustain that variations in the dehumanisation effect might be dependent on group typology. And we do are able to identify sets of social categories who dehumanise and the ones who do not. On the one hand, we have seen that the low status groups who dehumanise outgroup members were national or regional groups that represent a majority in their intergroup context (Cortes et al., 2005; Demoulin et al., 2005; Leyens et al., 2001; Paladino et al., 2002; Paladino and Vaes, 2009; Vaes & Paladino, 2010). On the other hand, we were able to identify that all other cases that did not display dehumanisation were regional or cultural minorities (Capozza et al, 2012, Studies 1 and 2; Miranda, Gouveia-Pereira, et al., 2014a; 2014b; Miranda, Vaes, et al., 2014). Along these last groups are the results obtained by Iatridis (2013) with task groups. These might be due to variations in the properties present in each type. However, nor the current research, neither the outstanding literature allow us to draw clear conclusions in this sense.

Given that an analysis in terms of group typology cannot be conclusive, we moved to our second goal, that is, defining the conditions under which low status groups will be inclined to dehumanise high status outgroups. As such, we aimed at contrasting group conditions that might change outgroup dehumanisation from a pervasive to a contextually limited phenomenon.

The first variable that focused on contact with the high status outgroup was explored in Paper 2. Using acculturation as a general framework, three studies showed that when minority group members identify with, wish to maintain contact and/or endorse an ideology of culture adoption with the majority host group, they not only cease to dehumanise the

outgroup, but even start to perceive their own heritage group as less human. Across three correlational studies, with varying intergroup settings, acculturation orientations have shown to moderate the extent to which low status groups dehumanise the high status outgroup. We argue that the need for acculturation of low status groups, in function of the specific strategy that is adopted, constitutes an important moderating factor in the dehumanisation of high status outgroups. It is important to highlight that this variable might not be relevant in all intergroup situations that are marked by status differences. The identification with a higher status outgroup hardly seems psychologically relevant for national groups, outside of an immigration context (e.g. Portuguese identifying with Danish?). In all other cases, however, assimilative processes are expected to make an important difference in outgroup perceptions.

The second condition that was systematically manipulated, was the presence or absence of power. In Paper 3, we have shown that group status and power effects on dehumanisation can be disentangled. Moreover, we have shown that power constitutes a condition according to which low status groups dehumanise (or not) the high-status outgroup. Therefore, we argue that being able or not to have a significant degree of control over own outcomes (e.g., regional legislative autonomy), a characteristic that might vary across different types of groups (e.g. national vs. stigma-based), is able to explain the differences in the display of dehumanisation on behalf of low status groups.

We do not wish to discuss the results of these two Papers here in detail, we have already done so elsewhere. The contribution we wish to make in this section relates to the way these two conditions intertwine with our general goal. The theoretical and empirical contribution of this thesis is that status differences between groups do not constitute a boundary condition to the display of dehumanisation of minority group members per se. Nor may we conclude that dehumanisation is a pervasive phenomenon that is not affected by differences in the social hierarchy. The results of this thesis, instead, have demonstrated that different variables associated to group status do moderate outgroup dehumanisation on behalf of low status group members. Interestingly, the set of studies that are presented here have shown that the conditions in which dehumanisation by low status groups is blocked, seems to constitute the normal context in which low status groups are often inserted. Indeed, often low status and low power go hand in hand, and a tendency to acculturate with the high status outgroup persists.

Importantly, we are not able to determine if one of these variables, per se, is sufficient to make low status group members dehumanise high status outgroups. The fact that the

arguments presented in Papers 2 and 3 were tested independently from each other constitutes a handicap to the definition of an integrated taxonomy of low status groups which do or do not dehumanise. We have nevertheless paved the road in that direction defining the key role of assimilation and power in moderating the tendency of low status groups to dehumanise high status outgroup members.

The other fundamental contribution of these Papers is related to the tangential question that accompanied this thesis, namely whether or not ethnocentric motives are at the basis of the dehumanisation bias in intergroup relations. The data we collected in our three Papers allow us to draw some comments in this regard.

Firstly, we observe a widespread display of an absence of dehumanisation in the intergroup contexts we studied. Following System Justification Theory this might signal that the members of the low status groups we studied internalized their inequality (Jost, Pelham, & Carvallo, 2002). This general pattern was interrupted under two conditions giving us further insights into the interpretation of the absence of outgroup dehumanisation. The first, low status minority group members who chose to acculturate in any way except to assimilate with the majority outgroup, generally displayed a pattern of equal attribution of humanness to both groups. As such, the only situation where the outgroup was favoured in terms of human uniqueness occurred when group members where distancing themselves from their ingroup in the direction of the majority outgroup. One might argue that there is no direct support for social mobility. Indeed, as for now we have not measured the perceived permeability of boundaries amongst those low status groups who wish to assimilate. Nonetheless, in the dissociative group (Paper 2, Study 1) a clear pattern of outgroup dehumanisation was displayed, showing that when only their identification with the ingroup is of clear importance, low status group members show a pattern of outgroup dehumanisation that seems as much motivated by ethnocentrism as the dehumanising tendencies of majority outgroup members.

The second exception was the empowered low status group in Paper 3. To understand this we may recur to one reinterpretation of one of the basic hypotheses of System Justification Theory: the rationalization of the status quo. According to Kay, Jimenez and Jost (2002), when people are highly motivated, they increase the desirability of an event as its probability increases and vice-versa. As such, according to this theory, people would consider their inferior status more desirable if they infer that it is likely to persist. It is plausible that the power effect described in Paper 3 is based on such an effect. Indeed the acknowledgment that their low status group had power might have indicated a possible future change in the

comparative position of the groups, if not in terms of status, then in the definition of one or the others' outcomes. This might have had an influence on the desirability of the new balance between groups and the consequent reduction of the display of inequality. In fact, Vaughan (1978) has consistently shown that indices of social change are accompanied by the decrease of outgroup preferences in low-status-minorities.

In other words, and based on Social Categorisation Theory (Turner, 1987/1990) and the Ingroup Projection Model (Mummendey & Wenzel, 1999), our results seem to imply that a shared representation of the superordinate category of humanness based on the majority high status group exists indeed. That is, high status groups projecting their ingroup features as the super-ordinate uniquely human category, and low status groups projecting those same features. However, because when given the resources (power) or sometimes when identifying woth one's groups id the only self-categorisation, our interpretation of this fact is in accordance with the principles of Social Identity Theory (Tajfel & Turner, 1979) which state that individuals strive for a desirable social identity even when faced with an unfavourable context. This is even more plausible when considering the psychological disadvantages for low-status group members who endorse the inequality (Jost & Thompson, 2000). The interpretation of System Justification Theory (Jost & Banaji, 1994; Jost & Hunyady, 2003) of low-status groups motivated to endorse the unfavourable context, on the other hand, seems to fit the current data less clearly.

We do not wish to enter the discussion on whether the latter is redundant to the first, nonetheless we agree with those who argue that Social Identity Theory is the only theory that can explain system stability and change (Reicher, 2004; Rubin, & Hewstone, 2004). As such, returning to the question of what allows one or the other may be fruitful in the study of this particular bias: dehumanisation. Hereof, we are inclined to sustain that there is a conflict within low-status group members between the acknowledgment of lasting inequalities and the motivation to display ethnocentric believes. The important question left is when one or the other situation arises. And this was what we intended to accomplish in this thesis.

Future research

A. ends his letter with a plight: "I do not want to live in such a world. Do you? If not, then please use the power and influence your position offers you, to instigate positive changes in the world". So we end this thesis with a few stepping stones for the road in front of us.

Taken together, granting power to low status groups does not seem to be a solution to improve the relations with high status outgroups. Given that there were no changes in ingroup humanness, granting power to low status groups can worsen intergroup relations increasing the dehumanization of the outgroup, while not contributing to favourable outcomes associated with a uniquely human social identity of the ingroup (e.g., Vaes, Heflick, & Goldenberg, 2010). In parallel, one might argue that assimilation is not in the best interest of low-status group members neither. This consideration is of particular relevance if one takes into consideration that the discrepancy between the desires and actual participation in the host society from the parts of minorities is strongly correlated with measures of psychological well-being (Latrofa, Vaes, Pastore, & Cadinu, 2009; Ramos, Cassidy, Reicher, Haslam, 2014).

As described earlier in the introduction, Vaes and colleagues (2012) have recommended separate analyses of the attribution of humanness to the ingroup and outgroups. This approach was not only based on evidence that pointed to separate results for the attribution of humanness to both types of targets, it can also be of service when trying to define which conditions do indeed allow low-status groups to confer a uniquely human, and thus favourable, social identity to themselves. Hence, future research should focus on analysing those conditions that allow low status group members to humanise their own group.

There are indeed very few described moderators of ingroup humanization. Vaes and colleagues (2012) mention mortality salience, neurobiologically induced cooperation and ingroup identification. The studies introduced here allowed ingroup acculturation to be added to this list. On the other hand, our results on power are aligned with former work, including identification with a super-ordinate category (Gaunt, 2009), conservative ideologies (DeLuca-McLean & Castano, 2009), and status (Vaes & Paladino, 2010) as moderators of outgroup dehumanization given that ingroup humanisation did not change consistently when these variables were manipulated.

Nonetheless, defining and operationalizing power more as it is conceptualised in the collective action literature might yield different results. The operationalization of power used in these studies, i.e., the ability to affect ones own and others' outcomes, mirrors Drury and Reicher's (1999) definition of collective empowerment. Interestingly, the authors present a second power related concept, which they called empowerment, aimed at mapping "a more general [than self-efficacy (Bandura, 1977)] subjective sense of ability and confidence" (p.

384). In fact self-efficacy has shown to conduce to collective action, and thus resulting in increased ingroup identification (Van Zomeren, Leach, & Spears, 2010). Van Zomeren, Drury and Der Saaij (2014) conceptualized empowerment based on indicators including ingroup identification. Given the known relationship between ingroup identification and ingroup (but not outgroup) humanisation (Paladino et al., 2004), comparing collective empowerment and empowerment might be an interesting endeavor for future research as they might uniquely influence respectively outgroup and ingroup humanisation on behalf of low status groups. This extension of the results of Paper 3 might lead the way to a model of social change providing a uniquely human social identity to low-status groups.

Proud, strong minorities are possible despite the 'marks of oppression'
Thomas Pettigrew, 1978, p.60

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Section IV

Appendixes

Appendix A: Material and Measures of Stereotypes and Dehumanisation: Competence (and not Warmth) Moderating the Attribution of Uniquely Human Emotions in a Minimal Group Paradigm

Competence and Warmth Manipulations

ISPA

A Agência Internacional de Soluções Globais para o Desenvolvimento (AISGD) promove, desde há duas décadas e em colaboração com as mais prestigiadas Universidades mundiais, um projecto de investigação, cujo objectivo é:

- **Formar grupos de trabalho** vocacionados para a resolução de diferentes problemas.

Recentemente foi publicada numa revista científica uma **metodologia inovadora**. Esta metodologia consiste na realização de uma **tarefa**, a partir da qual é possível:

- Delinear um **Perfil Individual** – Este perfil obtém-se comparando os resultados de cada pessoa com os de um número representativo de pessoas de diferentes países.
- Por sua vez, são estes perfis individuais que permitem agrupar as pessoas com perfis idênticos entre si em **Grupos de Trabalho Homogéneos**.
- Novas investigações permitiram comparar estes diferentes grupos e predizer o seu **modo de interacção** entre os membros, assim como o seu **modo de actuação** face à tarefa em mãos.

(Carregue na tecla de espaços para continuar)

ISPA

O Instituto Superior de Psicologia Aplicada é uma das instituições de ensino superior que está a colaborar com a AISGD para a tradução e aferição desta metodologia para a população portuguesa.

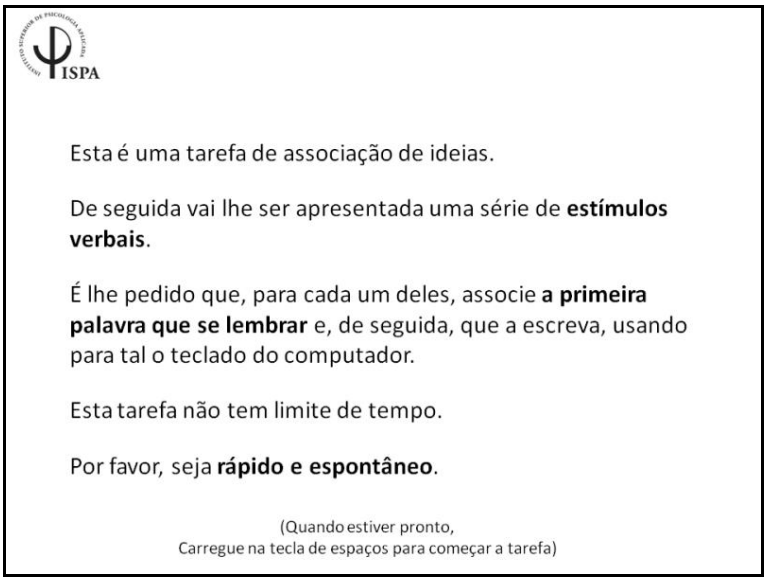
- Estes dados serão válidos para uma **tarefa específica**, que por motivos metodológicos não pode ainda ser identificada.

Por isso, pedimos a sua colaboração neste projecto. Para tal, terá de realizar a tarefa que, de seguida, é apresentada.

No final, ser-lhe-á indicado qual o grupo de trabalho no qual será integrado(a) e quais as suas características em comparação com outros grupos.

Os resultados são **absolutamente anónimos e confidenciais**

(Carregue na tecla de espaços para continuar)



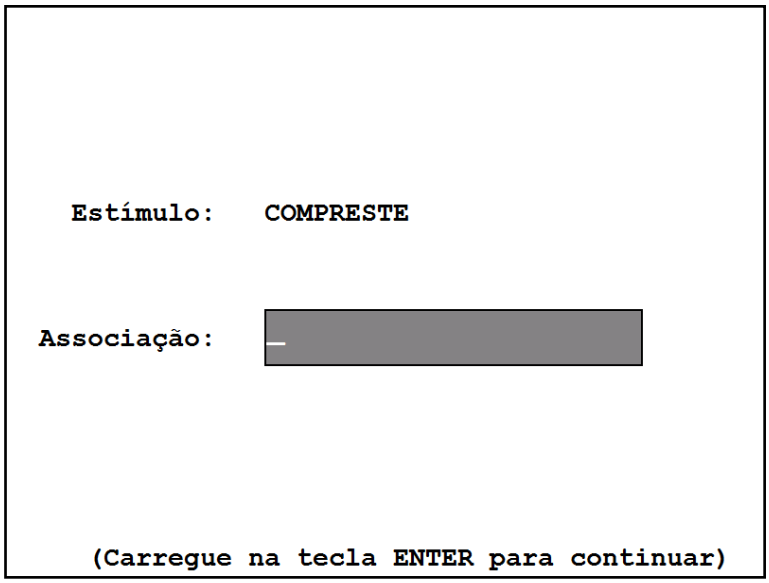
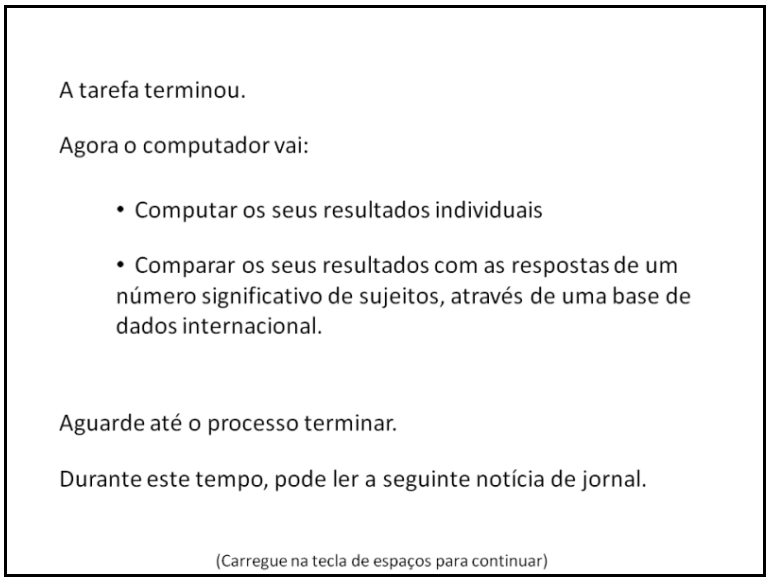


Table 1
Non-words used in bogus task.

Non-words
Compreste; Justificatão; Vuola; Fari; Diapasãe; Tai; Enião; Cavalé; Reloiço; Cabini; Sonte; Cantasia; Omeralda; Gubmarino; Chuve; Ilcatifa; Alpendro; Locomotave; Tripulaçai; Edancipação.



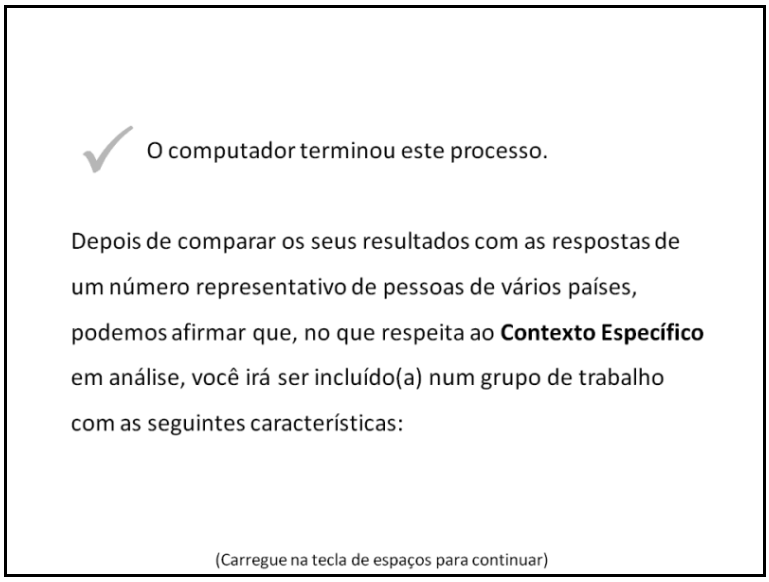


Table 2
Feedback on ingroup's competence and warmth by condition.

Condition	*Feedback*
High-Competence & High-Warmth	O seu grupo é caracterizado por pessoas de fácil convivência social. Para tal, frequentemente organizam convívios sociais, fora do contexto de trabalho. Do mesmo modo, mantêm-se acolhedores sempre que têm ligações com pessoas fora do seu grupo. Sempre que têm de escolher qual a tarefa sobre a qual vão trabalhar, os membros deste grupo selecionam tarefas com temáticas relacionadas com causas ambientais, que sejam de grande visibilidade ou importância e que façam uso dos seus conhecimentos tecnológicos muito avançados. Os elementos deste grupo apostam num atempado planeamento das tarefa, sendo que, ao mesmo tempo, todos os membros colaboram entre si em todas as fases da realização da tarefa. É assim um grupo simultaneamente direcionado para a realização da tarefa e para uma interação positiva entre os seus membros. Por todos estes motivos, é um grupo de alto prestígio, sendo os seus membros frequentemente convidados para dar palestras em conferências públicas.

High-Competence & Low-Warmth	O seu grupo é caracterizado por pessoas que raramente convivem socialmente, uma vez que não têm muitos tempos livres e nem estão interessados em manter ligações fora do contexto de trabalho. Sempre que têm de escolher qual a tarefa sobre a qual vão trabalhar, os membros deste grupo selecionam tarefas que sejam de maior visibilidade ou importância e que façam uso dos seus conhecimentos tecnológicos muito avançados. Os elementos deste grupo apostam num atempado planeamento das tarefas, sendo que cada um desempenha a sua função autonomamente, pelo que não há o hábito de se entreajudarem. Assim, a preocupação dos membros deste grupo não é tanto assegurar uma interação positiva entre os seus membros, estando principalmente direcionados para a realização da tarefa. Devido a estes fatores este grupo é um grupo de alto prestígio, sendo os seus membros frequentemente convidados para dar palestras em conferências públicas.
Low-Competence & High-Warmth	O seu grupo é caracterizado por pessoas de fácil convivência social. Para tal, frequentemente organizam convívios sociais, fora do contexto de trabalho. Do mesmo modo, mantêm-se acolhedores sempre que têm ligações com pessoas fora do seu grupo. Sempre que têm de escolher qual a tarefa sobre a qual vão trabalhar, os membros deste grupo selecionam tarefas com temáticas relacionadas com causas ambientais, mas que não sejam de grande visibilidade ou importância. Não existe investimento num planeamento detalhado das tarefas, pelo que muitas vezes os prazos não são cumpridos. No entanto, todos os membros colaboram entre si em todas as fases da realização da tarefa. Devido ao empenho com outras questões não relacionadas com a tarefa em mãos, nomeadamente a interação positiva entre os seus membros, este grupo não é um grupo de alto prestígio, o que se reflete no facto de rarearem os convites para palestras em conferências públicas.

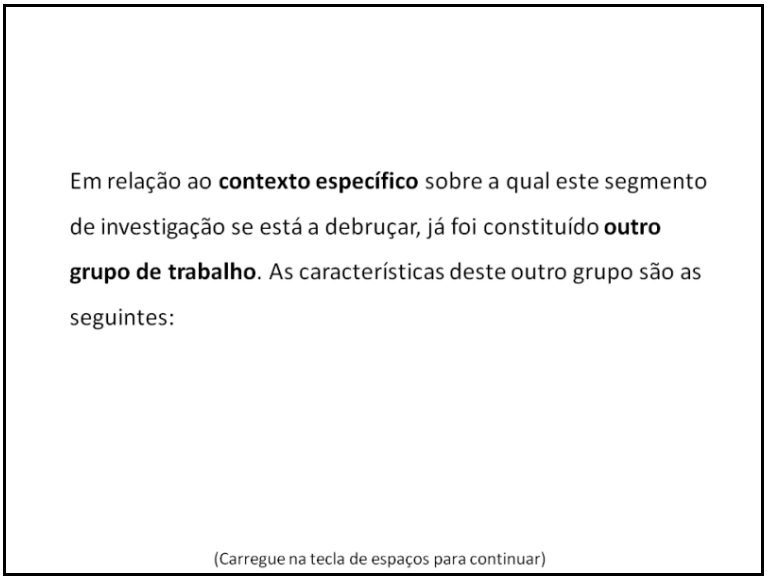


Table 3
Feedback on outgroup's competence and warmth by condition.

Condition	*Feedback*
High-Competence & High-Warmth	O outro grupo é caracterizado por pessoas de fácil convivência social. Para tal, frequentemente organizam convívios sociais, fora do contexto de trabalho. Do mesmo modo, mantêm-se acolhedores sempre que têm ligações com pessoas fora do seu grupo. Sempre que têm de escolher qual a tarefa sobre a qual vão trabalhar, os membros deste grupo selecionam tarefas com temáticas relacionadas com causas ambientais, que sejam de grande visibilidade ou importância e que façam uso dos seus conhecimentos tecnológicos muito avançados. Os elementos deste grupo apostam num atempado planeamento das tarefa, sendo que, ao mesmo tempo, todos os membros colaboram entre si em todas as fases da realização da tarefa. É assim um grupo simultaneamente

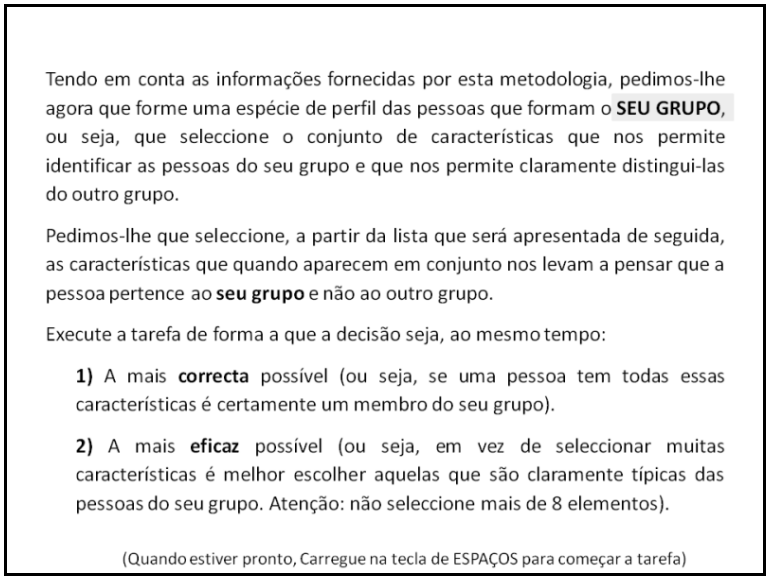
	direcionado para a realização da tarefa e para uma interação positiva entre os seus membros. Por todos estes motivos, é um grupo de alto prestígio, sendo os seus membros frequentemente convidados para dar palestras em conferências públicas
High-Competence & Low-Warmth	O outro grupo é caracterizado por pessoas que raramente convivem socialmente, uma vez que não têm muitos tempos livres e nem estão interessados em manter ligações fora do contexto de trabalho. Sempre que têm de escolher qual a tarefa sobre a qual vão trabalhar, os membros deste grupo selecionam tarefas que sejam de maior visibilidade ou importância e que façam uso dos seus conhecimentos tecnológicos muito avançados. Os elementos deste grupo apostam num atempado planeamento das tarefas, sendo que cada um desempenha a sua função autonomamente, pelo que não há o hábito de se entreajudarem. Assim, a preocupação dos membros deste grupo não é tanto assegurar uma interação positiva entre os seus membros, estando principalmente direcionados para a realização da tarefa. Devido a estes fatores este grupo é um grupo de alto prestígio, sendo os seus membros frequentemente convidados para dar palestras em conferências públicas.
Low-Competence & High-Warmth	O outro grupo é caracterizado por pessoas de fácil convivência social. Para tal, frequentemente organizam convívios sociais, fora do contexto de trabalho. Do mesmo modo, mantêm-se acolhedores sempre que têm ligações com pessoas fora do seu grupo. Sempre que têm de escolher qual a tarefa sobre a qual vão trabalhar, os membros deste grupo selecionam tarefas com temáticas relacionadas com causas ambientais, mas que não sejam de grande visibilidade ou importância. Não existe investimento num planeamento detalhado das tarefas, pelo que muitas vezes os prazos não são cumpridos. No entanto, todos os membros colaboram entre si em todas as fases da realização da tarefa. Devido ao empenho com outras questões não relacionadas com a tarefa em mãos, nomeadamente a interação positiva entre os seus membros, este grupo não é um grupo de alto prestígio, o que se reflete no facto de rarearem os convites para palestras em conferências públicas.
Low-Competence & Low-Warmth	O outro grupo é caracterizado por pessoas que raramente convivem socialmente, uma vez que não estão interessados em manter ligações com os colegas de trabalho. Ao mesmo tempo não são muito acolhedores quando interagem com pessoas fora do seu grupo. Sempre que têm de escolher qual a tarefa sobre a qual vão trabalhar, os membros deste grupo selecionam tarefas que sejam de menor visibilidade ou importância e com temáticas que não necessitem de grande conhecimento tecnológico, uma vez que procuram não ter de despender muito esforço. Não existe investimento num planeamento detalhado das tarefas, nem muita comunicação entre os seus membros. Preferem ir desempenhando tarefas isoladamente, pelo que não há o hábito de se entreajudarem. Devido às características apontadas, este grupo não é um grupo de alto prestígio, o que se reflete no facto de rarearem os convites para palestras em conferências públicas.

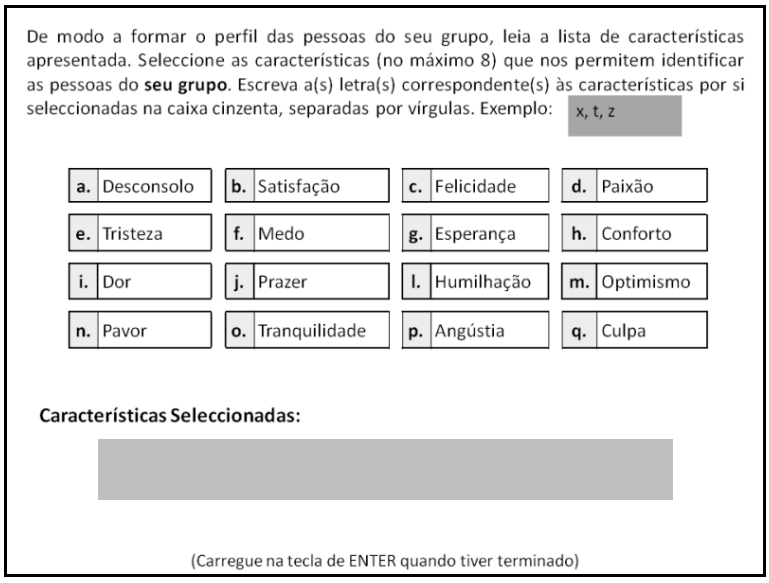
Identification Scale

1. Peço-lhe agora que pense no seu grupo. Diga em que medida cada afirmação que lhe iremos apresentar está de acordo com a sua opinião acerca de si e do seu grupo.

	Discordo Fortemente						Concordo Fortemente
Pertencer ao meu grupo é importante para mim	①	②	③	④	⑤	⑥	⑦
Tenho orgulho em pertencer ao meu grupo.	①	②	③	④	⑤	⑥	⑦
Às vezes, sinto-me incomodado quando penso que sou um membro do meu grupo.	①	②	③	④	⑤	⑥	⑦
De um modo geral sinto-me feliz por ser um membro do meu grupo.	①	②	③	④	⑤	⑥	⑦
Sinto que gostaria de não pertencer ao meu grupo.	①	②	③	④	⑤	⑥	⑦
Sinto-me identificado com o meu grupo.	①	②	③	④	⑤	⑥	⑦

Dehumanisation measure





The procedure was then repeated for the outgroup and thus replacing “o seu grupo” with “o outro grupo”.

Manipulation Checks

Table 4
Competence and warmth traits used for manipulation checks.

	Traits
Competence	Capaz; Competente; Dotado; Eficiente; Inteligente.
Warmth	Agradável; Amigável; Caloroso; Gentil; Sociável.

Appendix B: Statistics of Stereotypes and Dehumanisation: Competence (and not Warmth) Moderating the Attribution of Uniquely Human Emotions in a Minimal Group Paradigm

Pretest Report

Table 1
Emotions pretest: Descriptive statistics of emotions as to uniquely humanness and desirability.

		Uniquely Humaness		*Desirability*	
		M	*SD*	*M*	*SD*
Non-Uniquely Human Desirable	Tranquilidade	3,700	1,803	6,567	0,626
	Conforto	3,867	1,756	6,667	0,606
	Satisfação	2,862	2,031	6,700	0,596
	Prazer	3,655	2,595	6,667	0,758
	Total	3,411	1,153	6,650	0,423
Non-Uniquely Human Undesirable	Tristeza	4,133	2,013	1,833	1,177
	Medo	3,100	1,989	2,300	1,579
	Pavor	3,533	1,943	1,500	0,861
	Dor	2,900	2,107	1,933	1,202
	Total	3,417	1,018	1,892	0,611
Uniquely Human Desirable	Esperança	6,233	1,382	6,467	0,819
	Otimismo	6,133	1,196	6,433	0,774
	Felicidade	4,967	1,810	6,867	0,346
	Paixão	5,867	1,252	6,267	1,048
	Total	5,800	0,810	6,508	,37418
Non-Uniquely Human Undesirable	Humilhação	5,333	1,863	1,400	0,621
	Culpa	5,500	1,697	2,367	1,629
	Angústia	5,333	1,647	2,000	1,114
	Desconsolo	5,379	1,425	1,828	0,848
	Total	5,386	0,865	1,899	0,686

Table 2
Emotions pretest: Repeated Measures ANOVA on uniquely humanness and desirability of proposed categorisation of emotions

	Uniquely Humanness Ratings						*Desirability Ratings*					
	SS	*df*	*MS*	*F*	*p*	η_p^2	*SS*	*df*	*MS*	*F*	*p*	η_p^2
UH	129,473	1	129,473	130,830	,000	,834						
Error (UH)	25,730	26	,990									
Des							636,621	1	636,621	2231,481	,000	,988
Error (Des)							7,988	28	,285			
UH * Des	1,172	1	1,172	1,367	,253	,050	,065	1	,065	,215	,646	,008
Error (UH*Des)	22,281	26	,857				8,482	28	,303			

UH = Uniquely Humaness; Des = Desirability

Study 1

Table 3
Descriptive statistics of sociodemographic information.

Gender			Age		
	Male	Female		*M*	*SD*
	22	88		24,85	8,23

Table 4
Descriptive statistics and reliability of manipulation check.

	M	*SD*	*α*
Ingroup competence	5,6891	,99044	,832
Outgroup competence	4,4473	1,47963	,936
Ingroup warmth	5,3800	1,37952	,912
Outgroup warmth	3,8182	1,64781	,924

Table 5
MANOVA with manipulation checks for ingroup and outgroup competence

	Dependent Variable	*SS*	*df*	*MS*	*F*	*p*	η_p^2
Intercept	Ingroup competence	2502,116	1	2502,116	2778,164	,000	,963
	Outgroup competence	1638,620	1	1638,620	865,943	,000	,891
Ingroup competence condition	Ingroup competence	7,283	1	7,283	8,087	,005	,071
	Outgroup competence	3,762	1	3,762	1,988	,161	,018
Outgroup competence condition	Ingroup competence	,587	1	,587	,652	,421	,006
	Outgroup competence	21,555	1	21,555	11,391	,001	,097
Ingroup*Outgroup competence condition	Ingroup competence	,535	1	,535	,594	,442	,006
	Outgroup competence	1,679	1	1,679	,887	,348	,008
Error	Ingroup competence	95,467	106	,901			
	Outgroup competence	200,583	106	1,892			

Table 6
MANOVA with manipulation checks for ingroup and outgroup warmth

	Dependent Variable	*SS*	*df*	*MS*	*F*	*p*	η_p^2
Intercept	Ingroup warmth	2235,020	1	2235,020	1709,218	,000	,942
	Outgroup warmth	1287,575	1	1287,575	945,179	,000	,899
Ingroup warmth condition	Ingroup warmth	51,360	1	51,360	39,278	,000	,270
	Outgroup warmth	5,479	1	5,479	4,022	,047	,037
Outgroup warmth condition	Ingroup warmth	,735	1	,735	,562	,455	,005
	Outgroup warmth	103,362	1	103,362	75,875	,000	,417
Ingroup*Outgroup warmth condition	Ingroup warmth	2,012	1	2,012	1,539	,218	,014
	Outgroup warmth	3,844	1	3,844	2,822	,096	,026
Error	Ingroup warmth	138,608	106	1,308			
	Outgroup warmth	144,399	106	1,362			

Table 7
Descriptive statistics and reliability of ingroup identification.

	M	*SD*	*α*
Ingroup identification	5,047	1,393	,912

Table 8
ANOVA comparing ingroup identification by experimental condition.

	SS	*df*	*MS*	*F*	*p*	η_p^2
Intercept	2742,259	1	2742,259	1991,390	,000	,343
Version	72,480	8	9,060	6,579	,000	,952
Error	139,083	101	1,377			,343

Table 9
Homogeinity of variances of dependent variables between conditions of high and low ingroup competence, outgroup competence, ingroup warmth and outgroup warmth.

				Ingroup Competence		*Outgroup Competence*		*Ingroup Warmth*		*Outgroup Warmth*	
		df1	*df2*	Levene Statistic	*p*	Levene Statistic	*p*	Levene Statistic	*p*	Levene Statistic	*p*
Primary	Ingroup	1	108	2,193	,142	2,990	,087	2,546	,113	2,148	,146
	Outgroup	1	108	1,750	,189	,000	,992	,348	,557	2,995	,086
Secondary	Ingroup	1	108	,012	,914	4,142	,044	,336	,563	,539	,465
	Outgorup	1	108	,118	,732	,045	,832	1,888	,172	,230	,632

Table 10
Repeated measures ANOVA on emotion attribution by group competence, with ingroup identification as a covariate.

	SS	*df*	*MS*	*F*	*p*	η_p^2
UH	,023	1	,023	,057	,812	,001
UH * Identification	,669	1	,669	1,633	,204	,015
UH * Ingroup competence	,424	1	,424	1,035	,311	,010
UH * Outgroup competence	,236	1	,236	,576	,450	,005
UH * Ingroup competence * Outgroup competence	,187	1	,187	,457	,500	,004
Error (UH)	43,005	105	,410			
Desirability	25,313	1	25,313	14,612	,000	,122
Desirability * Identification	2,577	1	2,577	1,487	,225	,014
Desirability * Ingroup competence	1,879	1	1,879	1,085	,300	,010
Desirability * Outgroup competence	1,074	1	1,074	,620	,433	,006
Desirability * Ingroup competence * Outgroup competence	6,471	1	6,471	3,736	,056	,034
Error (Desirability)	181,890	105	1,732			
Target	3,638	1	3,638	9,257	,003	,081
Target * Identification	7,806	1	7,806	19,862	,000	,159
Target * Ingroup competence	,717	1	,717	1,825	,180	,017
Target * Outgroup competence	,042	1	,042	,108	,743	,001
Target * Ingroup competence * Outgroup competence	,182	1	,182	,463	,498	,004
Error (Target)	41,268	105	,393			
UH * Desirability	,019	1	,019	,035	,853	,000
UH * Desirability * Identification	,360	1	,360	,665	,416	,006
UH * Desirability * Ingroup competence	,004	1	,004	,008	,928	,000
UH * Desirability * Outgroup competence	,001	1	,001	,002	,962	,000
UH * Desirability * Ingroup competence * Outgroup comp.	,447	1	,447	,826	,365	,008
Error (UH * Desirability)	56,756	105	,541			
UH * Target	1,840	1	1,840	2,800	,097	,026
UH * Target * Identification	2,759	1	2,759	4,199	,043	,038
UH * Target * Ingroup competence	2,930	1	2,930	4,459	,037	,041
UH * Target * Outgroup competence	,792	1	,792	1,206	,275	,011
UH * Target * Ingroup competence * Outgroup competence	,162	1	,162	,246	,621	,002
Error (UH*Target)	68,993	105	,657			
Desirability * Target	71,875	1	71,875	26,854	,000	,204
Desirability * Target * Identification	175,996	1	175,996	65,755	,000	,385
Desirability * Target * Ingroup competence	2,938	1	2,938	1,098	,297	,010
Desirability * Target * Outgroup competence	13,864	1	13,864	5,180	,025	,047
Desirability * Target * Ingroup competence * Outgroup comp.	38,252	1	38,252	14,292	,000	,120
Error (Desirability * Target)	281,039	105	2,677			
UH * Desirability * Target	,394	1	,394	,702	,404	,007
UH * Desirability * Target * Identification	,237	1	,237	,423	,517	,004
UH * Desirability * Target * Ingroup competence	,378	1	,378	,674	,413	,006
UH * Desirability * Target * Outgroup competence	,646	1	,646	1,151	,286	,011
UH * Desirability * Target * Ingroup comp. * Outgroup comp.	,656	1	,656	1,170	,282	,011
Error (UH * Desirability * Target)	58,895	105	,561			

Within factors = UH (Primary vs. Secondary); Desirability (Desirable vs. Undesirable); Target (Ingroup vs. Outgroup).
Between factors = Ingroup competence (High vs. Low); Outgroup competence (High vs. Low)

Table 11
Contrast analysis of differential attribution of primary and secondary emotions to the ingroup and the outgroup.

Emotion	*Target*	*M*	*SE*	*Mean Difference*	*F(1, 105)*	*p*[b]	η_p^2
Primary	Ingroup	1,429[a]	,057	,272*	11,037[a]	,001	,095
	Outgroup	1,158[a]	,067				
Secondary	Ingroup	1,199[a]	,068	,141	3,047[a]	,084	,028
	Outgroup	1,059[a]	,063				

a. Covariates appearing in the model are evaluated at the following values: Identification = 5,047. b. Adjustment for multiple comparisons: Sidak

Table 12
Repeated measures ANOVA on primary and secondary emotion attribution, with ingroup identification as a covariate, splitting by group competence.

	Low Ingroup Competence						*High Ingroup Competence*					
	SS	*df*	*MS*	*F*	*p*	η_p^2	*SS*	*df*	*MS*	*F*	*p*	η_p^2
UH * Target	,323	1	,323	,716	,404	,023	2,546	1	2,546	3,383	,070	,044
UH * Target * Identification	,855	1	,855	1,894	,179	,058	1,955	1	1,955	2,597	,111	,034
UH * Target * Outgroup comp	,631	1	,631	1,398	,246	,043	,210	1	,210	,278	,599	,004
Error (UH*Target)	13,987	31	,451				54,955	73	,753			
UH * Desirability * Target	,174	1	,174	,425	,519	,014	,135	1	,135	,214	,645	,003
UH * Des. * Target * Identif.	,070	1	,070	,171	,682	,005	,171	1	,171	,270	,605	,004
UH * Des. * Target * Outgroup competence	,884	1	,884	2,155	,152	,065	,000	1	,000	,001	,982	,000
Error (UH * Desirability * Target)	12,709	31	,410				46,182	73	,633			

Within factors = UH (Primary vs. Secondary); Desirability (Desirable vs. Undesirable); Target (Ingroup vs. Outgroup).
Between factors = Outgroup competence (High vs. Low)

Table 13
Contrast analysis of differential attribution of primary and secondary emotions to the ingroup and the outgroup when ingroup competence is high.

Emotion	*Target*	*M*	*SE*	*Mean Difference*	*F(1, 73)*	*p*[b]	η_p^2
Primary	Ingroup	1,337[a]	,062	,074	,638	,427	,009
	Outgroup	1,263[a]	,075				
Secondary	Ingroup	1,290[a]	,073	,211	6,056	,016	,077
	Outgorup	1,079[a]	,067				

a. Covariates appearing in the model are evaluated at the following values: Identification = 5,070. b. Adjustment for multiple comparisons: Sidak

Table 14
Repeated measures ANOVA on emotion attribution by group warmth, with ingroup identification as a covariate.

	SS	*df*	*MS*	*F*	*p*	η_p^2
UH	,074	1	,074	,209	,649	,002
UH * Identification	,077	1	,077	,218	,641	,002
UH * Ingroup warmth	,113	1	,113	,321	,572	,003
UH * Outgroup warmth	6,348	1	6,348	18,037	,000	,147
UH * Ingroup warmth * Outgroup warmth	,732	1	,732	2,080	,152	,019
Error (UH)	36,955	105	,352			
Desirability	13,267	1	13,267	7,913	,006	,070
Desirability * Identification	,018	1	,018	,011	,918	,000
Desirability * Ingroup warmth	1,607	1	1,607	,958	,330	,009
Desirability * Outgroup warmth	7,377	1	7,377	4,401	,038	,040
Desirability * Ingroup warmth * Outgroup warmth	,009	1	,009	,005	,943	,000
Error (Desirability)	176,031	105	1,676			
Target	1,452	1	1,452	3,853	,052	,035
Target * Identification	3,398	1	3,398	9,019	,003	,079
Target * Ingroup warmth	,891	1	,891	2,365	,127	,022
Target * Outgroup warmth	1,009	1	1,009	2,678	,105	,025
Target * Ingroup warmth * Outgroup warmth	,477	1	,477	1,266	,263	,012
Error (Target)	39,554	105	,377			
UH * Desirability	,007	1	,007	,013	,908	,000
UH * Desirability * Identification	,507	1	,507	,937	,335	,009
UH * Desirability * Ingroup warmth	,271	1	,271	,501	,481	,005
UH * Desirability * Outgroup warmth	,007	1	,007	,013	,911	,000
UH * Desirability * Ingroup warmth * Outgroup warmth	,111	1	,111	,205	,651	,002
Error (UH * Desirability)	56,831	105	,541			
UH * Target	1,533	1	1,533	2,249	,137	,021
UH * Target * Identification	1,704	1	1,704	2,501	,117	,023
UH * Target * Ingroup warmth	,030	1	,030	,044	,834	,000
UH * Target * Outgroup warmth	,083	1	,083	,122	,727	,001
UH * Target * Ingroup warmth * Outgroup warmth	,343	1	,343	,503	,480	,005
Error (UH*Target)	71,552	105	,681			
Desirability * Target	31,020	1	31,020	12,381	,001	,105
Desirability * Target * Identification	73,806	1	73,806	29,458	,000	,219
Desirability * Target * Ingroup warmth	7,224	1	7,224	2,884	,092	,027
Desirability * Target * Outgroup warmth	33,497	1	33,497	13,370	,000	,113
Desirability * Target * Ingroup warmth * Outgroup warmth	,587	1	,587	,234	,629	,002
Error (Desirability * Target)	263,069	105	2,505			
UH * Desirability * Target	,404	1	,404	,726	,396	,007
UH * Desirability * Target * Identification	,407	1	,407	,732	,394	,007
UH * Desirability * Target * Ingroup warmth	,048	1	,048	,086	,771	,001
UH * Desirability * Target * Outgroup warmth	1,123	1	1,123	2,017	,159	,019
UH * Desirability * Target * Ingroup warmth* Outgroup w.	,018	1	,018	,032	,857	,000
Error (UH * Desirability * Target)	58,481	105	,557			

Within factors = UH (Primary vs. Secondary); Desirability (Desirable vs. Undesirable); Target (Ingroup vs. Outgroup).
Between factors = Ingroup warmth (High vs. Low); Outgroup warmth (High vs. Low)

Table 15

Appendix C: Measures of When in Rome... Identification and Acculturation strategies among minority members moderate the dehumanisation of the majority outgroup

Identification Scale

Todos nós pertencemos a diferentes grupos. Gostaria que pensasses agora nos grupos de pessoas que vou descrever nas questões abaixo e que nos desses a tua opinião acerca de ti e desses grupos.
1/2. Peço-lhe agora que pense no grupo dos [grupo de herança/acolhimento]. Para cada frase ponha uma cruz no número que mais estiver de acordo com a sua opinião acerca de si e do grupo dos [grupo de herança/acolhimento].

	Discordo Fortemente						Concordo Fortemente
Pertencer ao grupo dos [grupo de herança/acolhimento] é importante para mim	①	②	③	④	⑤	⑥	⑦
Tenho orgulho em pertencer ao grupo dos [grupo de herança/acolhimento]	①	②	③	④	⑤	⑥	⑦
Às vezes, sinto-me incomodado quando penso que sou um membro do grupo dos [grupo de herança/acolhimento]	①	②	③	④	⑤	⑥	⑦
De um modo geral sinto-me feliz por ser um membro do grupo dos [grupo de herança/acolhimento]	①	②	③	④	⑤	⑥	⑦
Sinto que gostaria de não pertencer ao grupo dos [grupo de herança/acolhimento]	①	②	③	④	⑤	⑥	⑦
Sinto-me identificado com o grupo dos [grupo de herança/acolhimento]	①	②	③	④	⑤	⑥	⑦

Acculturation Scale

1. Abaixo vai encontrar perguntas relacionadas com a sua [cultural hereditária] e com a [cultura de acolhimento]. Indique o grau em que concorda ou discorda delas, colocando uma cruz no número que melhor representa a sua opinião.

	Discordo Fortemente						Concordo Fortemente
Eu participo frequentemente em tradições [cultura [hereditária]**.**	①	②	③	④	⑤	⑥	⑦
Eu participo frequentemente em tradições [cultura de acolhimento]**.**	①	②	③	④	⑤	⑥	⑦
Eu estaria disposto(a) a casar com um(a) [membro da cultura hereditária].	①	②	③	④	⑤	⑥	⑦
Eu estaria disposto(a) a casar com um(a) [membro da cultura de acolhimento].	①	②	③	④	⑤	⑥	⑦
Eu gosto de participar em atividades sociais com [membros da cultura hereditária].	①	②	③	④	⑤	⑥	⑦
Eu gosto de participar em atividades sociais com [membros da cultura de acolhimento] típicos.	①	②	③	④	⑤	⑥	⑦

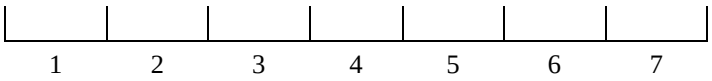
Eu sinto-me confortável a trabalhar com [membros da cultura hereditária]..	①	②	③	④	⑤	⑥	⑦
Eu sinto-me confortável a trabalhar com [membros da cultura de acolhimento] típicos.	①	②	③	④	⑤	⑥	⑦
Eu gosto de entretenimento [cultura hereditária]. (por exemplo, filmes, música).	①	②	③	④	⑤	⑥	⑦
Eu gosto de entretenimento [cultura de acolhimento] (por exemplo, filmes, música).	①	②	③	④	⑤	⑥	⑦
Eu comporto-me frequentemente de formas que são tipicamente [cultura hereditária]..	①	②	③	④	⑤	⑥	⑦
Eu comporto-me frequentemente de formas que são tipicamente [cultura de acolhimento].	①	②	③	④	⑤	⑥	⑦
Para mim é importante manter e desenvolver práticas culturais [hereditárias].	①	②	③	④	⑤	⑥	⑦
Para mim é importante manter e desenvolver práticas culturais [de acolhimento].	①	②	③	④	⑤	⑥	⑦
Eu acredito nos valores da cultura [hereditária].	①	②	③	④	⑤	⑥	⑦
Eu acredito nos valores centrais da cultura [de acolhimento].	①	②	③	④	⑤	⑥	⑦
Eu gosto de piadas e do humor [cultura hereditária].o	①	②	③	④	⑤	⑥	⑦
Eu gosto de piadas e do humor tipicamente [cultura de acolhimento]	①	②	③	④	⑤	⑥	⑦
Eu tenho interesse em ter amigos [membros da cultura hereditária].	①	②	③	④	⑤	⑥	⑦
Eu tenho interesse em ter amigos [membros da cultura de acolhimento]..	①	②	③	④	⑤	⑥	⑦

Dehumanisation measure

Study 1.

1. Gostaria que pensasses nas características que, na tua opinião, definem o ser humano. Já pensaste? Gostaria então que escrevesses todas as características que, na tua opinião, só os seres humanos têm.
[Características x]: _____.

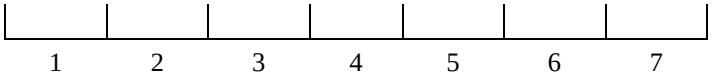
2. A partir das características que escreveste na questão 1, gostava que pensasses qual é a probabilidade de encontrar cada uma delas num cigano típico. Para isso põe uma cruz no espaço que melhor representa a tua opinião. Para te ajudar, volta a escrever as características que já escreveste na questão 1 nesta questão.
Característica 1_____.



1 2 3 4 5 6 7

Muito baixa probabilidade de a encontrar num cigano típico — Muito alta probabilidade de a encontrar num cigano típico

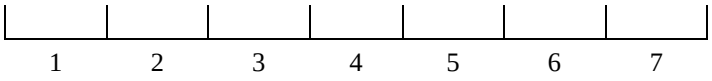
3. A partir das características que escreveste na questão 1, gostava que pensasses qual é a probabilidade de encontrar cada uma delas num **cigano típico**. Para isso põe uma cruz no espaço que melhor representa a tua opinião. Para te ajudar, volta a escrever as características que já escreveste na questão 1 nesta questão.



1 2 3 4 5 6 7

Muito baixa probabilidade de a encontrar num português típico — Muito alta probabilidade de a encontrar num português típico

4. Gostaria agora que dissesses quanto cada uma das características que escreveste na questão 1 é negativa ou positiva. Para isso põe uma cruz no espaço que melhor representa a tua opinião. Para te ajudar, volta a escrever as características que já escreveste na questão 1 nesta questão.



1 2 3 4 5 6 7

Muito negativa — Muito positiva

Studies 2 and 3[18].

1. Quanto é que você acha que os [endogrupo] são:
(Para todas as palavras, coloque uma cruz no número que melhor representa a sua opinião)

	Nada						Muito
[Traços]	①	②	③	④	⑤	⑥	⑦

2. Quanto é que você acha que os [exogrupo] são:
(Para todas as palavras, coloque uma cruz no número que melhor representa a sua opinião)

	Nada						Muito
[Traços]	①	②	③	④	⑤	⑥	⑦

[18] Study 2 corresponded to the Italian translated version of the questionnaire presented here in Portuguese.

3. Quanto é que você acha que cada uma das seguintes características são exclusivas dos seres humanos (só as pessoas é que as têm) ou são partilhadas com os animais (as pessoas e os animais têm-nas).
(Para todas as palavras, coloque uma cruz no número que melhor representa a sua opinião)

	Partilhadas com os Animais						Exclusivas dos Seres Humanos
[Traços]	①	②	③	④	⑤	⑥	⑦

4. Quanto é que você acha desejável ter as seguintes características:
(Coloque uma cruz no número que melhor representa a sua opinião)

	Nada						Muito
[Traits]	①	②	③	④	⑤	⑥	⑦

Table 1
Traits used in the dehumanisation measure in Study 2 and Study 3.

	Study 2	*Study 3*
[Traits]	Affidabili; Aggressivi; Allegri; Amichevoli; Bugiardi; Cattivi; Competenti; Creativi; Disorganizzati; Educati; Freddi; Furbi; Generosi; Ignoranti; Irresponsabili; Ladri; Lavoratori; Onesti; Pacifici; Sensibili; Simpatici; Stupidi; Superficiali; Violenti	Abertos; Acomodados; Alegres; Arrogantes; Bem-humorados; Bons; amigos; Bons; dançarinos; Brincalhões; Calorosos; Conservadores; Corajosos; Covardes; Deprimidos; Desagradáveis; Desconfiados; Descontraídos; Egoístas; Espontâneos; Extrovertidos; Hospitaleiros; Idealistas; Ignorantes; Impontuais; Inconvenientes; Insensíveis; Ladrões; Malandros; Mal-educados; Mentirosos; Nervosos; Orgulhosos; Patriotas; Responsáveis; Rígidos; Sexuais; Simpáticos; Teimosos; Tolerantes; Trabalhadores; Tradicionais.

Appendix D: Statistics of When in Rome... Identification and Acculturation strategies among minority members moderate the dehumanisation of the majority outgroup

Study 1: Ingroup and outgroup identification and dehumanisation

Table 1
Descriptive statistics of sociodemographic information.

Gender	Male	Female	
	19	11	
Age	*M*	*SD*	
	13,83	1,74	
School grade	Med	Min	Max
	4th	3rd	8th
History of failing in school	<1	≥1	NR.
	1	28	1

Table 2
Descriptive statistics and reliability of ingroup and outgroup identification.

	M	*Med*	*SD*	*α*
Ingroup identification	5,933	6,08	,962	,586
Outgroup identification	4,289	4,25	1,648	,794

Table 3
Descriptive statistics of uniquely human features.

	M	*SD*
Number	5,200	2,384
Desirability	6,053	,998

Table 4
Tests of normality of dehumanisation, ingroup identification and outgroup identification.

	Kolmogorov-Smirnov[a]		
	Statistic	*df*	*p*
Dehumanisation Index	,132	30	,192
Ingroup identification	,194	30	,005
Outgroup identification	,098	30	,200

a. Lilliefors Significance Correction

Table 5
T-tests for dehumanisation against zero.

						CI 95%	
	M	*SD*	*Mean Difference*	*t(29)*	*p*	*LL*	*UL*
Dehumanisation Index	-,004	1,262	-,004	-,017	,986	-,475	,467

CI= Confidence interval (95%); LL= lower limit; UL= upper limit

Table 6
Correlation and paired T-test of ingroup identification and outgroup identification.

						CI 95%	
	r	*p*	*Mean Difference*	*t(29)*	*p*	*LL*	*UL*
Ingroup identification - Outgroup identification	,068	,723	1,644	4,866	,000	,95322	2,33567

CI= Confidence interval (95%); LL= lower limit; UL= upper limit

Table 7
Regression analyses of group identification on dehumanisation: model summary.

					Change Statistics				
Model	*R*	R^2	*Adjusted* R^2	*SE of Estimate*	R^2 *Change*	*F Change*	*df1*	*df2*	*p*
1	,505[a]	,255	,200	1,129	,255	4,621	2	27	,019
2	,505[b]	,255	,169	1,151	,000	,000	1	26	,997

a. Predictors: (Constant), Ingroup identification (MC), Outgroup identification (MC)
b. Predictors: (Constant), Ingroup identification (MC), Outgroup identification (MC), Ingroup identification (MC)* Outgroup identification (MC)

Table 8
Regression analyses of group identification on dehumanisation: ANOVA.

	Model	*SS*	*df*	*MS*	*F*	*p*
1	Regression	11,781	2	5,891	4,621	,019[a]
	Residual	34,421	27	1,275		
	Total	46,203	29			
2	Regression	11,781	3	3,927	2,966	,050[b]
	Residual	34,421	26	1,324		
	Total	46,203	29			

a. Predictors: (Constant), Ingroup identification (MC), Outgroup identification (MC)
b. Predictors: (Constant), Ingroup identification (MC), Outgroup identification (MC), Ingroup identification (MC)* Outgroup identification (MC)

Table 9
Regression analyses of group identification on dehumanisation: coefficients.

	Model	Unstandardized Cofficients		Standardized Coefficients	t	p	Collinearity Statistics	
		B	SD	Beta			Tolerance	VIF
1	(Constant)	-,004	,206		-,020	,984		
	Ingroup identification (MC)	,505	,219	,385	2,311	,029	,995	1,005
	Outgroup identification (MC)	-,271	,128	-,354	-2,127	,043	,995	1,005
2	(Constant)	-,004	,211		-,020	,984		
	Ingroup identification (MC)	,505	,230	,385	2,193	,037	,930	1,075
	Outgroup identification (MC)	-,271	,136	-,354	-1,998	,056	,911	1,098
	Ingroup identification (MC)* Outgroup identification (MC)	,001	,186	,001	,004	,997	,868	1,153

Table 10
Descriptive statistics of dehumanisation according to identification strategy.

	M	SD
Acculturative	,0620	,99638
Dissociative	,9334	1,42512
Assimilative	-,8452	1,05458
Marginal	-,1542	1,13863

Table 11
Contrast analysis on dehumanisation of acculturative, dissociative and assimilative against others.

	Value of Contrast	SE	t	df	p
Assimilative (1, 1, -3, 1)	3,377	1,501	2,250	26	,033
Acculturative (-3, 1, 1, 1)	-,252	1,435	-,176	26	,862
Dissociative (-1, 3, -1, -1)	3,738	1,501	2,491	26	,019

Study 2: Acculturation and Dehumanisation

Table 12
Descriptive statistics of sociodemographic information.

Gender	Male	Female		
	15	26		
Age	M	SD		
	37,71	10,759		
Country of origin	Albania	Romania	Nigeria	Russia
	20	19	1	1

	M	*SD*
Years in Italy	10,382	5,568

	M	*SD*
Self-rated proficiency in Italian	5,15	1,40

Table 13
Descriptive statistics and reliability of ingroup and outgroup acculturation.

	M	*Med*	*SD*	*α*
Ingroup acculturation	6,679	6,900	1,700	,934
Outgroup acculturation	6,3485	6,500	1,21068	,843

Table 14
Tests of normality of dehumanisation, ingroup acculturation and outgroup acculturation.

	Kolmogorov-Smirnov[a]		
	Statistic	*df*	*p*
Dehumanisation Index	,169	38	,008
Ingroup acculturation	,108	41	,200
Outgroup acculturation	,102	41	,200

a. Lilliefors Significance Correction

Table 15
T-tests for dehumanisation against zero.

						CI 95%	
	M	*SD*	*Mean Difference*	*t(37)*	*p*	*LL*	*UL*
Dehumanisation Index	-,0422	,31472	-,04220	-,827	,414	-,1456	,0612

CI= Confidence interval (95%); LL= lower limit; UL= upper limit

Table 16
Correlation and paired T-test of ingroup acculturation and outgroup acculturation.

						CI 95%	
	r	*p*	*Mean Difference*	*t(40)*	*p*	*LL*	*UL*
Ingroup identification - Outgroup identification	,067	,679	,33035	1,047	,301	-,30737	,96807

CI= Confidence interval (95%); LL= lower limit; UL= upper limit

Table 17
Regression analyses of acculturation on dehumanisation: model summary.

Model	*R*	R^2	*Adjusted* R^2	*SE of Estimate*	*Change Statistics*				
					R^2 *Change*	*F Change*	*df1*	*df2*	*p*
1	,355[a]	,126	,076	,303	,126	2,520	2	35	,095
2	,526[b]	,276	,212	,279	,150	7,067	1	34	,012

a. Predictors: (Constant), Ingroup acculturation (MC), Outgroup acculturation (MC)
b. Predictors: (Constant), Ingroup acculturation (MC), Outgroup acculturation (MC), Ingroup acculturation (MC)* Outgroup acculturation (MC)

Table 18
Regression analyses of acculturation on dehumanisation: ANOVA.

	Model	*SS*	*df*	*MS*	*F*	*p*
1	Regression	,461	2	,231	2,520	,095[a]
	Residual	3,203	35	,092		
	Total	3,665	37			
2	Regression	1,013	3	,338	4,327	,011[b]
	Residual	2,652	34	,078		
	Total	3,665	37			

a. Predictors: (Constant), Ingroup acculturation (MC), Outgroup acculturation (MC)
b. Predictors: (Constant), Ingroup acculturation (MC), Outgroup acculturation (MC), Ingroup acculturation (MC)* Outgroup acculturation (MC)

Table 19
Regression analyses of acculturation on dehumanisation: coefficients.

	Model	*Unstandardized Cofficients*		*Standardized Coefficients*			*Collinearity Statistics*	
		B	*SD*	*Beta*	*t*	*p*	*Tolerance*	*VIF*
1	(Constant)	-,036	,049		-,726	,472		
	Ingroup identification (MC)	,091	,050	,287	1,806	,080	,989	1,011
	Outgroup identification (MC)	-,077	,050	-,241	-1,518	,138	,989	1,011
2	(Constant)	-,049	,046		-1,082	,287		
	Ingroup identification (MC)	,052	,049	,164	1,066	,294	,899	1,112
	Outgroup identification (MC)	-,087	,047	-,275	-1,870	,070	,981	1,019
	Ingroup identification (MC)* Outgroup identification (MC)	,119	,045	,409	2,658	,012	,897	1,114

Table 20
Regression analyses of acculturation on dehumanisation: Covariance matrix of model 2.

	Model		*1*	*2*	*3*
2	Covariance	Ingroup identification (MC)	,002	,000	-,001
		Outgroup identification (MC)	,000	,002	,000
		Ingroup identification (MC)* Outgroup identification (MC)	-,001	,000	,002

Table 21
Simple slope computations for continuous moderation of acculturation on dehumanisation.

Level of the moderating variable	*Simple Slope*	*SE*	*t*	*df*	*p*
High	,032	,063	0,506	34	,616
Medium	-,087	,046	-1,905	34	,065
Low	-,206	,063	-3,257	34	,003

Table 22
Descriptive statistics of dehumanisation according to acculturation strategy.

	M	*SD*
Integration	-,0077	,27695
Separation	-,0221	,24435
Assimilation	-,2522	,39210
Marginalisation	,0320	,32127

Table 23
Contrast analysis on dehumanisation of acculturative, dissociative and assimilative against others.

	Value of Contrast	*SE*	*t*	*df*	*p*
Assimilation (1, 1, -3, 1)	,7588	,39072	1,942	34	,060
Integration (-3, 1, 1, 1)	-,2191	,34597	-,633	34	,531
Separation (-1, 3, -1, -1)	,1617	,37273	,434	34	,667

Study 3: Acculturation and Dehumanisation, a Replication

Table 24
Descriptive statistics of sociodemographic information.

Gender	Male	Female	
	13	18	
Age	*M*	*SD*	
	32,29	8,73	
Permit to stay	*Yes*	*No*	NA
	18	12	1

Table 25
Descriptive statistics and reliability of ingroup and outgroup acculturation.

	M	*Med*	*SD*	*α*
Ingroup acculturation	5,322	5,500	1,139	,846
Outgroup acculturation	4,326	4,400	1,233	,822

Table 26
Tests of normality of dehumanisation, ingroup acculturation and outgroup acculturation.

	Kolmogorov-Smirnov[a]		
	Statistic	*df*	*p*
Dehumanisation Index	,463	31	,000
Dehumanisation Index without outliers	,107	28	,200
Ingroup acculturation	,098	31	,200
Outgroup acculturation	,141	31	,118

a. Lilliefors Significance Correction

Table 27
Stem-and-leaf of the dehumanisation index.

Frequency	*Stem &*	*Leaf*
1 Extremes ≤-19,10		
1	-7.	5
1	-6.	0
2	-5.	22
1	-4.	7
2	-3.	06
5	-2.	57789
3	-1.	026
5	-0.	15699
2	0.	02
6	1.	003349
2 Extremes ≥,83		

Stem width = ,10; Each leaf = 1 case.

Table 28
Correlation and paired T-test of ingroup acculturation and outgroup acculturation.

						CI 95%	
	r	*p*	*Mean Difference*	*t(30)*	*p*	*LL*	*UL*
Ingroup identification - Outgroup identification	208	,262	,26838	3,710	,001	,44759	1,54381

CI= Confidence interval (95%); LL= lower limit; UL= upper limit

Table 29
T-tests for dehumanisation against zero.

						CI 95%	
	M	*SD*	*Mean Difference*	*t(27)*	*p*	*LL*	*UL*
Dehumanisation Index	-,172	,250	-,172	-3,647	,001	-,269	-,075

CI= Confidence interval (95%); LL= lower limit; UL= upper limit

Table 30
Regression analyses of acculturation on dehumanisation: model summary.

					Change Statistics				
Model	*R*	R^2	*Adjusted* R^2	*SE of Estimate*	R^2 *Change*	*F Change*	*df1*	*df2*	*p*
1	,413[a]	,171	,104	,23629	,171	2,571	2	25	,096
2	,550[b]	,302	,215	,22122	,132	4,524	1	24	,044

a. Predictors: (Constant), Ingroup acculturation (MC), Outgroup acculturation (MC)
b. Predictors: (Constant), Ingroup acculturation (MC), Outgroup acculturation (MC), Ingroup acculturation (MC)* Outgroup acculturation (MC)

Table 31
Regression analyses of acculturation on dehumanisation: ANOVA.

	Model	*SS*	*df*	*MS*	*F*	*p*
1	Regression	,287	2	,144	2,571	,096[a]
	Residual	1,396	25	,056		
	Total	1,683	27			
2	Regression	,509	3	,170	3,464	,032[b]
	Residual	1,174	24	,049		
	Total	1,683	27			

a. Predictors: (Constant), Ingroup acculturation (MC), Outgroup acculturation (MC)
b. Predictors: (Constant), Ingroup acculturation (MC), Outgroup acculturation (MC), Ingroup acculturation (MC)* Outgroup acculturation (MC)

Table 32
Regression analyses of acculturation on dehumanisation: coefficients.

		Unstandardized Cofficients		*Standardized Coefficients*			*Collinearity Statistics*	
	Model	*B*	*SD*	*Beta*	*t*	*p*	*Tolerance*	*VIF*
1	(Constant)	-,168	,045		-3,760	,001		
	Ingroup acculturation (MC)	,090	,040	,421	2,267	,032	,964	1,037
	Outgroup acculturation (MC)	-,015	,040	-,072	-,388	,701	,964	1,037
2	(Constant)	-,192	,043		-4,427	,000		
	Ingroup acculturation (MC)	,135	,043	,630	3,155	,004	,730	1,369
	Outgroup acculturation (MC)	-,069	,045	-,322	-1,534	,138	,662	1,511
	Ingroup acculturation (MC)* Outgroup acculturation (MC)	,090	,042	,467	2,127	,044	,604	1,656

Table 33
Regression analyses of acculturation on dehumanisation: Covariance matrix of model 2.

Model			*1*	*2*	*3*
2	Covariance	Ingroup acculturation (MC)	,002	-,001	,001
		Outgroup acculturation (MC)	-,001	,002	-,001
		Ingroup acculturation (MC)* Outgroup acculturation (MC)	,001	-,001	,002

Table 34
Simple slope computations for continuous moderation of acculturation on dehumanisation.

Level of the moderating variable	*Simple Slope*	*SE*	*t*	*df*	*p*
High	,042	,051	0,823	24	,418
Medium	-,069	,049	-1,401	24	,173
Low	-,180	,087	-2,077	24	,049

Table 35
Descriptive statistics of dehumanisation according to acculturation strategy.

	M	*SD*
Integration	-,0372	,24996
Separation	-,0564	,20081
Assimilation	-,3576	,30981
Marginalisation	-,2111	,17566

Table 36
Contrast analysis on dehumanisation of acculturative, dissociative and assimilative against others.

	Value of Contrast	*SE*	*t*	*df*	*p*
Assimilation (1, 1, -3, 1)	,7682	,32006	2,400	24	,024
Integration (-3, 1, 1, 1)	-,5136	,32006	-1,605	24	,122
Separation (-1, 3, -1, -1)	,4368	,32006	1,365	24	,185

Appendix E: Material and Measures of When the small feel strong enough: The role of power in low status groups on outgroup dehumanisation

Defining Status

Study 1 – status manipulation.

Estudo de Percepção Social

Este estudo pretende estudar a forma como grupos de pessoas se percepcionam uns aos outros.

Como é, frequentemente, o caso na realidade, a experiência vai ter lugar entre um grupo com uma **posição de alto estatuto** e um grupo com uma **posição de baixo estatuto**.

Para formarmos grupos nesta experiência, vamos utilizar um conhecido, e frequentemente utilizado, **teste de criatividade**.

Este teste foi seleccionado, porque os níveis de criatividade estão muito associados com o **estatuto social e ocupacional** que as pessoas ocupam ou irão ocupar na sociedade.

(Carregue na TECLA DE ESPAÇOS para continuar)

Teste de Criatividade

Esta é uma tarefa de associação de ideias.

De seguida vai lhe ser apresentada uma série de **estímulos verbais**.

É lhe pedido que, para cada um deles, associe **a primeira palavra que se lembrar** e, de seguida, que a escreva, usando para tal o teclado do computador.

Esta tarefa não tem limite de tempo.

Por favor, seja **rápido e espontâneo**.

(Quando estiver pronto, carregue na TECLA DE ESPAÇOS para começar a tarefa)

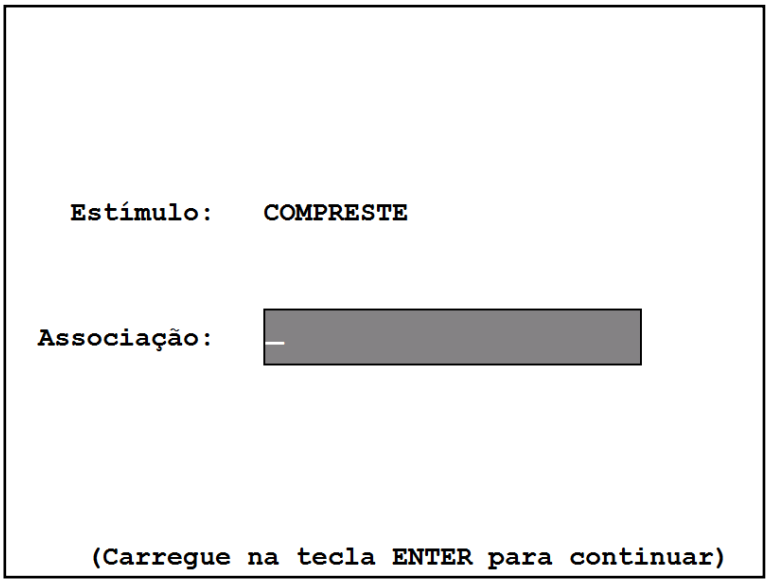
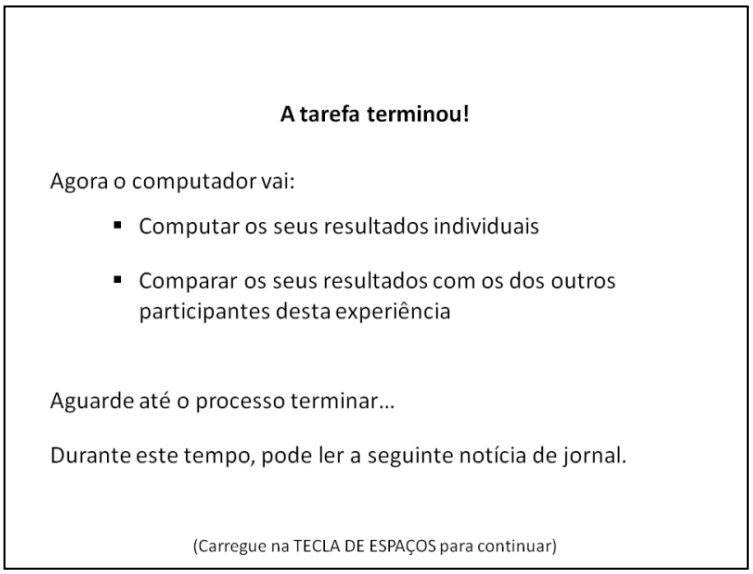
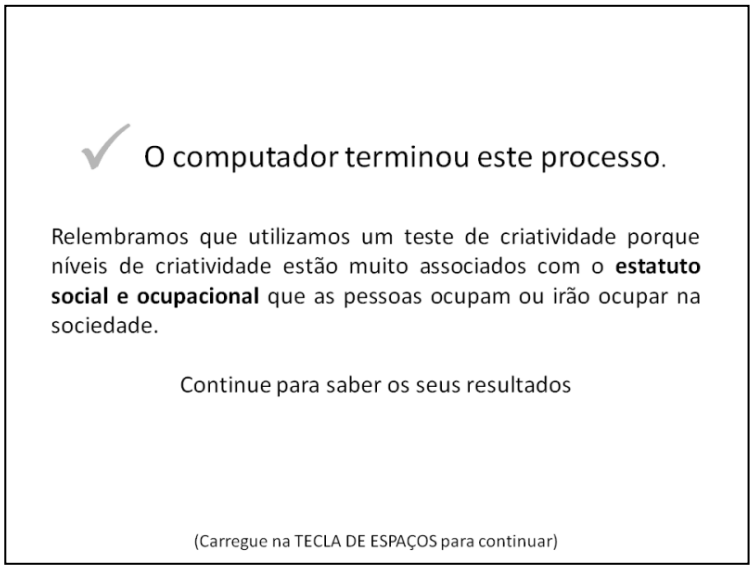
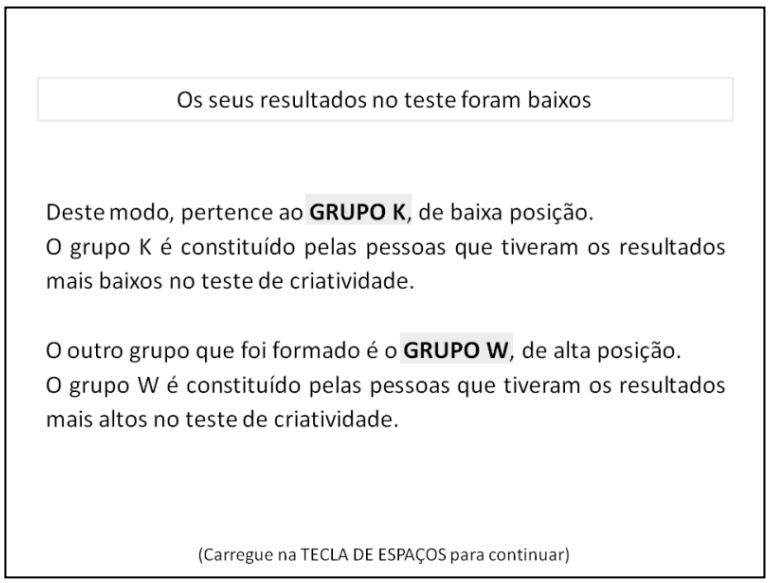


Table 1
Non-words used in bogus task.

Non-words
Compreste; Justificatão; Vuola; Fari; Diapasãe; Tai; Enião; Cavalé; Reloiço; Cabini; Sonte; Cantasia; Omeralda; Gubmarino; Chuve.







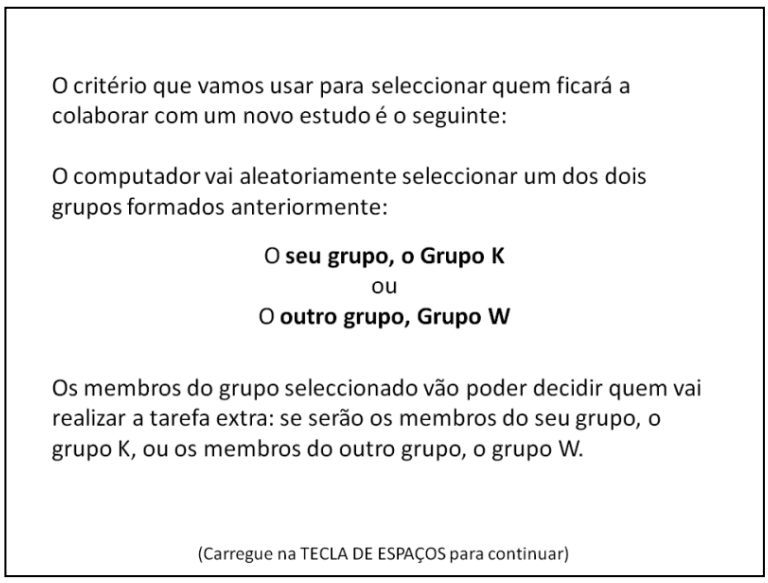
Study 2 – Pilot test selecting different status groups.

1. Ti chiediamo di rispondere alle prossime domande che riguardano gli studenti di [Psicologia/Medicina]. Annerisci il numero della scala che meglio corrisponde alla tua opinione.

	Per niente				Del Tutto
Quanto prestigiosi sono i lavori che di solito svolgono i membri di questo gruppo?	①	②	③	④	⑤
In che misura i membri di questo gruppo hanno/avranno successo dal punto di vista economico?	①	②	③	④	⑤

Power Manipulation

Study 1.



Antes de continuarmos com este estudo sobre percepção social, informamo-lo que no final de tudo, será incluído nesta sessão um outro estudo novo sobre uma outra temática.

Será um **pré-teste** e terá a duração de **15 minutos**.

No entanto, este pré-teste necessita de menos participantes que o estudo sobre percepção social.

Assim, em cada sessão apenas será preciso que **metade** dos participantes colaborem no segundo estudo, realizando a tarefa.

A outra **metade** poderá ir embora assim que o estudo sobre percepção social terminar.

(Carregue na TECLA DE ESPAÇOS para continuar)

Aguarde alguns segundos…

High Power

O grupo seleccionado aleatoriamente pelo computador foi:

O seu grupo, o Grupo K

Diga-nos portanto qual a sua decisão.

Quem ficará a participar na tarefa extra do novo estudo?
(Seleccione a tecla 1 ou 2, conforme a decisão que tomar)

1. Os membros do seu grupo, o grupo K.

2. Os membros do outro grupo, o grupo W.

Vs.

Low Power

O grupo seleccionado aleatoriamente pelo computador foi:

O outro grupo, o Grupo W

Deste modo, neste momento os membros do outro grupo, o grupo W, estão a decidir quem participará no segundo estudo extra: Se serão eles mesmo, os membros do outro grupo, o grupo W, ou se serão os membros do seu grupo, o grupo K.

Study 2.

Pilot Test on the Topic.

Ti chiediamo di rispondere alle prossime domande. Annerisci il numero della scala che meglio corrisponde alla tua opinione.

	Per niente				Del Tutto
Quanto ritieni importante poter decidere rispetto alle regole e le modalità di utilizzo della mensa?	①	②	③	④	⑤
Quanto ritieni importante poter decidere rispetto alle regole riguardanti lo svolgimento degli esami?	①	②	③	④	⑤
Quanto ritieni importante poter decidere rispetto alla gestione del tuo percorso accademico?	①	②	③	④	⑤
Quanto ritieni importante poter decidere rispetto alle modalità di accesso al corso di laurea magistrale?	①	②	③	④	⑤
Quanto ritieni importante poter decidere rispetto alla formulazione di una nuova riforma universitaria avente un impatto simile all'attuale 3+2?	①	②	③	④	⑤
Quanto ritieni importante poter decidere rispetto alle regole e modalità con cui affittare una stanza o un appartamento nella città dove studi?	①	②	③	④	⑤
Quanto ritieni importante poter decidere rispetto al prezzo dei libri universitari che devi acquistare?	①	②	③	④	⑤
Quanto ritieni importante poter decidere rispetto all'attribuzione dei crediti previsti per ogni insegnamento?	①	②	③	④	⑤
Quanto ritieni importante poter decidere rispetto ai contenuti degli insegnamenti proposti?	①	②	③	④	⑤

Manipulation.

L'Università di Padova sta conducendo un importante indagine della durata di un anno, per ottenere l'opinione degli studenti circa alcuni aspetti riguardanti la vita accademica. Questa indagine sarà realizzata in diverse fasi. Durante ogni fase saranno selezionati gli studenti di due facoltà per esprimere il loro parere su un tema riguardante la vita accademica. In questa fase l'Università di Padova sta chiedendo agli studenti sia della facoltà di Psicologia sia della facoltà di Medicina il loro parere sull'argomento della gestione del percorso accademico. Così, se siete un di Psicologia o di Medicina, per cortesia rispondete ai quesiti qui riportati.

	Per niente				Del Tutto
1. E' importante poter inserire degli esami a scelta nel piano di studi.	①	②	③	④	⑤
2. E' importante avere più curricula fra cui scegliere.	①	②	③	④	⑤
3. E' importante poter scegliere a quale ordinamento iscriversi.	①	②	③	④	⑤
4. E' importante poter partecipare alla scelta dei contenuti degli esami da sostenere.	①	②	③	④	⑤
5. E' importante poter inserire un'attività di tirocinio durante il percorso accademico.	①	②	③	④	⑤
6. E' importante poter decidere la distribuzione annuale degli insegnamenti.	①	②	③	④	⑤
7. E' importante poter partecipare gratuitamente ai corsi di approfondimento e/o ai seminari.	①	②	③	④	⑤
8. E' importante poter affiancare alle lezioni teoriche delle attività pratiche	①	②	③	④	⑤

Poichè esiste un numero disuguale di studenti tra le due facoltà, la facoltà di Psicologia ha un numero maggiore di studenti in confronto alla facoltà di Medicina, saranno dati pesi differenti alle risposte dei membri di ogni facoltà durante la composizione dell'opinione finale degli studenti dell'Università di Padova riguardo al tema della gestione del percorso accademico.

High Power

In altre parole, le risposte degli studenti di Psicologia contribuiranno nella misura del 80% sull'opinione finale mentre le risposte degli studenti di Medicina contribuiranno nella misura dell'20% sulla decisione finale relativa al tema della gestione del percorso accademico.

Vs.

Low Power

In altre parole, le risposte degli studenti di Psicologia contribuiranno nella misura del 20% sull'opinione finale mentre le risposte degli studenti di Medicina contribuiranno nella misura dell'80% sulla decisione finale relativa al tema della gestione del percorso accademico.

Dehumanisation measure[19]

1. Quanto é que você acha que os [endogrupo] são:
(Para todas as palavras, coloque uma cruz no número que melhor representa a sua opinião)

	Nada						Muito
[Traços]	①	②	③	④	⑤	⑥	⑦

2. Quanto é que você acha que os [exogrupo] são:
(Para todas as palavras, coloque uma cruz no número que melhor representa a sua opinião)

	Nada						Muito
[Traços]	①	②	③	④	⑤	⑥	⑦

3. Quanto é que você acha que cada uma das seguintes características são exclusivas dos seres humanos (só as pessoas é que as têm) ou são partilhadas com os animais (as pessoas e os animais têm-nas).
(Para todas as palavras, coloque uma cruz no número que melhor representa a sua opinião)

	Partilhadas com os Animais						Exclusivas dos Seres Humanos
[Traços]	①	②	③	④	⑤	⑥	⑦

4. Quanto é que você acha desejável ter as seguintes características:
(Coloque uma cruz no número que melhor representa a sua opinião)

	Nada						Muito
[Traços]	①	②	③	④	⑤	⑥	⑦

Table 2
Traits used in the dehumanisation measure in Study 1 and Study 2.

	Study 1	*Study 2*
[Traços]	Competenti; Dotati; Intelligenti; Capaci; Efficienti; Incompetenti; Disorganizzati; Nullafacenti; Ignoranti; Improduttivi; Socievoli; Piacevoli; Amichevoli; Gentili; Calorosi; Spiacevoli; Egoisti; Asociali; Ostili; Freddi.	Competente; Inteligente; Capaz; Dotado; Eficiente; Desocupado; Improdutivo; Desorganizado; Ignorante; Incompetente; Gentil; Sociável; Agradável; Caloroso; Amigável; Hostil; Frio; Desagradável; Insociável; Egoísta.

[19] In Study 2 this measure corresponded to the Italian translated version of the questionnaire presented here in Portuguese.

Manipulation checks and control measures

Study 1.

Identification.

	Discordo Fortemente						Concordo Fortemente
Pertencer ao meu grupo é importante para mim	①	②	③	④	⑤	⑥	⑦
Tenho orgulho em pertencer ao meu grupo.	①	②	③	④	⑤	⑥	⑦
Às vezes, sinto-me incomodado quando penso que sou um membro do meu grupo.	①	②	③	④	⑤	⑥	⑦
De um modo geral sinto-me feliz por ser um membro do meu grupo.	①	②	③	④	⑤	⑥	⑦
Sinto que gostaria de não pertencer ao meu grupo.	①	②	③	④	⑤	⑥	⑦
Sinto-me identificado com o meu grupo.	①	②	③	④	⑤	⑥	⑦

Power and Status.

	Discordo Fortemente						Concordo Fortemente
São as respostas dos membros do meu/outro grupo que têm impacto sobre a decisão quem realizará a segunda tarefa extra.	①	②	③	④	⑤	⑥	⑦
Os membros do meu/outro grupo têm controlo sobre a situação do seu próprio grupo.	①	②	③	④	⑤	⑥	⑦
Os membros do meu/outro grupo têm controlo sobre a situação dos membros do outro grupo, o grupo W.	①	②	③	④	⑤	⑥	⑦
Os membros do meu/outro grupo têm poder.	①	②	③	④	⑤	⑥	⑦
Os membros do meu/outro grupo tiveram resultados altos no teste de criatividade	①	②	③	④	⑤	⑥	⑦
O meu/outro grupo ocupa uma posição baixa	①	②	③	④	⑤	⑥	⑦

Desired and expected results, legitimation and feelings of frustration.

	Nada						Muito
Em que medida desejava participar na segunda experiência?	①	②	③	④	⑤	⑥	⑦

Em que medida considera que os membros do seu grupo vão ser seleccionados para participar na segunda experiência	①	②	③	④	⑤	⑥	⑦
Em que medida considera legitimo o critério aleatório de seleccção do grupo que vai decidir quem fica a fazer a segunda experiência?	①	②	③	④	⑤	⑥	⑦
Em que medida se sente frustrado?	①	②	③	④	⑤	⑥	⑦

Study 2.

Status.

	Per Niente						Del Tutto
Quanto prestigiosi sono i lavori che di solito svolgono o svolgeranno gli studenti di [psicologia/medicina]:	①	②	③	④	⑤	⑥	⑦
In che misura hanno/avranno successo dal punto di vista economico gli studenti di [psicologia/medicina]	①	②	③	④	⑤	⑥	⑦

Legitimation.

	Nada						Muito
In che misura consideri legittime le regole prestabilite dall'Università di Padova per condurre l'indagine sulla gestione del percorso academico?	①	②	③	④	⑤	⑥	⑦

Appendix F: Statistics of When the small feel strong enough: The role of power in low status groups on outgroup dehumanisation

Study 1: Power and dehumanisation in a minimal group paradigm

Table 1
Descriptive statistics of sociodemographic information.

Gender			Age		
	Male	Female		*M*	*SD*
	10	33		21.62	4,65

Table 2
Descriptive statistics and reliability of the manipulation checks for group power and status, and of the identification measure.

			Reliability	
	M	*SD*	*α*	*r*
Ingroup Power	3.66	1.16	.708	
Outgroup Power	4.06	1.40	.754	
Ingroup Status	2.99	1.45		.442*
Outgroup Status	5.24	1.47		.464*

*$p \leq .05$

Table 3
Repeated measures ANOVA on ingroup and outgroup power, by experimental condition

	SS	*df*	*MS*	*F*	*p*	η_p^2
Target	3,244	1	3,244	3,103	,086	,070
Target * Power	6,343	1	6,343	6,068	,018	,129
Error (Target * Power)	42,854	41	1,045			

Within factors = Target (Ingroup vs. Outgroup power). Between factors = Ingroup power (High vs. Low).

Table 4
Contrast analysis of differential group power by power condition.

Target	*Power condition*	*M*	*SE*	*Mean Difference*	*F(1, 41)*	p^a	η_p^2
Ingroup	Low	3,580	,250	-,159	,196	,660	,005
	High	3,738	,256	,159			
Outgroup	Low	4,511	,285	,928	5,181	,028	,112
	High	3,583	,292	-,928			

a. Adjustment for multiple comparisons: Sidak

Table 5
Repeated measures ANOVA on ingroup and outgroup status, by experimental condition

	SS	*df*	*MS*	*F*	*p*	η_p^2
Target	108,942	1	108,942	32,100	,000	,439
Target * Power	,698	1	,698	,206	,653	,005
Error (Target * Power)	139,145	41	3,394			

Within factors = Target (Ingroup vs. Outgroup status). Between factors = Ingroup power (High vs. Low).

Table 6
Descriptive statistics, tests of normality homogeinity of variances of ingroup and outgroup uniquely humanness.

			Kolmogorov-Smirnov[a]					*Power condition*	
	M	*SD*	*Statistic*	*df*	*p*	*df1*	*df2*	Levene Statistic	*p*
Ingroup UH	-,0710	,25914	,071	42	,200	1	40	0,014	,905
Outgroup UH	,0164	,30523	,084	38	,200	1	36	2,909	,097

a. Lilliefors Significance Correction

Table 7
Repeated measures ANOVA on ingroup and outgroup uniquely humaness, by experimental condition.

	SS	*df*	*MS*	*F*	*p*	η_p^2
Target	,145	1	,145	1,631	,210	,043
Target * Power	,212	1	,212	2,387	,131	,062
Error (Target * Power)	3,198	36	,089			

Within factors = Target (Ingroup UH vs. Outgroup UH). Between factors = Power (High vs. Low).

Table 8
Contrast analysis of differential outgroup UH by experimental condition and of diferential UH in the high power condition.

		M	*SE*	*Mean Difference*	*F(1, 36)*	p^b	η_p^2
Outgroup UH	Low Power	,128	,066	,222	5,677	,023	,136
	High Power	-,095	,066				
High Power	Ingroup UH	-,076	,060	,018	,036	,851	,001
	Outgroup UH	-,095	,066				

b. Adjustment for multiple comparisons: Sidak

Table 9
T-tests comparing control measures according to power experimental condition.

							CI 95%	
	M	*SD*	*α*	*Mean Difference*	*t(41)*	*p*	*LL*	*UL*
Ingroup identification	3.26	0.98	.760	,27489	,919	,364	-,32930	,87908
Expected outcome	4,19	1,314		-,102	-,251	,803	-,920	,717
Desired outcome	3,33	1,569		-,387	-,806	,425	-1,358	,584
Legitimacy	4,47	1,750		-,766	-1,454	,154	-1,831	,298
Felling of frustration	2,67	1,686		,48052	,933	,357	-,56011	1,52115

CI= Confidence interval (95%); LL= lower limit; UL= upper limit

Study 2: Power and dehumanisation, a replication in a natural context.

Pretest Report on Targets and Topics.

Table 10
Descriptive statistics of sociodemographic information.

Gender	Male	Female	Age	*M*	*SD*
	1	19		22.45	1,73

Table 11
Descriptive statistics and reliability of ingroup and other academic groups' status.

		M	*SD*	*r*	*p*
Ingroup	Psychology students	3,00	,56	,394	,086
Outgroups	Medicine students	4,28	,57	,538	,014
	Engineering students	3,95	,51	,467	,038
	Political Sciences students	3,13	,79	,829	,000
	Communication Sciences students	2,75	,57	,625	,003
	Philosophy students	2,20	,70	,533	,015

Table 12
Paired T-test of ingroup status and outgroup status.

				CI 95%	
	Mean Difference	*t(19)*	*p*	*LL*	*UL*
Ingroup Status - Outgroup Status	1,275	9,575	,000	,996	1,554

CI= Confidence interval (95%); LL= lower limit; UL= upper limit

Table 13
Descriptive statistics of the importance of each topic.

Topics	*M*	*SD*
Managing your academic path	4,45	,510
New University reform with an impact similar to the current 3+2	4,25	,716
University book prices	4,15	,933
Renting a room or an apartment in the city where you study	3,95	,999
Exam regulation	3,90	,912
Access to the Master's degree	3,85	,933
Allocation of credits for each course	3,65	1,040
Access to classrooms and libraries	3,45	,887
Content of courses	3,30	1,174
Access to the canteen	3,05	,887

Main Study.

Table 14
Descriptive statistics of sociodemographic information.

Gender			Age		
	Male	Female		*M*	*SD*
	22	116		23,07	3,68

Table 15
Descriptive statistics, tests of normality homogeinity of variances of ingroup and outgroup uniquely humanness.

			Kolmogorov-Smirnov[a]			*Power condition*			
	M	*SD*	*Statistic*	*df*	*p*	*df1*	*df2*	Levene Statistic	*p*
Ingroup UH	,0539	,326	,036	133	,200	1	133	,220	,639
Outgroup UH	,0298	,307	,052	133	,200	1	132	,000	,995

a. Lilliefors Significance Correction

Table 16
Repeated measures ANOVA on ingroup and outgroup uniquely humaness, by experimental conditions.

	SS	*df*	*MS*	*F*	*p*	η_p^2
Target	,031	1	,031	,298	,586	,002
Target * Power	,852	1	,852	8,251	,005	,060
Target * Order	,001	1	,001	,008	,929	,000
Target * Power * Order	,020	1	,020	,195	,660	,002
Error (Target * Power * Order)	13,318	129	,103			

Within factors = Target (Ingroup vs. Outgroup UH). Between factors = Power (High vs. Low), Order (Ingroup vs. Outgroup first)

Table 17
Contrast analysis of differential outgroup UH by experimental condition and of diferential UH in the high power condition.

		M	*SE*	*Mean Difference*	*F(1, 129)*	p^b	η_p^2
Outgroup UH	Low Power	,093	,038	,123	5,407	,022	,040
	High Power	-,030	,037	-,123			
High Power	Ingroup UH	,105	,039	,135	5,976	,016	,044
	Outgroup UH	-,030	,037	-,135			

b. Adjustment for multiple comparisons: Sidak

Table 18
Descriptive statistics and reliability of ingroup and outgroup status.

			Reliability
	M	*SD*	*r*
Ingroup Status	4,10	1,26	,527*
Outgroup Status	6,00	,81	,467*

*$p \leq .05$

Table 19
Repeated measures ANOVA on ingroup and outgroup status, by experimental condition

	SS	*df*	*MS*	*F*	*p*	η_p^2
Target	246,995	1	246,995	238,972	,000	,637
Target * Power	2,724	1	2,724	2,635	,107	,019
Error (Target * Power)	140,566	136	1,034			

Within factors = Target (Ingroup vs. Outgroup status). Between factors = Power (High vs. Low).

Table 20
T-tests comparing control measures according to power experimental condition.

							CI 95%	
	M	*SD*	*α*	*Mean Difference*	*t(136)*	*p*	*LL*	*UL*
Ingroup identification	5,08	1,10	,832	,17847	,954	,342	-,19166	,54861
Legitimacy	4,57	1,528		-,068	-,262	,794	-,585	,448

CI= Confidence interval (95%); LL= lower limit; UL= upper limit; *$p \leq .05$