

Infra-humanization of outgroups throughout the world. The role of similarity, intergroup friendship, knowledge of the outgroup, and status

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Título: La infrahumanización de exogrupos en el mundo. El papel de la similitud, la amistad intergrupal, el conocimiento del exogrupo y el estatus.

Resumen: Estudios sobre infrahumanización han confirmado que existe una mayor atribución de sentimientos al endogrupo que al exogrupo independientemente de la valencia de estas emociones. Sin embargo, las variables que conducen a la elección de qué exogrupos pueden ser infrahumanizados han recibido escasa atención. A través de este estudio se pretende determinar algunas de las variables relevantes en el dominio intergrupal que puedan provocar este tipo de prejuicio. El efecto de la similitud, amistad intergrupal, conocimiento del exogrupo y estatus se analizan en relación con la humanización de exogrupos de todo el mundo. Los resultados verificaron que no todos los exogrupos son igualmente humanizados. Un segundo hallazgo reveló que la similitud entre los grupos, la amistad y el conocimiento de los exogrupos incrementa la atribución de sentimientos hacia estos, mientras que el estatus no está relacionado con la humanización del exogrupo.

Palabras clave: Amistad intergrupal, conocimiento del exogrupo, infrahumanización, similitud, estatus.

Abstract: Studies on infra-humanization have confirmed a greater attribution of secondary emotions to the ingroup than to outgroups, independently of the valence of these emotions. However, the variables leading to the choice of which outgroups are likely to be infra-humanized have received limited attention in the literature. This study is concerned with determining some of the relevant variables within the intergroup domain that may elicit this type of prejudice. The roles of similarity, intergroup friendship, knowledge of the outgroup, and status are analyzed with respect to the humanization of outgroups throughout the world. Results verify that not all outgroups are equally humanized. A second finding reveals that intergroup similarity, friendship, and knowledge of the outgroups increase the attribution of secondary emotions towards them, while status, as expected, is not related with outgroup humanization.

Keywords: Infra-humanization, intergroup friendship, knowledge of the outgroup, similarity, status.

Introduction

Infra-humanization is defined as considering outgroup members less human than members of one's group. It is often operationalized as giving more uniquely human characteristics to the ingroup than to the outgroup. The ability to experience secondary emotions (i.e. love, sorrow) is one of these characteristics as opposed to primary emotions (i.e. happiness, sadness). Secondary emotions are particularly interesting because they are not monitored by norms of social desirability like other exclusively human characteristics (Leyens et al., 2000; 2001). Infra-humanization is one way of dehumanizing an individual (Haslam, 2006), and deserves attention for at least three reasons. First, it occurs in a subtle way, without voluntarily controlling the responses from the part of the individuals. Second, infra-humanization cannot be explained in terms of ingroup favoritism, since it occurs independently of positive and negative secondary emotions. The third reason is that infra-humanization is not restricted to extreme forms of discrimination, but instead transpires in everyday intergroup relationships.

The central argument of infra-humanization asserts that people establish a stronger relationship between secondary emotions and their own group than between secondary emotions and outgroups (Cortes, Demoulin, Rodríguez-

Torres, Rodríguez-Pérez, & Leyens, 2005; Leyens et al., 2000; Paladino, Leyens, Rodríguez-Torres, Rodríguez-Pérez, Gaunt, & Demoulin, 2002). This hypothesis has been empirically supported in several studies, with different methodological strategies, groups, and a wide variety of primary and secondary emotions (for a review see Demoulin, Rodríguez-Torres et al., 2004).

While a significant amount of research has been undertaken to understand the phenomenon, it is also true that studies concerned with variables leading to or preventing infra-humanization are still rare. The aim of this study is to contribute filling the gap through the pursuit of three objectives. The first aim of this research is to analyze the attribution of secondary emotions towards several groups in order to confirm if there are differences in the humanization of these groups. A second aim is to examine the relationship between outgroup humanization and some of the factors that are influential in other intergroup biases, specifically, intergroup similarity, friendship between ingroup and outgroup, knowledge about the outgroup, and its status. Finally, the third objective is to establish a classification of the groups based on the variables that indicate a relationship with the humanization of outgroups.

Which outgroups are humanized?

The foundations of infra-humanization theory assume that people consider outgroup members less human because they essentialize groups, giving the human essence to their ingroup with which they identify. Indeed, in an experiment

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using minimal groups, essentialization and ingroup identification mediated the link between the meaningfulness of the categorical groups and the infra-humanization of the outgroup (Demoulin et al., in press). Stated otherwise, people infra-humanized because they belonged to a meaningful group to which they identified. With natural groups, ingroup identification has especially a role of moderation. High identifiers infra-humanize more than low-identifiers (Paladino, Vaes, & Castano, 2004). It seems obvious that people who do not care about their group will not be inclined to consider it more human than other ones.

If people have to be affectively linked to their group, it does not follow that the outgroup must entertain conflicting relations with the ingroup. Demoulin et al. (2005) has tested several groups (i.e. US; French-speaking Belgian) that do not have apparent conflict and that, nevertheless, infra-humanized the other group (i.e. Mexicans and French, respectively). It should be added that a slight conflict may help infra-humanization to occur (Cortes et al., 2005) to the same extent that cooperation may extinguish infra-humanization (Kofta & Baran, 2004).

Because secondary emotions are non visible (Demoulin, Leyens et al., 2004, study 1), one could argue that people give them preferentially to the familiar ingroup than to an unfamiliar outgroup. Three studies conducted by Cortes et al. (2005) have verified that infra-humanization is not a function of unfamiliarity. People give to their ingroup as many secondary emotions than to themselves although they should know themselves better than their group. Also, several outgroups varying in familiarity were tested and, in fact, it was the most familiar one that was most infra-humanized (Cortes et al., 2005, Expt. 3). Lack of familiarity is therefore not, *per se*, a crucial variable in eliciting infra-humanization. It was also verified that infra-humanization did not correlate significantly with disliking. What seemed to matter most was the relevance of the outgroup relative to the ingroup, that is, whether the fate of one group can affect the fate of the other group.

Status has also been introduced in a few studies (Demoulin et al., 2005; Leyens et al., 2001), but we will say more about this variable later on because it is part of the present project.

As can be seen from this short review, no systematic attempt has yet been made to find variables likely to predict which outgroups are or are not humanized. We now examine the four variables that will be studied in the present research, and hypothesize their relation with the humanization of the outgroup.

Similarity and ingroup favoritism

Contradictory explanations about the relationship between similarity and intergroup attitudes have been published in the literature. According to Social Identity Theory (Tajfel, 1982; Tajfel & Turner, 1986), people are motivated to positively differentiate (by ingroup favoritism) the in-

group from similar outgroups on relevant dimensions of comparison, in order to maintain or enhance group distinctiveness and social identity. In line with this perspective, similarity implies a threat to the peculiarities of one's group. Groups that are more similar to the ingroup are those that have a greater chance to elicit differentiation from the ingroup. Social Identity Theory, as indicated by Jetten, Spears and Manstead (1998), expects a linear relationship between intergroup similarity and differentiation. This relationship predicts that the greater the similarity between ingroup and outgroup, the greater should be the differentiation displayed to protect ingroup distinctiveness.

Self-categorization theorists (Turner, Hogg, Oakes, Reicher & Wetherell, 1987) assert the opposite effect. This perspective maintains that a greater level of intergroup differentiation facilitates the activation of these categories as opposed to other possibilities. On the one hand, this greater categorical salience increases ingroup favoritism. On the other hand, groups that are very similar on relevant characteristics will lead to a blurring of intergroup boundaries, and result in categorization at a higher level of inclusiveness. Consequently, negative attitudes are not present towards these similar outgroups (Oakes, 1987; Vanbeselaere, 1996).

Some authors, such as Jetten, Spears and Manstead (1998), support that the tension between these two theoretical perspectives is more apparent than real. They argue that the relationship between intergroup similarity and ingroup favoritism is curvilinear instead of being linear. Thus, a certain degree of group distinctiveness is necessary for the groups to claim their essential difference. At the same time, groups must be sufficiently similar on contextually relevant dimensions to be socially comparable. The results of these authors clearly show that groups with intermediate levels of intergroup distinctiveness display the highest amount of ingroup favoritism.

Could the same pattern be expected for outgroup humanization? Will those groups that exhibit intermediate levels of intergroup similarity be less humanized? If the ingroup acts as the prototype of the human category, one could argue that it might be easier to attribute uniquely human traits to the outgroup when this outgroup is more similar to the ingroup. The closer the distance to the prototype, the more humanization should occur. Curiously enough, the relationship between similarity and infra-humanization has not been empirically tested. To date, only Vaes, Paladino, Castelli, Leyens, & Giovanazzi (2003, study 3) have studied this relationship, although they were interested in the consequences of manipulating humanity related to the ingroup and the outgroup on the perception of intergroup similarity. Results indicated that differences in perceived intergroup similarity polarized when both the ingroup and the outgroup were humanized expressing secondary emotions. Vaes et al. (2003) offered two conclusions that could lie at the basis of this result. First, the presentation of ingroup members together with secondary emotions increases the perceived similarity with these individuals. Second, the presentation of

outgroup members together with secondary emotions produces a greater need for differentiation. In contrast, the present study is interested in discovering if the perception of humanity in the outgroups is influenced by the perceived similarity between the ingroup and the outgroup. The prediction is that humanization of outgroups will increase the more they are perceived as being similar to the ingroup. Similarity is seen here as an index of proximity with the prototype of the human dimension represented by the ingroup.

Friendship between the ingroup and the outgroup

The role of intergroup affective ties is the second factor under consideration in this study. Research has shown that intergroup friendship is a key element in the reduction of prejudice against an outgroup (Amir, 1976; Oliner & Oliner, 1988; Pettigrew, 1997). A recent contribution concerning the effectiveness of the contact in intergroup relationships was carried out by Pettigrew (1998). He notably suggested that the establishment of friendship constitutes one of the mediators between contacts and lack of prejudice. According to Pettigrew, positive emotions derived from intergroup friendship are an essential element for a successful interaction. His conclusion was based on a study of several Western European countries (Pettigrew, 1997; Pettigrew & Meertens, 1995), which included approximately 3800 participants. Results revealed that the Europeans that had friends of another nationality, race, culture, religion or social class scored significantly lower on five measures of prejudice. The largest effect occurred for affective prejudice. Specifically, Europeans that had friends in other outgroups reported more sympathy and admiration for the outgroup.

It is still unknown if friendship towards an outgroup can increase its level of perceived humanity. On the one hand, the only study which measured liking of outgroups was done by Cortes et al. (2005). The correlation (.23) was not significant but there were only three neighbouring outgroups and the number of participants was limited. On the other hand, experiments manipulating cooperation (Kofta & Baran, 2004) and competition (Cortes, 2005) suggest that good relations with the outgroup should at least reduce infra-humanization, if not make it disappear. If this is the case, the greater perception of friendship between two countries would result in higher probability of the outgroup being seen as human. In other words, the friendship would help locate the outgroup in a human dimension close to the one of the ingroup.

Knowledge of the outgroup

A third factor which could intervene in the humanization of the outgroup is our knowledge of it. This argument is the basis of the contact hypothesis (Allport, 1954). The original formulation of this hypothesis considered that knowledge about a group was the main factor for attitudinal change. Previously, Hartley (1946) had illustrated that people look

negatively upon unfamiliar outgroups. He asked participants to evaluate many groups according to a list of positive and negative characteristics. Three fictitious groups (i.e. Wallonians) were included. Even though these three groups were completely unknown, many of the participants answered and attributed negative characteristics to them. Studying the role of new information about an outgroup and its affect on attitudes towards it, Stephan and Stephan (1984) concluded that "ignorance promotes prejudice" (p. 238).

All of these studies highlight the importance of having information about an outgroup, yet there is still no research concerning its effect on infra-humanization. The study by Cortes et al. (2005) has shown no relation between infra-humanization and familiarity, but an association between infra-humanization and relevance (kind of interdependence). The problem is that both variables imply, among several other things, knowledge but cannot be confounded with knowledge.

This study specifically investigates the role of knowledge of the outgroup on its humanization. Two hypotheses are possible. First, on the basis of research on prejudice, one can expect that humanization will augment with increasing knowledge about the outgroup. Second, if a group is unknown (i.e. Bhutan), why should people infra-humanize it since it is completely irrelevant and it may be hard to make a difference in terms of essence? Contrary to this hypothesis, however, Castano and Giner-Sorolla (2006) found infra-humanization even for a fictitious group. This data support the idea that unknown groups could also be infra-humanized, even though they are no relevant for the ingroup and they don't maintain a real conflictive relationship with the ingroup.

The role of status in intergroup attitudes

This study also looks at the effect of perceived social status of the outgroup on its humanization. Brauer (2001) presents four hypotheses concerning the role of social status in ethnocentrism. The *classic hypothesis*, indicates that the members of groups of any socio-economic class have a biased perception of outgroups; in other words, social status does not have any influence on intergroup bias. The *superiority hypothesis* asserts that high-status groups want to maintain their superiority, notably by attributing negative characteristics to members of the lower class. The *inferiority hypothesis* states that those people of lower classes protect their self-esteem by attributing their status to their group and not to their characteristics. Consequently their view of society is affected by their group membership, resulting in a demonstration of stronger classical intergroup bias than those of high-status groups. Finally, the *antagonism hypothesis* considers all groups, and asserts that they all favour their own but only when the target outgroup is of a different socio-economic class.

Infra-humanization theory (Leyens et al., 2000) supports the classical hypothesis because it relies on ethnocentrism,

which is universal (Jahoda, 2002) and does not make difference between socio-economic classes. Members of the upper class as well as of lower class are expected to use more secondary emotions to describe their ingroup than an outgroup (Demoulin et al., 2005; Leyens et al., 2001). In addition, there is no available evidence that indicates that secondary emotions are stereotypical of the groups belonging to upper or lower socio-economic classes (Fiske, Xu, Cuddy & Glick, 1999). Thus, both types of groups can be considered to have the same characteristics.

This study examines the role of socio-economic class on outgroup humanization. As said above, it has already been verified that members of both high and low status infra-humanize outgroups (Demoulin et al., 2005; Leyens et al., 2001). However, it is unknown whether status of the outgroups influences in some way the perception of humanity attributed to these outgroups. In other words, it has not been verified that, when the status of the outgroups is high or low, a similar level of humanization occurs. The prediction issued from the postulates of infra-humanization (Leyens et al., 2000) is that status will have no effect.

Overview

There are three objectives in this study. First, in a pilot study, Spanish participants received a world map and had to give secondary emotions to a single target belonging to one of three subgroups: continental groups, sub-continental groups and countries. Participants did not have to rate the ingroup so that the comparison would not focus on ingroup-outgroup, but on groups around the world. This task allows to verify whether participants establish differences between the many outgroups in terms of distribution of secondary emotions. The second objective, in another study, is to analyze the relationship between the attribution of secondary emotions and some important factors in other types of prejudice: intergroup similarity, friendship between the ingroup and the outgroup, knowledge of the outgroup, and its status. Once the relationship is defined, it is possible to establish a typology of the analyzed groups based on their level of humanity and these other variables that are potentially related to humanization of the outgroup.

Pilot study

Method

Participants

A total of 902 undergraduate psychology students from Spain participated in the study. The breakdown by province is as follows: 302 from Tenerife, 207 from Madrid, 105 from Granada, 105 from La Coruña, 103 from Murcia, and 80 from Guipúzcoa. Women accounted for 81,2% of the sample. The age range was 17 to 46, and the mean was 20.35 (S.D.=3.43).

Materials and procedure

a) Target groups in the study

The target groups were chosen according to three levels. The first group was continental (Africa, America, Asia, Australia and Europe). The second level considered geo-political groups. 20 pre-tests students divided each continent. North and Central Europe, Southern Europe, Eastern Europe; North America, Latin America; North and Central Asia, Eastern Asia, Southeast Asia, Middle East; North Africa, Central Africa, South Africa; Australia, other islands from Oceania were the regions most chosen. In the third group two countries from each continent were chosen. Nineteen other pre-tests students had to choose the richest and poorest country from each continent, excluding Australia, and the countries that were most often selected were kept for the study. The results are as follows: Germany and Turkey; USA and Venezuela; Japan and India; Egypt and Ethiopia. The total sample of targets thus comprised 27 groups. The questionnaires with the 27 regions were administered in such a way that each one of the samples that took part in the data collection replied to every region in the study.

b) The attribution of emotions questionnaire

Participants were administered a questionnaire including a list of 26 characteristics. This list included 6 secondary emotions (humanization elements: compassion, suspicion, pride, regret, embarrassment and nostalgia) and 6 primary emotions (control elements: surprise, excitement, amazement, tension, restlessness and agitation), inserted with 14 related traits regarding competence and sociability. A normative study indicated that the primary and secondary emotions had the same level of desirability ($M = 4.01$ for secondary emotions and $M = 3.99$ for primary emotions), $t_{(10)} = 0.02$, $p = .983$, on a scale where 1 = *Undesirable* and 7 = *Extremely desirable*. Secondary emotions are rated much more human ($M = 5.51$) than primary emotions ($M = 3.75$), $t_{(10)} = 4.98$, $p = .001$, on a scale where 1 = *Shared by animals and humans* and 7 = *Exclusively human*.

Participants were asked to choose twelve characteristics from the list which best reflected the target group according to the general opinion. This impersonal, rather than personal, way of answering should reduce social desirability (Fiske, Cuddy, Glick, & Xu, 2002).

The questionnaire was introduced as *a study about people's view of social groups in the world*. In addition to basic instructions, a map of the world with geo-political regions was included, and indicated the area that the participant needed to respond to in the questionnaire. The name of the individual countries that made up lesser-known regions was also provided. Correct responses were guaranteed by requesting participants to give at the end of the questionnaire country's name and type of images that they had had in mind when judging the specific region or country. Twenty-five partici-

pants (2,77 % of the total) were eliminated because they answered to an incorrect region or country. The final sample included 877 participants.

Results and discussion

The degree to which the 27 groups differed in the attribution of primary and secondary emotions was examined. The scoring of primary and secondary emotions ranged from 0 to 6, with a higher score indicating a greater attribution of this type of characteristic to this group.

To verify that primary and secondary emotions followed an independent pattern of attribution, and did not correspond to the mere distribution of emotional terms in general, a correlation analysis was run on the basis of individual responses, ($r_{(875)} = -.05, ns$). The attribution of primary and secondary emotions was clearly independent. Table 1 shows means and standard deviations for each region regarding the attribution of secondary emotions, as well as primary emotions.

Table 1. Means and standard deviations for primary and secondary emotions of each region (pilot study).

REGION	Mean (SD)	Mean (SD)
Southern Europe (n=31)	2.94 (0.89)	1.89 (1.20)
Venezuela (n=31)	2.81 (1.08)	1.36 (1.26)
Europe (n=33)	2.70 (0.95)	1.52 (1.15)
India (n=30)	2.60 (1.13)	1.47 (1.28)
Egypt (n=32)	2.47 (1.05)	1.53 (1.24)
Latin America (n=32)	2.44 (1.04)	1.75 (1.08)
Middle East (n=31)	2.42 (1.23)	2.65 (1.36)
Southeast Asia (n=31)	2.42 (1.20)	1.42 (1.38)
United States (n=30)	2.30 (0.91)	2.53 (1.36)
North Africa (n=33)	2.27 (1.09)	1.97 (1.47)
Germany (n=32)	2.13 (0.91)	1.69 (1.26)
Eastern Europe (n=32)	2.06 (1.19)	2.16 (1.56)
Turkey (n=32)	2.03 (1.12)	2.37 (1.41)
North America (n=33)	2.03 (0.92)	2.42 (1.35)
Oceania (n=33)	2.00 (0.96)	1.39 (1.48)
South Africa (n=33)	1.97 (1.02)	2.45 (1.12)
Africa (n=33)	1.97 (1.01)	2.12 (1.45)
North and Central Asia (n=34)	1.94 (1.17)	2.18 (1.49)
America (n=32)	1.91 (0.69)	2.06 (1.27)
Northern and Central Europe (n=35)	1.89 (1.13)	1.60 (1.24)
Oceania Islands (n=33)	1.88 (1.14)	1.88 (1.48)
Eastern Asia (n=34)	1.85 (0.96)	1.50 (1.19)
Australia (n=35)	1.77 (1.42)	1.89 (1.68)
Japan (n=33)	1.73 (1.15)	1.30 (1.31)
Central Africa (n=31)	1.71 (0.90)	2.71 (1.37)
Ethiopia (n=33)	1.64 (1.32)	1.89 (1.44)
Asia (n=33)	1.45 (1.17)	1.18 (1.42)

Southern Europe ($M = 2.94$; $SD = .89$) received the highest attribution of secondary emotions, followed by Venezuela ($M = 2.81$; $SD = 1.08$) and Europe ($M = 2.70$; $SD = .95$). The high score recorded by Venezuela is not surprising given the history of Spanish emigration to this country from 1900-1950. India ($M = 2.60$; $SD = 1.13$), Egypt ($M = 2.47$; $SD = 1.05$), Latin America ($M = 2.44$; $SD = 1.04$),

Southeast Asia ($M = 2.42$; $SD = 1.2$), Middle East ($M = 2.42$; $SD = 1.23$), United States ($M = 2.30$; $SD = 0.91$), and North Africa ($M = 2.27$; $SD = 1.09$) also receive a relative high level of secondary emotions. We cannot offer a specific explanation about why the other countries received similar high scores. Perhaps the media coverage of recent tragedies (i.e. the war between Lebanon and Iraq, the tsunami in Southeast Asia, the Palestine-Israeli conflict, etc.) influenced the participants' responses. On the other hand, those regions that are geographically distant from Spain (i.e. Asia, Ethiopia, Central Africa, Japan, Australia) scored the lowest ($M < 1.80$ in all these groups).

The variations in the scores of secondary emotions indicate, first of all, that people use this dimension to distinguish outgroups. The data also proves that all outgroups are not humanized to the same extent. Nowadays people have access to information about any part of the world and can maintain constant contact even though they are thousands of miles away. This capacity to be informed allows them to formulate opinions about other people in different parts of the world. In the same way, globalization makes some groups more homogeneous amongst themselves than others, and allows people to share identities with some groups even though geo-political borders exist amongst them. They are also able to exclude other regions from this common identity, maybe because they share fewer characteristics and possess less information. This question will be examined in the main study.

Main study

Study 1 allowed to verify that people establish differences between outgroups in attributing them secondary emotions. The aim of the main study is to investigate various factors that could explain these differences. Specifically, we want to analyze the relationship between the humanization of the outgroup (we will use this term rather than the more precise, but longer, expression of "attribution of secondary emotions") and four relevant variables in intergroup relationships: intergroup similarity, friendship, knowledge, and status of the outgroups. The second purpose is to examine the degree to which different types of groups can be identified, based on perceiver's ratings of outgroup humanization and other related factors.

Method

Participants

A total of 90 undergraduate psychology students at La Laguna University participated in this study. Women accounted for 83.1% of the sample. Average age among the participants was 19.15 ($SD = 4.33$).

Material and procedure

The sample was divided into three groups, in such a way that one third of the sample responded to a questionnaire based on the continental level, another third on the 14 geopolitical regions, and the remaining third on the 8 countries. All participants were asked the following questions:

Similarity: In general terms, to what extent do you think that (i.e. Africans) are similar to you?

Friendship: To what extent do you feel friendship and likeability towards (i.e. Africans)?

Knowledge: To what extent are you aware of the most important historical, political and/or social events that (i.e. Africans) have experienced?

Status: To what extent do you think that (i.e. Africans) belong to the upper class?

Participants answered each question on a scale from 1 to 5 (1 = "Not at all" and 5 = "Completely").

The number of secondary emotions that was attributed to each region in the pilot study was used as a measure of humanization. We also included the measure of primary emotions in order to confirm that secondary emotions maintain a different relationship with similarity, friendship, knowledge and status than primary ones.

Results and discussion

A new data matrix was constructed based on the average scores from each of the 27 regions for perceived similarity, information, status, and friendship. The average primary and secondary emotions scores for each region from the pilot study were also included in the matrix. Tukey M-estimator was used so that the average score in each region would not be affected by extreme values. The M-estimator weights the scores of participants as a function of their distance from the mean, so that the least-likely scores have a lower weight when the average value of each variable is calculated. Posterior analyzes used this new matrix.

Correlations among the target dimensions

First, inter-correlations were calculated between the six variables. Table 2 presents the data.

Table 2: Correlation matrix among primary and secondary emotions, similarity, friendship, knowledge of the outgroup and status.

	1	2	3	4	5	6
1. Secondary emotions	-	.063	.516**	.499**	.435*	-.003
2. Primary emotions	--	-	-.105	.145	-.160	-.166
3. Similarity			---	.861**	.628**	.364
4. Friendship				---	.495**	.122
5. Knowledge					---	.685**
6. Status						---

* $p < .05$

** $p < .01$

Secondary emotions correlate significantly and positively with perceived similarity ($r_{(26)} = .52, p < .01$), friendship towards the outgroup ($r_{(26)} = .50, p < .01$), and knowledge of the outgroup ($r_{(26)} = .43, p < .05$). However, status and attribution of secondary emotions do not show a significant correlation ($r_{(26)} = .17, ns$). This result supports the infra-humanization hypothesis according to which status does not play a role in distributing secondary emotions. Actually, social status only correlates significantly with knowledge about the outgroup ($r_{(26)} = .68, p < .01$): people have more information about outgroups with high status. It is also noteworthy that primary emotions do not reveal any significant correlation with the variables included in this study. These latter data support the idea that the attribution of primary emotions is not related with any form of prejudice. In addition, the absence of a significant correlation between primary and secondary emotions indicate that these two dimensions are clearly different, and that variations in the attribution of secondary emotions do not reflect a stereotypical perception associated with general emotional skills.

Similarity and friendship were strongly correlated, ($r_{(26)} = .86, p < .01$). People indicate a stronger tie with groups that they consider more similar to them. Similarity and information also reveal a strong correlation amongst each other, ($r_{(26)} = .63, p < .01$). The more information people possess about outgroups, the greater the level of perceived similarity with them.

Cluster Analysis based on the attribution of secondary emotions, similarity, friendship, and knowledge

The previous correlation analysis identified a relationship between similarity, friendship, knowledge of the outgroups, and the attribution of secondary emotions. The next step consists in analysing what different types of groups can be established taking into account all these variables. Such a step will make it possible to organize groups according to the level of secondary emotions (humanization) and of the other variables correlated with the first one. Average scores of friendship, similarity, knowledge and secondary emotions for each target group were included in a K-means cluster analysis. This procedure allows the regions to be grouped in such a way that maximizes intra-cluster likelihood and inter-cluster differences, obtaining a grouping of regions as a function of similarities for the variables of interest. The three-cluster solution was the best solution according to the distances between the clusters and the similarities within groups included in each cluster. The three-cluster solution was also the most interpretable from a theoretical perspective.

Table 3 presents for each cluster the average scores in secondary emotions, perceived similarity, friendship and knowledge of the outgroups, as well as the regions integrated in each cluster, all gathered as a function of the distance from the cluster's centre (from nearest to farthest).

Table 3. Average scores by cluster in secondary emotions, perceived similarity, friendship and knowledge of the outgroup, and groups that make up each cluster

	CLUSTER 1	CLUSTER 2	CLUSTER 3
Secondary emotions	2.72 _a	2.23 _b	1.83 _c
Similarity	3.21 _a	2 _b	1.84 _b
Friendship	3.64 _a	2.76 _b	2.67 _b
Knowledge	3.40 _a	2.83 _b	2.14 _c
	Southern Europe Latin America Venezuela Europe	Germany North Africa North America Egypt Middle East Eastern Europe Southeast Asia America India United States North and Central Europe	Eastern Asia South Africa North and Central Asia Central Africa Turkey Africa Oceania Japan Oceania Islands Australia Asia Ethiopia

NOTE: The means that do not share a sub-index in the same row are statistically significant ($p < .05$).

Cluster 1 is made up of regions that obtained very high scores in secondary emotions as well as in perceived similarity, friendship and knowledge of the group. Regions from the ingroup (Europe and Southern Europe), and regions with strong emotional, cultural and linguistic ties, such as Latin America and Venezuela, are included in this cluster. Cluster 2 is made up of those regions that obtained intermediate scores in all variables, all of which were much lower than those found in Cluster 1. The most representative regions of this cluster are Germany, North Africa, North America, Egypt, and Middle East. The third cluster includes those regions with the lowest levels of friendship, perceived similarity and knowledge of the group, as well as in secondary emotions. The most prototypical regions of this cluster are Eastern Asia, South Africa, North and Central Asia, Central Africa, Turkey, and Africa.

A series of ANOVAs was conducted to verify the differences on the cluster scores for each variable. Results of simple effects are given in Table 3. Main effects were found for secondary emotions, $F_{(2,26)} = 29.78, p < .001, \eta^2 = .71$ ($M_s = 2.72, 2.23, \text{ and } 1.83$ for clusters 1, 2 and 3, respectively), knowledge about the group, $F_{(2,26)} = 11.92, p < .001; \eta^2 = .49$ ($M_s = 3.40, 2.83, \text{ and } 2.14$ for clusters 1, 2 and 3, respectively), friendship, $F_{(2,26)} = 17.98, p < .001, \eta^2 = .60$ ($M_s = 3.64, 2.76, \text{ and } 2.67$ for clusters 1, 2 and 3, respectively), and similarity, $F_{(2,26)} = 28.56, p < .001, \eta^2 = .70$, ($M_s = 3.21, 2.00, \text{ and } 1.84$ for clusters 1, 2 and 3, respectively).

General discussion

The three objectives of the present set of studies verified the predictions of infra-humanization theory. First of all, Spanish students made distinctions when distributing secondary

emotions to groups (continents, sub-continents, and countries), and this distribution did not at all correlate with the one of primary emotions. Not surprisingly, the groups that received most secondary emotions can be considered ingroups. They are Southern Europe, Venezuela, and Europe. Venezuela share many links with Spain, and Canarians, for instance, consider Venezuela part of their country. India received the same amount of secondary emotions as the three preceding groups and the only explanation we have for this unexpected finding is the role of dramatic events (i.e., tsunami) at the time of the testing.

Participants thus established differences on the human dimension between the various groups. Not all outgroups are equally humanized. Some outgroups were closer than others to the ingroup, in terms of humanity. More exactly, the same humanity is not attributed to the ingroup and to specific outgroups. This observation raises the following questions: Why do we humanize some groups more than others? What distinguishes the groups that receive more secondary emotions from the ones that receive less?

The answers to these questions make up the second part of this study. Results show that the more people consider outgroups similar to their ingroup, friendly, and well-known, the more likely they are to attribute them the capacity to experience secondary emotions. In other words, the more outgroups are similar, friendly and known, the more they can share the human essence with the ingroup. In addition, and as predicted, group status has no relationship with the attribution of secondary emotions.

The results obtained for similarity are more in line with Self-Categorization Theory (Turner et al., 1987) than with Social Identity Theory (Tajfel, 1982). While the latter expects distinctiveness to be induced by similarity, the former theory suggests that the closest outgroups could be re-categorized and included in a more general ingroup (Turner et al., 1987). The data from this study support the idea that the perception of strong differences between the ingroup and the outgroup is an element that lowers the humanization. The same observation is true for friendship towards outgroups. In fact, both variables are strongly interrelated, in such a way that the closer the outgroup is to the ingroup, the higher the level of friendship is expressed towards this outgroup. The contact hypothesis (Pettigrew, 1997; 1998) asserts that emotional ties produce positive attitudinal changes towards outgroups. This assertion can be extended to humanization of outgroups. Even more interesting is that, in the present case, friendship does not need to involve specific members of the ingroup and the outgroup. The mere perception of strong emotional ties between groups reduces facilitates the humanization.

Knowledge of the outgroup is also a factor related with the humanization of the outgroup. The significant correlation found between knowledge and attribution of secondary emotions confirms the results found in studies concerning other types of prejudice (Hartley, 1946; Stephan & Stephan, 1984). However, Cortes et al. (2005) found results that dif-

ferred with respect to familiarity of the outgroup and infra-humanization. Several reasons can explain this discrepancy. First, familiarity and knowledge of the outgroup are not exactly the same concepts. An individual can possess information about a group without ever actually having met one of their members in a day to day setting. Inversely, it is possible not to have information about groups we live with on a daily basis. Second, perception of threat or other factors that were not considered in this study could also offer explanations of the contradictory results. In the study by Cortes et al. (2005), and although disliking did not correlate with infra-humanization, familiarity interacted with the existence of a conflict between the groups (Flemish and Walloons in Belgium). Third, the infra-humanized Flemish group was probably not seen as similar and friendly, even if it was known. By contrast, our present results indicate that a greater knowledge of a group is related with a greater perception of similarity, as well as a higher level of friendship towards this group.

What are the effects of status on outgroup humanization? The results indicate that status is an unrelated element with this intergroup bias. As expected, people humanize members of other groups independently of their status. It means that, even though status is a strong determinant in other intergroup biases, it is not related with the attribution of secondary emotions. This null result is quite important because the claim that status had no influence upon infra-humanization relied especially on theoretical grounds (Leyens et al., 2000) while empirical evidence was scarce (i.e. Demoulin et al., 2005; Leyens et al., 2001). Among “uniquely human” characteristics, secondary emotions were elected on purpose because they did not depend on societal structural factors. Every human being is supposed to have secondary emotions. Claiming more of them for one’s group than for the outgroup resembles two of the strategies proposed by Social Identity Theory (Tajfel, 1982) to provoke social change, that is, innovation and changing the dimension of comparison, like with the slogan “Black is beautiful”.

The third contribution from our study is the establishment of a typology of groups according to profiles of humanity differently based on similarity, friendship, knowledge of the group, and attribution of secondary emotions. The results clearly indicate three levels of humanity. The highest level includes the ingroup and the most similar outgroups, which also share strong emotional ties, and are well-known. The groups with significantly lower levels of attribution of secondary emotions are made up of groups that possess an intermediate level of information and low perception of similarity and friendship with the ingroup. Regions that are more accessible to participants, perhaps through media attention, or through international relations, are included in this second group. These regions have achieved relevance and visibility with respect to globalization. The third group incorporates those regions that received the lowest number of secondary emotions, in addition to receiving the lowest scores in knowledge about the group. However, they experi-

ence no difference with respect to similarity and friendship if we compare their scores with those of the second group. The resulting pattern indicates that similarity and information act differently than other variables. Similarity and friendship allow making the difference between the ingroup and the other groups. However, they do not signal a difference between the least humanized outgroups and those that are humanized at an intermediate level. These elements allow to establish an *us-them* differentiation, but they do not contribute to a differentiation within all of the outgroups, especially with respect to the least humanized outgroups and the other outgroups. This differentiation is accomplished by information. In other words, the information one possesses about the outgroups that are humanized at an intermediate level is what distinguishes them from those outgroups that are humanized at an extreme level. Neither similarity nor intergroup friendship differentiate the least humanized outgroups from outgroups that receive intermediate levels of humanity.

Is globalization able to transform the human perception that people have towards outgroups? Answering this question goes beyond the scope of this paper. Nevertheless, there is no doubt that the perception of similarity and intergroup friendship, as well as knowledge of other regions, is strongly influenced by globalization. Thus, from this perspective, globalization opens a door to the outside world, allowing people to share experiences without having distance as an obstacle. At the same time it is also true that globalization can increase the sense of threat towards outgroups, because we perceive them as being different to our ingroup and we may receive biased information. Globalization has not uniformly extended to all parts of the world; it has hidden some regions of the globe while attracting attention to others. This lack of visibility can increase infra-humanization towards specific regions, for example, Africa and Asia. On the other hand, it seems that globalization by itself is not capable of changing the perception of humanity of the outgroups. The United States and Northern Europe are the two regions that appear most frequently in the media and also best represent the spirit of globalization. Our results show that this frequency is not sufficient to elicit perceptions of similarity and friendliness, and, consequently, to erase infra-humanization.

In summary, this set of studies contributes to the literature about the processes that intervene in infra-humanization. Considering the outgroups as similar to the ingroup, knowing them, and possessing emotional ties with them, are factors that are likely to increase the humanization of the outgroups.

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References

- Allport, G. A. (1954). *The nature of prejudice*. Reading, M. A.: Addison-Wesley.
- Amir, Y. (1976). The role of intergroup contact in change of prejudice and race relations. In P. A. Katz (Ed.), *Towards the Elimination of Racism* (pp.245-280). New York: Pergamon.
- Brauer, M. (2001). Intergroup perception in the social context: the effects of social status and group membership on perceived outgroup homogeneity and ethnocentrism. *Journal of Experimental Social Psychology*, 37, 15-31.
- Castano, E., & Giner-Sorolla, R. (2006). Not quite human: infra-humanization in response to collective responsibility for intergroup killing. *Journal of Personality and Social Psychology*, 90, 804-818.
- Cortes, B. (2005). Looking for conditions leading to infra-humanization. Doctoral Thesis. Université Catholique de Louvain. Lovain-la-Neuve, Belgium.
- Cortes, B. P., Demoulin, S., Rodríguez-Torres, R. T., Rodríguez-Pérez, A., & Leyens, J. Ph. (2005). Infra-humanization or familiarity? Attribution of uniquely human emotions to the self, the ingroup, and the outgroup. *Personality and Social Psychology Bulletin*, 31, 243-253.
- Demoulin, S., Cortes, B. P., Viki, T. G., Rodríguez-Pérez, A., Rodríguez-Torres, R. T., Paladino, M. P., & Leyens, J. Ph. (in press). The role of ingroup identification in infra-humanization. *International Journal of Psychology*.
- Demoulin, S., Leyens, J. Ph., Paladino, M. P., Rodríguez-Torres, R. T., Rodríguez-Pérez, A., & Dovidio, J. (2004). Dimensions of "uniquely" and "non-uniquely" human emotions. *Cognition and Emotion*, 18, 71-96.
- Demoulin, S., Leyens, J. Ph., Rodríguez-Torres, R. T., Rodríguez-Pérez, A., Paladino, P., & Fiske, S. (2005). Motivation to support a desired conclusion versus motivation to avoid an undesirable conclusion: the case of infra-humanization. *International Journal of Psychology*, 40, 416-428.
- Demoulin, S., Rodríguez-Torres, R. T., Rodríguez-Pérez, A., Vaes, J., Paladino, M. P., Gaunt, R., Cortes, B., & Leyens, J. Ph. (2004). Emotional prejudice can lead to infra-humanisation. *European Review of Social Psychology*, 15, 259-296.
- Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82, 878-902.
- Fiske, S. T., Xu, J., Cuddy, A. J. C., & Glick, P. S. (1999). (Dis)respecting versus (Dis)liking: Status and interdependence predict ambivalent stereotypes of competence and warmth. *Journal of Social Issues*, 55, 473-489.
- Hartley, E. L. (1946). *Problems in prejudice*. New York: King's Crown Press.
- Haslam, N. (2006). Dehumanization: an integrative review. *Personality and Social Psychology Review*, 10, 252-264.
- Jahoda, G. (2002). On the origins of antagonism towards the Others. *Zeitschrift für Ethnologie*, 127, 1-16.
- Jetten, J., Spears, R., & Manstead, A. (1998). Defining dimensions of distinctiveness: group variability makes a difference to differentiation. *Journal of Personality and Social Psychology*, 74, 1481-1492.
- Kofta, M., & Baran, T. (2004). Cooperation, competition, and infra-humanization of outgroups. *Unpublished paper*.
- Leyens, J. Ph., Paladino, M. P., Rodríguez-Torres, R. T., Vaes, J., Demoulin, S., Rodríguez-Pérez, A., & Gaunt, R. (2000). The emotional side of prejudice: the attribution of secondary emotions to ingroups and outgroups. *Personality and Social Psychology Review*, 4, 186-197.
- Leyens, J. Ph., Rodríguez-Pérez, A., Rodríguez-Torres, R. T., Gaunt, R., Paladino, M. P., Vaes, J., & Demoulin, S. (2001). Psychological essentialism and the attribution of uniquely human emotions to ingroups and outgroups. *European Journal of Social Psychology*, 31, 395-411.
- Oakes, P. J. (1987). The salience of social categories. In J. C. Turner, M. A. Hogg, P. J. Oakes, S. D. Reicher & M. S. Wetherell, *Rediscovering the Social Group: a Self-categorization Theory* (pp. 117-141). Oxford, England: Basil Blackwell.
- Oliner, S. P., & Oliner, P. M. (1988). *The altruistic personality: Rescuers of Jews in Nazi Europe*. New York: Free Press.
- Paladino, M. P., Leyens, J. Ph., Rodríguez-Torres, R. T., Rodríguez-Pérez, A., Gaunt, R., & Demoulin, S. (2002). Differential association of uniquely and non-uniquely human emotions to the ingroup and the outgroup. *Group Processes and Intergroup Relations*, 5, 105-117.
- Paladino, M. P., Vaes, J., & Castano, E. (2004). Emotional infra-humanization in intergroup relations: The role of national identification in the attribution of primary and secondary emotions to Italians and Germans. *Cahiers de Psychologie Cognitive*, 22, 519-536.
- Pettigrew, T. F. (1997). Generalized intergroup contact effects on prejudice. *Personality and Social Psychology Bulletin*, 23, 173-185.
- Pettigrew, T. F. (1998). Intergroup Contact Theory. *Annual Review of Psychology*, 49, 65-85.
- Pettigrew, T. F., & Meertens, R. W. (1995). Subtle and blatant prejudice in Western Europe. *European Journal of Social Psychology*, 25, 57-75.
- Stephan, W. G., & Stephan, C. W. (1984). The role of ignorance in intergroup relations. In N. Miller & M. B. Brewer (Eds.), *Groups in contact* (pp. 229-256). New York: Academic Press.
- Tajfel, H. (1982). Social psychology of intergroup relations. *Annual Review of Psychology*, 33, 1-39.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *Psychology of Intergroup Relations* (pp. 7-24). Chicago, IL: Nelson Hall.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the Social Group: a Self-categorization Theory*. Oxford, England: Basil Blackwell.
- Vaes, J., Paladino, M. P., Castelli, L., Leyens, J. Ph., & Giovanazzi, A. (2003). On the behavioral consequences of infra-humanization: The implicit role of uniquely human emotions in intergroup relations. *Journal of Personality and Social Psychology*, 85, 1016-1034.
- Vanbeselaere, N. (1996). The impact of differentially valued overlapping categorizations upon the differentiation between positively, negatively, and neutrally evaluated social groups. *European Journal of Social Psychology*, 26, 75-96.

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