

# The role of context in the discrimination of others. Outgroups seem less human in pleasant physical contexts

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## Abstract

*Infrahumanization studies have verified that people attribute uniquely human characteristics to their ingroup and restrict this possibility to outgroups. The aim of this study is to determine whether pleasant or unpleasant physical contexts change the norms of outgroup infrahumanization. Therefore, participants were presented a task involving the visual recognition of words preceded by images that were manipulated in terms of the physical context in which ingroup and outgroup pictures appeared. The results show that there is a greater association between ingroup and secondary emotions than between outgroup and secondary emotions when the background is a pleasant context. This difference disappears when they are presented in an unpleasant physical context. These results show the importance of physical contexts in group identity.*

*Keywords:* Infrahumanization, ingroup, outgroup, physical context, secondary emotions.

# El papel del espacio en la discriminación del otro. Los exogrupos me parecen menos humanos si están en espacios agradables

## Resumen

*Los estudios sobre infrahumanización han verificado que las personas atribuyen características exclusivamente humanas a su propio grupo al tiempo que restringen esa posibilidad al exogrupo. El objetivo de este estudio es determinar si los contextos físicos agradables y desagradables modifican la pauta de infrahumanización del exogrupo. Para ello se diseñó una tarea de reconocimiento visual de palabras precedida por imágenes en las que se manipulaba el escenario físico sobre el que aparecían fotografías del endogrupo y del exogrupo. Los resultados muestran que hay una mayor asociación entre endogrupo y sentimientos que entre exogrupo y sentimientos cuando el fondo es un espacio agradable. Esta diferencia desaparece cuando se presentan en un espacio físico desagradable. La explicación de los resultados se hace atendiendo a la importancia del espacio físico en la identidad de los grupos.*

*Palabras clave:* Contexto físico, endogrupo, exogrupo, infrahumanización, sentimientos.

*Translation:* Anna Moorby

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Since the 1960s, the area of Environmental Psychology has supported the importance of physical space in individual behaviour and in the way social life is interpreted. The dynamic interaction that happens in physical contexts in which behaviour takes place provides perceivers with a series of keys that optimize their diagnosis of reality and help to attribute meanings, assign roles and generate expectations about others. This fact has not gone unnoticed amongst researchers into prejudice and infrahumanization, who have recently begun to study variations in group representation as a consequence of the environment in which they are located.

So, how can physical contexts influence prejudice and outgroup infrahumanization? If, as Leyens et al. (2000) established, people have a systematic bias to consider outgroups less human than their ingroup, is it possible for certain physical environments to increase this infrahumanization?

Research into intergroup relations has confirmed the strength of two systematic biases derived from ingroup identification: ethnocentrism, which leads people to favour their own groups over outgroups (Brewer & Brown, 1998), and the psychological essentialism that makes people attribute essences to each social category that set it apart from the rest (Rothbart & Taylor, 1992). In accordance with these criteria, Leyens et al. (2000) established that one way in which these two trends are set is by attributing different essences to groups but reserving for the ingroup those characteristics that would correspond to the "human essence". The appropriation of human essence for one's own group is achieved by thinking that, in contrast with the outgroup, the ingroup has more typically human characteristics such as intelligence, language, secondary emotions, moral quality, sociability, etc.

Hence, in their first studies, Leyens et al. (2000, 2003) found that, unlike intelligence and language, which were applied indistinctly to all groups, people appropriated the capacity to experience secondary emotions for their ingroup and were very reticent to attribute this capacity to members of the outgroup. Having conducted a transcultural study in three countries (Belgium, Spain and USA) and four languages (English, Dutch, French and Spanish), in which participants were asked to evaluate emotional terms in different dimensions, a strong concurrence was observed that distinguished emotional reactions in such a way that the most typically human emotions were also those that required the greatest cognitive resources, were less intense and visible, took longer and provided more information about people's morality (Demoulin et al., 2004).

Subsequent research has achieved highly consistent results for the ingroup- secondary emotions association, and a strong resistance to associate the outgroup with secondary emotions. However, this differential attribution is not replicated with primary emotions, reactions we also share with animals. Hence, for example, using the Implicit Association Test (Greenwald, McGhee, & Schwartz, 1998), it has been observed that people are quicker to associate positive and negative secondary emotions with their ingroup than with the outgroup (Paladino et al., 2002). It has also been found that members of groups with high and low status, with and without a history of conflicts, attribute more positive and negative secondary emotions to the ingroup than the outgroup (Gaunt, Sindic, & Leyens, 2005; Leyens et al., 2001). Furthermore, the results show that people are reluctant to attribute secondary emotions to the outgroup (Demoulin et al., 2005; Gaunt, Leyens, & Demoulin, 2002; Gaunt, Leyens, & Sindic, 2004), and display a greater tendency to help, imitate and approach members of the ingroup than the outgroup, even though they both express secondary emotions (Vaes, Paladino, Castelli, Leyens, & Giovanazzi, 2003; Vaes, Paladino, & Leyens, 2002). In all this research, the lower association and attribution of secondary emotions to the outgroup provides a powerful indicator of infrahumanization.

So, if infrahumanization is a systematic intergroup bias, which alterations might produce variations in the physical environments in which the ingroup and outgroup is represented? The main point in this research is the affective meaning of physical space

and the way in which it influences the reactions of perceivers towards ingroups and outgroups. For this purpose, the research is grounded in the results of Corraliza (1998), who observed that physical environments acquire meaning in a perceptive process in which the first level is affective response; in other words, evaluation in terms of pleasant/unpleasant. This affective evaluation creates differing degrees of preference towards these environments over others, and that preference will, in turn, determine the action plans of individuals in relation to the environment.

Various studies have examined which factors make certain places more pleasant than others owing to the importance of this evaluative dimension when the interaction between the individual and the environment is analyzed (Bechtel, 1992; Peron, Purcell, Staats, Falchero, & Lamb, 1998). The results indicate that more attractive places for people also have a greater restorative capability (Galindo and Hidalgo, 2005). Furthermore, environmental preference is conditioned by the need for psychological restoration experienced by individuals, so that greater levels of attentional fatigue increase an individual's preference for certain landscapes (Hartig & Staats, 2006). Other studies have indicated that environmental preference increases personal motivation to interact with the context, which facilitates, among other things, the learning of aspects related with that context, or environmental protection (Lackney, 2000).

The experimental study conducted by Wittenbrink, Judd and Park (2001), for example, demonstrated the effect of physical context on prejudice. In their research, they presented participants with photographs of people from the ingroup (white) and the outgroup (black), in an environment associated with positive stereotyping of the outgroup (a church) and in another associated with negative stereotyping (an alley). Using a priming exercise, similar to Fazio, Jackson, Dunton and Williams (1995) found that, when an image of the outgroup appears, the negative contexts fostered a stronger association with negative stereotypical terms, whereas the positive contexts favoured the association with positive stereotypical terms. On the basis of these results, the authors concluded that the activation of attitudes is linked to the context in which they unfold.

However, there is also the possibility that pleasant physical environments are associated with spaces which are reference points in the ingroup identity and, consequently, induce a perception of threat if they concur with the presence of strangers. In effect, a strong research tradition shows how the physical contexts frequented by people play an important role in the development of their identity (Proshansky, 1978; Stokols, 1990; Stokols & Shumaker, 1981). Specifically, they shape a series of positive emotional links pertaining to the familiar places or contexts in which people carry on their everyday life. These links are, in many cases, as important as those that form a part of the landscape of intergroup comparisons, since individuals assign meaning to them within a framework of socially constructed exchanges. In this context, the appearance of an outgroup might be perceived as a territorial invasion or a contaminating factor.

In fact, proof of the close relationship between familiarity and threatening perceptions was provided in previous research (Delgado, Rodríguez-Pérez, Vaes, Betancor, & Leyens, in press), in which images of members of the ingroup and outgroup were presented in relation to a familiar environment (an important local square) and an unknown environment (a mosque); it was found that inserting the image of an outgroup member into the familiar context facilitated the recognition of threatening words to a greater extent than inserting the image of an ingroup member in the same place. However, the unfamiliar environment was equally threatening when members of both the ingroup and outgroup appeared in it. In other words, the perceived threat increased when outgroups were shown in the territory of the ingroup.

The aim of this research is to provide further evidence regarding this relationship between physical environment and inhumanization, using unknown physical contexts to avoid, as far as possible, the real overlapping between familiarity and positive affect. Specifically, the hypothesis proposed is the perception of an outgroup member in a

pleasant environment will indicate higher levels of infrahumanization than if this same member is shown in an unpleasant context.

In summary, the aim of this research is to confirm that the degree of infrahumanization attributed to any outgroup depends on the type of emotional response induced by the environment. More specifically, the interest here lies in determining whether the infrahumanization associated with outgroups increases when the outgroup members are observed in a place that instigates positive emotions.

## METHOD

### Participants

This research was conducted with 20 students from the Faculty of Psychology at the Universidad de La Laguna, who received research credits for their collaboration.

### Materials and procedure

The task was presented as research into the visual recognition of words. We followed the procedure drawn up by Wittenbrink et al. (2001), who adapted the task defined by Fazio et al. (1995) to enable experimental manipulation of the physical context in which the photographs of the ingroup and outgroup appear.

#### *Context*

The context was provided by two different landscapes: a park and a bus stop covered in graffiti. A pilot study carried out with 24 participants with similar characteristics to the study sample indicated that the images were evaluated with similar levels of familiarity ( $M = 2.96$  for the graffiti and  $M = 3.17$  for the park;  $t_{(23)} = .66, p = .512$ ). However, the two images differed in terms of their pleasantness: the park was much more pleasant for the participants than the bus stop with graffiti ( $M = 4.69$  and  $M = 1.35$ , respectively;  $t_{(23)} = 24.97, p < .001$ ). On the basis of these data, the term *pleasant context* was used to label the park, and *unpleasant context* for the bus stop with graffiti.

#### *Photographs of the ingroup and outgroup*

Examples of the ingroup and the outgroup were presented using photographs of young white and black men. The photographs showed the face, neck and shoulders of the individual; the t-shirts were retouched in all the photographs so that they were the same colour, and facial expression was controlled. A total of 30 photographs were used, 15 corresponding to the ingroup of the participants (white) and 15 corresponding to the outgroup (black).

#### *Words*

The participants were presented with a total of 24 words. This list of words was made up of 8 secondary emotions, 4 positive (satisfaction, optimism, hope and love) and 4 negative (concern, bitterness, unhappiness and shame), 8 primary emotions of which 4 were positive (joy, fun, tranquillity and enthusiasm) and 4 were negative (alarm, unease, fear and sadness), and finally, 8 non-emotional filler terms (for example, smile, cockroach, gift and nuisance).

Based on the data from the normative study performed by Demoulin et al. (2004), it was confirmed that positive secondary emotions and primary emotions differed in their level of humanity ( $M_s = 5.62$  and  $3.68$ ;  $t_{(6)} = 3.46, p = .013$ ), whereas they had the same level of desirability ( $M_s = 6.64$  and  $6.59, t_{(6)} = .27, p = .794$ ). The same occurred with the negative emotional terms: secondary emotions were considered more human than

primary emotions ( $M_s = 5.50$  and  $3.02$ ;  $t_{(6)} = 10.21$ ,  $p < .001$ ), and they both presented the same desirability ( $M_s = 2.11$  and  $1.82$ ;  $t_{(6)} = .65$ ,  $p = .536$ ).

The research was programmed using a 2 (Context: pleasant vs. unpleasant)  $\times$  2 (Group: white vs. black)  $\times$  2 (Type of emotional expression: secondary emotions vs. primary emotions)  $\times$  2 (Valence of the term: positive vs. negative) intragroup design, in which the task was organized into four steps:

#### Step One (baseline)

In the first task, the participants had to evaluate whether the word shown on the screen was positive or negative. Every test in this step began with a white fixation sign (+) in the centre of a black screen. After 250 milliseconds, a word replaced the fixation sign, and remained on the screen until the participant answered whether the word was positive or negative. After giving the response, the next fixation-word sequence appeared until the total of 24 experimental tests had been completed. The reaction time for each word was used as a baseline.

#### Step Two (face-learning task)

This second task required the participants to look closely at a series of faces that appeared on the screen in order to subsequently remember whether they had seen them or not. The participants saw a total of 16 photographs which represented 8 people in two different environments: a park (pleasant context) and a bus stop with graffiti (unpleasant context). The 8 people were made up of 4 members of the ingroup –white– and 4 members of the outgroup –black–. None of these photographs was used again in the critical task (Step 4).

#### Step 3 (facial recognition)

Thirdly, a facial recognition task was presented for the faces the participants had just seen. The participants were presented with a total of 16 photographs (the 8 from the previous step plus 8 fillers). Each photo appeared against a white background and remained on screen until the participant answered whether they had seen it before or not.

#### Step 4 (critical task)

In this step, the words were shown preceded by a priming sequence. Each test began with the presentation of one of the backdrops (park vs. bus stop). After 1 second, the facial priming was superimposed over this image for 128 milliseconds. After this, a white screen appeared for 128 milliseconds, followed by a word. Participants were asked to pay very close attention to the faces that were shown whilst they responded to the task of identifying words as positive or negative. Following an initial practice block with 12 tests and 4 duly combined photos, the participants carried out a total of 48 tests, so that each word was presented twice, in one case preceded by the image of a member of the ingroup and in the other by the face of a member of the outgroup.

## RESULTS

Firstly, extremely quick and slow participant score (less than 150 and more than 3000 milliseconds) were excluded from the data analysis, along with errors (3.9% of the total). Subsequently, response latency was transformed into logarithmic scores, with a view to approximating the data to a normal distribution. Even though the statistical analyses were carried out using the logarithmic scores, the mean values of the facilitation indices were transformed back into milliseconds to present them and facilitate the interpretation of results. Then, the facilitation index was calculated, subtracting the reaction times of

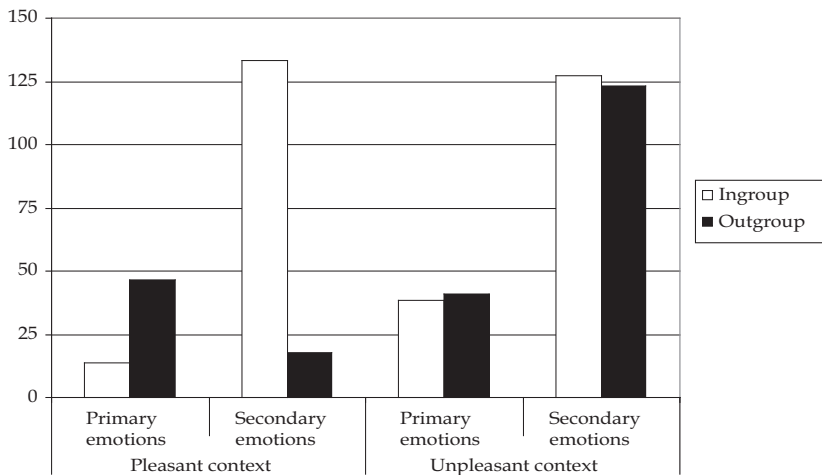
each word in step 4 from the reaction times obtained for each word in step 1. This way, the greater the resulting value of this operation, the greater the facilitation provided by the priming. Let us imagine, for example, a participant who took 750 milliseconds to recognize the word “bitterness” in step 1 (baseline). When the individual responded to the same word in step 4, preceded by the photograph of a member of the white ingroup in a pleasant context (park), in 550 milliseconds, the facilitation index is equal to 200 ms. However, if the word appears following the image of a member of the black outgroup and the participant takes 700 ms to decide whether it is positive or negative, the facilitation index would be 50 milliseconds. Given that in all cases the scores in step 4 were lower than in step 1, higher scores in the facilitation index indicate greater speed in identifying the valence of the word.

With the facilitation index (RT step 1 - RT step 4), a 2 (Context: pleasant vs. unpleasant) x 2 (Group: white vs. black) x 2 (Type of emotional expression: secondary emotions vs. primary emotions) x 2 (Valence of the term: positive vs. negative) ANOVA was conducted, in which all the variables were intragroup.

Analysis of variance confirmed the statistical significance of the three-way interaction of Context x Group x Type of emotional expression ( $F_{(1, 19)} = 5.29, p = .033, \eta^2 = .21$ ). With a view to ascertaining the effect of each combination of context/group priming on each type of word, independent analyses of variance were carried out for primary and secondary emotions. In the case of secondary emotions, statistical significance was found in the interaction Context x Group ( $F_{(1, 19)} = 8.56, p = .009, \eta^2 = .31$ ). Analysis of the simple effects shows that differences in the identification of secondary emotions occurred in the pleasant context. Specifically, the facilitation of the identification of secondary emotions preceded by images of the ingroup was significantly greater than the facilitation produced by images of the outgroup in the pleasant context ( $M_s = 133.50$  for the ingroup and 17.65 for the outgroup;  $F_{(1, 19)} = 10.22, p = .005, \eta^2 = .35$ ). When the images of black and white individuals appeared in the unpleasant context, there were no differences in the capacity to facilitate recognition of secondary emotions ( $M_s = 127.29$  for the ingroup and 123.44 for the outgroup).

FIGURE 1

*Mean facilitation response for primary and secondary emotions in accordance with the context/group combination*



In relation to primary emotions, the ANOVA had no any significant effects, showing that there were no differences resulting from the priming group in either of the two contexts.

## DISCUSSION

The purpose of this study was to know whether the physical context in which the outgroups appear influences the tendency to infrahumanize them. Specifically, the aim was to ascertain whether infrahumanization is a stable bias or whether, on the contrary, it is subject to variations due to the physical context in which the outgroups are evaluated.

The results found in this experiment reveal the sensitivity of infrahumanization to contextual variations, since the exposure of members of the ingroup and an outgroup to contexts associated with pleasant and unpleasant emotions had a different influence on secondary emotions word recognition. The participants' responses to these words were faster when they were preceded by the image of a pleasant context (the park) associated with the ingroup than when they were associated with the outgroup. This result – greater association between ingroups and secondary emotions than between outgroups and secondary emotions – is not new given that it coincides with the findings observed so far in all research conducted in relation to infrahumanization (Cortés et al., 2005; Demoulin et al., 2005; Gaunt et al., 2002; Gaunt et al., 2004; Gaunt et al., 2005; Leyens et al., 2001; Vaes et al., 2003; Vaes et al., 2002). However, what is surprising is what happens when we change the context and both the ingroup and outgroup are presented in an unpleasant physical context (a bus stop covered in graffiti). In this case, the difference in reaction time between ingroup and outgroup disappears, and, therefore, infrahumanization is mitigated. In this respect, the data show that, once a place acquires positive meaning for the perceiver, the outgroups that appear in it are infrahumanized. In other words, the infrahumanization of the outgroup intensifies when this group is in dissonance with the physical space that we associate with pleasant emotional experiences. However, when the outgroups being evaluated are presented in an unpleasant context for the perceivers, people do not appear to have a need to infrahumanize the outgroup.

Different theoretical perspectives explain this contextual dependence. One possibility is provided by studies that raise the relationship between mood states and heuristic vs. systematic processing of information (Bless, 2001). The research conducted in this regard suggests that positive mood states are associated more strongly with strategies of heuristic processing than negative states of mind. These processing differences have been observed in judgements that are more weighted towards stereotypes when evaluating strangers. For example, Bodenhausen, Kramer and Süsler (1994) presented participants displaying positive and negative mood states with a description of inadequate behaviours carried out by a student, and then they were asked to evaluate their culpability. Participants with a positive state of mind considered the author of the events to be more culpable when they were identified as a member of a group with a stereotype associated with that behaviour. The impact of the stereotype was not significant in the case of participants with a negative mood states. Along these same lines, it would not be unwarranted to consider that a positive context might have activated a mood state in the perceiver that could increase the potential for a more stereotypical heuristic processing (greater association of the ingroup than the outgroup with secondary emotions).

A greater explanatory force for the results is provided by the theory of social identity (Tajfel, 1981; Tajfel & Turner, 1986), which considers that intergroup attitudes are flexible because they adapt to the need to obtain a positive social identity. Hence, if a threat to social identity is perceived, the need to establish clear differences between the groups is increased. Given that social identity is often linked to territory (Bell, Greene, Fisher, & Baum, 1996; Kelman, 1978), it is more threatened when the outgroup occupies familiar spaces for the perceiver than when it is in unknown places. In fact, the spaces that the person has integrated into their social relations contribute a great deal of meaning to their identity. However, the power of this environmental factor in the self usually goes unnoticed except when an incongruent situation occurs – “a stranger in my territory” – in which case the person feels that their identity is threatened, their perceived

control is altered, and the safety of the environment is endangered (Valera & Pol, 1994). This place association with the ingroup in contrast with the outgroup is implicit, for example, in the concept of urban identity developed by Lalli (1988) and also in the process of space appropriation proposed by Korosec (1976).

Traditionally, studies into prejudice and social identity have focused their working hypotheses on factors that mediate the interaction between individuals and groups (Tajfel, 1981), and between ingroups and outgroups (Turner, 1987) as if it took place in a social vacuum. This study, in addition to the research conducted by Wittenbrink et al. (2001), highlights the role of physical context in the endowment of meaning to outgroups. The physical environment in which groups are perceived is not a simple backdrop, but rather interacts constantly with the cognitions and evaluations made, giving meaning to the social world. This was noted by Gestalt psychologists: the human brain organizes perceptions as totalities, so that each part loses the value it has if we remove it from the context, just as the hands of a watch if we remove them from the watch face that impresses meaning upon them.

In this regard, a fitting epilogue to this research must acknowledge the contribution made by Asch (1946), one of the great pioneers of Social Psychology, who noted that, in order to understand human behaviour, one must contemplate the entire context in which it takes place. Therefore, if different evaluations are given for a single act, it is not because different evaluation criteria are activated, but rather, because "relating events with their context constitutes the necessary conditions for understanding their true nature" (Asch, 1958, p. 433).

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