

The Impact of Helping Behavior on Outgroup Infrachumanization

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Infrachumanization research has verified that in intergroup contexts, there is a strong tendency to attribute secondary emotions, which are uniquely human, to the ingroup, while limiting that attribution in outgroups. Experiments have shown it to be as common as ingroup bias. However, it is not yet known what characteristics may mitigate this trend. This paper presents two studies. The first analyzes the impact of helping behavior on attributions of human traits to two fictitious groups. The second study's objective was to determine if members of the Spanish ingroup would infrachumanize an Ethiopian outgroup less when that outgroup performs prosocial behavior towards another group. Infrachumanization was determined by a lexical decision task, using the names of ingroup and outgroup members as priming. The results demonstrate that describing a fictitious group in altruistic terms increases their human profile (experiment one) and reduces infrachumanization (experiment two).

Keywords: infrachumanization, ingroup, outgroup, prosocial behavior, secondary emotions.

Los estudios sobre infrachumanización han confirmado que hay una sólida tendencia en los escenarios intergrupales a atribuir al endogrupo la capacidad de experimentar sentimientos, una emoción exclusivamente humana, a la vez que se restringe esa posibilidad a los exgrupos. Aunque se trata de un fenómeno tan común como el favoritismo endogrupal, aún se sabe muy poco sobre las características que pueden atenuar esta tendencia. En este artículo se presentan dos investigaciones. En la primera se estudia el impacto de la conducta de ayuda en la atribución de rasgos humanos a dos grupos ficticios. El objetivo de la segunda fue determinar si hay una menor infrachumanización del exgrupo etíope, frente al endogrupo españoles cuando aquel lleva a cabo una conducta prosocial respecto a otro grupo. La infrachumanización se determinó mediante una tarea de decisión léxica empleando como priming nombres de miembros del endogrupo y del exgrupo. Los resultados muestran que describir en términos altruistas a un grupo ficticio incrementa su perfil humano (experimento uno) y reduce su infrachumanización (experimento dos).

Palabras clave: infrachumanización, endogrupo, exgrupo, conducta prosocial, emociones secundarias.

The research presented in this article were made possible by funding the research project PSI2009-09777 of Dirección General de Investigación Científica y Técnica (DGICYT) and the Proyecto Estructurante Neurocog, awarded by the Agencia Canaria de Investigación, Innovación y Sociedad de la Información and funded by the FEDER, ACIISI and ULL.

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Ingroup bias, which leads people to favor the groups they belong to over others, or outgroups, is one of the strongest principles regulating intergroup contexts. This bias can lead to conflict situations, not because of competition for resources, but due to processes of constructing personal and social identity and of comparing oneself to others. Under these circumstances, simplistic representations of the other support the conviction that something internal regulates outgroup members' phenotypical characteristics and behavior. Furthermore, even though there is obviously no essence of being white, an immigrant, or German, people generally believe there is something profound and invisible underlying those categorical distinctions.

From this essentialist perspective, Leyens et al. (2000) sought to study the essential traits that help to define what is characteristically human. From their initial observations, those authors concluded people tend to consistently attribute the capacity to experience secondary emotions to the ingroup and to exclude outgroup members from possessing this human capacity. According to Leyens et al. (2000), this differential attribution of secondary emotions is one way to inhumanize others because, insofar as secondary emotions require a cognitive and moral maturity that primary emotions do not, depriving outgroups of that capacity reduces their human essence. In other words, both ingroup and outgroup members are capable of experiencing primary emotions, but the ability to experience secondary emotions (uniquely human emotions) is reserved for the ingroup.

Research has been conducted in people from an array of countries, ethnic groups, occupations, athletic groups, and of various nationalities, reporting strong results about this inhumanizing trend and verifying it is as common a phenomenon as intergroup attitudes and ingroup favoritism. In fact, all these studies have reported the same pattern: more secondary emotions are attributed to the ingroup than to outgroups, whose capacity for experiencing them is either negated entirely, or lower (Betancor, Rodríguez-Pérez, Quiles, & Rodríguez-Torres, 2005; Castano & Giner-Sorolla, 2006; Cortés et al., 2005; Delgado, Pacios, Rodríguez-Pérez, & Betancor, 2008; Demoulin, Leyens et al., 2004; Leyens et al., 2001; Leyens et al., 2003; Paladino et al., 2002; Rodríguez-Pérez et al., 2005; Rodríguez-Torres et al., 2005; Viki et al., 2006).

That being said, until now, very few studies have aimed to determine whether inhumanization functions in a rigid and inalterable pattern or if, on the contrary, certain factors may attenuate it. Studies conducted until now have suggested not all social groups are subject to inhumanization and in addition, certain contexts favor this ingroup bias more than others. In light of the above, the purpose of this article is to verify the role of context in outgroup inhumanization and more specifically, to determine whether portraying outgroup members as taking

part in prosocial behavior may alter the strength of the tendency to inhumanize them.

Recent studies account for four circumstances that alter this inhumanizing trend. The first of these is ingroup identification. According to inhumanization theory, people associate human essence with their own group because they wish to exalt its value compared to other groups. It stands to reason, then, that the greater one's ingroup identification is, the greater his or her predisposition to inhumanize other groups will be. In other words, if people do not feel particularly connected to a particular ingroup, it is unlikely they will consider themselves part of it; therefore, they will not be motivated to foment a positive image of it. Consequently, it is expected that if a person is not especially preoccupied with group membership, they will lack sufficient motivation to consider that group of greater humanity than others. Demoulin, Rodríguez et al. (2004) confirmed this hypothesis utilizing the minimal groups paradigm (Tajfel, Billig, Bundy, & Flament, 1971). Also, other studies measuring level of ingroup identification have reported people with high levels of it exhibit a greater tendency to inhumanize the outgroup than those with low ingroup identification (Paladino, Vaes, Castano, Demoulin, & Leyens, 2004; Rohmann, Niedenthal, Brauer, Castano, & Leyens, 2005; Viki, 2004).

Second, certain essentialist beliefs about ingroups and outgroups also promote inhumanization. Despite how subjective and vague the notion is of underlying essences pertaining to members of a group, people firmly believe it to be true (Leyens, Demoulin, Vaes, Gaunt, & Paladino, 2007; Rothbart & Taylor, 1992). Subjective essentialism leads people to think group members share a set of qualities that differentiates them from other groups. If people consider their group to possess essential qualities distinct from those of other groups, it is also very likely they think the most human essence pertains to their group rather than the outgroup (Leyens et al., 2000). From that perspective, to produce inhumanization requires belief in an underlying reality or essence that distinguishes certain groups from others (Demoulin, Rodríguez et al., 2004).

Third, the outgroup's relevance to the ingroup also moderates inhumanization. To inhumanize an outgroup, it must have relevance in the process of comparing group members. For example, it has been found that under controlled conditions, Canary Islanders do not inhumanize Poles (Delgado, Rodríguez-Pérez, & Rodríguez-Torres, 2006) and Walloons do not inhumanize citizens of Prague (Cortés et al., 2005), nor do Spaniards inhumanize Poles or Hungarians (Leyens et al., 2003). One group's relevance to another implies they are interdependent enough that one's existence has some type of impact on the other's identity.

The fourth and final circumstance that may either attenuate or intensify outgroup inhumanization is intergroup context (Rodríguez-Pérez, Betancor, & Delgado, 2009). Specifically, a study by Cortés (2005) showed that activating a cooperative

image of the outgroup eliminated infrahumanization bias, while that bias increased when there was a competitive relationship with the outgroup. Similarly, in two studies conducted in tangent, Cortés assigned participants to four (Study 1) or three (Study 2) experimental conditions: control, ingroup-outgroup cooperation, competition, and extreme conflict (Study 1). The results revealed that outgroup infrahumanization (in this case Poles) only occurred after activating a relationship of outgroup-ingroup competition or extreme conflict. No infrahumanization was reported, however, in the control condition and when a cooperative image of the two groups was presented.

A study by Delgado, Rodríguez-Pérez, Vaes, Leyens, and Betancor (2009) revealed infrahumanization to also depend on context. In two studies they conducted, participants were asked to complete a lexical decision task using terms related to ingroups, outgroups, and primary and secondary emotions after viewing scenes depicting violence, either between animals or human beings. The results revealed that experimental participants' exposure to violent images increased outgroup infrahumanization.

Cortés's results (2005), along with those of Delgado et al. (2009), indicate that infrahumanization bias is sensitive to the characteristics of the intergroup relationship made salient by a certain situation. Viewed together, these studies really suggest infrahumanization adjusts to the context in which the ingroup and outgroup are perceived. The same outgroup, depending on the specific image made salient at the time of assessment, may or may not be infrahumanized.

In line with the findings of the last two studies mentioned, this article has a dual purpose. First, it aims to verify whether or not portraying a group in altruistic terms modifies its representation, lending it greater humanity (Experiment 1). Second, we will determine whether describing the outgroup in the context of altruism alters ingroup members' inclination to infrahumanize them compared to members of their own group (Experiment 2).

Experiment 1

This experiment presents a fictitious outgroup about which perceivers have no previous knowledge or idea, and evaluates how information about the group's solidarity behavior affects attributions of human qualities to it. It is a first attempt to address whether or not an out group's image in terms of humanity changes when its members are presented performing helping behavior. A key advantage to using fictitious characters is that participants have no stereotypes or expectations about the group being evaluated. Furthermore, fictitious characters offer us the opportunity to show human-like interactive contexts. For these reasons, fictitious groups, especially extraterrestrials, have been utilized in a variety of group perception studies (Castano & Giner-Sorolla, 2006; Dasgupta, Banaji, & Abelson, 1999;

Hoffman & Hurst, 1990). In this case, the objective is to determine whether participants see these characters as more capable of experiencing secondary emotions when presented as acting prosocially than when presented carrying out a different act that is not a show of solidarity.

Method

Participants

A total of 49 psychology students participated in this research, receiving class credit for their collaboration.

Materials and Procedure

This experiment was presented as a study of imagination and inference. Participants were asked to read a text and try to remember it. It described a group of extraterrestrials, the Ackmianos, in two different ways. Participants assigned to the control condition read a text about the Ackmianos' customs, way of life, and interests. The following text was used:

The Ackmianos have lived on planet RF347 for many years. There, they live a peaceful existence that has enabled them to develop complex intragalaxy communication systems. They have already made contact with seven planets and estimate that quite soon, they will be able to set off and explore their interplanetary environment. To do so, they are constructing a large spaceship to bring 500 Ackmianos into outer space to explore. They have been working on this for approximately three-hundred years.

In the helping condition, participants read a text in which the Ackmianos help another extraterrestrial group, the Orintianos, recover and get past the consequences of a terrible war.

The Ackmianos have lived on planet RF347 for many years. There, they live a peaceful existence that has enabled them to develop complex intragalaxy communication systems. The Ackmianos' lives changed suddenly when the Orintianos arrived on their planet. They had been expelled from Orintia, a planet in the throes of a terrible war. Though the Ackmianos had never even heard of them, they warmly took them in without so much as a moment of hesitation. They shared with them what little they had and helped them, little by little, to overcome the horrors of war, making them feel at home. When the war came to an end and the Orintianos could return to their homes, they took leave of the Ackmianos full of gratitude and promised to return soon for a visit.

Along with each text was a drawing of extraterrestrials slightly resembling humans. After reading it and before performing the text recall test, participants were asked to complete a trait-attribution task, indicating to what extent

they believed the Ackmianos experience a series of emotional reactions in their daily lives. Following the procedure used by Castano and Giner-Sorolla (2006), a 5-point scale was utilized where 1 = *not at all* and 5 = *very much*. A total of 24 words were presented, of which 8 were primary emotions (to compare with secondary emotions); four were positive (Happiness, Enjoyment, Calmness, and Excitement) and four negative (Tension, Boredom, Fear, and Sadness). Eight secondary emotions were included, of which four were positive (Love, Hope, Optimism, and Joy) and four negative (Bitterness, Melancholy, Worry, and Shame). Finally, 8 filler terms were included (i.e. curiosity, ambition). Data from a normative study conducted in participants with characteristics similar to the present sample's (Demoulin, Leyens et al., 2004) indicated the selected positive and negative primary emotions differed significantly in desirability ($M_s = 6.59$ for positive primary emotions and 2.14 for negative ones; $t(6) = 15.31, p = .001$). Likewise, positive and negative secondary emotions differed significantly in desirability ($M_s = 6.62$ and 2.19; $t(6) = 20.04, p = .001$). Upon comparing positive primary and secondary emotions, on the other hand, we found their level of desirability did not differ significantly, but the extent to which they were considered exclusively human was significantly different ($M = 3.30$ for primary and $M = 5.07$ for secondary emotions; $t(6) = 3.42, p = .014$). The same occurred in the case of negative primary and secondary emotions ($M = 3.42$ for primary and $M = 4.95$ for secondary emotions; $t(6) = 4.10, p = .006$).

Results and Discussion

A 2 (Condition: control vs. help) x 2 (Emotional Expression: primary emotions vs. secondary emotions) x 2 (Expression Valence: positive vs. negative) ANOVA was performed. The results of this analysis suggest the condition x emotional expression interaction was significant, $F(1, 47)$

$= 8.27, p = .006, \eta^2 = .62$. An analysis of the interaction's simple effects was conducted through a post hoc test using the Bonferroni multiple comparisons method. This yielded significant results; significantly more secondary emotions were attributed to the Ackmianos in the help condition ($M = 3.38$) than the control condition ($M = 2.98$), $F(1, 47) = 6.24, p = .016, \eta^2 = .11$ (Figure 1).

Nonetheless, as expected, there were no differences in attributions of primary emotions as a function of experimental condition ($F < 1$).

This first experiment was designed to determine whether prosocial behavior on the part of the outgroup is enough to ease their humanization. These results pertain to a fictitious group the participants had no prior reference to and reveal that the group's representation depends on the behavior activated in the perceiver. When the idea of the outgroup carrying out helpful acts toward another outgroup was experimentally activated, participants inferred that its members would have a greater capacity to experience secondary emotions than when their knowledge of the outgroup related to some other, non-prosocial type of daily activity. Also, it is important to emphasize that even though ingroup identification is a necessary condition to produce inhumanization (Demoulin et al., 2009), it is not required to alter a group's cognitive representation. That depends more on expectations (Hoffman & Hurst, 1990), the content of stereotype (Macrae, Bodenhausen, & Milne, 1994), and in general, factors from the context in which the group is presented (Haslam, Turner, Oakes, McGarty, & Hayes, 1992; Haslam & Turner, 1992). This experiment did not activate belonging to any particular ingroup and, in this context, participants attributed more human traits to the fictitious group when it exhibited altruistic behavior than when it did not. Thus, even though the outgroup did not help the participants' ingroup, they conceived a more human image of it when it helped others than when it performed other types of behavior. Because a fictitious group was

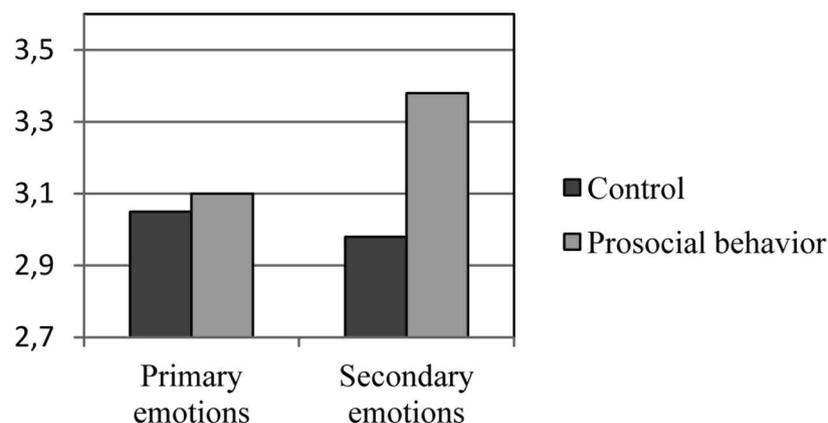


Figure 1. Means in primary emotions and secondary emotions attributed to Ackmianos depending on the experimental condition.

used, we can conclude that humanization occurs even when one does not expect ever to interact with the group's members.

This first study, however, leaves numerous questions up in the air. First and foremost, we do not know if a humanizing effect occurred because the group acted prosocially or due to a broader effect, of having activated the notion of help in the recipient. It is possible that abstractly activating prosocial behavior leads participants to humanize the outgroup, independently of whether or not they perform helping behavior.

Second of all, it could be that this effect can only be produced in unknown groups and known groups are less sensitive to changes in the ability to experience secondary emotions. Finally, this study collected no measure of infrahumanization per se because attributions of secondary emotions to the outgroup compared to the ingroup were not measured. Therefore, the results allow us to conclude that a change has occurred in perceptions of the outgroup's humanity, yet we do not know whether that change brought them to the ingroup's level or continued to place them on a lower level. The following study was conducted to address these questions.

Experiment 2

Experiment 2 will assess the effect of, alternately, presenting prosocial behavior in abstract terms or as associated with the outgroup, on reducing infrahumanization bias. It also aims to find whether this decrease in infrahumanization occurs because prosocial information is provided, or due to presenting the outgroup in a positive light. To resolve this question, a real-life outgroup, Ethiopians, was selected for three fundamental reasons. First, when unknown outgroups were used, participants had neither stereotypes nor expectations about future interactions with them; in the first study, this condition led the ingroup to place the fictitious outgroup in an equal position to theirs. Second, in a previous study of perceptions of different national groups and continental regions in terms of humanity, Spanish participants were found to view Ethiopians as less human (Rodríguez-Pérez, Delgado, Betancor, Leyens, & Vaes, 2011). Finally, selecting Ethiopians was the most conservative test of our hypothesis possible because they are not a relevant group in the dynamic of intergroup comparison, so any change in infrahumanization scores would constitute a test of the strength of the study's variables.

Furthermore, a task was programmed to allow us to compare the strength of the automatic associations between ingroup – secondary emotions and outgroup – secondary emotions. This will not only detect changes in the outgroup's image, but also differentiate between attributions of human traits to one's own group and the outgroup.

We hypothesize infrahumanization bias will decrease when prosocial behavior is activated in perceivers, but not when nonsocial positive behavior is activated, as in environmentalism behavior.

Method

Participants

Ninety psychology students in their first years of college participated in the present study. They received course credit for collaborating.

Materials and Procedure

This study involved two tasks, the first of which would examine memory and attentional processes. Its experimental design involved a 4 (Intergroup Context: control vs. outgroup prosocial behavior vs. the value of solidarity vs. proenvironmental behavior) x 2 (Emotional Expression: primary emotions vs. secondary emotions) x 2 (Expression Valence: positive vs. negative) ANOVA. The second was a lexical decision task that introduced the Group variable into the design (ingroup: Spanish vs. outgroup: Ethiopian).

In the control condition, participants read a text about Ethiopian habits and hobbies, as well as some information about the country itself.

Ethiopia is among Africa's oldest countries. It is unique among African nations in that it was never colonized, remaining independent throughout the Scramble for Africa, except for a five year period (1936-1941) when it was occupied by Italy. Ethiopia is a country of variety, extremes, rich culture, multiple religions, many legends, and much more to discover. Its unique cultural traditions are still observed in their authentic, original forms in most celebrations, including burials, weddings, and popular festivals, as well as in the routine of daily living.

In the prosocial behavior outgroup condition, participants were told how Ethiopians have helped Somali refugees. In this case, help implied direct contact with the victims (taking them into their homes, providing material and emotional support, etc.).

Ethiopians know suffering like few other nations; over the course of their history, they have withstood terrible wars and famine. Despite this fact, when Somalia faced one of the worst famines in recent history, Ethiopians did not hesitate to take their Somali neighbors into their homes. They offered them the little they had and what support and safety they could, helping them through the most trying of times. Thanks to Ethiopia's help, thousands of Somali lives were saved while an international coalition took days to act.

In the value of solidarity condition, participants were shown a text about solidarity and its positive effects on individuals.

The official Spanish dictionary defines solidarity as “circumstantial support for another person’s cause or enterprise.” It is lending a hand to those in need, which can be done through money or material support, but also with a gesture of friendship or understanding at just the right moment, a handshake, or by taking time to listen to a person’s sorrows. Solidarity behavior benefits everyone. One who gives it discovers the beauty of delivering something that helps others. The receiver benefits because, in addition to what, concretely, they receive, help brings important psychological advantages. First, one stops feeling alone, which is one of the most terrible feelings a person can have in a crisis situation. Second, it renews our trust in other human beings and in life. We should clearly keep in mind that by helping another human being, we also help ourselves and all of humanity.

Finally, in the proenvironmental behavior condition, participants read a text about Ethiopians’ ecological attitudes. That way, we were able to compare the effect of presenting the outgroup performing prosocial behavior toward another group, and presenting them engaged in positive, but not prosocial, behavior.

A recent sociological study conducted by the United Nations Statistics Commission revealed that Ethiopia is one of the world’s most environmentally respectful countries. The study suggests Ethiopian citizens have a high level of awareness of alternative energy systems and possess extraordinary knowledge about the environment. To them, recycling is so natural it has become one more part of the daily routine. Ethiopians are gradually becoming a model for sustainable development, able to meet the needs of today’s generation without compromising the needs of future generations.

After reading the text, participants were asked to indicate how much they thought Ethiopians in general experience a series of emotional responses. We utilized the same scale and the same words as in the last experiment. After this task, in order to maintain their memory of the information presented, participants were asked to write as detailed a summary as possible of the story they had read. Subsequently, another memory task was applied. This one required students to carry out a Lexical Decision Task (Macrae et al., 1995; Wittenbrink, Judd, & Park, 1997). They were shown a series of letters and had to decide as quickly as possible if it formed a word or a pseudoword. Preceding each series of letters was a person’s name, either Spanish or Ethiopian. Participants were to pay attention to the names because they would later perform a recall test on them. The same words appeared as in the first task (8 primary emotions, 8 secondary emotions, and 8 filler words), this time twice, once following a Spanish name and once following an Ethiopian name. The meaningless series of letters, 48 in total, also appeared twice. This task included a total of 16 names for each group, each repeated three times. The names remained on the screen for 500 milliseconds.

Upon completion of the lexical decision task, participants were asked to write down all the names they could remember on a sheet of paper. This ensured they had been paying attention to names from both groups.

Results and Discussion

Secondary Emotion Attribution

Scores on the first task were used to carry out a 4 (Condition: control vs. outgroup prosocial behavior vs. the value of solidarity vs. proenvironmental behavior) x 2 (Emotional Expression: primary emotions vs. secondary emotions) x 2 (Expression Valence: positive vs. negative) ANOVA. As anticipated, the condition x emotional expression interaction was found to be statistically significant, $F(3, 86) = 19.92, p = .001; \eta^2 = .41$. Our analysis of simple effects employed the Bonferroni method and suggests more secondary emotions were attributed in the prosocial behavior outgroup condition ($M = 3.62$) than in the control condition ($M = 3.39, p = .027$), the value of solidarity condition ($M = 3.35, p = .009$), or with marginal statistical significance, the proenvironmental behavior condition ($M = 3.42, p = .062; F(3, 86) = 2.86, p = .042; \eta^2 = .09$). Conversely, significantly fewer primary emotions were attributed in the prosocial outgroup condition ($M = 2.83$) than in the control condition ($M = 3.20, p = .001$), the value of solidarity condition ($M = 3.05, p = .041$), and the proenvironmental behavior condition ($M = 3.25, p = .001; F(3, 86) = 6.32, p = .001, \eta^2 = .18$).

The condition x valence interaction also turned out to be significant ($F(3, 86) = 9.63, p = .001, \eta^2 = .25$). This interaction’s simple effects showed that more positive terms were attributed in the control condition ($M = 3.49$) than in the prosocial outgroup condition ($M = 2.98, p = .001$) or the value of solidarity condition ($M = 2.97, p = .005$). Likewise, more positive terms were attributed in the proenvironmental outgroup condition ($M = 3.71$) than the prosocial ($M = 2.98, p = .001$) and value of solidarity conditions ($M = 2.97, p = .001; F(3, 86) = 10.24, p = .001, \eta^2 = .26$). As for the negative terms, significantly more of them were attributed in the prosocial outgroup condition ($M = 3.48$) than the control ($M = 3.09, p = .026$) and proenvironmental behavior conditions ($M = 2.97, p = .004$). Lastly, more negative terms were attributed in the value of solidarity condition ($M = 3.37$) than in the proenvironmental condition ($M = 2.97, p = .024; F(3, 86) = 3.82, p = .013, \eta^2 = .11$).

Finally, the emotional expression x valence ($F(1, 86) = 58.51, p = .001, \eta^2 = .40$) interaction was also found to be statistically significant. Our analysis of the interaction’s simple effects illustrates, as Figure 2 does, that in the case of positive valence, more secondary emotions were attributed ($M = 3.64$) than primary ($M = 2.97; F(1, 86) = 143.24, p = .001, \eta^2 = .62$). However, the negative terms did not yield differences in the way of primary and secondary emotions.

Lexical Decision Task

We collected secondary emotion recognition reaction times and transformed them into logarithmic scores. A 4 (Condition: control vs. prosocial outgroup behavior vs. value of solidarity vs. proenvironmental behavior) x 2 (Group: Spanish vs. Ethiopian) x 2 (Valence of Secondary Emotions: positive vs. negative) ANOVA was applied. The results indicate the valence variable had a significant main effect, $F(1, 84) = 8.83, p = .004, \eta^2 = .09$. That is, participants took longer to identify negative secondary emotions ($M = 855.77$) than positive ones ($M = 815.66$). Of greater interest to the present research is the finding that the condition x group interaction ($F(3, 84) = 4.69, p = .004,$

$\eta^2 = .14$) was statistically significant. As Figure 3 conveys, our analysis of the interaction's simple effects suggests an infrahumanization bias – in other words, greater ease in recognizing secondary emotions preceded by ingroup names than outgroup names – in both the Control condition ($M_s = 838.82$ for the ingroup and 927.97 for the outgroup; $F(3, 84) = 9.78, p = .002, \eta^2 = .10$) and the proenvironmental behavior condition ($M_s = 801.91$ for the ingroup and 902.35 for the outgroup; $F(3, 84) = 11.61, p = .001, \eta^2 = .12$). In both the prosocial behavior outgroup condition and the value of solidarity condition, the infrahumanization bias disappeared and no significant differences in recognition of secondary emotions were found as a function of group priming ($F < 1$ in both cases).

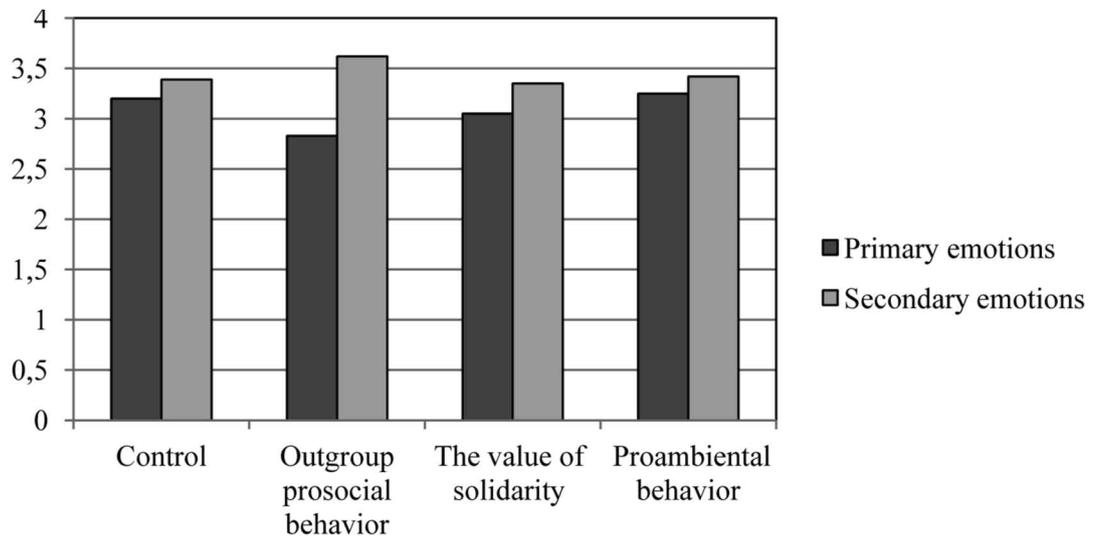


Figure 2. Means in primary emotions and secondary emotions attributed to the Ethiopians depending on the experimental condition.

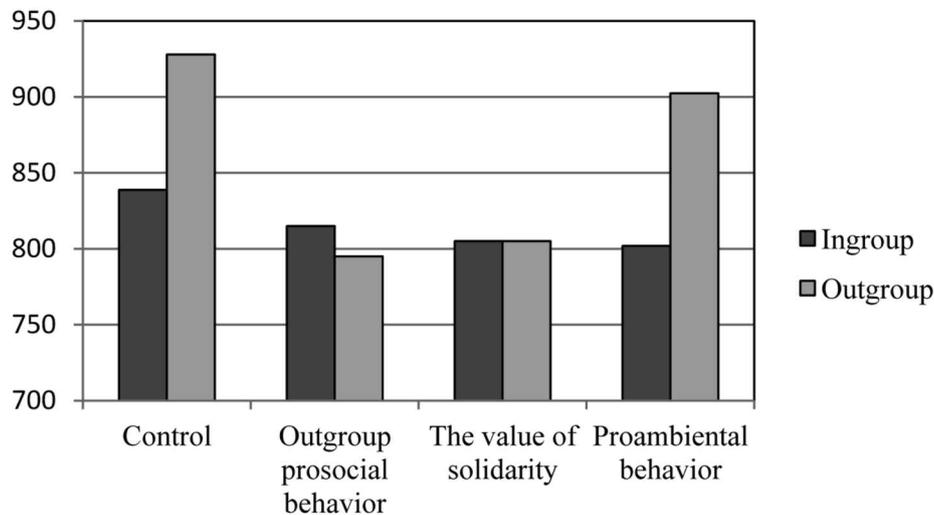


Figure 3. Reaction times of secondary emotions preceded by Spanish names (ingroup) and Ethiopians (outgroup) based on the experimental condition.

To determine whether the observed effect only occurred in the case of secondary emotions, we performed the same ANOVA using primary emotion reaction times, once again transforming them into logarithmic scores. A main effect of the valence variable was the only significant effect found, $F(1, 84) = 5.85, p = .018, \eta^2 = .06$. This meant it took longer to recognize positive primary emotions ($M = 856.62$) than negative ones ($M = 826.33$).

The results of this experiment confirm that infrahumanization bias is sensitive to the behavioral context of the outgroup. Furthermore, they demonstrate infrahumanization bias is not eradicated when the outgroup is depicted carrying out just any positive behavior. Instead, it is limited to the context of prosocial behavior.

In light of these results, at least for the time being, we are able to assert that portraying prosocial behavior alters infrahumanization bias. An explanation for these changes lies in prosocial behavior's facilitating effect on concepts of humanity. Exposure to the outgroup's helping behavior and activation of the value of solidarity facilitated association with notions of the good will, honesty, and generosity of others (Blackman & Horstein, 1977; Holloway, Tucker, & Hornstein, 1977; Hornstein, LaKind, Frankel, & Manne, 1975). Meanwhile, in dealing with uniquely human behaviors, these concepts were able to activate the human beings category.

General Discussion

Two experiments were performed toward the aim of analyzing the role of a help context in different groups' perceived human profile. The results reveal that describing a group, fictitious or real, as performing helping behavior for another group significantly increases the number of human attributes assigned to its members. Additionally, presenting the outgroup doing helpful acts for others reduces outgroup infrahumanization.

The second study's pattern of results concerning infrahumanization indicates helping behavior may have had a significant effect via two different mechanisms. First, there is an inferential process by which observing a behavior indicates to observers the person carrying it out exhibits a certain trait (Gilbert & Malone, 1995; Jones & Davis, 1965). According to trait inference theory, observing an outgroup's uniquely human behavior (like prosocial behavior) activates an inferential process that alters perceptions of its humanity. By denoting an exclusively human trait, helping behavior triggers the inference that the helper is human, which facilitates an automatic association between secondary emotions and the outgroup.

Studies in this field have shown that many inferences are automatically produced by the perception of behavior. For example, Uleman, Newman, and Moskowitz (1996) demonstrated trait inference is automatic using lexical decision tasks. The reason behavior has this inductive

potential lies in the reticular configuration of human memory. Effectively, the majority of semantic network models (Srull & Wyer, 1989; Wyer & Carlston, 1979) predict that inferences about traits from behaviors are more strongly produced than the reverse – inferring behaviors from a person's traits – because behaviors have fewer possible semantic connections than a trait.

Nevertheless, other theories postulate that a process of behavior – trait inference is not necessary for observing certain behaviors to impact evaluations of people engaging in that behavior. In fact, it has been observed that exposure to a certain behavior not only influences the image of its protagonist; it also affects evaluations of and interaction with other people not related to the action. Such is the case, for example, of the spontaneous transference phenomenon, in which perceivers attribute traits to someone that communicates a certain behavior, even when they are not the protagonist of the actions they describe (Carlston & Skowronski, 2005; Mae, Carlston, & Skowronski, 1999; Van Calster & Hoorens, 2002). Then again, this mechanism, sustained by automatic trait inference, cannot explain why differences would have occurred between humanity attributions in the helping and ecological behavior conditions of the outgroup. Since both are behaviors with strong, positive valence, this inferential reaction ought to have led experimental participants to characterize the outgroup with similarly human attributes.

The second mechanism that may have intervened in our results is the priming of helping behavior (Carlston & Smith, 1996; Collins & Loftus, 1975; Landman & Manis, 1983; Wyer & Carlston, 1979). Observing prosocial behavior activates a series of nodes related to that behavior. These concepts, secondary emotions, and reactions remain accessible for a while; this influences our judgments of people and groups that later perform the behavior. From that viewpoint, change in the perception of outgroups' humanity could have resulted from exposure to prosocial behavior itself. Members of the outgroup would not have needed to engage in the behavior themselves (Berkowitz, 1984). Furthermore, activating certain information not only activates other thoughts; it exerts a strong influence over the appearance of secondary emotions and actions related directly or indirectly to the information (Bargh, Chen, & Burrows, 1996; Berkowitz, 1984; Clark & Isen, 1982; Lang, 1979).

Although experimental studies of perception tend to give privilege to the priming effect and connectionist models, new studies need to examine these associations in terms of propagation and stability over time. Such studies would need to include measurements in time intervals capable of verifying the changes' consistency. On another note, neither priming nor its associative derivation can explain this series of results. It is illogical that having activated the idea of help, we yielded different results in the prosocial and proenvironmental conditions depending

on whether the dependent measure was explicit (trait attribution) or implicit (response latency).

The explanation described above, grounded in inferential and associative processes, would be complemented by an appraisal of the role of basic beliefs about benevolence in our organization of the social world. Such beliefs are likely to draw invisible margins that contribute to differentiation of the people worthy of our moral consideration from those we place outside of what is human (Bar-tal, 1989; Opatow, 1990).

By way of conclusion, the results of these two studies are relevant not only because they extend our understanding of helping behavior's role in perceiving the outgroup as human, but also because understanding the conditions that facilitate change in infrahumanization could enable us to develop affective strategies to decrease this form of intergroup bias.

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Received March 1, 2011

Revision received September 27, 2011

Accepted October 24, 2011