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Promoting Beliefs in the Inalienability of Human Rights by Attributing Uniquely Human  
Emotions through Multiple Categorization

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**Abstract**

2 The combination of multiple categorization (i.e., the use of multiple criteria to define others) and  
3 human identity--the superordinate group of human beings--has recently been highlighted as a  
4 method to reduce implicit (i.e., attribution of secondary emotions) and explicit (i.e., attribution of  
5 human rights) dehumanization towards Blacks.

6 In two studies aimed to replicate such evidence the mediating role of secondary emotions in  
7 explaining the impact of *multiple and human categorization* in reducing dehumanization was  
8 assessed. The role of implicit cognition such as attribution of secondary emotions in leading  
9 people to attribute human rights to minorities is discussed.

10

11 **Keywords:** secondary emotions, human rights, dehumanization, multiple categorizations,

12 racial prejudice

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Promoting Beliefs in the Inalienability of Human Rights by Attributing Uniquely Human Emotions through Multiple Categorization

Racial prejudice is very persistent even in contemporary multicultural societies which are rooted in democratic principles and condemn any form of prejudice and social discrimination. Not only Black people are still the targets of old-fashioned blatant prejudice (Dovidio & Gaertner, 2004), but they are also victims of heinous forms of discrimination such as denial of full humanness to others, i.e. *dehumanization* (for review, Haslam & Loughnan, 2014; see also Goff, Eberhardt, Williams, & Jackson, 2008; Goff, Jackson, Di Leone, Culotta, & DiTomasso, 2014). Recently, Albarello and Rubini (2012) highlighted the conditions under which dehumanizing prejudice towards Black people can be successfully ameliorated. They showed that the optimal intervention strategy for reducing dehumanizing prejudice towards Blacks used a combination of multiple categorization (i.e., the use of multiple criteria to categorize others; Crisp & Hewstone, 2007) and salience of human identity, as a means to include outgroupers within a common ingroup of human beings (Gaertner & Dovidio, 2000).

Given the importance of providing replications of previous findings in order to establish the robustness of gathered evidence (Funder et al., 2014; Schmidt, 2009), this contribution aimed to replicate the evidence by Albarello and Rubini (2012) that *multiple and human categorization* forms the most efficient social cognitive intervention for reducing dehumanization. Secondly, it aimed to address the possible mediating role of implicit social cognition on others' humanness such as attribution of secondary emotions (Leyens et al., 2000; 2003) to the target group of Black people on the explicit acknowledgment of human rights (Albarello & Rubini, 2012) to Blacks.

**Infra/dehumanization**

Leyens et al. (2000) highlighted an *infrahumanization* bias as the tendency to attribute secondary emotions (Ekman, 1992) to ingroupers to a greater extent than outgroupers (for

1 review, see Demoulin, Rodriguez-Torres, et al., 2004). Secondary emotions can be considered  
2 uniquely human characteristics because they represent a cultural product of civilization processes  
3 (Demoulin, Rodriguez-Torres, et al., 2004; Leyens et al., 2000). In this vein they form emotional  
4 experiences that are unique to humans (e.g., resentment, admiration, melancholy, hope). In  
5 contrast, primary emotions such as fear or pleasure are believed to be shared with animals and  
6 are biologically based (Kemper, 1987).

7         Interestingly, if this is the distinction between secondary and primary emotions,  
8 individuals are not generally aware of attributing emotions which vary in their human content. In  
9 this vein, Demoulin, Leyens, et al. (2004) have argued that attribution of secondary emotions can  
10 be regarded as an implicit measure of infrahumanization (see also Leyens, Demoulin, Vaes,  
11 Gaunt, & Paladino, 2007) since group members are motivated to provide ingroup/outgroup  
12 differentiation but are not aware of doing it by attributing secondary emotions to a varying extent  
13 (Leyens et al., 2003).

14         More recently, Haslam (2006) developed an integrated dual model of dehumanization  
15 contending that dehumanization results from both denial of uniquely human (UH) characteristics  
16 (e.g., secondary emotions) and human nature (HN; i.e., what is intrinsically human and central to  
17 humans). Recent studies highlighted another specific form of dehumanization consisting of  
18 *denial of mind/dementalization* (Waytz, Gray, Epley, & Wegner, 2010). This process too has  
19 been conceptualized as two-fold, i.e. Waytz and colleagues contended that dementalization can  
20 derive from denial of *agency* (i.e., the perceived capacity to act) and denial of *experience* (i.e.,  
21 the perceived capacity for sensation and feeling). These two forms of dementalization lead  
22 respectively to distinguishing humans from animals, and humans from robots.

23         In the last two decades, many scholars have addressed infrahumanization and  
24 dehumanization as aggravated forms of social prejudice leading one to perceive others as less

1 human than oneself or one's ingroup (e.g., Albarello & Rubini, 2015; Haslam, Bain, Douge, Lee,  
2 & Bastian, 2005; see also Haslam & Loughnan, 2014; Haslam, Loughnan, Kashima, & Bain,  
3 2008; Vaes, Leyens, Paladino, & Miranda, 2012). Very important for the purpose of our studies  
4 is the work of Goff et al. (2008) who tackled the issue of dehumanizing racial prejudice in terms  
5 of implicit or explicit activation of the metaphor linking Black people to apes. These authors  
6 showed that the implicit activation of the Black-ape metaphor altered participants' judgements  
7 about violence against Black people, leading them to condone police violence towards a Black  
8 suspect (see also Goff et al., 2014). They also showed that explicit activation of this metaphor in  
9 press reports of trials was correlated to assignment to death penalty. Such evidence on the  
10 consequences of implicit and explicit dehumanization suggests the importance of developing  
11 tools aimed to reduce dehumanization outcomes.

## 12 **Social Categorization and Dehumanization**

13 It is a well-established finding that dichotomous ingroup-outgroup categorization may be  
14 sufficient to produce intergroup discrimination (Tajfel, Billig, Bundy, & Flament, 1971). If  
15 categorization provides the basis for intergroup differentiation, it follows that reducing the  
16 salience of intergroup distinctions may reduce bias. Recent research (Crisp & Hewstone, 2007;  
17 Crisp, Hewstone, & Rubin, 2001; Prati, Crisp, Meleady, & Rubini, 2016) suggests that when  
18 perceivers process more than four categorical dimensions defining others, category-oriented  
19 processes no longer provide an efficient or meaningful way of making judgments, which leads to  
20 blurring intergroup boundaries and reduced intergroup discrimination. This means of definition  
21 of others is called *multiple categorization* (Crisp et al., 2001) and leads to individualization of  
22 outgroup members and decreased social prejudice.

23 Another strategy meant to reduce intergroup prejudice is the *common ingroup identity*  
24 *model* (Gaertner & Dovidio, 2000) which--unlike multiple categorization--uses a superordinate

1 means of social categorization leading to *recategorization* of former ingroupers and outgroupers  
2 (see also Gaunt, 2009) in order to extend the cognitive, motivational, and behavioral  
3 consequences (e.g., stereotyping, helping) of ingroup membership to former outgroupers.  
4 However, maintenance of both subordinate identity and superordinate identity, i.e. *dual identity*  
5 (González & Brown, 2003) can have multiple contrasting effects. It can lead to enhanced  
6 outgroup discrimination (Hornsey & Hogg, 2000), but it can also be considered a successful  
7 social integration strategy of minority groups into larger societies (González & Brown, 2003).

8         Other studies have considered the role of superordinate *human identity* (Turner, Hogg,  
9 Oakes, Reicher, & Wetherell, 1987) on intergroup relations. Evidence on the role of this social  
10 definition is not conclusive. Although Wohl and Branscombe (2005) showed that priming human  
11 identity reduced collective guilt assignment for perpetrators' harm-doing to a larger extent than  
12 did social identity salience, Morton and Postmes (2011) showed that perceiving shared humanity  
13 with others increased moral defense for the perpetrated harm (for similar evidence see also  
14 Greenaway & Louis, 2010; Greenaway, Quinn, & Luis, 2011).

15         In the light of these notions, Albarello and Rubini (2012), reasoning in terms of “an  
16 increase of optimizing factors in derailing dehumanization” (p. 876), hypothesized that multiple  
17 categorization and human identity could form an optimizing factor in reducing dehumanization,  
18 also given the lack of studies addressing interventions to reduce this heinous form of prejudice.  
19 In their research, they contrasted five experimental conditions (i.e., simple White categorization,  
20 simple Black categorization, multiple Black categorization, simple and human Black  
21 categorization, multiple and human Black categorization). Results showed that in the simple  
22 categorization condition the Black target was dehumanized to a higher extent than the White one.  
23 Interestingly, dehumanization was lower in the multiple than simple categorization condition.  
24 The optimal condition for the reduction of dehumanization was multiple and human

1 categorization condition. Such evidence is particularly striking since it was the first time that  
2 multiple and human categorization was highlighted as an intervention for reducing  
3 dehumanization. In this vein, it would be important to collect further evidence contributing to  
4 strengthen the robustness of its effect in hindering dehumanization.

### 5 **The Current Research**

6 Following the call to improve “dependability” of research in social psychology (Funder et  
7 al., 2014), the main goal of these studies was to replicate evidence on the role of multiple and  
8 human categorization on reduction of dehumanization (Albarello & Rubini, 2012). The studies  
9 also tested the possible mediating role of attribution of secondary emotions as an implicit means  
10 of intergroup differentiation (Leyens et al., 2003) in explaining the effects of multiple and human  
11 categorization on the attribution of human rights to the minority group of Blacks. Human rights  
12 are an explicit means of (de)humanization in the sense that participants read the statements  
13 relating to the human right at stake and assess the extent to which the right has to be  
14 acknowledged to the target group (cf. Albarello & Rubini, 2012).

15 The rationale for hypothesizing a link between the implicit attribution of secondary  
16 emotions and the explicit acknowledgment of human rights derives from Gawronski and  
17 Bodenhausen’s (2006) contention. These authors have distinguished between *associative* versus  
18 *propositional* processes. Implicit cognition such as attributing secondary emotions to a target  
19 group is based on associative processes linking the group to a characteristic which, in this case,  
20 is related to reduced humanness (i.e., Blacks are less human than Whites; Goff et al., 2008; see  
21 also Demoulin, Rodriguez-Torres, et al., 2004; Leyens et al., 2003). This can be conceived as an  
22 automatic affective reaction activated when one encounters the relevant stimulus and does not  
23 require much cognitive capacity or intentional information processing to evaluate the target  
24 (Gawronski & Bodenhausen, 2006). In contrast, propositional processes are based on syllogistic,



## 1 **Procedure and Materials**

2 Participants completed a paper-and-pencil questionnaire. They received a description of a  
3 target person manipulating the experimental conditions as in Albarello and Rubini's (2012)  
4 study. Participants read the information that: "During recent decades, the social milieu of the  
5 country has changed as a consequence of immigration flows. What follows is a description of a  
6 person, which you will have to read carefully and keep in mind while answering the following  
7 questions". In the simple categorization condition, the target was described only on the basis of  
8 skin color (i.e., "a Black person"). In the multiple categorization condition, the target was  
9 presented as "a Black, Christian, male, young person, who was born in Italy from immigrant  
10 parents". In the multiple and human categorization condition, after reading the aforementioned  
11 description of the target human identity was primed by asking participants to fill in a scale of  
12 identification with the human group. In the simple categorization condition, participants  
13 completed this scale after assessment of all dependent measures. At the end of the questionnaire  
14 participants also reported their personal data and their religious orientation<sup>1</sup>.

15 **Human identity prime manipulation.** As in Albarello and Rubini (2012), human  
16 identity was primed by asking participants to answer (1 = *not at all*; 7 = *very much*) to a 4 items  
17 human identification scale ( $\alpha = .77$ ; "I identify with all human beings"; "I feel strong  
18 connections with all human beings"; "I am like all human beings, irrespectively of ethnic,  
19 political, religious, social or ideological differences"; "I am proud to belong to the humankind").

20 In the current study, like in Albarello and Rubini (2012), the order of presentation of the  
21 human identification scale did not produce any significant effect across conditions,  $F(80) = 0.42$ ,  
22  $p = .659$ ,  $\eta^2 = .010$ . Scores of this scale were thus not considered in subsequent data analyses.

23 **Pre-testing multiple and human categorization manipulation.** A pre-test was run ( $N =$   
24 23 undergraduate students;  $M_{\text{age}} = 22.00$ ,  $SD = 1.45$ ; females = 65.2 %) to examine if each

1 categorical dimension included in multiple and human categorization manipulation was  
2 perceived as equally important in describing the target. This was done to ensure that multiple  
3 categories have the same impact on the reduction of dehumanization. In specific terms,  
4 participants rated on 7-points scales (1 = *not at all*; 7 = *very much*) the extent to which their  
5 impression was affected by the information “he is Black” (item1), “he is Christian” (item2), “he  
6 is a male” (item3), “he is young” (item4), “he was born in Italy from immigrant parents” (item5),  
7 and “he is a human being” (item6). The repeated-measures Analysis of Variance (ANOVA)  
8 conducted on the scores of these items revealed no differences ( $M_{\text{item1}} = 4.65, SD = 1.43; M_{\text{item2}}$   
9  $= 4.17, SD = 1.92; M_{\text{item3}} = 3.87, SD = 1.49; M_{\text{item4}} = 4.09, SD = 1.93; M_{\text{item5}} = 4.00, SD = 2.02;$   
10  $M_{\text{item6}} = 4.04, SD = 1.43), F(5, 18) = 0.70, p = .629, \eta^2 = .163$ . All pairwise comparisons (Least  
11 Significance Differences test) were not significant,  $ps \leq .134$ .

## 12 **Dependent Variables**

13 **Attribution of secondary emotions.** Participants attributed to the target (1 = *not at all*; 7  
14 = *very much*) the secondary emotions employed by Albarello and Rubini (2012). These  
15 emotional experiences consisted of three positive secondary emotions (i.e., hope, admiration,  
16 optimism), and three negative secondary emotions (i.e., pessimism, regret, remorse). The order  
17 of the emotions was randomized. As in Albarello and Rubini’s (2012), ratings of positive and  
18 negative secondary emotions were averaged to form a single mean score ( $\alpha = .84$ ) since they do  
19 not differ in humanity (Leyens et al., 2000).

20 **Attribution of human rights.** Participants were presented with the list (see Table 1) of  
21 ten statements taken from the Universal Declaration of Human Rights previously employed by  
22 Albarello and Rubini (2012). Participants rated inalienability to the Black target of each right  
23 described in the statements (1 = *not at all*; 7 = *very much*). A mean score expressing attribution  
24 of human rights to the target ( $\alpha = .96$ ) was computed.

1 Importantly, participants also rated the extent to which each right captured a fundamental  
2 dimension of humanness (1 = *not at all*; 7 = *very much*). The humanity scores of each right were  
3 higher than the mid-point of the scale ( $M_s \geq 6.16$ ),  $t_s(82) \geq 15.80$ ,  $p_s < .001$ .

## 4 **Results and Discussion**

### 5 **Attribution of Secondary Emotions and of Human Rights**

6 The one-way ANOVA (target condition: simple categorization, multiple categorization,  
7 multiple and human categorization) on the mean score of secondary emotions showed that  
8 attribution of secondary emotions varied as a function of target condition ( $M_{\text{simple categorization}} =$   
9  $4.04$ ,  $SD = 0.72$ ;  $M_{\text{multiple categorization}} = 4.73$ ,  $SD = 0.69$ ;  $M_{\text{multiple and human categorization}} = 5.67$ ,  $SD = 0.64$ ),  
10  $F(80) = 42.09$ ,  $p < .001$ ,  $\eta^2 = .513$ . Pairwise comparisons showed that all conditions significantly  
11 differed one from another ( $p_s \leq .001$ ). Importantly, multiple and human categorization led to  
12 attribution of secondary emotions to the target to a higher extent than multiple categorization  
13 alone.

14 The ANOVA on attribution of human rights revealed a significant effect of target  
15 condition ( $M_{\text{simple categorization}} = 5.41$ ,  $SD = 1.17$ ;  $M_{\text{multiple categorization}} = 5.93$ ,  $SD = 0.89$ ;  $M_{\text{multiple and}}$   
16  $\text{human categorization}} = 6.55$ ,  $SD = 0.74$ ),  $F(80) = 10.96$ ,  $p < .001$ ,  $\eta^2 = .215$ . In line with expectations,  
17 multiple and multiple and human categorization led to reduction of dehumanization in  
18 comparison to simple categorization ( $p_s \leq .050$ ). In the multiple and human categorization  
19 condition human rights were higher than in the multiple categorization one ( $p = .013$ ). Pearsons'  
20 Correlations ( $N = 83$ ) highlighted that secondary emotions and human rights were correlated ( $r =$   
21  $.611$ ,  $p < .001$ ). Importantly, as shown by a series of ANOVAs, attribution of secondary  
22 emotions and attribution of human rights were not affected by participants' gender (male,

1 female), nor participant's religious orientation (not religious, Christian), respectively,  $F_s \leq 0.41$ ,  
2  $p_s \geq .525$ , and,  $F_s \leq 1.03$ ,  $p_s \geq .313$ .

### 3 **Mediational Analysis**

4 To address the second aim of this contribution, bootstrapping mediational analysis (5,000  
5 re-samples) was conducted using the methods described by Hayes and Preacher (2014) for  
6 mediational models employing multicategorical independent variables. The independent variable  
7 was recoded in two dummy variables:  $D_1$  contrasted the simple categorization (coded 0) and  
8 multiple categorization (coded 1) conditions;  $D_2$  compared the simple categorization (coded 0)  
9 and the multiple and human categorization (coded 1) conditions.  $D_1$  and  $D_2$  were entered  
10 simultaneously as independent variables in the regression model. The PROCESS 2.15 macro for  
11 SPSS (model 4) was employed, since it produces omnibus tests of total, direct, and indirect  
12 effects indicating whether there is an effect of the independent variables on the outcome variable  
13 without specifying which dummy variable is responsible for the effect. First of all, both  $D_1$  ( $B =$   
14  $0.69$ ,  $SE = 0.19$ ) and  $D_2$  ( $B = 1.62$ ,  $SE = 0.18$ ) significantly affected the mediator (i.e., attribution  
15 of secondary emotions),  $p_s < .001$ . The omnibus test of total effects of the two dummy variables  
16 was significant,  $F(2, 80) = 10.96$ ,  $p < .001$ . As shown in Table 2, the total effects of  $D_1$  and  $D_2$   
17 were both significant. When the mediator was included in the model, the omnibus test of direct  
18 effects of  $D_1$  and  $D_2$  was not significant,  $F(2, 79) = 0.10$ ,  $p = .904$ . The relative direct effects of  
19  $D_1$  and  $D_2$  on the dependent variable turned to non-significance. The omnibus test of indirect  
20 effects through the mediator was significant, since the 95% Confidence Interval (CI) [0.15, 0.54]  
21 did not include zero. Also the specific indirect effects of  $D_1$  and  $D_2$  through the mediators were  
22 significant, respectively [0.17, 0.81] and [0.52, 1.68]. Overall, these results revealed mediation of  
23 the effects of multiple and multiple and human categorization on attribution of human rights to  
24 the Black target by secondary emotions.

1 Even though alternative models seemed less plausible, since the literature strongly  
2 supports the notion that it is implicit cognition that affects explicit attitudes (Gawronsky &  
3 Bodenhausen, 2006), we tested the alternative model of attribution of human rights as the  
4 mediator of the effects of multiple and multiple and human categorization on attribution of  
5 secondary emotions to the Black target. The omnibus test of the direct effects of the two dummy  
6 variables was still significant when the mediator was included in the model,  $F(2, 79) = 24.30, p <$   
7  $.001$ . Both the specific direct effects of  $D_1$  and  $D_2$  were also significant, respectively,  $B = 0.52,$   
8  $SE = 0.18, p = .004$ , and,  $B = 1.24, SE = 0.18, p < .001$ . The indirect effect of  $D_1$  through the  
9 mediator,  $B = 0.52, SE = 0.18$ , was not significant with the 95 % CI [-0.01, 0.43] including zero.  
10 The indirect effect of  $D_2$  through the mediator,  $B = 1.24, SE = 0.18$ , was significant, since the 95  
11 % CI [0.16, 0.72] did not include zero. Also the omnibus indirect effect of the independent  
12 variables through the mediator was significant, with the 95 % CI [0.01, 0.15] not including zero.  
13 Nevertheless, if compared to the results of the hypothesized mediational model, this finding is  
14 less strong as shown by the smaller CIs for the omnibus indirect effect and for  $D_2$ .

15 Overall, Study 1 contributed to replicate the evidence gathered by Albarello and Rubini  
16 (2012) showing again that multiple categorization, and above all, multiple and human  
17 categorization are effective interventions to achieve reduction of dehumanization towards Black  
18 people, both in terms of implicit and explicit measures of (de)humanization.

19 Study 1 also provided further advance to the previous evidence by shedding light on the  
20 unexplored process underlying the effects of multiple and multiple and human categorization on  
21 reduction of dehumanization by mediation of attribution of secondary emotions on human rights.

## 22 **Study 2**

23 Considering the evidence of the previous study, one might argue that the effect of  
24 multiple and human categorization in leading to reduced dehumanization of the target is due to

1 the fact that participants share at least common human belongingness with the target, which  
2 might have enhanced perceived similarity between the target and respondent.  
3 In this vein, it should be stressed that the issue of perceived similarity in multiple categorization  
4 interventions has not received adequate attention. This is due to the fact that multiple  
5 categorization is believed to impede perception of intracategory similarities and intercategory  
6 differences (see Doise, 1978). Multiple categorization effect on prejudice reduction relies on an  
7 individuation/decategorization process (Crisp & Hewstone, 2007; see also Prati, Crisp, Meleady, et  
8 al., 2016) since, as the number of categorizations increases, it is more difficult for perceivers “to  
9 determine on what basis they are similar to, or different from the target person” (Hall & Crisp,  
10 2005, p. 1436). For this reason, Crisp and Hewstone (2000) suggested analyzing the effects of  
11 similarity on multiple group membership shifting emphasis from mediation to moderation. Taking  
12 this stance, Study 2 added to the previously tested mediational model the control over the possible  
13 moderating role of perceived similarity with the target.

## 14 **Method**

### 15 **Participants**

16 Fifty-nine White Italian undergraduate students, without immigrant background,  
17 participated in the study on a voluntary basis ( $M_{\text{age}} = 21.86$ ,  $SD = 4.34$ ; females = 74.1 %).  
18 Participants were randomly assigned as follows in the two experimental conditions:  $n_{\text{simple}}$   
19  $n_{\text{categorization}} = 28$ ;  $n_{\text{multiple and human categorization}} = 31$ .

### 20 **Procedure and Materials**

21 The simple categorization and multiple and human categorization conditions were  
22 manipulated as in Study 1. As in Study 1, the variation in the order of presentation of the human  
23 identification scale ( $\alpha = .73$ ) did not affect human identification,  $t(57) = -1.51$ ,  $p = .137$ ,  $\eta^2 =$   
24  $.028$ . Therefore, human identification was not employed in further analyses.

1 Participants filled in the secondary emotions ( $\alpha = .74$ ) and human rights ( $\alpha = .94$ )  
2 measures employed in Study 1. In order to assess perceived similarity between the target and  
3 respondent, participants also rated the extent to which the target “was similar to” (item1) and  
4 “was like” (item2) them. The scores of these items were then averaged ( $\alpha = .77$ )<sup>2</sup>.

5 As in Study 1, participants also rated the extent to which each right captured a  
6 fundamental dimension of humanness. The humanity scores of each right were higher than the  
7 mid-point of the scale ( $M_s \geq 5.86$ ),  $t_s(58) \geq 9.60$ ,  $p_s < .001$ . At the end of the questionnaire they  
8 reported their personal data and religious orientation.

## 9 **Results and Discussion**

### 10 **Attribution of Secondary Emotions and of Human Rights**

11 As shown by an independent samples *t* test (target condition: simple categorization,  
12 multiple and human categorization), target condition significantly affected secondary emotions  
13 ( $M_{\text{simple categorization}} = 4.26$ ,  $SD = 1.12$ ;  $M_{\text{multiple and human categorization}} = 5.06$ ,  $SD = 0.73$ ),  $t(57) = -3.29$ ,  
14  $p = .002$ ,  $\eta^2 = .157$ . In line with expectations and replicating evidence of Study 1, secondary  
15 emotions were attributed to the target to a greater extent in the multiple and human  
16 categorization condition than in the simple one. Similarly, as revealed by another *t* test, human  
17 rights were attributed to the Black target to a greater extent in the multiple and human  
18 categorization condition than in the simple one ( $M_{\text{simple categorization}} = 4.99$ ,  $SD = 0.83$ ;  $M_{\text{multiple and}}$   
19  $human\ categorization} = 5.67$ ,  $SD = 1.51$ ,  $t(57) = -2.10$ ,  $p = .040$ ,  $\eta^2 = .071$ ). As shown by Pearson's  
20 Correlations ( $N = 59$ ), attribution of secondary emotions and of human rights were correlated ( $r$   
21  $= .551$ ,  $p < .001$ ). Importantly, as shown by a series of independent samples *t* tests, attribution of  
22 secondary emotion and attribution of human rights were not affected by participant's gender  
23 (male, female), nor participant's religious orientation (not religious, Christian), respectively,  $t_s \leq$   
24  $-1.49$ ,  $p_s \geq .142$ , and,  $t_s \leq -0.94$ ,  $p_s \geq .352$ .

## 1 **Mediational Analysis**

2            Bootstrapping mediational analysis (5,000 re-samples) was conducted using the methods  
3 described by Hayes (2015) for estimating conditional direct and indirect effects in moderated  
4 mediational models. The PROCESS 2.15 macro for SPSS (model 8) was employed, since it  
5 allows testing the conditional indirect effects of the independent variable (i.e., target condition)  
6 on the dependent variable (i.e., attribution of human rights) through the mediator (i.e., attribution  
7 of secondary emotions) at the different levels of the moderator (i.e., perceived similarity with the  
8 target). The centred mean score of similarity was entered in the mediational model as moderator.  
9 First, the analysis showed that the independent variable (i.e., target condition) significantly  
10 affected the mediator (i.e., secondary emotions),  $B = 0.80$ ,  $SE = 0.24$ ,  $p = .002$ . The moderator  
11 (i.e., perceived similarity) had a marginal effect on the mediator,  $B = 0.31$ ,  $SE = 0.17$ ,  $p = .075$ .  
12 The interaction effect of the moderator by the independent variable on secondary emotions was  
13 not significant,  $B = -0.07$ ,  $SE = 0.24$ ,  $p = .767$ . When the mediator was included in the model, it  
14 significantly predicted attribution of human rights,  $B = 0.68$ ,  $SE = 0.16$ ,  $p < .001$ . The direct  
15 effect of target condition on the moderator and the interactions of secondary emotions  $\times$   
16 similarity and of type of categorization  $\times$  similarity were not significant, respectively,  $B = 0.13$ ,  
17  $SE = 0.31$ ,  $p = .682$ ;  $B = -0.05$ ,  $SE = 0.21$ ,  $p = .882$ ; and,  $B = -0.03$ ,  $SE = 0.29$ ,  $p = .925$ . The  
18 conditional indirect effect of target condition through the mediator at the different values of the  
19 moderator was significant as shown by the 95 % CIs for each level of perceived similarity (i.e.,  
20 lower, mean, higher) which did not include zero, respectively,  $B = 0.59$ ,  $SE = 0.24$ , CI [0.16,  
21 1.10];  $B = 0.54$ ,  $SE = 0.19$ , CI [0.23, 1.01];  $B = 0.50$ ,  $SE = 0.30$ , CI [0.02, 1.20], whereas the  
22 index of moderated mediation was not significant,  $B = -0.05$ ,  $SE = 0.19$ , CI [-0.39, 0.37]. These  
23 findings reveal that attribution of secondary emotions significantly mediated the effects of  
24 multiple and human categorization on attribution of human rights to the Black target at each

1 level of perceived similarity and that perceived similarity did not moderate the significant  
2 mediating effect of attribution of secondary emotions on attribution of human rights.

3       Importantly, a further bootstrapping mediational analysis (5,000 re-samples) was  
4 conducted to test the alternative model entering attribution of human rights as the mediator of the  
5 effect of target condition on attribution of secondary emotions towards the target and perceived  
6 similarity as the moderating variable. This analysis was conducted employing the PROCESS  
7 2.15 (model 8) MACRO for SPSS and showed that the conditional indirect effects of the  
8 independent variable through the mediator were not significant at each of the different levels of  
9 the moderator, as shown by the 95 % CIs including zero (respectively, for lower similarity [-  
10 0.05, 0.87]; for mean similarity [-0.00, 0.84]; for higher similarity [-0.17, 1.00]). Also the index  
11 of moderated mediation was not significant,  $B = -0.03$ ,  $SE = 0.16$ ,  $CI [-0.40, 0.26]$ .

12       Overall, evidence of Study 2 confirmed the effectiveness of multiple and human  
13 categorization as a factor reducing dehumanization towards Blacks. It also replicated evidence of  
14 Study 1 showing that the effect of multiple and human categorization in leading to greater  
15 attribution of human rights to the Black target is mediated by attribution of secondary emotions.  
16 Beyond replication purposes this evidence contributed to ruling out the alternative explanation of  
17 the moderating role of perceived similarity with the target. Importantly, perceived similarity did  
18 not vary as a function of target condition (cf. Note 2). Moreover, the moderated mediational  
19 analysis also showed that perceived similarity between target and respondent did not account for  
20 differences in the attribution of humanness to the target nor affected the expected mediational  
21 effect of secondary emotions on human rights. Overall, this study confirmed what has only been  
22 argued by multiple categorization scholars, i.e. the fact that increasing the numbers of categories

1 defining others makes it difficult to establish on what basis they are similar or dissimilar to  
2 oneself (Hall & Crisp, 2005).

### 3 **General Discussion**

4 This set of studies provided evidence on the robustness of multiple and, especially,  
5 multiple and human categorization (Albarello & Rubini, 2012) as effective interventions to  
6 reduce dehumanizing prejudice towards Blacks. In view of recommendation of scientific  
7 community (e.g., Funder et al., 2004), such replication of previous findings might be regarded as  
8 remarkable and very welcomed.

9 Besides this, the current studies also tackled for the first time the process that might  
10 explain the effects of multiple and human categorization on explicit attribution of human rights  
11 to Blacks. Specifically, the attribution of secondary emotions (Leyens et al., 2000) mediated the  
12 positive impact of multiple and human categorization on attribution of human rights to a Black  
13 target in both studies. Such evidence was replicated in Study 2 controlling for moderation by  
14 perceived similarity between the target and participant. In this vein, this study also added to the  
15 work on multiple categorization (Prati, Crisp, Meleady, et al., 2016) by directly addressing for  
16 the first time perceived similarity with the target as a potential moderator of the effect of  
17 multiple and human categorization.

### 18 **Theoretical Implications**

19 While previous studies have shown that people tend to consider outgroup members as  
20 endowed with lesser humanity (Vaes et al., 2012), findings of this contribution consistently  
21 highlight that by processing multiple categorical information (Albarello & Rubini, 2015; Crisp &  
22 Hewstone, 2007; Fiske, 2015; Kang & Bodenhausen, 2014) the perception of outgroupers'  
23 humanity is enhanced at the implicit level of attribution of uniquely human emotions and, in  
24 turn, at the explicit level of attribution of human rights.

1           In this vein, if Goff et al. (2008; 2014) have stressed the heinous side of implicit  
2 cognition by highlighting the negative role of the Black-ape metaphor, these studies were able to  
3 show the beneficial role that implicit *associative* cognition on Blacks' humanness can have on  
4 explicit, *propositional*, attribution of human rights to them, thus leading to reduction of overt  
5 dehumanization outcomes such as the denial of human rights to minorities.

## 6 **Practical Implications and Applications**

7           These studies suggest some important guidance for dealing with diversity in multicultural  
8 societies and give suggestions for setting effective means to reduce prejudice and  
9 dehumanization. They show how multiple categorization, as a social-cognitive resource, can lead  
10 to better intergroup relations by promoting 'coalition building' between various groups  
11 (Albarello & Rubini, 2012; Crisp & Meleady, 2012).

12           In this vein, the evidence of these studies is absolutely in line with Fiske's (2015) agenda  
13 stressing multiple categorization as one of the crucial social cognitive means through which  
14 social psychology can help addressing the issues raised by *hybrid* and *poly-cultural* societies in  
15 our changing world. This might not be necessarily only related to Black people, but to other  
16 minority or ethnic groups towards whom people hold dehumanizing prejudice (e.g., Roma;  
17 Muslims). In other words, the current approach could be extended to other social contexts as an  
18 initial intervention to improve intergroup relations: By challenging dichotomous ingroup versus  
19 outgroup representations through multiple categorization, outgroupers come to be seen as more  
20 human.

21           In this vein, educational policies can be particularly important in countermanding  
22 chronically accessible tendencies to perceive one's own and other groups in terms of exclusive  
23 categorizations. These findings suggest that children should be educated to think in multiple  
24 categorical terms from the very beginning of their school experience (Bigler & Liben, 2007).

1 This may lead to a more inclusive representation of contemporary societies in which human  
2 rights are acknowledged to a higher extent to everybody because outgroups are perceived as  
3 equally human at implicit levels.

#### 4 **Limitations and Future Directions**

5 Further research should test the mediational hypothesis employing other manipulations of  
6 multiple categorization as well as salience of human identity. Given that our mediational  
7 analyses were performed on cross-sectional data, future studies should also employ a  
8 longitudinal design to assess more certainly the influence of attribution of secondary emotions on  
9 attribution of human rights to the target. Future work should also employ implicit techniques  
10 (Greenwald & Banaji, 2005) to assess dehumanization and provide further tests of the role of  
11 implicit evaluations of others' humanity on explicit, more controllable measures of  
12 dehumanization. Future research should also consider other forms of dehumanization, besides  
13 attribution of uniquely human characteristics such as secondary emotions, as we did in this  
14 contribution. Besides this, given the growing interest of social psychologists in developing  
15 measures of global human identification and assessing its relation with humanitarian concerns  
16 (e.g., McFarland, Brown, & Webb, 2013; McFarland & Hornsby, 2015), future work should  
17 assess the moderating role of an individual's human identification in reducing prejudice and  
18 dehumanization towards stigmatized social groups besides operationalizing it as a prime of the  
19 human level of self-categorization as in our studies and in Albarello and Rubini (2012).

20 Another interesting issue to address is related to human rights and how they are related to  
21 the existing models of dehumanization (e.g., Haslam, 2006). In this contribution we did not  
22 control whether human rights imply HN or UH characteristics. However, participants rated for  
23 each right the extent to which it captured fundamental human characteristics. Future studies  
24 might address this issue more closely. Moreover, drawing on evidence showing that lack of

1 human nature and experience (i.e., moral patiency; see Gray & Wegner, 2009) is associated with  
2 reduced moral worth (Haslam & Loughnan, 2014) future studies should consider whether these  
3 factors are also important to ascription of human rights.

4 In sum, deepening the processes underlying attribution of human rights to stigmatized  
5 groups is crucial since such pivotal principles of democratic societies reveal, as a thermometer,  
6 the extent to which social groups are excluded or can be integrated by society.

7 Thus, the strategies leading to acknowledgment of others' humanity such as the ones highlighted  
8 in this contribution might be at the basis of social change and help political management of  
9 contemporary multicultural societies, thus leading to promotion of more harmonious intergroup  
10 relations.

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### Footnotes

<sup>1</sup> Participants chose among different provided alternatives (i.e., atheist, agnostic, culturally Christian, Christian, Catholic, observant Catholic). Answers were recoded into a dummy variable (0 = not religious; 1 = Christian) such that the ‘atheist’ and ‘agnostic’ options fell into the ‘not religious category’ and the others into the ‘Christian category’.

<sup>2</sup> As shown by an independent samples *t* test (target condition: simple categorization, multiple and human categorization), perceived similarity between the target and respondent did not vary as a function of target condition ( $M_{\text{simple categorization}} = 4.66, SD = 1.31; M_{\text{multiple and human categorization}} = 4.70, SD = 1.24$ ),  $t(57) = -0.11, p = .916, \eta^2 = .157$ .

## 1 Table 1

2 *Human Rights Full Statements*

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**Human rights statements**

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All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience.

Everyone is entitled to rights and freedoms, without distinction of any kind as regards race, colour, sex, language, religion, political or other opinion.

Everyone has the right to life, liberty and security of person.

All are equal before the law and are entitled without any discrimination to equal protection of the law.

Everyone has the right to freedom of thought, conscience and religion; this right includes freedom to change his/her religion or belief and freedom, either alone or in community with others and in public or private, to manifest his/her religion or belief in teaching, practice, worship and observance.

Everyone who works has the right to just and favorable remuneration ensuring for himself/herself and his/her family an existence worthy of human dignity, and supplemented, if necessary, by other means of social protection.

Everyone has the right to rest and leisure, including reasonable limitation of working hours and periodic holidays with pay.

Everyone has the right to a standard of living adequate for the health and well-being of himself/herself and of his/her family, including food, clothing, housing and medical care and necessary social services.

Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages.

Everyone has the right to freely participate in the cultural life of the community.

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2 Table 2

3 *Total, Direct, and Indirect Effects of Predictors of Attribution of Human Rights to the Target*4 *(Study 1)*

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Predictor	Total effect			Direct effect			Total Indirect effect 95% CI			
	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>
D <sub>1</sub>	0.69	0.19	.000	0.09	0.25	.716	0.42	0.28	0.17	0.81
D <sub>2</sub>	1.62	0.18	.000	0.14	0.31	.668	1.01	0.29	0.52	1.67

7

8 *Note:* D<sub>1</sub> = simple categorization (0), multiple categorization (1); D<sub>2</sub> = simple categorization (0),9 multiple and human categorization (1); CI = confidence interval; *LL* = lower limit; *UL* = upper

10 limit.

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2 Table 3  
3 *Conditional Direct and Indirect Effects of Predictors of Attribution of Human Rights to the Target*  
4 *at Different Values of Perceived Similarity (Study 2)*

Predictor	Similarity	Conditional Direct effect			Conditional Indirect effect 95% CI			
		<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>
Target condition	Lower similarity	0.16	0.43	.716	0.59	0.24	0.16	1.10
	Mean similarity	0.13	0.31	.682	0.54	0.19	0.24	1.00
	Higher similarity	0.13	0.42	.810	0.50	0.30	0.02	1.20

15 *Note:* Target condition (0 = simple categorization; 1 = multiple and human categorization); CI =  
16 confidence interval; *LL* = lower limit; *UL* = upper limit.

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