Growing economic inequality especially affects the well-being of those who have a disadvantaged position (Buttrick & Oishi, 2017). Nowadays, many people rely on government support for food, heat, and accommodations (e.g., 6.8 million working-age British citizens receive benefits; National Statistics, 2017). However, despite the devastating effects that a deprived position has on people’s lives (Mood & Jonsson, 2016), many citizens oppose social welfare policies that seek to alleviate the consequences of living in poverty (Ashok et al., 2015). Even though this opposition likely has multiple causes, one potentially important explanatory factor is the social perceptions that individuals form about low-socioeconomic status (low-SES) groups.

In addition to being disliked (Cozzarelli et al., 2001) or stereotyped as less competent especially in higher economic inequality contexts (Durante, Tablante & Fiske, 2017), low-SES groups are also often considered as less human than high-SES groups (Loughnan et al., 2014; Sainz, Martínez, Moya, & Rodríguez-Bailón, 2019). Moreover, low-SES people sometimes are depicted as having wasteful consumption practices that supposedly stem from irrational economic decisions or a dysfunctional lifestyle (Jones, 2011); put simply, one can readily have an understanding that low-SES people spend their money on electronics or expensive clothes instead of on essential goods such as food or accommodations (Bullock et al., 2001; Hayward & Yar, 2006). In the present work, we aimed to extend previous work on the consequences of animalizing low-SES groups (Sainz, Martínez, Sutton, Rodríguez-Bailón, & Moya, 2019): We predict that dehumanizing low-SES groups may reduce support for social welfare policies, by portraying the recipients of such programs as economically irresponsible.

Keywords: animalization; socioeconomic status; welfare policies; wastefulness; governmental control

Dehumanization of Socioeconomically Disadvantaged Groups Decreases Support for Welfare Policies via Perceived Wastefulness

Mario Sainz*, Steve Loughnan†, Rocío Martínez‡, Miguel Moya‡ and Rosa Rodríguez-Bailón‡

Low-socioeconomic status (SES) groups are sometimes depicted as money wasters who live on welfare. Previous research has also found that low-SES groups are also animalized. We expand previous findings (Sainz et al., 2019) by examining the consequences that animalization has on support for social welfare policies (e.g., unemployment, housing) and governmental control of low-SES groups’ spending. We explored the mediating role of perceived wastefulness (i.e., the perception that low-SES people lack the ability to properly administer their budget) in the relationships between animalization and support for welfare policies and governmental control measures. In three correlation studies, 1a to 1c, we examined the relationships between these variables in three countries: The United Kingdom, the United States, and Spain. From our results, animalizing low-SES groups seem to negatively predict support for public policies and positively predict support for governmental control via the perception that low-SES people are unable to manage their finances. Finally, in two experimental studies, 2a and 2b, we directly manipulated the humanness of a low-SES group (animalized vs. humanized) and measured its effects on perceptions of the group’s wastefulness, support for social welfare policies, and support for governmental control over the group’s expenses. Results indicated that animalizing low-SES groups reduced support for social welfare by activating the impression that low-SES people are poor financial managers (Study 2a), but also that animalizing low-SES groups increased support for governmental control via perceived wastefulness (Studies 2a–b). We discuss the role of animalization in denying aid to those in need.

Keywords: animalization; socioeconomic status; welfare policies; wastefulness; governmental control

Dehumanizing Low-SES Groups

The denial of people’s humanity is an important feature in intergroup relations (for reviews, see Haslam & Loughnan, 2014; Haslam & Stratemeyer, 2016; or Vaes et al., 2012).
Haslam (2006) proposed two dimensions of humanity: human nature (HN) and human uniqueness (HU). The former includes traits such as emotionality, cognitive openness, and depth; the denial of these traits leads to perception of others as unemotional objects (i.e., mechanistic dehumanization). The latter involves traits such as rationality and civility that serve to differentiate humans from animals; denial in this case leads to animalization. Based on the previous literature, HU is the dimension traditionally denied to groups that occupy a subordinate position in society, such as immigrants, refugees, and minority ethnic groups (DeLuca-McLean & Castano, 2009; Esses et al., 2008; Goff et al., 2008). Furthermore, prior work has identified HU as the dimension, above and beyond HN, associated with the justification of hierarchical inequalities (Haslam, 2006) and its consequences such, for instance, the discrimination of ethnic minorities (Haslam & Loughnan, 2014).

Although there has been limited work directly pairing SES and dehumanization, there is evidence that low-SES groups are viewed as not fully human; for instance, Loughnan et al. (2014) showed that people in different countries associated low-SES groups with animals such as apes, rats, and dogs, and Sainz, Martínez, Moya, and Rodríguez-Bailón (2019) demonstrated that low-SES groups were considered lacking more HU than high-SES groups. This previous research highlights that groups that have a low socioeconomic position are prone to be considered as less evolved than other groups.

In addition, prior work identified that the denial of HU, even more than of HN, seems to drive negative attitudes about redistribution policies aimed to reduce the income gap between low- and high-SES groups (Sainz, Martínez, Sutton, et al., 2019). Further, authors explore how the willingness to accept that poverty is caused by external (e.g., economic system) or by internal (e.g., lack of intelligence) factors mediates the relationship between animalizing low-SES and attitudes about income redistribution. These findings are a key starting point for the current research because it highlights how animalizing groups could influence the justification of income inequality (Sainz, Martínez, Rodríguez-Bailón, et al., 2019; Sainz, Martínez, Sutton, et al., 2019).

**Welfare Policies and Low-SES Groups’ Consumption Practices**

The perception of low-SES groups as lazy, stupid, or violent (Garland et al., 2015; Spencer, 2016; Spencer & Castano, 2007) influences judgments in other domains, such as the management of financial resources. In this specific field, low-SES groups are perceived as bad and impulsive resource managers, who have wasteful consumption practices compared with middle-SES groups (Jones, 2011). Additionally, low-SES people are sometimes viewed as exploiting the welfare system by wasting its resources or demanding more resources than they need. The media reinforces these perceptions by depicting low-SES people as spending money on alcohol, tobacco, or fashionable jewelry even as they rely on social welfare (Raisborough et al., 2012). This image of low-SES groups as wasteful consumers reinforces lay theories of poverty as something internally caused (e.g., by laziness or immorality) rather than caused by external (e.g., lower wages or educational barriers) or contextual (e.g., economic crisis) factors (Cozzarelli et al., 2001). Therefore, we considered that the perception of people’s disadvantaged positions as internally caused can potentially undermine the perceived utility of welfare programs aimed at helping low-SES groups and, consequently, promote opposition to governmental social spending (Bullock, Williams, & Limbert, 2003).

**Dehumanizing Low-SES Groups and Perceived Wastefulness**

The current research is based on previous studies that link dehumanization and helping behaviors (Andrighetto et al., 2014), and also on others that showed how animalizing low-SES groups shapes attitudes toward income redistribution (Sainz, Martínez, Sutton, et al., 2019). We addressed the possible link between (de)humanizing low-SES groups and the support for specific welfare programs (e.g., unemployment, healthcare, education) that are intended to alleviate the consequences of living in poverty. Additionally, going further than previous research, in the current work instead of focusing on general preferences about inequality itself (i.e., the income gap), we focus on outcomes that are closely related to the plight of low-SES groups and which support is very much divided within our society (Jones, 2011): the support for social benefits and welfare policies.

Importantly, we also knew that animalized individuals are perceived as unable to control themselves or regulate their behaviors, which leads people to consider that they need external control (Bastian et al., 2010). Therefore, in the context of our study, we also seek to address the unexplored relationship between dehumanizing low SES and the desire to implement governmental measures of control on how low-SES people deal with the public funding they receive.

Finally, we also suggested that the view of low-SES people as less human could feed the notion that they are incorrigible, wasteful, and indulgent. Thus, going further than previous studies (Sainz, Martínez, Sutton, et al., 2019), which focused in the extent that people perceived more or less external (vs. internal) factors when dealing with poverty, in the current studies we seek to analyze the perception of low-SES groups as unable to properly administer their income and its effects of the support for social expenditure. Given the social relevance and the widespread (Jones, 2011) image of low-SES groups as wasteful welfare groups, we focus on the possible psychological mechanisms that underlie the rejection of specific welfare policies.

In order to test our predictions, we conducted correlational and experimental studies. In the correlational studies (1a–1c), we analyzed the relationships between dehumanization of low-SES people, perceived wastefulness, and overall support for welfare policies and for governmental control. In the experimental studies (2a and 2b), we manipulated the humanity of a low-SES group (animalized vs. humanized) to examine its effect on the perceived wastefulness attributed to that group and on...
support for welfare programs/governmental control. Materials and data used in all these studies can be found online (osf.io/e5sf2).

**Studies 1a to 1c**

We conducted studies in three countries (the United Kingdom, the United States, and Spain) to explore whether the dehumanization of low-SES groups predicts support for welfare policies through the view that such people have wasteful consumption practices. In this regard, we rely in previous research to consider that the role of HU/animalization might be crucial, above and beyond HN/mechanization (Loughnan et al., 2014; Sainz, Martínez, Sutton, et al., 2019). Although the presence of HN or its denial is a key dimension for low-SES group perception and treatment in certain contexts (e.g., dehumanization of low skill workers; Terskova & Agadullina, 2019), prior work seems to pointed out that HU, or animalization, would have a stronger relationship with the variables measured in this project. Thus, our hypothesis was that dehumanization, especially the denial of HU (more than HN), positively predicts perceptions that a group has low financial management (i.e., perceived wastefulness; H1), negatively predicts support for welfare policies (H2), and positively predicts support for governmental controls over the way low-SES people manage their welfare money (H3). Additionally, we explored whether low-SES groups’ perceived wastefulness mediated possible links between dehumanization (HU and HN) and support for welfare policies (H4) or support for governmental control (H5).

**Method**

Participants and procedure

We recruited participants into three national samples (735 participants): 205 UK participants (Study 1a: 114 females, $M_{age} = 34.15$, $SD = 11.17$), 214 US participants (Study 1b: 98 females, $M_{age} = 38.67$, $SD = 12.40$), and 316 Spanish participants (Study 1c: 206 females, $M_{age} = 24.45$, $SD = 6.41$). The UK and US samples were from the general population and were recruited online (Prolific Academic [paid £1 per person] and Mturk [paid $1 per person], respectively). The Spanish sample was a mix of people from the general population and students who participated in exchange for entry in a raffle (for 50€). The procedure across the three samples was the same. Once they agreed to participate, participants were asked to complete a questionnaire, which we originally developed in English for the UK (Study 1a) and US (Study 1b) samples and afterwards translated into Spanish (for Study 1c). A native Spanish speaker completed the translation in the last case. Once we had this translation, we reviewed the whole questionnaire to check the translation’s accuracy and added modifications when necessary (e.g., for words not as common in Spanish). Finally, participants responded to the following measures:

**Dehumanization**

In the English-speaking samples, the UK (1a) and US (1b) samples, we included a measure of dehumanization (Bastian et al., 2012) that was composed of four items associated with HU (e.g., ‘People from lower classes are refined and cultured’; UK: $\alpha = 0.812$; US: $\alpha = 0.833$) and four associated with HN (e.g., ‘People from lower classes are superficial; they have no depth’ [reverse]; UK: $\alpha = 0.702$; US: $\alpha = 0.800$). In the Spanish (1c) sample we considered that it would be more adequate to use a measure that has been created and previously tested with Spaniards in order to measure HU and HN. So, we used an alternative to the Bastian et al. (2012) scale. This alternative measure was composed of 20 positive and negative items related to HU (e.g., ‘To act in an intuitive way, not thinking first’ [reverse], $\alpha = 0.830$) and HN (e.g., ‘To remain indifferent to a surprise’ [reverse], $\alpha = 0.681$; see Sainz, Martínez, Moya, & Rodríguez-Bailón, 2019). Participants were asked to what extent they think that low-SES people could engage in different behaviors. Answers were provided from 1 (‘Not at all’) to 7 (‘Completely’).

**Low-SES groups’ perceived wastefulness**

Participants answered two items about their perceptions of low-SES groups’ financial efficacy (‘People of low SES waste the money that they have’ and ‘People of low SES spend wisely the money that they have’ [reversed]; UK: $\alpha = 0.816$; US: $\alpha = 0.896$; Spain: $\alpha = 0.882$), providing answers from 1 (‘Strongly disagree’) to 7 (‘Strongly agree’).

**Support for welfare policies**

We included a measure of support for welfare policies similar to the one used by Henry et al. (2004). Participants stated how much the government should spend on six benefits (healthcare, education, housing, food stamp or bank programs, utilities assistance, and unemployment; UK: $\alpha = 0.808$; US: $\alpha = 0.933$; Spain: $\alpha = 0.886$) by using and slider from −100% (‘Less money’) to +100% (‘More money’).

**Attitudes toward government control**

To measure support for governmental control over low-SES groups’ spending, we included four items (e.g., ‘If governments give low-SES groups money, they should control how those people spend it’; UK: $\alpha = 0.938$; US: $\alpha = 0.958$; Spain: $\alpha = 0.856$). Answers were provided from 1 (‘Strongly disagree’) to 7 (‘Strongly agree’).

Finally, participants reported demographic information (age and gender), identification with low-SES groups (‘Do you think that you belong to what people would consider the lower class in society?’), from 1 (‘Not at all’) to 7 (‘Completely’), and their subjective (10-step MacArthur ladder from 1 [‘Low-SES’] to 10 [‘High-SES’]; Adler, Epel, Castellazzo, & Ickovics, 2000) and objective socioeconomic status. As in previous research (Kraus & Keltner, 2009), we standardized objective indicators (monthly income range [e.g., in Spain we used a 7-point scale from 1, ‘Below €500,’ to 7, ‘Above €5,000’] and education level [7-point scale from 1, ‘Less than a high school degree,’ to 7, ‘Doctoral degree’]) to create a single measure of objective socioeconomic status (UK: $r = 0.284$; US: $r = 0.394$; $p < 0.001$). Correlation between education and income in the Spanish sample was not significant ($r = -0.104$, $p = 0.066$). Therefore, in the analysis for that sample, we used both variables as controls without computing a
single indicator of the objective socioeconomic status. At the end, we thanked and debriefed participants.

**Results**

The results indicated that low-SES groups’ perceived wastefulness, support for welfare policies, and desire for governmental control were related to the amount of humanity, especially HU, ascribed to low-SES groups (Table 1). We computed analyses to test the hypothesis separately for each study (see supplementary information for additional analysis).

**Results from the UK sample (1a)** To test H1–H3, we computed several multiple regression analyses of both dimensions of humanity (HU and HN) on the low-SES groups’ perceived wastefulness and on support for welfare policies and governmental control measures (Table 2). We observed from the results for the UK sample that the humanity attributed to the groups, especially on the HU dimension, negatively predicted both the perceived wastefulness and the participants’ support for governmental control, yet positively predicted the participants’ support for welfare policies. Therefore, the

**Table 1: Humanity and Perceptions, Studies 1a to 1c.**

<table>
<thead>
<tr>
<th></th>
<th>1a (UK Study)</th>
<th>1b (US Study)</th>
<th>1c (Spanish Study)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>HU</td>
<td>HN</td>
</tr>
<tr>
<td>Perceived wastefulness</td>
<td>3.64 (1.49)</td>
<td>-0.456**</td>
<td>-0.214*</td>
</tr>
<tr>
<td>Support for welfare policies</td>
<td>17.47 (25.34)</td>
<td>0.249**</td>
<td>0.041</td>
</tr>
<tr>
<td>Healthcare benefits</td>
<td>37.50 (33.06)</td>
<td>0.086</td>
<td>0.047</td>
</tr>
<tr>
<td>Education benefits</td>
<td>36.26 (32.95)</td>
<td>0.173*</td>
<td>0.029</td>
</tr>
<tr>
<td>Housing benefits</td>
<td>5.22 (36.98)</td>
<td>0.273**</td>
<td>0.033</td>
</tr>
<tr>
<td>Food stamp benefits</td>
<td>18.55 (37.19)</td>
<td>0.090</td>
<td>0.034</td>
</tr>
<tr>
<td>Utilities benefits</td>
<td>10.93 (33.67)</td>
<td>0.198*</td>
<td>0.039</td>
</tr>
<tr>
<td>Unemployment benefits</td>
<td>-3.63 (38.46)</td>
<td>0.227**</td>
<td>-0.008</td>
</tr>
<tr>
<td>Support for governmental control</td>
<td>3.77 (1.72)</td>
<td>-0.232**</td>
<td>-0.079</td>
</tr>
</tbody>
</table>

**Note:** Partial correlations between humanity attributed to low-SES groups (HU = Human Uniqueness; HN = Human Nature) controlled by the effect of one dimension of humanity on the other; * p < .05; ** p < .001; † p < .097.

**Table 2: Humanity’s Effect on Low-SES Groups’ Perceived Wastefulness, Support for Welfare Policies, and Support for Governmental Measures of Control, Studies 1a to 1c.**

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Low-SES groups’ perceived wastefulness</th>
<th>Support for welfare policies</th>
<th>Support for governmental control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>SE</td>
<td>b</td>
</tr>
<tr>
<td>UK (1a)</td>
<td>F (2, 209) = 86.08**, R² = .455</td>
<td>F (2, 209) = 15.29**, R² = .123</td>
<td>F (2, 209) = 16.48***, R² = .132</td>
</tr>
<tr>
<td>HU</td>
<td>-0.64**</td>
<td>(0.09)</td>
<td>6.99**</td>
</tr>
<tr>
<td>HN</td>
<td>-0.34*</td>
<td>(0.11)</td>
<td>1.38</td>
</tr>
<tr>
<td>US (1b)</td>
<td>F (2, 210) = 89.96**, R² = .456</td>
<td>F (2, 210) = 22.08**, R² = .165</td>
<td>F (2, 210) = 16.21**, R² = .125</td>
</tr>
<tr>
<td>HU</td>
<td>-0.78**</td>
<td>(0.09)</td>
<td>11.65**</td>
</tr>
<tr>
<td>HN</td>
<td>-0.10</td>
<td>(0.11)</td>
<td>1.49</td>
</tr>
<tr>
<td>Spain (1c)</td>
<td>F (2, 212) = 60.65**, R² = .275</td>
<td>F (2, 212) = 8.95**, R² = .048</td>
<td>F (2, 212) = 10.33** R² = .056</td>
</tr>
<tr>
<td>HU</td>
<td>-0.70**</td>
<td>(0.09)</td>
<td>4.01†</td>
</tr>
<tr>
<td>HN</td>
<td>-0.04</td>
<td>(0.11)</td>
<td>4.21</td>
</tr>
</tbody>
</table>

**Note:** Multiple regression non-standardized coefficients given. Standard errors given in brackets. HU = Human Uniqueness; HN = Human Nature; * p < 0.05; ** p < 0.001; † p < 0.055.
more people deny HU traits to low-SES groups, the more they see such groups as financially wasteful, undeserving of help, and in need of governmental control, which supports H1–H3.

Moreover, to test H4 and H5, we ran two mediational models relating dehumanization to welfare policies and governmental control through perceived wastefulness (Figure 1). We used Hayes’s (2013) PROCESS (bootstrapping 10,000 interactions with 95% CI) to calculate two independent simple mediational analyses using Model 4; we controlled for the type of humanity that we were not using as a predictor (e.g., when HN was being used, HU was controlled), as well as for identification with low-SES groups and participants’ SES (subjective and objective).

In the results for the UK sample, we observed that perceptions of low-SES groups’ wastefulness mediated not only the relationship between the attribution of HU to low-SES groups and participants’ support for welfare policies (effect = 0.14, SE = 0.05, 95% CI [0.05, 0.25]), but also the relationship between HU attribution and support for governmental control (effect = −0.20, SE = 0.05, 95% CI [−0.31, −0.11]); this mediation supports H4 and H5 (Figure 1). We also identified indirect effects of perceived wastefulness on the relationship between HN attribution and participants’ support for welfare policies (effect = 0.06, SE = 0.03, 95% CI [0.02, 0.13]) and on the relationship between HN attribution and support for governmental control (effect = −0.09, SE = 0.03, 95% CI [−0.16, −0.03]; Figure 2).

Results from the US sample (1b)
From multiple regression analyses of the US sample, we observed a similar pattern of results (supporting H1–H3): HU, more than HN, predicted low-SES groups’ perceived wastefulness as well as participants’ support for welfare policies and for governmental control measures (Table 2).

Results from the mediational analyses (Model 4) of the US sample supported our H4 and H5 (Figure 1): Low-SES groups’ perceived wastefulness mediated the relationship between HU attribution and support for welfare policies...

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**Figure 1:** Mediational analysis of Human Uniqueness on support for welfare policies (mediation 1) and governmental control (mediation 2) via low-SES groups’ perceived wastefulness. Variables controlled by Human Nature and subjective/objective SES of the participants, studies 1a (UK), 1b (US), and 1c (Spain). Coefficients are standardized, total effects are in brackets, direct effects are next to the brackets. **⁎⁎ p < .001, * p < .05, † ≤ .08.

**Figure 2:** Mediational analysis of Human Nature on support for welfare policies (mediation 1) and governmental control (mediation 2) via low-SES group’s perceived wastefulness. Variables controlled by Human Uniqueness, identification with low-SES groups, and subjective/objective social class of the participants, studies 1a (UK), 1b (US), and 1c (Spain). Coefficients are standardized, total effects are in brackets, direct effects are next to the brackets. **⁎⁎ p < .001, * p < .05.
in the relationship between HU and the other variables (welfare and governmental control), than studies 1a and 1b. These slight differences could potentially reflect the different measures of dehumanization that were used for the English speaking samples and the Spanish sample. Additionally, cultural differences in the support for welfare policies could be playing a role in these discrepancies. For instance, previous studies have found that in Spain there is a long tradition of supporting welfare policies compared with the UK (European Social Survey, 2016). However, importantly, correlations between the variables seem to show similar direction among samples, which is in line with the proposed hypothesis.

In short, dehumanization of low-SES groups seems to negatively relate to support for social welfare policies and positively to support for governmental control, via the perception that low-SES people are unable to manage their finances. However, these conclusions are based on correlational data that could potentially have limitations (e.g., overlapping among measures, interaction with covariates in Study 1b, see supplementary materials), and do not allow us to demonstrate causal links. To test causality, we conducted experimental studies in which we implement different manipulations of humanity (human vs. animal), to compare its influence on the support for welfare policies and governmental control.

**Studies 2a and 2b**

The goal of these studies was to examine the influence of (de)humanization on the perceptions of financial judgments. To do this, we implemented two humanity manipulations: a direct manipulation of HU traits (Study 2a) and an inferred manipulation based on the Ascent of Man scale (Study 2b). In both studies we hypothesized that when presented with an animalized group, participants would attribute higher perceived wastefulness to that group’s members (H1) and would express less support for welfare policies (H2) and more support for governmental control (H3) than they would when presented with a humanized group. Additionally, as in the previous studies, we expected the perceptions of a group’s perceived wastefulness to mediate two relationships: that between animalization (vs. humanization) of low-SES groups and welfare policies (H4) and that between (de)humanization of low-SES groups and support for governmental control (H5). Preregistration of the hypotheses can be found online (osf.io/bby95).

**Method**

**Participants and procedure**

In order to have a precise estimation of the required sample size in the experimental studies we decided to use the effect size from the Study 1c. Specifically, we computed G-power analysis for an independent t-test by transforming the overall correlation between HU and welfare policies in the Spanish sample from Study 1c into Cohen’s $d$. (effect size $d = 0.40$, $\alpha = 0.05$, 80% power, minimum n = 200, Faul et al. 2009); the sample for Study 2a included 205 participants (147 women, $M_{age} = 23.17$, $SD = 5.67$), whereas the sample for Study 2b included 210 participants (179 women, $M_{age} = 21.30$, $SD = 3.47$). The samples in both

Results from the Spanish sample (1c)

Regression analyses using humanity were in line with the pattern of results from the UK and US samples: HU predicted perceived wastefulness and support for governmental control, with the exception of the marginal effect of HU on support for welfare policies (Table 2).

Moreover, despite the marginal direct effect, we computed the mediational analysis (Model 4) following recommendations from Hayes (2009). Results indicated a significant indirect effect of low-SES groups’ perceived wastefulness on the relationship between HU and support for welfare policies (effect = 0.07, SE = 0.03, 95% CI [0.01, 0.14]), but also an indirect effect of perceived wastefulness on the relationship between HU and support for governmental control (effect = −0.14, SE = 0.03, 95% CI [−0.21, −0.07]; Figure 1).

Finally, we found no indirect effects of perceived wastefulness on the relationships between HU and support for either welfare policies (effect = 0.01, SE = 0.01, 95% CI [−0.01, 0.02]) or governmental control (effect = −0.01, SE = 0.02, 95% CI [−0.04, 0.03]; Figure 2).

**Discussion 1a to 1c**

In Studies 1a to 1c, we examined the relationships in three countries between the dehumanization of low-SES groups, the perceived wastefulness of these groups, and the support for welfare policies or governmental measures to control how low-SES people deal with their budgets.

First, results from the regression analysis seemed to indicate that HU in general predicted perceived wastefulness and support for welfare policies or governmental control to a higher extent than HN. This tendency means that considering low-SES groups less evolved and less human animals is associated with perceiving such groups as unable to manage their budgets, thinking them more in need of being controlled, and having less desire to help them through public policies. These results prevailed even when including control variables (i.e., identification, participants’ socioeconomic details) or when excluding possible overlapping items from the analysis (see supplementary information for additional analyses), and they are in line with the findings of previous authors who showed how low-SES groups’ HU is a better predictor than their HN when predicting similar outcomes (Sainz, Martínez, Sutton, et al., 2019).

Second, results from the mediation models seemed to indicate that the perceived wastefulness of low-SES groups mediated the direct relationships between HU and the other variables (welfare and governmental control) in the UK (1a) and US (1b) samples. However, results in the Spanish sample (1c) provided less consistent evidence of the mediational role of perceived wastefulness
studies comprised students from a Spanish university. The procedure was similar for both studies; we asked participants to volunteer for an online study on group perception in exchange for participation in a raffle (2a) or for course credits (2b). Once the participants agreed to participate, they were presented with the following materials:

**Humanity manipulations**
To manipulate the humanity of a low-SES group, we showed our participants a fake scientific article. Participants were told that within the article, which was published in a journal of psychology, the authors provided a dossier of some of the characteristics of groups that live within the participant’s society (see supplementary information for more details of the materials).

*Manipulation of HU traits (2a)*
In Study 2a, we told participants that the authors of this paper had intended to map the personality traits of various groups, and that we intended to analyze how people perceive the groups that were evaluated in the article (cf. Martínez et al., 2015). After we provided this cover story, we randomly assigned participants to a condition in which a group was described as lacking HU (e.g., without any control of their behavior) or to a condition in which a group was described as having HU traits (e.g., in control of their behavior; Figure 3). In both conditions, participants read some information about the group’s SES (they were described as having few resources, a low level of education, etc.).

*Manipulation of the Ascent of Man (2b)*
In this study, we used a different cover story, specifically telling participants that the authors of the paper had developed an index of humanity (‘Ascent of man’ scale) to characterize the evolution of groups. We told participants that the authors calculated this index through analyzing the lifestyles and behaviors that groups have, and also that this final score serves to differentiate the more and less evolved groups that were analyzed. Once participants had read this information, they read either that the target group scored lower on the Ascent of Man scale than did other groups (i.e., the group was less human and less evolved; Figure 4) or that the target group was more

![Figure 3: Direct manipulation of humanity: Low (vs. high) Human Uniqueness traits (study 2a). The analysis of the personality traits of this group lead to conclude than one group has Human Uniqueness traits (i.e., human condition), while the other group has a lack of Human Uniqueness traits (i.e., animal condition). See supplementary materials for the full disclosure of the original and translated text of the manipulation.](image)

![Figure 4: Inferred manipulation of humanity: Low (vs. high) score in the humanization index (study 2b). The analysis of the lifestyle and behaviors of this group lead to place this group among the less (vs. more) evolved (more similar to animals vs. humans) of the groups evaluated (see red bar in the figure). See supplementary materials for the full disclosure of the original and translated text of the manipulation.](image)
human and more evolved (relative to other groups) on the same scale. In both cases, the studies included a picture of the scale (Kteily et al., 2015) with scores for each group below it to reinforce perceptions of the group in question as more or less human compared to the other groups. Details about the low SES of the group were also included in both conditions.

**Manipulation checks**

Two measures were presented to test the effectiveness of the humanity manipulations. The first allowed us to rate the extent to which the described groups were closer to animals or humans (two items, e.g., ‘To what extent do you think the group described is less human (less evolved)’ from 1 [‘Not at all’] to 7 [‘Completely’]; 2a: $r = 0.894$; 2b: $r = 0.870$; $p < 0.001$). The second measure was a single item to confirm the group’s socioeconomic status (‘According to the description you have read, what socioeconomic status do you think the group has?’ from 1 [‘Low-SES’] to 7 [‘High-SES’]).

As in the previous studies, participants answered to the same measures to rate the described groups: perceived wastefulness (2a: $r = 0.903$; 2b: $r = 0.844$; $p < 0.001$), support for welfare policies (2a: $\alpha = 0.913$; 2b: $\alpha = 0.832$), and support for governmental control (2a: $\alpha = 0.804$; 2b: $\alpha = 0.730$). Participants also reported demographic information (sex, age), subjective and objective socioeconomic status (income and education; 2a: $r = 0.288$; 2b: $r = 0.418$; $p < 0.001$), and identification with the group (see supplementary information for additional analyses). Once participants completed the questionnaire, we told them that neither the described article nor the description of the group was real. Finally, we thanked them for participating in the study.

**Results**

We carried out statistical analyses to test the hypotheses from studies 2a and 2b. To provide a clear exposition of our results, we present them separately (see supplementary materials for alternative analysis).

**Manipulation of Human Uniqueness Traits (Study 2a)**

First, the manipulation was successful, as participants perceived the dehumanized group (lacking HU) as closer to animals ($M = 2.85$, $SD = 1.52$) than the humanized group (having HU, $M = 5.80$, $SD = 1.41$, $t_{(191)} = –14.32$, $p < 0.001$, Hedges’s $g = 2.00$). Furthermore, there were no differences regarding attributions of socioeconomic status to the dehumanized group ($M = 2.41$, $SD = 1.28$) and humanized group ($M = 2.62$, $SD = 1.03$, $t_{(208)} = –1.29$, $p = 0.197$). This confirmed that participants perceived both groups as equal in SES.

Second, we calculated the differences in perceived wastefulness, support for welfare policies, and governmental control between the experimental conditions (human vs. animal). Participants seemingly considered the animalized group as more wasteful than the humanized group. Additionally, participants had less favorable attitudes toward welfare policies and supported governmental control to a greater extent when referring to the animalized group than to the humanized group (supporting H1–H3; see Table 3).

Finally, we ran mediational analyses to test H4 and H5 (see Figure 5) using PROCESS (bootstrapping 10,000 with 95% CI, Model 4) and controlling for identification with the group and participants’ objective and subjective SES. Perceived wastefulness had a significant indirect effect on the relationship between dehumanization (0 = animal, 1 = human) of low-SES people and support for welfare policies ($effect = 0.26$, $SE = 0.10$, 95% CI [0.06, 0.47]; see Table 4). Moreover, perceived wastefulness also mediated the relationship between dehumanization and support for governmental control ($effect = –0.37$, $SE = 0.09$, 95% CI [–0.57, –0.20]). Therefore, results support H4 and H5 regarding the mediating role of perceived wastefulness (see supplementary information for additional analysis).

**Manipulation of the Ascent of Man (Study 2b)**

The manipulation implemented in Study 2b was successful, as participants perceived the dehumanized group (not fully evolved) as being closer to animals ($M = 2.26$, $SD = 0.96$) than the humanized group (fully evolved; $M = 5.93$, $SD = 1.26$, $t_{(208)} = –23.85$, $p < 0.001$, Hedges’s $g = 3.27$). Moreover, the dehumanized group ($M = 1.66$, $SD = 0.61$) and the humanized group ($M = 1.75$, $SD = 0.75$, $t_{(208)} = –0.89$, $p = 0.375$) were considered as equal in SES. Second, as in the previous study, differences between the experimental conditions on perceptions of wastefulness, welfare policies, and governmental control were calculated (see Table 3). Participants considered the animalized group as more wasteful than the humanized group (H1). Moreover, the expected differences were also found

**Table 3:** Comparisons of Experimental Conditions for Studies 2a and 2b.

<table>
<thead>
<tr>
<th>Study 2a (Traits manipulation)</th>
<th>Animal-like</th>
<th>Human-like</th>
<th>$t_{(203)}$</th>
<th>$p$</th>
<th>Hedges’ $g_s$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived wastefulness</td>
<td>5.15 (1.18)</td>
<td>3.22 (1.50)</td>
<td>10.21</td>
<td>≤0.001</td>
<td>1.42</td>
</tr>
<tr>
<td>Support for welfare policies</td>
<td>33.89 (28.29)</td>
<td>43.24 (30.52)</td>
<td>–2.28</td>
<td>0.024</td>
<td>0.32</td>
</tr>
<tr>
<td>Support for governmental control</td>
<td>5.07 (1.38)</td>
<td>4.06 (1.51)</td>
<td>4.99</td>
<td>≤0.001</td>
<td>0.69</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Study 2b (Ascent manipulation)</th>
<th>Animal-like</th>
<th>Human-like</th>
<th>$t_{(208)}$</th>
<th>$p$</th>
<th>Hedges’ $g_s$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived wastefulness</td>
<td>4.36 (1.38)</td>
<td>3.28 (1.30)</td>
<td>5.84</td>
<td>≤0.001</td>
<td>0.81</td>
</tr>
<tr>
<td>Support for welfare policies</td>
<td>44.20 (19.38)</td>
<td>50.38 (21.76)</td>
<td>–2.17</td>
<td>0.031</td>
<td>0.28</td>
</tr>
<tr>
<td>Support for governmental control</td>
<td>4.53 (1.24)</td>
<td>4.11 (1.36)</td>
<td>2.35</td>
<td>0.019</td>
<td>0.32</td>
</tr>
</tbody>
</table>

Note: Means are given with standard errors given in brackets.
in support for welfare policies and governmental control among conditions, supporting H2 and H3.

Finally, the same mediational analyses (Model 4) as in the previous study were also computed (Figure 5). Perceived wastefulness did not have a significant indirect effect on the relationship between dehumanization (0 = animal, 1 = human) of low-SES groups and support for welfare policies (effect = 0.07, SE = 0.05, 95% CI [-0.02, 0.19], see Table 4). The case of the relationship between dehumanization and support for governmental control was mediated by wastefulness (effect = -0.15, SE = 0.06, 95% CI [-0.28, -0.05]), supporting H5 (see supplementary information for additional analysis).

**Discussion**

We examined the effect that animalization (vs. humanization) had on support for welfare policies and for governmental control in the provision of welfare. We developed two conceptually distinct manipulations: an attribution of personality traits (2a) and scores on the ascent of man measure (2b). This allowed us to test the influence of dehumanization using both direct (in which we provided the group’s traits; Study 2a) and inferred (in which participants inferred the group’s traits based on an ascent of man score; Study 2b) manipulations.

**Discussion of Human Uniqueness Traits Manipulation (Study 2a)**

Results indicated that animalized low-SES groups are considered as wasting their income, less deserving of help, and more in need of control compared to humanized groups (in terms of HU). Additionally, perceived wastefulness mediates the relation between dehumanization and support for welfare policies, but without the direct effect. The study would have benefitted from a larger sample size in order to detect a possible smaller effect. Moreover, we also found that perceived wastefulness mediates in the relation between dehumanization and governmental control.

Finally, the implementation of a manipulation based on traits, used in previous research (Sainz, Martinez, Sutton,

![Figure 5: Mediational analysis of perceived wastefulness on the relation between (de)humanization (animal = 0, human = 1) and support for welfare policies (simple mediation 1) and support for governmental control (simple mediation 2), controlled by identification and participants’ socioeconomic status (subjective/objective) for Studies 2a and 2b. Total effect in brackets, and direct effect next to the brackets. Coefficients are standardized. ** p < .001.](image)

**Table 4: Indirect Effects of Perceived Wastefulness on the Relation between Dehumanization and Support for Social Programs, Studies 2a and 2b.**

<table>
<thead>
<tr>
<th></th>
<th>Support for Welfare Policies</th>
<th>Support for Governmental Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IE (SE) 95% CI</td>
<td>IE (SE) 95% CI</td>
</tr>
<tr>
<td><strong>Total effect</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study 2a</td>
<td>0.10 (0.15) [–0.19, 0.39]</td>
<td>0.57 (0.14) [–0.86, -0.29]</td>
</tr>
<tr>
<td>Study 2b</td>
<td>0.21 (0.16) [–0.10, 0.52]</td>
<td>0.21 (0.15) [–0.51, 0.09]</td>
</tr>
<tr>
<td><strong>Direct effect of (de)humanization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study 2a</td>
<td>-0.16 (0.16) [–0.48, 0.16]</td>
<td>-0.20 (0.16) [–0.51, 0.11]</td>
</tr>
<tr>
<td>Study 2b</td>
<td>0.14 (0.16) [–0.18, 0.46]</td>
<td>-0.06 (0.15) [–0.37, 0.24]</td>
</tr>
<tr>
<td><strong>Indirect effect of perceived wastefulness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study 2a</td>
<td>0.26 (0.10) [0.06, 0.47]</td>
<td>-0.37 (0.09) [-0.57, -0.20]</td>
</tr>
<tr>
<td>Study 2b</td>
<td>0.07 (0.05) [–0.02, 0.19]</td>
<td>-0.15 (0.06) [–0.28, -0.05]</td>
</tr>
</tbody>
</table>

**Note:** Humanization: animal = 0, human = 1. Support for welfare policies (simple mediation 1) and support for governmental control (simple mediation 2) were controlled by identification and participants’ socioeconomic status (subjective/objective). Coefficients are standardized.
et al., 2019), could have some limitations. Thus, we carry out an alternative manipulation by using an inferred manipulation of humanity.

**Discussion of the Ascent of Man**

We implemented an inferred manipulation, that was not previously used in the literature to overcome the limitations of the more commonly used trait-based manipulations. The results from this study were in line with the previous one: higher perceived wastefulness, lower tendency to help and higher control for the animalized (vs. humanized) group. However, results were slightly different in the mediational analysis. We did not identify a mediational effect in the relationship between dehumanization and welfare policies. Finally, an indirect effect appears in the relationship between dehumanization and governmental control without a direct effect between the variables.

In short, experimental evidence using traditional forms of manipulation humanity (traits based) and new forms of do in it (inferred manipulation) showed that, in general, animalistic dehumanization can reduce support for welfare policies and increase the perception of the need for governmental control by creating perceptions that low-SES groups waste their money.

**General Discussion**

We examined the role that dehumanization plays in support for welfare policies and governmental control via perceived wastefulness. In Studies 1a–c, we found that generally, HU ascribed to low-SES groups predicted perceived wastefulness, support for welfare policies, and support for governmental control more than HN. Moreover, the relation between HU and support for welfare policies/governmental control is mediated by the perceived wastefulness of low-SES groups. Finally, in Studies 2a–b, we confirmed that dehumanization is causally related to perceived wastefulness as well as support for welfare policies and governmental control. Additionally, dehumanization has an effect on support for welfare policies (2a) and on support for governmental control (2a and 2b) via the impression that low-SES people are wasteful.

Our results have broad implications for the study of the perception of low-SES groups and for the understanding of the variables that undermine support for public policies. In the first place, these results add to previous literature that identified the interplay between socioeconomic status and dehumanization (Loughnan et al., 2014; Sainz, Martínez, Moya, et al., 2019) by exploring some of the consequences that can arise when dehumanizing these groups. Recent studies have highlighted that dehumanization of both low- and high-SES groups has a direct effect on support for general income redistribution policies aimed to reduce income inequality (Sainz, Martínez, Sutton, et al., 2019; Sainz, Martínez, Rodríguez-Bailón, & Moya, 2019). Our work extends these findings by suggesting that dehumanization not only leads to a general rejection of redistribution policies, but also to the rejection of specific social programs aimed at overcoming some of the daily difficulties (e.g., paying the rent or buying food) of deprived groups.

Moreover, results also showed that the perceived wastefulness of low-SES groups, which has previously been identified (Hayward & Yar, 2006; Jones, 2011) seems to be a key factor in support for welfare policies or policies based on governmental control. This perceived wastefulness of low-SES groups stems from their perceived lack of HU—they are considered unable to control their own behavior. Thus, the tendency to dehumanize low-SES groups biases others’ perceptions of their financial management abilities. This pattern of results can shed light into the literature that explores the relationship between dehumanization and the attributions that people make about the behavior of an individual or a group (Testé, 2017). Specifically, previous studies have identified that the poor money management of low-SES groups is considered an internally caused factor of poverty (Cozzarelli et al., 2001). According to us, if people consider that this lack of management abilities lies in the ‘primitive’ nature of low-SES groups, they will consider opportunities to improve the situation of the group scarce: Animalistically dehumanized groups are unable to control how they behave. Under these conditions, our results indicated that welfare policies could be considered as useless efforts that, ultimately, are going to be wasted by their beneficiaries. The implications for the well-being of the groups that rely on social policies could be severe.

In the second place, these findings add to the literature that addresses the variables that contribute to the maintenance of the status quo. It is known that support for measures aimed to reduce social inequalities, such as income redistributions or social policies, can be driven by several factors from ideological variables (e.g., political preferences; Brown-Iannuzzi et al., 2015), structural factors (e.g., level of income inequality; Heiserman & Simpson, 2017), or personal characteristics (e.g., individual preferences, Jaime-Castillo & Sáez-Lozano, 2014). Our studies also indicated that dehumanization seems to be a factor that promotes (via wastefulness) the support of the status quo by rejecting one of the institutional tools that societies develop to help those in need. In this regard, future studies should acknowledge the present results when trying to promote an attitudinal change toward social inequalities. Previous studies have shown that the tendency to dehumanize others can be overcome (Haslam & Loughnan, 2014). This, effort should be put in promoting a humanized perception of those who have low SES. For instance, recent research highlights that short interventions that made people think about daily difficulties of low-SES people increase the support for income redistribution in the long run (Piff et al., 2020). Similar procedures could be applied to overcome dehumanization and increase support for social expenditure.

Despite this evidence, this study does have some limitations. So far, the conclusions arising from this work can be applied to low-SES groups. Nevertheless, it could be expected that these results might be also applied to other groups that are animalized. Previous studies have suggested that the denial of HU serves to justify social inequalities (Haslam & Loughnan, 2014). Therefore, it can also be expected that perceiving groups as closer to animals erodes the perceived financial management abilities of these groups. Future studies may identify the possible
generalization of these findings to other (disadvantaged, but also advantaged) groups deepening the understanding of animalistic dehumanization.

Finally, evidence indicated that differences emerge when comparing animalized versus humanized low-SES groups. Future research could reinforce the conclusions of the present research by including a control or a baseline condition in the experimental design. For instance, adding a third description of a low-SES group with traits that are not linked to animals or humans. This might help to disentangle the extend humanity, or its denial, compared with a third control condition, influences the perceived wastefulness and its consequences (i.e., welfare support and governmental control).

In conclusion, the present studies shed light on the role of dehumanization in support for welfare expenditure. Animalizing low-SES groups led to lower support for welfare policies and a higher desire to control the group’s spending, primarily due to the belief that low-SES people are wasteful.

Data Accessibility Statement
Data and materials used in this project can be found online: osf.io/e5sf2.

Additional Files
The additional files for this article can be found as follows:

- Supplementary material 1. Supplementary Information for Studies 1a to 1c. DOI: https://doi.org/10.5334/irsp.414.s1
- Supplementary material 2. Supplementary Information for Studies 2a and 2b. DOI: https://doi.org/10.5334/irsp.414.s2
- Supplementary material 3. Study 1a to 1c (UK, US, Spain). DOI: https://doi.org/10.5334/irsp.414.s3
- Supplementary material 4. Study 2a (Traits Manipulation). DOI: https://doi.org/10.5334/irsp.414.s4
- Supplementary material 5. Study 2b (Ascent Manipulation). DOI: https://doi.org/10.5334/irsp.414.s5

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Competing Interests
The authors have no competing interests to declare.

References


