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The Unique Effects of Blatant Dehumanization on Attitudes and Behavior towards Muslim Refugees during the European 'Refugee Crisis' Across Four Countries

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Abstract

Blatant dehumanization has recently been demonstrated to predict negative outgroup attitudes and behaviors. Here, we examined blatant dehumanization of Muslim refugees during the 'Refugee Crisis' among large samples in four European countries: the Czech Republic ($N = 1307$), Hungary ($N = 502$), Spain ($N = 1049$), and Greece ($N = 934$). Our results suggest that blatant dehumanization of Muslim refugees is (a) prevalent among Europeans, and (b) uniquely associated with anti-refugee attitudes and behavior, beyond political ideology, prejudice, and—of particular relevance to the refugee crisis—empathy. We also find that blatant dehumanization of Muslim refugees is significantly higher and more strongly associated with intergroup behavior in the Eastern European countries (especially the Czech Republic) than in Spain and Greece. Examining a range of outgroup targets beyond refugees, our results further illustrate that blatant dehumanization is not purely an ethnocentric bias: while individuals across contexts feel warmer towards their group than all others, they rate several high-status outgroups as equally or more fully 'evolved and civilized' than the ingroup. Our research extends theoretical understanding of blatant dehumanization, and suggests that blatant dehumanization plays an important and independent role in the rejection of Muslim refugees throughout Europe.

Keywords

dehumanization, empathy, refugees, Islamophobia

Disciplines

Cognition and Perception | Cognitive Psychology | Communication | Community Psychology | Defense and Security Studies | Gender, Race, Sexuality, and Ethnicity in Communication | International and Area Studies | International and Intercultural Communication | International Relations | Peace and Conflict Studies | Personality and Social Contexts | Social and Behavioral Sciences | Social Influence and Political Communication | Social Psychology | Social Psychology and Interaction

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Abstract

Blatant dehumanization has recently been demonstrated to predict negative outgroup attitudes and behaviors. Here, we examined blatant dehumanization of Muslim refugees during the ‘Refugee Crisis’ among large samples in four European countries: The Czech Republic ($N=1,307$), Hungary ($N=502$), Spain ($N=1,049$), and Greece ($N=934$). Our results suggest that blatant dehumanization of Muslim refugees is (a) prevalent among Europeans, and (b) uniquely associated with anti-refugee attitudes and behavior, beyond political ideology, prejudice, and— of particular relevance to the refugee crisis— empathy. We also find that blatant dehumanization of Muslim refugees is significantly higher and more strongly associated with intergroup behavior in the Eastern European countries (especially the Czech Republic) than in Spain and Greece. Examining a range of outgroup targets beyond refugees, our results further illustrate that blatant dehumanization is not purely an ethnocentric bias: whereas individuals across contexts feel warmer towards their group than all others, they rate several high-status outgroups as equally or more fully ‘evolved and civilized’ than the ingroup. Our research extends theoretical understanding of blatant dehumanization, and suggests that blatant dehumanization plays an important and independent role in the rejection of Muslim refugees throughout Europe.

Key words: Dehumanization; Empathy; Refugees; Islamophobia

Introduction

In 2015, over one million people sought to escape conflicts in Syria and across the Middle East by seeking refuge in Europe. Boats, often loaded far past capacity, carried these refugees across the Mediterranean from Turkey and North Africa, mostly to Greece. As the migration accelerated, it was quickly dubbed a ‘refugee crisis’. European governments responded in a variety of ways ("Migrant crisis: Migration to Europe explained in seven charts," 2016). Some countries, like Germany, opened their doors to the refugees, while others took hardline anti-refugee stances, with Denmark passing overt anti-refugee laws allowing the seizure of asylum seekers’ valuables (Tange, 2016), and Hungary erecting a 175 km fence along its southern border and launching a large-scale public service campaign discouraging the settlement of Muslim refugees (Nolan, 2015).

Some commentators derided the harsh responses towards refugees during the crisis, suggesting that hostility towards refugees reflected a dehumanizing view of Muslims held by many in Europe (Ferrieira, 2015; Taylor, 2015). The statements of several European politicians lend credence to this perspective. Responding to the crisis, David Cameron referred to the refugees as a “swarm”, Janusz Koran-Mekka, a Polish Member of the European Parliament (MEP), referred to an “invasion of human trash”, and Zsolt Bayer, founder of Hungary’s ruling Fidesz party, published an editorial referring to the “hordes” of migrants as “wild beasts” and “lice” (Bayer, 2015).

These statements suggest that Muslim refugees are perceived – at least by some Europeans – as less than fully human. But how prevalent, consequential and comparable is this view across Europe? We designed the current research to address these questions.

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3 Our work is not the first to suggest that dehumanization may be an important
4 contributor to hostility, including that targeted at refugee groups. At the same time, there
5 are several important features of our work that combine to distinguish it from prior
6 research on anti-refugee hostility, including its (1) emphasis on overt (vs. more subtle)
7 dehumanization, (2) the use (and, where possible, comparison) of several large
8 community samples across Europe during a unique point in time when it was directly
9 impacted by an acute refugee ‘crisis’, (3) examination of actual behavior, and (4)
10 examination of dehumanization controlling not only for political conservatism and
11 affective prejudice (considered in prior work), but also empathy, a construct particularly
12 likely to be relevant in the context of the refugee crises. We discuss each of these points
13 below in developing the rationale for our predictions.
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29 *Previous research on the dehumanization of refugees*
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32 Although early theorizing about dehumanization focused on its more blatant and
33 explicit incarnations, empirical research on dehumanization over the past several decades
34 has primarily examined dehumanization in its more subtle, ‘everyday’ forms. One
35 prominent branch of this research, for example, has shown that people have the tendency
36 to attribute fewer ‘human-specific’ emotions and traits to outgroup others (for review, see
37 Haslam & Loughnan, 2014). For example, Cuddy, Rock, and Norton (2007) found that
38 individuals who attributed fewer uniquely-human emotions to outgroup survivors of
39 Hurricane Katrina (i.e., ‘infrahumanized’ them; see Leyens et al., 2000) intended to help
40 them less, and Andrighetto, Baldissari, Lattanzio, Loughnan, and Volpato (2014)
41 similarly observed that Italians who denied Haitians uniquely-human traits expressed less
42 willingness to help after a humanitarian crisis. Lending experimental support, work in
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3 Europe indicates that Turks who are described with infrahumanizing words are more
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5 strongly discriminated against than those described with humanizing words or with no
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7 humanity-relevant words (Pereira, Vala, & Leyens, 2009). Of particular relevance to the
8
9 current research, previous work (completed before the refugee crisis) showed that
10
11 Europeans who infrahumanized Muslim refugees by denying them human-specific
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13 emotions were more likely to oppose Muslim immigration to Europe (Leyens, Demoulin,
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15 Vaes, Gaunt, & Paladino, 2007; see also Esses, Medianu, & Lawson, 2013, for an
16
17 important review of research examining subtle or implicit dehumanization towards
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19 refugees in Canada).
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25 This previous work demonstrates that subtle dehumanization has a role to play in
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27 people's responses to refugees. However, the statements by European leaders in recent
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29 years suggest that the dehumanization held by a portion of the European populace may
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31 extend beyond subtle and potentially unconscious perceptions to overt and blatant
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33 expressions. And the distinction between blatant and subtle dehumanization appears to be
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35 consequential, with recent research suggesting that they are separable constructs with
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37 distinct effects (see Kteily & Bruneau, in press, for a review). Indeed, these two forms of
38
39 dehumanization assessed among Americans, Brits, Israelis, and Hungarians towards a
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41 host of target groups (e.g., Arabs, Muslims, the Roma) are only weakly correlated ($r_s \sim$
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43 .1-.3), and blatant dehumanization is the stronger predictor of hostile and aggressive
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45 outcomes (Kteily, Bruneau, Waytz, & Cotterill 2015). For example, in the U.S. and the
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47 U.K., the degree to which Arabs, Muslims and Mexican immigrants are blatantly
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49 dehumanized predicts support for aggressive anti-terrorism policies better than subtle
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3 measures of dehumanization, which tend to have weaker and less consistent effects
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6 (Kteily et al., 2015; Kteily & Bruneau, 2017).
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8 Given that blatant dehumanization is strongly associated with the types of hostile
9
10 attitudes that may be particularly relevant to the refugee crisis (e.g., the barring of entry
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12 to refugees; the sequestering of refugees within confined spaces), it is important to extend
13
14 the examination of dehumanization beyond the subtle and implicit to the more blatant and
15
16 overt. In the current research, we used validated measures to examine blatant
17
18 dehumanization of Muslim refugees during the refugee crisis across a range of European
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20 countries (the Czech Republic, Greece, Spain, and Hungary), using large community
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22 samples ($Ns = \sim 500 - 1,400$), and examined both attitudes and behavior.
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27 We examined the unique contribution of blatant dehumanization to intergroup
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29 attitudes and behavior in concert with a range of other predictors. Previous work
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31 assessing the unique association between dehumanization and intergroup outcomes has
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33 included as parallel predictors measures of ideological orientation— including social
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35 dominance orientation (SDO; Esses et al., 2008; Kteily et al., 2015), right-wing
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37 authoritarianism (Kteily et al., 2015), and political conservatism (Kteily et al., 2015;
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39 Kteily, Hodson, & Bruneau, 2016; Leidner, Castano, & Ginges, 2013; Maoz &
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41 McCauley, 2008), as well as measures of prejudice (Goff et al., 2008, 2014; Jardina &
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43 Piston, 2016; Kteily et al., 2015; Kteily et al., 2016; Kteily & Bruneau, 2017). In the
44
45 current research, we also include measures of political conservatism and affective
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47 prejudice. Additionally, and new to the current research, we also consider the extent to
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49 which blatant dehumanization predicts outcomes controlling for empathy.
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55 *Blatant dehumanization and empathy*
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3 Like prejudice and right-leaning ideological beliefs, empathic failures have been
4 broadly implicated in intergroup conflict (Batson & Ahmad, 2009; Cikara, Bruneau, &
5 Saxe, 2011; Bruneau, Cikara, & Saxe, 2017), and there is good reason to think that
6 empathy may be especially relevant during an acute humanitarian crisis like the one we
7 consider here: Many of the images emanating from the refugee crisis, including those
8 with direct appeals for help, depict individuals in desperate conditions as they are
9 escaping atrocities in their homeland, and many of these images and stories have been
10 shared widely on social media. Perhaps no example is more striking than the image of
11 Aylan Kurdi – a two-year old Syrian boy whose lifeless body was photographed on a
12 Turkish beach after he had drowned during an attempt to escape Syria for Europe. Images
13 of Kurdi sparked an outpouring of empathy worldwide, exemplified through 10-fold
14 increases in charitable donations in the week following the release of his image
15 ("Refugee donations surge after Aylan Kurdi photo", 2015).
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34 We therefore reasoned that empathy would be an important (and heretofore
35 unconsidered) predictor to control for when examining the unique effects of blatant
36 dehumanization on intergroup outcomes. Specifically, we included in our regression
37 analyses measures of trait empathic concern (the proclivity to feel compassionate towards
38 others) and trait perspective-taking (the propensity to adopt another's perspective)
39 (Davis, 1983). In intergroup contexts, empathic concern is strongly associated with
40 altruism, even towards outgroup others (Batson, Chang, Orr, & Rowland, 2002), and
41 perspective taking has been shown to decrease stereotypes and reduce ingroup favoritism
42 (Galinsky & Moskowitz, 2000). Empathy has also been shown to be associated with
43 subtle forms of dehumanization when negotiating intergroup conflict (Čehajić, Brown, &
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3 González, 2009) and when considering humanitarian aid. In fact, the effect of Italians'
4 subtle dehumanization of Haitians on their unwillingness to help after a humanitarian
5 crisis was entirely explained by the association between subtle dehumanization and
6 empathy (Andrighetto et al., 2014).
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13 Previous research has largely measured state empathy towards an outgroup, and
14 conceptualized dehumanization as a precursor to outgroup empathy (Andrighetto et al.,
15 2014; Čehajić, Brown, & González, 2009). In the current research, we instead used
16 measures of trait empathy. Because trait measures are generally considered to reflect
17 stable personality characteristics, we conceptualized blatant dehumanization and trait
18 empathy as parallel psychological processes affecting outcomes (as in previous work,
19 e.g., Mekawi, Bresin, & Hunger, 2016).
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29 *Blatant dehumanization and prejudice*

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32 One concern with measures of blatant dehumanization is that they are so overt
33 that people might use them merely as reflections of their extreme dislike for another
34 group (Haslam & Loughnan, 2014). Previous studies do show that the 'Ascent of
35 (Hu)Man' measure of blatant dehumanization and feeling thermometer ratings typically
36 correlate robustly with each other ($r_s \sim .50-.60$; Kteily et al., 2015; Kteily & Bruneau,
37 2017).
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46 At the same time, there is good reason to believe that blatant dehumanization and
47 prejudice could be conceptually distinct. For example, people may dislike an outgroup
48 but still acknowledge the scientific and technical advances achieved by that group, or the
49 sophistication of their culture or system of government. Conversely, individuals might
50 feel warmly towards another group even as they view them as relatively primitive or
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3 incapable (e.g., the ‘Noble Savage’). Even when they align, prejudice and
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6 dehumanization could predict outcomes for different reasons: for example, if someone
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8 perceives refugees as savage, aggressive, and lacking morality (attributes central to
9
10 blatant dehumanization; Bastian, Haslam, & Denson, 2013; Kteily et al., 2015) that might
11
12 help explain their desire to bar them entry into the country (i.e., to limit any perceived
13
14 physical threat), beyond someone’s level of dislike for refugees. Similarly, individuals
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16 could seek to avoid the entry of another group they disliked even if they didn’t
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18 necessarily see them being less human— perhaps, for example, because they perceived
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20 their values as *different* (if equally human-like), felt that they would place an undue strain
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22 on the ingroup, or simply didn’t see them as a group with whom their interests are
23
24 aligned. Indeed, previous work has shown that blatant dehumanization and affective
25
26 prejudice independently predict intergroup outcomes similar to those considered here
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28 (e.g., Jardina & Piston, 2016; Kteily et al., 2015; Kteily & Bruneau, 2017).
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34 In the current research, we sought to further theorizing about the distinction
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36 between blatant dehumanization and prejudice in two ways: First, we investigated
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38 whether dehumanization and prejudice independently predicted attitudes and behavior
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40 towards refugees (while also taking into account trait empathy and political
41
42 conservatism).¹ Second, we took advantage of the fact that Ascent dehumanization and
43
44 feeling thermometer ratings were measured in each sample towards a broad array of
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46 target groups to test whether blatant dehumanization and prejudice ratings across groups
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48 might diverge. Specifically, we reasoned that individuals would likely feel greater
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55 ¹ Notably, some research has examined affective prejudice as a mediator of dehumanization’s effects on
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57 outcome measures (e.g., Esses et al., 2008). Although it is certainly plausible that seeing a group as less
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59 than human could induce dislike, which would in turn impact behavior, we chose not to specify any causal
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ordering between these two constructs here given our correlational data.

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4 *warmth* towards their ingroup versus all outgroups (consistent with research on ingroup
5 favoritism; e.g., Tajfel & Turner, 1979), but that they might nevertheless perceive
6 members of relatively advantaged, ‘highly developed’ countries to be equally (or more)
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8 ‘evolved and civilized’ than their ingroup. The inclusion of target groups from relatively
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10 advantaged countries (e.g., Germans, Swedes) allowed us to directly examine this
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12 potential dissociation (see also Capozza, Andrighetto, Di Bernardo, & Falvo, 2012;
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14 Iatridis, 2013; and Vaes & Paladino, 2010 for related examinations with subtle or implicit
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16 dehumanization).
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22 *Cross-national comparisons*

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25 The primary goal of the present research was to document the unique role of
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27 blatant dehumanization in the attitudinal and behavioral rejection of refugees during
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29 Europe’s ‘refugee crisis’. However, since the large community samples all included a few
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31 measures in common, and three of the four samples were collected during the same time
32
33 window, we also engaged in cross-national comparisons where feasible and appropriate.²
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35 Although previous cross-national research in Europe has not examined dehumanization,
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37 Pew Global Surveys, the European Social Survey, European Value Study, and
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39 Eurobarometers show the same broad pattern: Similarly high levels of prejudice and
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41 hostility towards Muslims and immigrants in the Czech Republic, Hungary and Greece,
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43 with markedly lower levels in Spain (e.g., Doebler, 2013; Meuleman, Davidow, & Billiet,
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45 2009; Schlueter, Meuleman, & Davidov, 2012; Strabac & Listhaug, 2008).
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51 Given this past research, we predicted that Spain would report less anti-refugee
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53 hostility than the Czech Republic and Hungary. Our prediction for Greece was less clear.
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57 ² Each translation was completed by a bilingual social scientist (fluent in English and the local language)
58 from the target country.
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3 On the one hand, Greece received approximately 80% of the over 1 million refugees
4 arriving to European shores by sea in 2015, and this massive influx of ‘outsiders’ could
5 generate levels of symbolic and realistic threat (Stephan & Stephan, 2000) greater than in
6 the Czech Republic and Hungary, where the influx of refugees was far less. Such threat
7 might keep dehumanization and prejudice as high (or higher) among Greeks as among
8 Hungarians and Czechs.
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18 On the other hand, at least two factors might lead blatant dehumanization and
19 prejudice among Greeks to be lower than observed in Hungary and the Czech Republic.
20 First, the policies of the left-wing Greek ruling party were far more pro-refugee than the
21 overtly anti-refugee stances taken by leaders in both Hungary and the Czech Republic
22 (and the previous Greek government; Psaropoulos, 2015). Since previous work suggests
23 that generous integration policies provide a normative cue to the populace that reduces
24 anti-immigrant attitudes (Schleuter, Meuleman, & Davidov, 2012), this might result in
25 lower levels of dehumanization and prejudice in Greece relative to Hungary and the
26 Czech Republic (see also research in political science on elite framing effects; e.g.,
27 Kinder and Sanders, 1990; Sniderman and Theriault, 1999). Second, the close proximity
28 of Greek citizens to the refugees provided greater opportunities for both direct and
29 indirect contact, which has been shown in many contexts to reduce prejudice (Pettigrew,
30 Christ, Wagner, & Stellmacher, 2007; Tropp & Pettigrew, 2006), and which we reasoned
31 might also lower dehumanization (Capozza, Trifletti, Vezzali, & Favara, 2013). The
32 levels of blatant dehumanization and prejudice in Greece as compared to Hungary and
33 the Czech Republic— as well as these countries’ levels compared to Spain— were
34 therefore of particular interest in the cross-national analyses.
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Present Research

We conducted this research using four large samples (and one supplemental sample). In Study 1, we examined blatant dehumanization towards Muslim refugees in the Czech Republic using a large, representative sample in March, 2017. Studies 2-4 included large samples obtained in Hungary, Spain, and Greece a year and a half earlier (September to November of 2015), during the peak (thus far) of refugee migration. In these samples, we examined the unique link between dehumanization and opposition to refugees using blatant dehumanization, prejudice and trait empathy (i.e., empathic concern and perspective taking) as predictors, and a set of outcome measures assessing policy support and behavior. Although the samples were not perfectly matched across countries, we also engaged in an exploratory cross-national analysis.³

Study 1

Method

Participants. In March, 2017 we collected data from a sample of 2,012 Czechs. Participant responses were collected via phone ($N = 705$) and internet ($N = 1,307$). The survey company with which we worked (“Median”) was contracted to ensure representativeness across several criteria (through targeted sampling and sample weighting), including age, gender, work status, education, region, and settlement size (as well as age x education). The Ascent dehumanization measure – which requires the presentation of visual material – was included only for the internet respondents. In order to best compare across the online samples collected from the other countries, we

³ Data and syntax files for all studies available at DOI 10.17605/OSF.IO/W98CH

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3 restricted our analyses in Study 1 to the internet sample (M age = 40.50, SD = 14.20;
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5 49.9% male).
6

7 8 **Measures.** 9

10 For Study 1 and each of the other studies, items were included in the surveys that
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12 were beyond the scope of the current research (e.g., examining attitudes towards the
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14 Roma minority population). These results are not reported here.
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17 For each of the studies, items were presented in the native language, and all
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19 measures were presented in the order presented here.
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22 **Prejudice** was assessed using a feeling thermometer, which asked participants
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24 “How warm (favorable) or cold (unfavorable) do you feel towards the following groups?”
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26 (Haddock, Zanna, & Esses, 1993). Ratings were made for the following groups: Czechs,
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28 Germans, Jews, the Roma, Eastern European immigrants, Muslim refugees (“uprchlíci
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30 z převážně muslimských zemí”)⁴, Czech city dwellers and Czech villagers. Ratings were
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32 made using a 5-point scale anchored at 1 (‘Very unfavorable’) and 5 (‘Very favorable’);
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34 scores were converted to a 100-point scale for ease of comparison with blatant
35
36 dehumanization. Relative prejudice towards each group was computed by subtracting
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38 warmth expressed towards the target outgroup from warmth expressed for the Czech
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40 ingroup.
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46 **Blatant Dehumanization** was assessed using the ‘Ascent of (Hu)Man’ scale
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48 (Kteily et al., 2015). Participants used slider bars to indicate how ‘evolved and civilized’
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50 they considered each of the target groups included in the prejudice measure. Groups were
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52 presented in random order across participants, and responses were provided on a scale
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56 ⁴ For this and all subsequent studies, we provide the translation for the key target group: ‘Muslim refugees’.
57 Translators were instructed to use the translation that was most commonly understood in the target country,
58 rather than the literal translation.
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3 anchored at 0 (left side of the image) and 100 (right side of the image). As in previous
4 work (e.g., Kteily et al., 2015), we computed relative dehumanization of each group by
5 subtracting the target group's Ascent rating from Czechs' (i.e., ingroup) Ascent rating,
6 such that higher scores indicate greater outgroup dehumanization.⁵
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12 ***Anti-refugee policies support*** was assessed by providing participants with four
13 policies that were being debated in the Czech Republic at the time of the survey: e.g.,
14 “We should not be afraid to use violence if needed to keep Muslims out of the Czech
15 Republic” (see supplementary materials). Ratings were made on 5-point scales anchored
16 at 1 (‘Strongly agree’) and 5 (‘Strongly disagree’) ($\alpha = .79$).
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22 ***Asylum Support*** was assessed with the following: “Last year, of the 330,000
23 people from Muslim majority countries seeking asylum in the EU, 460 were granted
24 asylum in the Czech Republic. Do you think this number is too high, about right, or too
25 low?” Responses were made on a 5-point scale, anchored at -2 (“We should accept much
26 less than 460 per year”) and +2 (“We should accept much more than 460 per year”).
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32 ***Sign refugee petitions.*** To obtain a measure of behavior towards refugees, we
33 provided participants with the opportunity to sign two petitions about Muslim refugees.
34 Specifically, we provided participants with the following: “Since we are collecting
35 information from a representative sample of Czechs, we plan to deliver these last
36 responses to the Czech government for consideration in making policies. Please let us
37 know if you would like your vote counted for (or against) the following petitions: (1)
38 ‘We should be investing more money and resources to support the refugees who are
39 fleeing war and hardship and coming to our borders’ (pro-refugee) and (2) ‘We should be
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57 ⁵ We obtained very similar results across studies if we used absolute humanity attributions of the outgroup
58 rather than ratings relative to the ingroup.
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3 seizing assets from Muslim immigrants and refugees to pay for their stay in the Czech
4 Republic' (anti-refugee). Participants reported whether they wanted their vote counted for
5 the petition (coded 1), against the petition (coded -1), or not counted (coded 0). The zero-
6 order correlation between these items was low ($r = -.26$), so they were each examined
7 separately.
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11 Another blatant dehumanization measure based on attributions of overt
12 animalistic traits (see Bastian & Haslam, 2010; Kteily et al., 2015) was included in the
13 survey; results using this measure are reported in supplementary analyses. For this study
14 and the following studies, measures were included in our omnibus survey for purposes
15 beyond the current research; those measures are not considered here. For the full surveys,
16 see supplemental materials.
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29 **Results and Discussion**

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31 For mean responses and zero-order correlations of all measures, see Table S1.
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34 We observed substantial mean-level dehumanization of Muslim refugees, who
35 were rated to be over 37 points lower on the Ascent scale than Czechs. Muslim refugees
36 were dehumanized more than all other groups ($ts > 31.0$, $ps < .001$), except Muslims and
37 the Roma (Table 1).
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44 Participants also reported strong opposition to refugees on all measures (see Table
45 S1). For example, when asked whether the Czech Republic's granting of asylum to
46 Muslim refugees in the past year was too low or too high, the modal response (made by
47 49.4% of participants) was "We should accept *much less* than 460 per year". In addition,
48 more than twice as many respondents signed the petition endorsing violence against
49 refugees to protect the border ($N = 455$) than signed the petition opposing such violence
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($N = 187$; $M = 0.22$, $SD = 0.69$, relative to the scale midpoint of 0: $t(1215) = 11.1$, $p < 0.001$), and more people signed the petition against providing more aid to refugees ($N = 464$) than signed in favor of providing aid ($N = 189$; $M = -0.23$, $SD = 0.70$, relative to the scale midpoint of 0: $t(1198) = 11.3$, $p < 0.001$).

We next examined whether these anti-refugee attitudes and behaviors were uniquely related to blatant dehumanization of Muslim refugees, controlling for prejudice (feeling thermometer ratings) and demographics (age, gender). As can be seen in Table 2, blatant dehumanization of Muslims was strongly and uniquely associated with each of the outcome measures, as was prejudice. Study 1 also included an alternate measure of dehumanization (trait-based blatant dehumanization), as well as other demographic variables (education, SES) that could be included as covariates.⁶ Results remained similar (with blatant dehumanization and prejudice independently predicting all of the outcomes) when the trait-based measure of dehumanization was used in place of the Ascent measure (see Table S2), when education and SES were included as additional covariates, and/or when all covariates were excluded from analyses.

Thus, the results of Study 1 were consistent with previous work (Esses et al., 2008; Esses et al., 2012) in illustrating the importance of dehumanization to anti-refugee hostility, and extend that work by illustrating a unique association between blatant dehumanization and both attitudes *and* behavior directed at Muslim refugees using a validated measure of blatant dehumanization in a large community sample broadly representative of Czech society (across a range of criteria) during an acute influx of refugees.

⁶ To remain consistent with the other studies, we included as covariates only the demographic variables that were also measured in Studies 2-4 (age, gender), and not those that were unique to Study 1. When the additional covariates were included here, results remained similar.

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3 Finally, these results highlight a distinction between blatant dehumanization and
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5 'mere' prejudice by showing that although Czechs report significant prejudice towards all
6
7 outgroups relative to their own, they do not dehumanize all other groups relative to
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9 Czechs. Specifically, Czech people rated Germans ($M = 89.96$, $SD = 18.35$) to be just as
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11 'evolved and civilized' as Czechs ($M = 90.43$, $SD = 16.02$; $t(1306) = 1.05$, $p = .29$),
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13 despite rating all groups (including Germans) as significantly lower in warmth using the
14
15 feeling thermometer measure of prejudice ($ps < .001$; see Table 1).
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19 20 Study 2

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22 Study 2 took place during November, 2015 in Hungary, which served as a
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24 flashpoint of the refugee crisis around this time. In early 2015, the Hungarian government
25
26 launched a major anti-immigration campaign by posting a series of billboards around the
27
28 country that were ostensibly aimed at immigrants (e.g., "If you come to Hungary, you
29
30 cannot steal our jobs"). Hungary also constructed a fence along their southern border,
31
32 expressly built to keep refugees out of the country, and blocked the transportation of
33
34 refugees through the country on the railway system. Combined with high-profile
35
36 comments by Hungarian leaders dehumanizing Muslim refugees (e.g., Bayer, 2015), the
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38 political elites in Hungary seemed particularly encouraging of anti-refugee
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40 dehumanization and hostility.
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46 On the other hand, an outpouring of concern was also observed at this time
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48 around the world in response to several harrowing images of refugees drowning in their
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50 attempts to reach Europe, including the image of Aylan Kurdi. We therefore thought that
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52 a disposition towards empathy would be important to take into account, and reasoned that
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54 it was likely to predict more positive attitudes and behavior towards Muslims. To test
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3 this, we included trait empathic concern and trait perspective taking as additional
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5 predictors, along with blatant dehumanization and prejudice. We also measured political
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7 conservatism in Study 2, which we included in our regressions.
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10 Of note, the survey in Hungary also included a measure of subtle dehumanization
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12 (i.e., infrahumanization; Leyens et al., 2000). This allowed us to examine (in
13
14 supplemental analyses) whether blatant dehumanization was, as we theorized, a stronger
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16 predictor of anti-refugee hostility than subtle dehumanization, and therefore to connect
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18 the present research with prior work investigating the association between subtle
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20 dehumanization and anti-refugee sentiments (Esses et al., 2013; Leyens et al., 2007).
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24 **Methods**

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27 **Participants.** We recruited a sample of 604 Hungarian participants using a
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29 Hungarian survey company ('Kerdoivem'). A stratified random sampling method based
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31 on quotas for gender, age (18-64), and region (i.e., capital city, county center, city and
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33 village community) was used to obtain a sample representative of Hungarian society on
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35 these three criteria. Of the participants, 102 missed one of two check questions embedded
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37 in the survey, leaving 502 participants (M age = 40.56, SD = 13.15; 46.6% male).
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41 **Measures.**

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43 We measured blatant dehumanization and prejudice as in Study 1, but with
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45 'Hungarians' as the ingroup on both measures, and with the following outgroup targets:
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47 Germans, French, Transylvanians, Slovaks, the Roma, and Muslim refugees
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49 ("menekültek"). Among other context-specific items assessing anti-refugee hostility, we
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51 also had one outcome measure identical to an item presented in Study 1: a single petition
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3 item requesting additional aid for refugees (as in Study 1, participants were given the
4 opportunity to sign this petition, to sign *against* this petition, or to not sign either).
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8 Also included in the survey were two measures of trait empathy (i.e., empathic
9 concern, and perspective taking), a measure of conservatism, and items assessing anti-
10 refugee policy support and support for asylum (all described below).
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15 ***Trait Empathic Concern*** was assessed by presenting participants with the seven
16 items from the Interpersonal Reactivity Index (IRI; Davis, 1980) that comprise the
17 Empathic Concern subscale (e.g. “I often have tender, concerned feelings for people less
18 fortunate than me”; $\alpha = .80$). Participants indicated how true each statement was for them
19 on a 4-point Likert scale, anchored at 1 (‘Not at all true’) and 4 (‘Very true’).
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27 ***Trait Perspective Taking*** was assessed by presenting participants with the seven
28 items from the IRI that comprise the Perspective Taking subscale (e.g. “I try to look at
29 everybody’s side of a disagreement before I make a decision”; $\alpha = .71$), using the same
30 rating scale as for trait empathic concern. Items from the empathic concern and
31 perspective taking subscales were interspersed with each other and presented in random
32 order for each participant.
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41 ***Anti-refugee policies support*** was assessed by providing participants with four
42 policies that were debated during Europe’s refugee ‘crisis’: e.g., “We should dramatically
43 decrease the amount of aid we provide to refugees in order to deter them from trying to
44 come to our country”. Ratings were made using sliders anchored at 0 (‘Strongly oppose’)
45 and 100 (‘Strongly support’) ($\alpha = .84$).
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53 ***Asylum.*** In order to directly assess how many refugees participants would be
54 willing to accept into Hungary, we asked the following: “Of the estimated 1,000,000
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3 refugees who could reach Europe this year, how many do you think Hungary should
4 grant asylum to, allowing them to live there permanently? (Range: 0 - 100,000)” Because
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6 of the large range of possible responses, results were log transformed.
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10 ***Social Distance.*** We assessed social distance (Bogardus, 1933) by having
11 participants report how strongly they agreed with 5 scenarios that put them in social
12 proximity with refugees (e.g., “It would bother me if my son or daughter ended up
13 marrying a Muslim refugee”). Responses were made using unmarked sliders anchored at
14 0 (‘Completely disagree’) and 100 (‘Completely agree’) ($\alpha = .87$).
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22 ***Response to Injustice.*** To examine how Hungarians responded to injustices
23 perpetrated by their ingroup towards the refugees, we provided participants with a news
24 story of a Hungarian who had handed out orange juice laced with laxative to needy
25 Muslim refugees, and a tweet praising the act that had over 2,500 ‘likes’. We asked
26 participants to report how much anger, guilt and shame they felt as a Hungarian on
27 unmarked sliders anchored at 0 (‘None at all’) and 100 (‘A lot’). Past work has shown
28 that group-based emotions such as anger, guilt and shame in response to ingroup
29 wrongdoings motivate pro-social behavior across group boundaries (Brown & Cehajic,
30 2008; Glasford, 2013; Hewstone et al., 2004). Although these emotions can be thought of
31 as separate constructs, responses across all three items were strongly correlated, so
32 responses were averaged to create a single measure ($\alpha = .87$).
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48 **Results**

49 For mean responses and zero-order correlations of all measures, see Table S3.

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51 As in the Czech Republic, Muslims refugees were heavily dehumanized in
52 Hungary, rated more than 25 points below the ingroup on the Ascent scale. Refugees
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3 were dehumanized more than all other groups ($ts > 17.0$, $ps < .001$), except the Roma
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5 (Table 3). Participants also reported high prejudice towards refugees, rating them over 40
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7 points lower on the feeling thermometer than the ingroup.
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10 For the outcome measures, Hungarians were willing to take in an average of
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12 13,827 refugees (range = 0 - 40,000; $SD = 33,859$), were generally supportive of anti-
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14 refugee policies ($M = 59.59$, $SD = 29.31$; relative to the scale midpoint of 50: $t(501) =$
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16 7.33 , $p < 0.001$), and were significantly more willing to petition *against* refugee aid than
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18 for it ($M = -0.13$, $SD = 0.81$, relative to the scale midpoint of 0: $t(501) = 3.52$, $p < 0.001$).
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22 Consistent with our predictions, dehumanization of Muslim refugees was
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24 significantly (though weakly) negatively correlated with trait empathic concern ($r = -.18$,
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26 $p < .001$) and perspective taking ($r = -.18$, $p < .001$). Consistent with previous research
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28 (Kteily et al., 2015; Kteily & Bruneau, 2017), blatant dehumanization was robustly
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30 correlated with both prejudice ($r = .66$, $p < .001$) and with political ideology ($r = .38$, $p <$
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32 $.001$).
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36 Also consistent with Study 1, blatant dehumanization and prejudice were each
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38 uniquely associated with all of the outcome measures (including both attitudes and
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40 behavior), controlling for all other measures. Here, we included not only demographic
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42 covariates (age and gender), but also trait empathic concern, trait perspective taking, and
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44 conservatism (Table 4). Trait empathic concern and conservatism were independently
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46 associated with four of the outcome measures (with more empathic and more liberal
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48 individuals exhibiting less hostile attitudes towards refugees), whereas trait perspective
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50 taking was not significantly associated with any.⁷ As with the Czech data, the results
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57 ⁷ As in Study 1 (and true also for all subsequent studies) results were consistent when covariates were
58 removed from regression analyses.
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3 were similar when using either of the blatant dehumanization measures: Replacing
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5 ‘Ascent dehumanization’ with a trait-based measure of blatant dehumanization yielded
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7 similar results, with blatant dehumanization and prejudice independently predicting all of
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9 the outcomes (see Table S4).
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13 The inclusion of infrahumanization in the Hungarian sample also allowed us to
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15 directly compare the association between the outcome measures and each of subtle versus
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17 blatant dehumanization (see supplemental materials and Table S5). We found that blatant
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19 dehumanization was significantly more strongly correlated with each of the outcome
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21 measures than subtle dehumanization (Steiger’s $Z_s > 5.20$, $ps < .001$), and subtle
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23 dehumanization remained a significant predictor of only 2 outcome measures (social
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25 distance, and anti-refugee policy support) once blatant dehumanization was accounted
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27 for. These results highlight the divergence between subtle and blatant dehumanization,
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29 and the importance of examining blatant dehumanization with respect to hostile
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31 responses (Kteily & Bruneau, in press).
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37 When examining the ratings of blatant dehumanization and prejudice towards the
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39 ingroup relative to each of the target outgroups, we found that Hungarians, like Czechs,
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41 did not dehumanize Germans relative to their own group. On the other hand, and in line
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43 with the Czech respondents, Hungarians reported significant levels of prejudice towards
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45 all groups (including Germans) relative to the ingroup (see Table 3).
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48 **Discussion**

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50 Study 2 expanded our analysis of anti-refugee sentiment to another Eastern
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52 European country at the heart of the refugee ‘crisis’, and extended the analysis to include
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54 trait empathy and conservatism as predictors. Similar to the Czech sample, we found that
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3 Hungarian dehumanization of (and prejudice towards) refugees was high, and that blatant
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5 dehumanization was uniquely associated with all outcomes. Also similar to the Czech
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7 sample, Hungarians reported liking other groups considerably less than Hungarians,
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9 despite rating Germans as equally 'evolved and civilized'.
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13 Despite the insights generated by Studies 1 and 2, these results were limited to
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15 Eastern Europe, where prejudice and xenophobia are generally quite high relative to other
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17 parts of Europe (Doebler, 2013; Meuleman, Davidow, & Billiet, 2009; Schlueter,
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19 Meuleman, & Davidov, 2012; Strabac & Listhaug, 2008). In Study 3, we sought to
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21 examine the extent of blatant dehumanization and its association with anti-refugee
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23 hostility in Spain, a Western European country previously found in the same surveys
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25 cited above to show relatively tolerant intergroup attitudes.
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29 Study 3

30 Method

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34 **Participants.** We recruited an online sample of 1188 Spanish participants in late
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36 September 2015 using a Spanish survey company ('Netquest'); the panel from which the
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38 sample was randomly drawn is approximately representative of Spain in terms of gender,
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40 age, and geographic region, albeit slightly over-represented with respect to middle-age
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42 individuals and women (the demographics of our sample closely approximated those of
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44 the panel at large). Of the participants, 140 missed one of two check questions embedded
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46 in the survey, leaving 1049 participants (M age = 38.81; SD = 11.56; 45.5% male).
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50 Measures.

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53 As in Studies 1 and 2, blatant dehumanization was assessed with the Ascent
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55 Dehumanization measure (0-100 scale), and prejudice was assessed with feeling
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3 thermometers (0-10 scale, converted to 0-100 scale), here with the following target
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5 groups: Spaniards, Muslim refugees (“Refugiados musulmanes”), Muslims, Roma,
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7 Africans, Turks, Christians, Americans, French, Germans, Swedes. Conservatism, trait
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9 empathic concern ($\alpha = .73$) and trait perspective taking ($\alpha = .69$) were assessed as in
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11 Study 2. Our behavioral measure of anti-refugee behavior was assessed with the petition
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13 item included in both Study 1 and Study 2. Anti-refugee policy support ($\alpha = .81$) and
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15 support for asylum were assessed as in Study 2, with the following exception: We
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17 expanded the range of the asylum item from 0-40,000 to 0-100,000 to accommodate the
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19 larger population in Spain (~45 million) compared to Hungary (~10 million).
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24 Results

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27 For mean responses and zero-order correlations of all measures, see Table S6.

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29 Our analyses focused first on mean levels of dehumanization and position on
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31 policy stances towards Muslim refugees. As with the Czech sample, refugees were rated
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33 to be significantly less human than the ingroup: Spaniards rated Muslim refugees to be 15
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35 points lower on the Ascent scale than Spaniards. Refugees were dehumanized
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37 significantly more than all groups examined ($t_s > 4.5$, $p_s < .001$), except Africans,
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39 Muslims and the Roma (Table 5).
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44 Contrary to the results from the Czech Republic and Hungary, Spanish people
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46 were generally opposed to anti-refugee policies ($M = 39.01$, $SD = 24.25$; relative to the
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48 scale midpoint of 50: $t(1048) = 14.68$, $p < 0.001$) and significantly more willing to
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50 petition in favor of refugee aid than against it ($M = 0.44$, $SD = 0.74$; relative to the scale
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52 midpoint of 0: $t(1047) = 19.56$, $p < 0.001$). Spaniards were willing to take in an average
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54 of nearly 20,000 refugees (range = 0 - 100,000; $M = 18,963$, $SD = 21,046$),
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Examining the inter-relationship between dehumanization and empathy, we observed that dehumanization of Muslim refugees was weakly negatively correlated with trait empathic concern ($r = -.09, p = .004$) and trait perspective taking ($r = -.17, p < .001$), similar to Study 2. Consistent with Studies 1 and 2, and previous work (Kteily et al., 2015; Kteily & Bruneau, 2017), blatant dehumanization was robustly correlated with both prejudice ($r = .52, p < .001$) and with political conservatism ($r = .26, p < .001$).

Most importantly for our purposes, and as in Studies 1 and 2, we found in a series of simultaneous regressions that dehumanization was uniquely associated with each of the outcome measures, including both attitudes (support for anti-refugee policies, rejection of refugee asylum seekers) and behavior (signing a petition in support of refugees). Separately, trait empathic concern and conservatism were also significantly associated with both anti-refugee policies support and the behavior outcome, and trait perspective taking predicted support for anti-refugee policies. Prejudice uniquely predicted all three outcome measures (see Table 6).

As in Studies 1 and 2, we also analyzed ratings of blatant dehumanization and prejudice towards the ingroup versus each of the target outgroups (see Table 5). We found that Spaniards did not dehumanize Americans and French relative to the ingroup, and significantly dehumanized their own group relative to Germans and Swedes. By contrast, Spanish participants expressed significant levels of prejudice towards all outgroups (including Germans and Swedes; $ps < .001$). Highlighting the distinction between prejudice and blatant dehumanization, Germans, for example, were rated 3 points higher than the Spanish ingroup on the blatant dehumanization scale, but 22 points lower on warmth.

Discussion

Study 3 extended the results of our analyses to a European country outside of Eastern Europe that has been shown on previous surveys to be relatively tolerant (Doebler, 2013; Meuleman, Davidow, & Billiet, 2009; Schlueter, Meuleman, & Davidov, 2012; Strabac & Listhaug, 2008). Consistent with this previous work, Spaniards in our sample were generally supportive versus antagonistic towards Muslim refugees. Despite this, we found that Muslim refugees were rated as significantly less human than the Spanish ingroup, and more importantly, that blatant dehumanization of refugees was a significant predictor of hostile anti-refugee attitudes and behavior, even when controlling for prejudice, trait empathy, and conservatism (each of which uniquely predicted at least some of the outcomes, as well). Our results were therefore consistent with Studies 1 and 2 in documenting an important and unique role of blatant dehumanization. Notably, and again as in Studies 1 and 2, we observed a discrepancy between the pattern of dehumanization and prejudice across groups, with Spaniards feeling warmer towards their group than all others, but attributing certain other groups just as much— or, here, even more— humanity than the ingroup.

Study 4

In Study 4, we aimed to examine blatant dehumanization in a country at the immediate forefront of the refugee ‘crisis’. In September 2015 alone (when the survey was conducted) 160,000 refugees arrived in Greece, nearly a 30-fold increase from January of the same year (*Nationality of arrivals to Greece, Italy and Spain 2015*).

Methods

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Participants. We recruited an online sample of 1101 Greek participants in late September 2015. A Greek survey company ('The Hellenic Research House') drew this sample from a panel representative of Greece with respect to gender, age and geographic region. However, those who completed the survey under-represented the youngest (18-24) and oldest (55-65) ages and included a higher number of women (63%) than the general population (49%). Of these participants, 167 missed one of two check questions embedded in the survey, resulting in 934 participants (M age = 39.23, SD = 10.29; 63.3% female).

Measures.

Dehumanization (Ascent scale) and Prejudice (Feeling thermometer) were measured as in Studies 1-3, and towards the same target groups as in Study 3, including Muslim refugees ("Μουσουλμάνοι πρόσφυγες"), except that 'Spaniards' were replaced with 'Greeks'.

Conservatism and trait empathy (i.e., empathic concern: α = .68; trait perspective taking: α = .69) were measured as in Studies 2 and 3, and one of the outcome variables (Signing pro-refugee petition) was measured as in Studies 1-3. The second outcome variable (Asylum) was measured as in Studies 2 and 3, but, given the Greek population size, the range was constrained to 0 – 40,000, as in Hungary (rather than 0 – 100,000, as in Spain). The third outcome variable (anti-refugee policies support) was a four-item measure which included three items assessed in Studies 2 and 3, and a fourth item that differed: "We should increase the number of patrols to ensure that nobody gets into our country illegally". Many participants reported feeling ambivalent about the fourth item in open-ended comments at the end of the survey, since increasing patrols would hinder

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3 refugees from entering but also prevent refugee drowning deaths. Dropping this item
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5 from the analysis resulted in a 3-item measure of adequate reliability ($\alpha = .62$); including
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7 the fourth item clearly decreased reliability.
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10 Results

11 For mean responses and zero-order correlations of all measures, see Table S7.

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13 Similar to the Spanish sample, Greeks rated Muslim refugees to be 15 points
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15 lower on the Ascent scale than Greeks. Also strikingly similar to the Spanish sample,
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17 refugees were dehumanized significantly less than Muslims ($t(923) = 8.20, p < .001$) and
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19 the Roma ($t(923) = 14.96, p < .001$), similarly to Africans ($t(924) = 1.71, p = .089$) (and
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21 also Turks: $t(924) = 1.83, p = .067$), and significantly more than all other groups
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23 examined ($ts > 16.8, ps < .001$) (Table 7).
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29 For the outcome measures, Greeks were on average willing to take in nearly
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31 10,000 refugees (range = 0 - 40,000; $M = 9,504, SD = 13,035$). Similar to Spaniards (and
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33 in contrast to Hungarians and Czechs), Greeks were generally opposed to anti-refugee
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35 policies ($M = 41.91, SD = 21.41$; relative to scale midpoint of 50: $t(931) = 11.54, p <$
36
37 $.001$), and significantly more willing to petition for refugee aid than against it ($M = 0.43,$
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39 $SD = 0.77$; relative to the scale midpoint of 0: $t(931) = 17.09, p < 0.001$).⁸
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43 As with Studies 2 and 3, dehumanization of Muslim refugees was weakly
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45 negatively correlated with both empathic concern ($r = -.08, p = .02$) and perspective
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47 taking ($r = -.08, p = .01$), and more strongly correlated with both prejudice ($r = .53, p <$
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49 $.001$) and political ideology ($r = .26, p < .001$) (see Table S7).
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54 ⁸ Note that although the Greek sample included a larger proportion of women than the general population,
55 we observed no significant gender differences in Ascent ratings of Muslim refugees (Women: $M = 72.27,$
56 $SD = 27.72$, Men: $M = 72.04, SD = 27.76; t(924) = .119, p = .91$), or in their tendency to sign petitions in
57 support of refugee funding (Women: $M = .46, SD = .76$, Men: $M = .38, SD = .79; t(930) = 1.46, p = .145$).
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3 Most importantly for our purposes, and consistent with all the other samples,
4 blatant dehumanization was significantly or marginally associated with all three of the
5 outcome measures, including attitudes and behavior, after controlling for prejudice, trait
6 empathy, and political conservatism (see Table 8). Prejudice was itself also uniquely
7 associated with all outcomes, and trait empathic concern and conservatism were
8 independently associated with anti-refugee policies support and signing a petition to
9 increase refugee aid. Consistent with the weak associations between trait perspective
10 taking and outcomes in Studies 2 and 3, trait perspective taking was not significantly
11 associated with any of the outcome measures in Study 4.
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24 Similar to the Spanish sample, we found that Greeks did not dehumanize
25 Americans, and dehumanized their own group relative to both the French and Swedes
26 (see Table 7). By contrast, and consistent with the other samples, Greeks reported
27 significant levels of prejudice for all outgroups (for example, rating Swedes more than 16
28 points lower than Greeks in warmth despite rating them as 3 points more ‘evolved’ than
29 Greeks).
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38 **Discussion**

39 Overall, Study 4 was consistent with the previous studies in showing that blatant
40 dehumanization uniquely predicted outcomes, even when considering the effects of
41 prejudice, conservatism and trait empathy. Together, these results provide evidence for
42 the independent association of blatant dehumanization with attitudes and behavior
43 directly linked to rejecting and withholding support from Muslim refugees across Europe
44 during Europe’s ‘refugee crisis’. As with Studies 2 and 3, this was true controlling not
45 only for prejudice and conservatism, but also controlling for trait empathic concern and
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3 perspective taking (with trait empathic concern but not perspective taking also uniquely
4 associated with attitudes and behavior).
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8 **Comparative Analyses**

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10 In exploratory analyses, we sought to compare results across the countries we
11 sampled. We note that our ability to systematically conduct comparisons across the
12 countries we examined was limited in certain ways that should be kept in mind. For
13 example, the demographics of the samples (despite their large size and relative
14 representativeness) were not identical, we had a limited number of identical items across
15 countries, and we collected the Czech data at a later point in time relative to the other
16 three countries.
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27 In comparing across countries, we examined the measures of interest that were
28 shared across all four samples: blatant dehumanization, prejudice, and a measure of
29 behavior (signing of a pro-refugee petition). We used univariate ANOVAs with *t*-tests to
30 examine differences between groups, with a Bonferroni-corrected *p*-value of .0083 to
31 determine significance (i.e., dividing the .05 threshold by six to account for our six
32 comparison tests). For the ordinal petition outcome measure, we used Kruskal-Wallis H
33 test with Mann-Whitney U tests for pairwise comparisons (also using the same
34 Bonferroni-corrected *p*-value threshold). The pattern of results was clear, and strikingly
35 similar for all measures: For blatant dehumanization, an analysis of variance revealed
36 significant differences across nation, $F(3,3928) = 179.7, p < .001$, partial $\eta^2 = .12$.
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38 Pairwise comparisons showed that dehumanization of Muslim refugees was higher
39 among Czechs ($M = 38.79, SD = 31.20$) than Hungarians ($M = 25.98, SD = 31.38; p <$
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3 15.77, $SD = 26.05$; $ps < .001$) and Greeks ($M = 16.08$, $SD = 24.65$; $ps < .001$).

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6 Interestingly, levels of dehumanization were comparable for Spaniards and Greeks ($p =$
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8 .81).

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10 For prejudice, there was also a significant main effect of country ($F(3,3915) =$
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12 265.8, $p < .001$, partial $\eta^2 = .17$). We observed significantly higher levels of prejudice
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14 among Czechs ($M = 57.20$, $SD = 32.03$) than Hungarians ($M = 40.42$, $SD = 36.77$; $p <$
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16 .001), and higher levels of prejudice among both these groups than our samples of
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18 Spaniards ($M = 26.81$, $SD = 32.54$; $p < .001$) or Greeks ($M = 23.53$, $SD = 30.78$; $ps <$
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20 .001); levels of prejudice reported by Spaniards and Greeks were again similar ($p = .023$).

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24 As with dehumanization and prejudice, we observed significant differences in
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26 petition signing across nations ($\chi^2(3,3770) = 610.3$, $p < .001$, $\omega = 9.93$). Czechs and
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28 Hungarians showed a statistically equivalent ($Z = 2.0$, $p = .049$) average tendency to sign
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30 the petition in opposition to refugee aid (Czechs: $M = -.22$, $SD = .70$; Hungarians: $M = -$
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32 .13, $SD = .81$); this was significantly different ($Zs > 12.0$, $ps < .001$) from the strong
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34 average tendency among Spaniards ($M = .44$, $SD = .74$) and Greeks ($M = .43$, $SD = .770$)
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36 to sign in *favor* of refugee aid among (Spaniards and Greeks again did not differ
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38 significantly from one another; $Z = .03$, $p = .98$).

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42 Finally, we compared the correlation between blatant dehumanization and petition
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44 signing across nations using a Fisher r -to- z transformation, again with a Bonferroni
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46 corrected p -value of .0083. We found that the correlation between dehumanization and
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48 petition signing was similar for people in the Czech Republic ($r = -.39$, $p < .001$) and
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50 Hungary ($r = -.42$, $p < .001$; $Z = .68$, $p = .50$). These correlations were significantly
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52 higher in both countries than among Greeks ($r = -.29$, $p < .001$; $Zs > 2.7$, $ps < .0083$), but
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3 not among Spaniards, after correcting for multiple comparisons ($r = -.33, p < .001; Z_s >$
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5 1.6, $p_s < .10$). Correlations between dehumanization and petition signing were similar for
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7 Spaniards and Greeks ($Z = .98, p = .33$).

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10 In sum, Czechs and Hungarians displayed greater mean levels of dehumanization,
11
12 prejudice, and anti-refugee behaviors than Spaniards and Greeks. Moreover, the *link*
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14 among Czechs and Hungarians between dehumanizing and signing hostile petitions was
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16 more pronounced than among Greeks. Our samples of Spaniards and Greeks did not
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18 differ from one another on any of these metrics. Our sample of Czechs indicated even
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20 more dehumanization and prejudice towards Muslim refugees than our sample of
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22 Hungarians, but the fact that the Czech data were collected at a later date than the
23
24 Hungarian data make it difficult to ascertain whether this reflects a true difference
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26 between these two populations, or suggestive evidence in favor of the idea that
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28 xenophobic attitudes may have continued to rise in Eastern Europe (and perhaps
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30 elsewhere) since the peak of the refugee crisis.
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37 Finally, we note that we collected data from one further large ($N = 1,160$),
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39 representative European sample in Denmark in January, 2015 – approximately 9 months
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41 prior to the samples from Hungary, Spain and Greece. Because our survey in Denmark
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43 asked about ‘Muslims’ and not ‘Muslim refugees’, we did not include it in the main text
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45 or in our main analyses, but we include these data in our supplemental materials (see
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47 Tables S8 and S9). We note that the level of dehumanization of Muslims was quite high
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49 in this Northern European country, with Muslims rated 23 points lower than
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51 Scandinavians – significantly less than the level of Muslim dehumanization in the Czech
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3 sample (Muslim dehumanization ~36 points; $p < .001$) and similar to the samples in
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5 Spain and Greece (Muslim dehumanization ~20 points; $ps > .05$).
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8 **General Discussion**

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10 The backdrop of this research was one of the most dramatic cases of human mass
11 migration witnessed in modern times, with millions of individuals, mostly Muslim,
12 fleeing the atrocities of war to seek refuge in Europe. Perhaps predictably given its scope,
13 this migration led (and continues to lead) to tensions within the European countries
14 affected by the migration. In this study, we examined the impact on the acceptance or
15 rejection of Muslim refugees of one of the constructs that has been at the forefront of the
16 rhetoric emanating from the 'refugee crisis': blatant dehumanization.
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27 Using large samples in four European countries (Czech Republic, Spain, Greece,
28 and Hungary), we found that Muslim refugees were blatantly dehumanized (and
29 disliked), a finding suggesting that the overtly dehumanizing views that Muslims face in
30 the U.S. (Kteily et al., 2015; Kteily & Bruneau, 2017) extend to a range of European
31 countries, and also impact the refugees among their ranks. Beyond examining mean
32 levels, we were interested in exploring whether blatant dehumanization was associated
33 with anti-refugee policy support and anti-refugee behavior. Consistent with our
34 predictions, we found that the degree of blatant dehumanization of Muslim refugees was
35 uniquely associated with resistance to refugee settlement, support for anti-refugee
36 policies, and a greater tendency to sign petitions opposing aid to refugees. Importantly,
37 this was true despite the inclusion of a rigorous set of controls, including political
38 conservatism, prejudice, and trait empathic concern and perspective taking (as well as
39 demographic variables).
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Our findings make a number of important contributions. Although some prior work has considered the role of the subtle dehumanization (i.e., infrahumanization) of Muslim refugees on anti-refugee attitudes (e.g., Esses et al., 2013; Leyens et al., 2007), we focused here on blatant dehumanization, an explicit and overt form of dehumanization that tends to be more strongly associated than subtle dehumanization with aggressive attitudes and behavior (see Kteily & Bruneau, 2017). Indeed, we observed here that blatant dehumanization was significantly more strongly correlated than infrahumanization with all attitudes and behavior. Our work also extends the small body of work on blatant dehumanization of refugees (e.g., Esses et al., 2008) by assessing the link between blatant dehumanization and actual anti-refugee behavior and by collecting data from large, relatively representative community samples across several nations in the midst of an acute refugee ‘crisis’.

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In examining the role of blatant dehumanization, we also controlled here for trait empathic concern and perspective taking, factors not previously taken into account when assessing blatant dehumanization’s association with intergroup outcomes. We reasoned that trait empathy might be especially relevant in the context of the refugee crisis, particularly given the heartrending images that circulated of refugees drowning as they made the treacherous journey to the shores of Europe. Of note, trait empathic concern was indeed associated with lower levels of blatant dehumanization of refugees, and often uniquely predicted less anti-refugee hostility (including predicting behavior in all three countries— Hungary, Greece, and Spain— in which it was assessed). At the same time, it was clear that the effects of blatant dehumanization were not redundant with either trait empathic concern or perspective taking (with the latter typically not associated with

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3 outcomes). Nevertheless, whereas we focused here on trait empathy (consistent with its
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5 recognized role in predicting altruism, including in intergroup contexts; e.g., Batson,
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7 Chang, Orr, & Rowland, 2002) others have examined the relationship between subtle
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9 dehumanization and state empathy (e.g., Andrighetto et al., 2014; Čehajić, Brown, &
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11 González, 2009), suggesting that dehumanization can in fact predict hostile attitudes in
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13 part by reducing state empathy for targets. Future work should consider how blatant
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15 dehumanization is associated with state as well as trait empathy.
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20 Another important feature of our work is its contribution to advancing the
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22 theoretical differentiation between blatant dehumanization and prejudice. Although prior
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24 work on blatant dehumanization has controlled for prejudice in examining
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26 dehumanization's predictive validity (Jardina & Piston, 2016; Kteily et al., 2015, 2016;
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28 Kteily & Bruneau, 2017), as we also did here, previous research has not considered how
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30 the patterns for blatant dehumanization and prejudice might differ from one another
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32 across a set of targets (but see e.g., Vaes & Paladino, 2010, for such an investigation with
33
34 subtle dehumanization). Consistent with the well-established phenomenon of ingroup
35
36 favoritism (e.g., Tajfel & Turner, 1979), we observed that individuals in each of the four
37
38 nations we investigated expressed significant levels of prejudice towards all outgroups,
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40 often by large margins. At the same time, we found that Spaniards and Greeks each
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42 dehumanized their own group relative to two outgroups (Spain: Swedes, Germans;
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44 Greece: Swedes, French), and Hungarians and Czechs did not dehumanize at least one
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46 outgroup.
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53 These results demonstrate that even when individuals prefer their group to all
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55 others, they may not necessarily perceive it to be the paragon of humanity, perhaps
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3 because they view other groups as higher on elements central to full humanity like
4 cognitive sophistication, refinement, or rationality (Haslam, 2006). Although some prior
5 work suggests that targets sometimes subtly or implicitly dehumanize their group relative
6 to higher status outgroups (Capozza, Andrighetto, Di Bernardo & Falvo, 2012; Iatridis,
7 2013; but see Paladino & Vaes, 2009; Vaes & Paladino, 2010; Leyens et al., 2001), the
8 results reported here are notable in that they suggest that individuals sometimes
9 consciously and explicitly rate their group lower on humanity than other outgroups, even
10 on a measure as overt as blatant dehumanization (see Bastian & Haslam, 2010, 2011, for
11 examples of self-dehumanization in the interpersonal sphere).
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24 Further highlighting the distinction between blatant dehumanization and
25 prejudice: for example, although Germans were typically attributed among the highest
26 levels of humanity, they were frequently the target of relatively high levels of prejudice.
27 Indeed, in Spain, Greece, and the Czech Republic, Germans were rated right around the
28 ingroup on humanity but between 20-35 points lower with a feeling thermometer measure
29 of prejudice. Interestingly, this distinction did not extend to all high-status groups. For
30 example, all groups reported low prejudice and low dehumanization towards Swedes,
31 high prejudice and high dehumanization of some low status groups (e.g., Muslims,
32 Roma), and low prejudice and high dehumanization for other low status targets (e.g.,
33 Africans). Future work should systematically consider the array of factors that predict
34 when prejudice and blatant dehumanization do or do not align, likely including
35 dimensions such as groups' relative economic, scientific, and political status, as well as
36 the specific history of relations between groups (see Bruneau & Kteily, in press).
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With respect to the association between blatant dehumanization and prejudice, it should be noted that prejudice also played an important role in parallel to dehumanization in predicting anti-refugee outcomes— indeed, feeling thermometer ratings were uniquely associated with all outcome measures across all samples, and were in several cases the (numerically) strongest predictor. Although our pattern of results adds to existing behavioral (Kteily et al., 2015; Kteily et al., 2016; Kteily & Bruneau, 2017) and neural (Bruneau, Kteily, Jacoby, & Saxe, *in review*) evidence indicating that blatant dehumanization judgments are distinct from judgments of dislike, it will be important for future work to better identify the reasons for their independent contributions to outcomes. For example, it is possible that blatant dehumanization of refugees predicts a desire to exclude them because it is associated with viewing them as threatening ‘savages’ posing a danger to the ingroup or incapable dependents unlikely to contribute to advancing the host society, whereas dislike of refugees may separately be associated with a desire for social distance from them or a greater tendency to punish the disliked outgroup for perceived transgressions, even if they are not necessarily seen as less human.

Our work also raises some new and interesting questions about cross-national differences in blatant dehumanization and anti-refugee attitudes. The fact that we fielded similar surveys about anti-refugee attitudes across four large European nations at a similar (and important) point in time allowed us to explore differences across them, although it is important to keep in mind the limitations of these comparisons.

Specifically, we note that (a) the Czech sample was collected about 1.5 years after those in Hungary, Spain and Greece, making it difficult to determine whether differences for this sample relative to the others were due specifically to the context or to the time of

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3 assessment, and (b) although larger and more representative than typical in psychological
4 research (Henrich, Heine, & Norenzayan, 2010), our samples were not probability
5 samples of the respective nations, and were not perfectly matched to one another. For
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assessment, and (b) although larger and more representative than typical in psychological research (Henrich, Heine, & Norenzayan, 2010), our samples were not probability samples of the respective nations, and were not perfectly matched to one another. For example, the Czech sample approximated the national distributions across age, gender and education, whereas in Hungary, Spain and Greece, representativeness was approximated across age, gender and geographical region. Furthermore, we note that the Greek data included a higher proportion of women (although, importantly, gender did not predict the two measures we compared across samples—dehumanization of refugees and the petition to support refugee funding).

Bearing these caveats in mind, the differences between Hungary and the Czech Republic on the one hand, and Spain and Greece, on the other, were striking. Greeks and Spaniards rated Muslim refugees approximately 15 points lower than the ingroup on the Ascent dehumanization scale, and approximately 25 points lower on the feeling thermometer. For Hungarians, dehumanization and prejudice levels were significantly higher, with Muslims refugees rated 26 points lower than Hungarians on the dehumanization scale, and 40 points lower on the prejudice measure. Czech respondents indicated still more negative perceptions, rating Muslim refugees a full 39 points lower than their own group on the Ascent scale, and 57 points lower than their group on prejudice. To place these results in context, it is worth noting that the levels of dehumanization of Muslim refugees among Czech respondents is similar to that observed among an online community sample of Americans collected on Amazon's Mechanical Turk rating the violent extremist group ISIS in 2015 (~ 37 points; Kteily et al., 2015), and large community samples of Israelis ($N = 521$) and Palestinians in the West Bank ($N =$

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3 354) rating one another during the 2014 Gaza war (~ 35-37 points; Bruneau & Kteily,
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6 2017). This places the dehumanization of Muslim refugees in the Czech Republic among
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8 the highest levels of blatant dehumanization observed towards any target group to date
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10 using the 'Ascent' measure.
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13 Given prior cross-country survey research (Strabac & Listhaug, 2008; Davidov,
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15 Meulemann, Schwartz, & Schmidt, 2014; Schlueter, Meuleman, & Davidov, 2012), the
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17 finding that the samples in the Eastern European countries reported the most negative
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19 perceptions is relatively unsurprising. Most striking, given this extant research, is the
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21 relative tolerance of Muslim refugees among Greeks. Previous cross-national research
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23 from a number of sources indicates that, prior to the refugee crisis, hostility towards
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25 immigrants and Muslims was as high in Greece (or higher) than in Hungary and the
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27 Czech Republic, and that Spain was far more tolerant. For example, data from the 1999–
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29 2000 wave of the European Values Study showed that over 21% of Greeks were
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31 unwilling to have Muslims as neighbors, compared to 15% of Czechs and 11% of
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33 Spaniards (Strabac & Listhaug, 2008), and attitudes towards immigration on the 2008–
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35 2009 European Social Survey were worse among Greeks than any of the other 23
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37 countries assayed (including Hungary and the Czech Republic; Davidov, Meulemann,
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39 Schwartz, & Schmidt, 2014). In the research reported here, however, Greeks—like
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41 Spaniards, and in contrast to Hungarians and Czechs— were more likely to sign petitions
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43 to increase aid to Muslim refugees than decrease it and generally exhibited attitudes
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45 towards refugees as favorable as those seen in Spain. Moreover, the association between
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47 dehumanization and anti-refugee behavior in Greece was slightly weaker than that in
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49 Hungary and the Czech Republic.
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Although we can only speculate here, we see a few possibilities that could account for this (potential) shift in Greece that are worth exploring further. For example, it may be that the stances taken and relatively generous integration policies implemented in recent years by the government in Greece (Psaropoulos, 2016) helped to establish a norm of humanitarianism and tolerance that shaped attitudes towards Muslim refugees (Schlueter et al., 2012; Kinder and Sanders, 1990; Sniderman and Theriault, 1999). The contrast to the hostile rhetoric and restrictive policies implemented by leading politicians in Czech Republic and Hungary (which erected a fence designed to keep Muslim refugees out of their country) is notable. Alternatively (or additionally), it is possible that the direct and indirect intergroup contact provided by their particular proximity to the refugee crisis may have positively impacted Greeks' attitudes towards Muslim refugees, consistent with prior research showing an association between positive intergroup contact and both lower prejudice (Pettigrew & Tropp, 2006) and lower (subtle) dehumanization (Capozza, Trifiletti, Vezzali, & Favara, 2013). Indeed, it is notable that Spain— a country that has consistently shown relatively tolerant attitudes towards immigration— scores higher in estimates of cultural diversity than the Czech Republic or Hungary, which are both relatively homogenous societies (Gören, 2013). Of course, future research will have to determine which (if any) of these possibilities best explain these patterns.

In addition to the limitations already noted, it is important to recognize that the data reported here are correlational, thereby providing little insight into causal relationships. For example, we show here that blatant dehumanization is uniquely associated with anti-refugee attitudes and behavior. On the one hand, it is possible that dehumanization *causes* anti-refugee attitudes and behavior. On the other, it is also

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3 plausible that dehumanization could be applied after the fact to help justify anti-refugee
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5 policy support (see also Castano & Giner-Sorolla, 2006). Of course, reciprocal effects are
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7 also possible. Future research should employ experimental and/or longitudinal research to
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9 better disentangle these possibilities.
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12 **Conclusion**

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15 Across 4 countries in Europe examined in the backdrop of the refugee ‘crisis’, we
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17 consistently observed that blatant dehumanization was uniquely associated with anti-
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19 refugee attitudes and behavior. In exploratory comparisons, the degree of blatant
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21 dehumanization and its association with hostile attitudes and behavior was found to be
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23 particularly high in our Eastern European samples, where contact with refugees is low
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25 and anti-refugee rhetoric by political elites relatively prominent. Given the noted
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27 potential for those on the receiving end of overt dehumanization to respond with
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29 dehumanization and hostility of their own (Kteily & Bruneau, 2017), and in light of
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31 recent violent incidents across a number of European countries, more work is urgently
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33 needed to better understand and address the dehumanization at the root of intergroup
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35 conflict.
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References

- 1
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4
5
6 Aisch, G., & Almukhtar, S. (2015, September 22, 2015). Seeking a Fair Distribution of
7 Migrants in Europe. *The New York Times*.
- 8 Andrighetto, L., Baldissarri, C., Lattanzio, S., Loughnan, S., & Volpato, C. (2014).
9 Humanitarian aid? Two forms of dehumanization and willingness to help
10 after natural disasters. *British journal of social psychology*, 53(3), 573-584.
- 11 Bastian, B., & Haslam, N. (2010). Excluded from humanity: The dehumanizing effects
12 of social ostracism. *Journal of Experimental Social Psychology*, 46(1), 107-113.
- 13 Bastian, B., & Haslam, N. (2011). Experiencing dehumanization: Cognitive and
14 emotional effects of everyday dehumanization. *Basic and Applied Social
15 Psychology*, 33(4), 295-303.
- 16 Bastian, B., Denson, T. F., & Haslam, N. (2013). The roles of dehumanization and
17 moral outrage in retributive justice. *PloS one*, 8(4), e61842.
- 18 Batson, C., & Ahmad, N. Y. (2009). Using empathy to improve intergroup attitudes
19 and relations. *Social Issues and Policy Review*, 3(1), 141-177.
- 20 Batson, C., Chang, J., Orr, R., & Rowland, J. (2002). Empathy, attitudes, and action:
21 Can feeling for a member of a stigmatized group motivate one to help the
22 group? *Personality and Social Psychology Bulletin*, 28(12), 1656.
- 23 Bayer, Z. (2015). Elkerülhetetlen? (English Translation: Unavoidable?) [Electronic
24 Version]. *Magyar Hírlap*.
- 25 Beshar, M. (2015) UN: Many Syrian refugees educated, seeking better lives. *Voice of
26 America*.
- 27 Bogardus, E. S. (1933). A social distance scale. *Sociology & Social Research*.
- 28 Brown, R., & Cehajic, S. (2008). Dealing with the past and facing the future:
29 Mediators of the effects of collective guilt and shame in Bosnia and
30 Herzegovina. *European Journal of Social Psychology*, 38(4), 669-684.
- 31 Bruneau, E. G., Cikara, M., & Saxe, R. (2017). Parochial empathy predicts reduced
32 altruism and the endorsement of passive harm. *Social Psychological and
33 Personality Science*, 1948550617693064.
- 34 Bruneau, E., Kteily, N., Jacoby, & Saxe, R. (In review). Denying humanity: The distinct
35 neural correlates of blatant dehumanization.
- 36 Bruneau, E., & Kteily, N. (2017). The enemy as animal: Symmetric dehumanization
37 during asymmetric warfare. *PloS One*, 12(7), e0181422.
- 38 Capozza, D., Andrighetto, L., Di Bernardo, G. A., & Falvo, R. (2012). Does status affect
39 intergroup perceptions of humanity?. *Group Processes & Intergroup Relations*,
40 15(3), 363-377.
- 41 Capozza, D., Trifiletti, E., Vezzali, L., & Favara, I. (2013). Can intergroup contact
42 improve humanity attributions?. *International Journal of Psychology*, 48(4), 527-
43 541.
- 44 Čehajić, S., Brown, R., & González, R. (2009). What do I care? Perceived ingroup
45 responsibility and dehumanization as predictors of empathy felt for the victim
46 group. *Group Processes & Intergroup Relations*, 12(6), 715-729.
- 47 Cikara, M., Bruneau, E. G., & Saxe, R. R. (2011). Us and them intergroup failures of
48 empathy. *Current Directions in Psychological Science*, 20(3), 149-153.
- 49
50
51
52
53
54
55
56
57
58
59
60

- 1
2
3 Cuddy, A. J., Rock, M. S., & Norton, M. I. (2007). Aid in the aftermath of Hurricane
4 Katrina: Inferences of secondary emotions and intergroup helping. *Group*
5 *Processes & Intergroup Relations*, 10(1), 107-118.
- 6
7 Davidov, E., Meulemann, B., Schwartz, S., Schmidt, P. (2014) Individual values,
8 cultural embeddedness, and anti-immigration sentiments: Explaining
9 differences in the effect of values on attitudes toward immigration across
10 Europe. *Kolner Zeitschrift fur Soziologie und Socialpsychologie*, 66, 263-285.
- 11
12 Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a
13 multidimensional approach. *Journal of Personality and Social Psychology*,
14 44(1), 113-126.
- 15
16 Doebler, S. (2014). Relationships Between Religion and Intolerance Towards
17 Muslims and Immigrants in Europe: A Multilevel Analysis. *Review of*
18 *Religious Research*, 56(1), 61-86.
- 19
20 Erlanger, A.C.E, & Tsytsarev, S.V. (2012). The Relationship between Empathy and
21 Personality in Undergraduate Students' Attitudes toward Nonhuman
22 Animals. *Society and Animals*, 20, 21-38.
- 23
24 Esses, V. M., Veenvliet, S., Hodson, G., & Mihic, L. (2008). Justice, morality, and the
25 dehumanization of refugees. *Social Justice Research*, 21(1), 4-25.
- 26
27 Esses, V. M., Medianu, S., & Lawson, A. S. (2013). Uncertainty, threat, and the role of
28 the media in promoting the dehumanization of immigrants and refugees.
29 *Journal of Social Issues*, 69(3), 518-536.
- 30
31 Feldman, S. and Stenner, K. (1997). Perceived Threat and Authoritarianism. *Political*
32 *Psychology*, 18 : 741 -70.
- 33
34 Ferrieira, V. (2015). Police feed refugees 'like animals in a pen' in disturbing video
35 shot at Hungarian centre. *National Post*.
- 36
37 Fisher, M. (2013). A revealing map of the world's most and least ethnically diverse
38 countries. *The Washington Post*.
- 39
40 Galinsky, A. D., & Moskowitz, G. B. (2000). Perspective-taking: decreasing stereotype
41 expression, stereotype accessibility, and in-group favoritism. *J Pers Soc*
42 *Psychol*, 78(4), 708-724.
- 43
44 Glasford, D. E. (2013). Seeing is believing: communication modality, anger, and
45 support for action on behalf of out - groups. *Journal of Applied Social*
46 *Psychology*, 43(11), 2223-2230.
- 47
48 Goff, P. A., Eberhardt, J. L., Williams, M. J., & Jackson, M. C. (2008). Not yet human:
49 implicit knowledge, historical dehumanization, and contemporary
50 consequences. *Journal of personality and social psychology*, 94(2), 292.
- 51
52 Goff, P. A., Jackson, M. C., Di Leone, B. A. L., Culotta, C. M., & DiTomasso, N. A. (2014).
53 The essence of innocence: Consequences of dehumanizing Black children.
54 *Journal of personality and social psychology*, 106(4), 526.
- 55
56 Gören, E. (2013). Economic Effects of Domestic and Neighbouring Countries'
57 Cultural Diversity. *ZenTra Working Paper Series in Transnational Studies*, No.
58 13.
- 59
60 Haslam, N. (2006). Dehumanization: An integrative review. *Personality and Social*
Psychology Review, 10(3), 252-264.

- 1
2
3 Haslam, N., & Loughnan, S. (2014). Dehumanization and infrahumanization. *Annual*
4 *Review of Psychology*, 65, 399-423.
- 5
6 Henrich, J., Heine, S. J., & Norenzayan, A. (2010). Most people are not WEIRD. *Nature*,
7 466(7302), 29-29.
- 8
9 Hewstone, M., Cairns, E., Voci, A., McLernon, F., Niens, U., & Noor, M. (2004).
10 Intergroup forgiveness and guilt in Northern Ireland. *Collective guilt:*
11 *International perspectives*, 193-215.
- 12 Iatridis, T. (2013). Occupational status differences in attributions of uniquely human
13 emotions. *British Journal of Social Psychology*, 52(3), 431-449.
- 14 Jardina, A., & Piston, S. (2016). Dehumanization of black people motivates white
15 support for punitive criminal justice policies. Paper prepared for the 2016
16 Annual Meeting of the American Political Science Association in Philadelphia,
17 PA.
- 18
19 Kinder, D. R., & Sanders, L. M. (1990). Mimicking political debate with survey
20 questions: The case of white opinion on affirmative action for blacks. *Social*
21 *cognition*, 8(1), 73-103.
- 22
23 Kteily, N., Bruneau, E., Waytz, A., & Cotterill, S. (2015). The ascent of man:
24 Theoretical and empirical evidence for blatant dehumanization. *Journal of*
25 *Personality and Social Psychology*, 109(5), 901.
- 26
27 Kteily, N., Hodson, G., & Bruneau, E. (2016). They see us as less than human:
28 Metadehumanization predicts intergroup conflict via reciprocal
29 dehumanization. *Journal of Personality and Social Psychology*, 110(3), 343.
- 30
31 Kteily, N., & Bruneau, E. (In Press). Darker Demons of our Nature: The Need to (Re-)
32 Focus Attention on Blatant Forms of Dehumanization. *Current Directions in*
33 *Psychological Science*.
- 34
35 Kteily, N., & Bruneau, E. (2017). Backlash: The politics and real-world consequences
36 of minority group dehumanization. *Personality and Social Psychology Bulletin*,
37 43(1), 87-104.
- 38
39 Leidner, B., Castano, E., & Ginges, J. (2013). Dehumanization, retributive and
40 restorative justice, and aggressive versus diplomatic intergroup conflict
41 resolution strategies. *Personality and Social Psychology Bulletin*, 39(2), 181-
42 192.
- 43
44 Lewis, J. (2001). *Constructing public opinion: How political elites do what they like*
45 *and why we seem to go along with it*: Columbia University Press.
- 46
47 Leyens, J. P., Paladino, P. M., Rodriguez-Torres, R., Vaes, J., Demoulin, S., Rodriguez-
48 Perez, A., & Gaunt, R. (2000). The emotional side of prejudice: The attribution
49 of secondary emotions to ingroups and outgroups. *Personality and Social*
50 *Psychology Review*, 4(2), 186-197.
- 51
52 Leyens, J. P., Demoulin, S., Vaes, J., Gaunt, R., & Paladino, M. P. (2007). Infra -
53 humanization: The wall of group differences. *Social Issues and Policy Review*,
54 1(1), 139-172.
- 55
56 Louis, W. R., Esses, V. M., & Lalonde, R. N. (2013). National identification, perceived
57 threat, and dehumanization as antecedents of negative attitudes toward
58 immigrants in Australia and Canada. *Journal of Applied Social Psychology*,
59 43(S2).
- 60

- 1
2
3 Maoz, I., & McCauley, C. (2008). Threat, dehumanization, and support for retaliatory
4 aggressive policies in asymmetric conflict. *Journal of Conflict Resolution*,
5 52(1), 93-116.
6
7 Mekawi, Y., Bresin, K., & Hunter, C.D. (2016) White Fear, Dehumanization, and Low
8 Empathy: Lethal Combinations for Shooting Biases. *Cultural Diversity and*
9 *Ethnic Minority Psychology*, 22(3), 322-332.
10
11 Meuleman, B., Davidov, E., & Billiet, J. (2009) Changing attitudes toward immigration
12 in European societies, 2002-2007: a dynamic group conflict theory approach.
13 *Social Science Research*, 38(2), 352-365.
14
15 Migrant crisis: Migration to Europe explained in seven charts. (2016, March 6). *BBC*.
16 *Nationality of arrivals to Greece, Italy and Spain* (2015). United Nations High
17 Commissioner for Refugees.
18
19 Nolan, D. (2015). Hungary government condemned over anti-immigration drive
20 [Electronic Version]. *The Guardian*.
21
22 Pereira, C., Vala, J., & Leyens, J. P. (2009). From infra-humanization to
23 discrimination: The mediation of symbolic threat needs egalitarian norms.
24 *Journal of Experimental Social Psychology*, 45(2), 336-344.
25
26 Pettigrew, T. F., Christ, O., Wagner, U., & Stellmacher, J. (2007). Direct and indirect
27 intergroup contact effects on prejudice: A normative
28 interpretation. *International Journal of intercultural relations*, 31(4), 411-425.
29
30 Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact
31 theory. *Journal of personality and social psychology*, 90(5), 751.
32
33 Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social dominance
34 orientation: A personality variable predicting social and political attitudes.
35 *Journal of personality and social psychology*, 67(4), 741.
36
37 Psaropoulos, J. (2015). Greek immigration policy: A lesson for Eastern Europe? *Al*
38 *Jazeera*.
39
40 Refugee donations surge after Aylan Kurdi photo. (2015, September 5). *Deutsche*
41 *Welle*.
42
43 Savelkoul, M., Scheepers, P., Tolsma, J., & Hagendoorn, L. (2010) Anti-Muslim
44 Attitudes in The Netherlands: Tests of Contradictory Hypotheses Derived
45 from Ethnic Competition Theory and Intergroup Contact Theory. *European*
46 *Sociological Review*, 27(6) 741-758.
47
48 Schlueter, E., Meuleman, B., & Davidov, E. (2013) Immigrant Integration Policies and
49 Perceived Group Threat: A Multilevel Study of 27 Western and Eastern
50 European Countries. *Social Science Research*, 42(3), 670-682.
51
52 Sniderman, P. M., & Theriault, S. M. (2004). The structure of political argument and
53 the logic of issue framing. *Studies in public opinion: Attitudes, nonattitudes,*
54 *measurement error, and change*, 133-65.
55
56 Stephan, W. G., & Stephan, C. W. (2000). An integrated threat theory of prejudice.
57 *Reducing prejudice and discrimination*, 23-45.
58
59 Strabac, Z., & Listhaug, O. (2008) Anti-Muslim prejudice in Europe: A
60 multilevel analysis of survey data from 30 countries. *Social Science Research*,
37, 268-286.
Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. *The*
social psychology of intergroup relations, 33(47), 74.

- 1
2
3 Tange, A. (2016). Denmark passes tough migrant law as Nordic refugee welcome
4 dims [Electronic Version]. *Reuters*.
5
6 Taylor, A. (2015). Why the language we use to talk about refugees matters so much
7 [Electronic Version]. *The Washington Post*.
8
9 Unger, L. S., & Thumhuri, L. K. (1997). Trait empathy and continuous helping: The
10 case of voluntarism. *Journal of Social Behavior and Personality*, 12(3), 787.
11
12 Vaes, J., Leyens, J.-P., Paola Paladino, M., & Pires Miranda, M. (2012). We are human,
13 they are not: Driving forces behind outgroup dehumanisation and the
14 humanisation of the ingroup. *European Review of Social Psychology*, 23(1),
15 64-106.
16
17 Vaes, J., & Paladino, M. P. (2010). The uniquely human content of stereotypes. *Group*
18 *Processes & Intergroup Relations*, 13(1), 23-39.
19
20 Vaes, J., Paladino, M. P., & Magagnotti, C. (2011). The human message in politics: The
21 impact of emotional slogans on subtle conformity. *The Journal of social*
22 *psychology*, 151(2), 162-179.
23
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37
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Table 1. Mean and relative blatant dehumanization and prejudice in Study 1 (Czech Republic) assessed using the Ascent scale and Feeling Thermometer. Diff. score = Czech Ascent/Feeling Thermometer rating – [target group] Ascent/Feeling Thermometer rating.

Target	Mean Ascent ratings (SD)	Quartiles (25, 50, 75)	Diff. score
Dehumanization			
Czechs	90.4 (16.0)	87, 99, 100	--
Germans	90.0 (18.3)	89, 100, 100	.5
Slovaks	87.2 (19.4)	80, 97, 100	3.2***
Americans	86.4 (20.7)	80, 97, 100	4.0***
Jews	84.1 (22.8)	76, 95, 100	6.3***
Christians	83.5 (22.2)	73, 92, 100	7.0***
Hungarians	81.3 (23.9)	70, 90, 100	9.1***
Russians	78.6 (24.2)	70, 85, 100	11.8***
Muslims	54.1 (33.3)	22, 59, 83	36.3***
Muslim Refugees	53.0 (32.5)	23, 55, 80	37.5***
Roma	51.5 (32.7)	20, 51, 80	38.7***
Prejudice			
Czechs	82.6 (20.0)	75, 75, 100	--
Slovaks	74.6 (21.8)	50, 75, 100	8.0***
Christians	64.5 (22.6)	50, 75, 75	18.1***
Germans	58.1 (21.8)	50, 50, 75	24.6***
Americans	57.9 (20.7)	50, 50, 75	24.8***
Jews	57.4 (20.2)	50, 50, 75	25.2***
Hungarians	55.9 (19.9)	50, 50, 75	26.7***
Russians	47.3 (22.6)	25, 50, 50	35.3***
Muslim Refugees	26.2 (22.9)	0, 25, 50	56.3***
Roma	25.6 (21.4)	0, 25, 50	56.8***
Muslims	23.9 (23.2)	0, 25, 50	58.7***

Table 2. Simultaneous regressions: blatant dehumanization predicting outgroup attitudes and behavior in Study 1 (Czech Republic). Gender coding: 0 = male, 1 = female. Note: petition outcome measures computed with ordinal regressions; all others with ordinary least squares regression.

	Anti-Refugee Policies Support R ² = .36			Asylum Support R ² = .23			Sign Anti-Refugee Petition Pseudo R ² = .22		Sign Pro-Refugee Petition Pseudo R ² = .12	
	β	<i>B</i>	<i>B</i> 95% CI	β	<i>B</i>	<i>B</i> 95% CI	<i>B</i>	<i>B</i> 95% CI	<i>B</i>	<i>B</i> 95% CI
Blatant Dehumanization	.33***	.010	.009, .012	-.30***	-.012	-.014, -.010	.021***	.017, .026	-.010***	-.014, -.006
Prejudice	.34***	.011	.009, .012	-.24***	-.009	-.011, -.007	.012***	.008, .017	-.012***	-.016, -.008
Age	.11***	.008	.005, .011	-.01	-.001	-.005, .003	.004	-.004, .012	.012**	.004, .020
Gender	.01	.020	-.068, .108	-.15***	-.359	-.479, -.240	.029	-.198, .255	.171	-.051, .394

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3. Mean and relative blatant dehumanization and prejudice in Study 2 (Hungary) assessed using the Ascent scale and Feeling Thermometer. Diff. score = Hungarian Ascent/Feeling Thermometer rating – [target group] Ascent/Feeling Thermometer rating.

Target	Mean (SD)	Quartiles (25, 50, 75)	Diff. Score
Dehumanization			
Hungarians	84.9 (18.7)	80,90,100	--
Germans	84.9 (19.6)	80,90,100	0.0
French	81.8 (22.2)	70,90,100	3.2***
Transylvanians	81.2 (21.9)	70,90,100	3.8***
Jewish people	79.2 (24.8)	70,90,100	5.8***
Slovaks	77.6 (24.6)	60,80,100	7.3***
Muslim refugees	59.0 (35.1)	30,60,100	26.0***
Roma	57.4 (35.3)	30,60,100	27.6***
Prejudice			
Hungarians	76.2 (22.7)	60,80,100	--
Transylvanians	68.7 (24.3)	50,70,90	7.5***
Germans	62.3 (22.2)	50,60,80	13.9***
French	55.6 (24.5)	40,50,70	20.6***
Jewish people	55.5 (26.3)	40,50,80	20.7***
Slovaks	53.4 (23.3)	40,50,70	22.8***
Roma	37.7 (26.3)	20,40,50	38.5***
Muslim refugees	35.8 (26.9)	10,30,50	40.4***

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4. Simultaneous regressions: perceived humanity and empathy towards ingroup and outgroup predict attitudes and behavior in Study 2 (Hungary). Gender coding: 0 = male, 1 = female. Note: petition outcome measures computed with ordinal regressions; all others with ordinary least squares regression.

	Social Distance R ² = .49			Response to Injustice R ² = .32			Anti-Refugee Policies Support R ² = .57			# Granted Asylum (log) R ² = .43			Sign Pro-Refugee Petition Pseudo R ² = .41	
	β	<i>B</i>	<i>B</i> 95% CI	β	<i>B</i>	<i>B</i> 95% CI	β	<i>B</i>	<i>B</i> 95% CI	β	<i>B</i>	<i>B</i> 95% CI	<i>B</i>	<i>B</i> 95% CI
Blatant Dehum	.22***	.021	.013, .029	-.21***	-.021	-.031, -.012	.20***	.019	.012, .026	-.23***	-.029	-.041, -.017	-.010*	-.018, -.002
Prejudice	.45***	.036	.029, .044	-.17**	-.148	-.024, -.006	.47***	.038	.031, .044	-.42***	-.046	-.057, -.036	-.021***	-.029, -.014
Trait EC	-.05	-.305	-.802, .192	.23***	1.57	.970, 2.17	-.11**	-.738	-1.19, -.290	.09*	.821	.111, 1.53	.934***	.447, 1.42
Trait PT	-.06	-.434	-.966, .097	-.03	-.208	-.848, .433	-.03	-.212	-.692, .267	-.01	-.133	-.893, .627	-.526*	-1.04, -.013
Age	.08*	.017	.003, .032	.17***	.041	.023, .058	-.05	-.012	-.025, .001	-.03	-.008	-.029, .013	.019**	.005, .033
Gender	.05	.300	-.094, .694	.07	.416	-.059, .890	.02	.138	-.218, .493	.00	-.006	-.569, .557	.543**	.163, .922
Conserv.	-.12**	-.161	-.060, -.262	-.10*	-.147	-.269, -.026	.14***	.183	.092, .274	-.07	-.127	-.271, .017	-.292***	-.399, -.186

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5. Mean and relative blatant dehumanization and prejudice in Study 3 (Spain) assessed using the Ascent scale and Feeling Thermometer. Diff. score = Spanish Ascent/Feeling Thermometer rating – [target group] Ascent/Feeling Thermometer rating.

Target	Mean Ascent ratings (SD)	Quartiles (25, 50, 75)	Diff. score
Dehumanization			
Spanish	85.6 (22.0)	78, 96, 100	--
Swedes	90.1 (19.7)	90, 100, 100	-4.5***
Germans	89.0 (20.6)	88, 100, 100	-3.3***
French	86.5 (22.2)	81, 97, 100	-8
Americans	86.0 (22.6)	80, 98, 100	-3
Christians	76.5 (28.6)	61, 88, 100	9.2***
Turks	72.4 (29.7)	51, 80, 100	13.1***
Muslim refugees	70.3 (31.3)	50, 79, 100	15.3***
Africans	70.2 (30.9)	49, 78, 100	15.4***
Roma	66.5 (33.0)	44, 75, 100	19.1***
Muslims	64.6 (34.2)	38, 72, 100	20.9***
Prejudice			
Spanish	76.4 (21.1)	60, 80, 90	--
Swedes	60.5 (21.3)	50, 60, 80	15.8***
Christians	58.5 (24.6)	50, 60, 80	17.8***
Americans	57.4 (21.8)	50, 50, 70	18.9***
Africans	55.2 (22.8)	40, 50, 70	21.1***
Germans	54.5 (23.2)	40, 50, 70	21.9***
French	53.9 (23.6)	40, 50, 70	22.5***
Muslim refugees	49.5 (26.1)	30, 50, 70	26.8***
Turks	46.5 (22.9)	30, 50, 60	29.9***
Roma	40.5 (25.8)	20, 40, 60	35.8***
Muslims	39.9 (25.2)	20, 40, 50	36.5***

Table 6. Simultaneous regressions: blatant dehumanization and trait empathy predicting outgroup attitudes and behavior in Study 3 (Spain). Gender coding: 0 = male, 1 = female. Note: petition outcome measures computed with ordinal regressions; all others with ordinary least squares regression.

	Anti-Refugee Policies Support R ² = .37			# Granted Asylum (log) R ² = .07			Sign Pro-Refugee Petition Pseudo R ² = .21	
	β	<i>B</i>	<i>B</i> 95% CI	β	<i>B</i>	<i>B</i> 95% CI	<i>B</i>	<i>B</i> 95% CI
Blatant Dehumanization	.18***	.174	.119, .229	-.09*	-.013	-.023, -.003	-.016***	-.022, -.010
Prejudice	.30***	2.23	1.79, 2.68	-.16***	-.178	-.258, -.099	-.009***	-.014, -.005
Trait Empathic Concern	-.12***	-7.05	-10.4, -3.72	.02	.190	-.402, .782	.930***	.561, 1.30
Trait Perspective Taking	-.11***	-7.34	-11.1, -3.59	.01	.125	-.541, .792	.123	-.281, .527
Age	-.03	-.066	-.172, 0.40	.09**	.028	.009, .047	.018**	.006, .030
Gender	.01	.390	-2.18, 2.96	-.09**	-.641	-1.10, -.185	-.004	-.283, .274
Conservatism	.22***	2.12	1.61, 2.64	-.03	-.037	-.129, .055	-.133***	-.188, -.077

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 7. Mean and relative blatant dehumanization and prejudice in Study 4 (Greece) assessed using the Ascent scale and Feeling Thermometer. Diff. score = Greek Ascent/Feeling Thermometer rating – [target group] Ascent/Feeling Thermometer rating.

Target	Mean (SD)	Quartiles (25, 50, 75)	Diff. Score
Dehumanization			
Greeks	88.2 (17.1)	81, 95, 100	--
Swedes	91.6 (14.6)	89, 98, 100	-3.3***
French	90.2 (15.0)	81, 96, 100	-1.9***
Americans	88.3 (18.0)	82, 96, 100	-0.1
Germans	86.9 (20.3)	88, 100, 100	1.3*
Christians	85.9 (19.6)	79, 95, 100	2.3***
Turks	73.2 (26.8)	55, 80, 100	15.0***
Muslim refugees	72.2 (27.7)	53, 80, 99	16.1***
Africans	71.3 (26.7)	52, 78, 97	17.0***
Muslims	67.8 (30.0)	49, 76, 96	20.4***
Roma	62.5 (32.3)	38, 69, 94	25.8***
Prejudice			
Greeks	86.2 (17.2)	80,90,100	--
Christians	79.9 (21.1)	70, 90, 100	6.4***
French	72.4 (21.3)	50, 80, 90	13.9***
Swedes	69.5 (22.5)	50, 70, 90	16.7***
Africans	67.9 (22.6)	50, 70, 90	18.3***
Americans	67.3 (22.9)	50, 70, 90	19.0***
Muslim refugees	62.7 (27.6)	50, 60, 90	23.5***
Turks	54.0 (29.1)	30, 50, 80	32.2***
Germans	53.3 (29.1)	30, 50, 80	32.9***
Muslims	52.8 (28.8)	30, 50, 80	33.4***
Roma	47.5 (29.0)	30, 50, 70	38.7***

* $p < 0.05$, ** $p < 0.01$, *** $p < .001$

Table 8. Simultaneous regressions: blatant dehumanization and prejudice predicting outgroup attitudes and behavior in Study 4 (Greece). Gender coding: 0 = male, 1 = female. Note: petition outcome measures computed with ordinal regressions; all others with ordinary least squares regression.

	Anti-Refugee Policies Support R ² = .39			# Granted Asylum (log) R ² = .10			Sign Pro-Refugee Petition Pseudo R ² = .25	
	β	<i>B</i>	<i>B</i> 95% CI	β	<i>B</i>	<i>B</i> 95% CI	<i>B</i>	<i>B</i> 95% CI
Blatant Dehumanization	.11***	.095	.044, .147	-.11**	-.016	-.027, -.006	-.006 [†]	-.013, .000
Prejudice	.37***	.255	2.12, 2.99	-.18***	-.021	-.296, -.119	-.023***	-.028, -.017
Trait Empathic Concern	-.18***	-9.53	-12.7, -6.39	-.03	-.300	-.944, .344	.773***	.373, 1.17
Trait Perspective Taking	.00	-.072	-2.64, 2.79	.01	.109	-.450, .667	.201	-.151, .553
Age	.06*	.118	.010, .225	.01	.005	-.017, .027	.004	-.009, .018
Gender	.01	.354	-1.99, 2.70	-.13***	-.980	-1.46, -.502	-.018	-.316, .280
Conservatism	.22***	2.53	1.89, 3.16	-.06	-.109	-.239, .020	-.158***	-.242, -.076

[†] $p < .10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$