

Gulliver's Politics: Conservatives Envision Potential Enemies as Readily Vanquished and Physically Small

Colin Holbrook¹, Lucía López-Rodríguez^{2,3}, Daniel M. T. Fessler¹,
Alexandra Vázquez^{2,3}, and Ángel Gómez^{2,3}

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Abstract

Political conservatives have been widely documented to regard out-group members as hostile, perceive individuals of ambiguous intent as malevolent, and favor aggressive solutions to intergroup conflict. A growing literature indicates that potential violent adversaries are represented using the dimensions of envisioned physical size/strength to summarize opponents' fighting capacities relative to the self or in-group. Integrating these programs, we hypothesized that, compared to liberals, conservatives would envision an ambiguous out-group target as more likely to pose a threat, yet as vanquishable through force, and thus as less formidable. Participants from the United States (Study 1) and Spain (Study 2) assessed Syrian refugees, a group that the public widely suspects includes terrorists. As predicted, in both societies, conservatives envisioned refugees as more likely to be terrorists and as less physically formidable. As hypothesized, this "Gulliver effect" was mediated by confidence in each society's capacity to thwart terrorism via aggressive military or police measures.

Keywords

political orientation, intergroup relations, threat assessment, aggression, formidability, terrorism

We will carpet-bomb them into oblivion. I don't know if sand can glow in the dark, but we're going to find out.

Senator Ted Cruz (Glueck, 2015)

The contemporary political constructs of "conservative" and "liberal" echo an ancient and abiding division in social preferences broadly related, respectively, to the maintenance of traditional order and to the pursuit of progress (Jost & Amodio, 2012). These divergent political orientations appear to reflect distinct psychologies, with conservatism characterized by greater sensitivity to potential hazards (for a recent review, see Hibbing, Smith, & Alford, 2014). Threatening stimuli garner greater implicit attention among conservatives (Cararro, Castelli, & Macchiella, 2011; McLean et al., 2014), and eye-tracking reveals that conservatives invest greater time looking at threatening imagery (Dodd et al., 2012). Conservatives also evince relatively greater physiological reactivity (i.e., as measured by startle blink or skin conductance) to threatening imagery or noise bursts (Oxley et al., 2008), which may be related to possessing larger right amygdala volume relative to liberals (Kanai, Feilden, Firth, & Rees, 2011). Of particular relevance here, conservatives are more likely to believe spurious claims about potential hazards (Fessler, Pisor, & Holbrook, under review) and are more prone to categorize persons of ambiguous intent as threatening (Vigil, 2010).

In contexts of potential violent conflict, individuals must quickly decide whether to fight, flee, or negotiate based on the relative fighting capacities of the two parties. Physical size and strength are key determinants of the outcomes of hand-to-hand combat (von Rueden, Gurven, & Kaplan, 2008), suggesting that humans likely possess a phylogenetically ancient capacity to represent relative physical formidability and employ this representation when deciding whether to fight. The *formidability representation hypothesis* posits that this representation has been co-opted and elaborated to summarize various determinants of the challenge posed by adversaries (Fessler, Holbrook, & Snyder, 2012; Fessler, Holbrook, & Gervais, 2014), many of which have no literal connection to physical size/strength (e.g., access to weaponry, strategic acumen, etc.). Consistent with

¹ Department of Anthropology, Center for Behavior, Evolution and Culture, University of California, Los Angeles, CA, USA

² ARTIS Research, Phoenix, AZ, USA

³ Universidad Nacional de Educación a Distancia, UNED, Madrid, Spain

Corresponding Author:

Colin Holbrook, Department of Anthropology, Center for Behavior, Evolution and Culture, University of California, 341 Haines Hall, Los Angeles, CA 90095, USA.

Email: cholbrook01@ucla.edu

this hypothesis, the envisioned physical formidability of potential adversaries has been shown to increase when assessing individuals who possess weapons (Fessler et al., 2012) or belong to groups stereotyped as violent (Holbrook, Fessler, & Navarrete, 2016). Conversely, the envisioned physical formidability of potential foes is decreased by proximity to allies (Fessler & Holbrook, 2013), synchronous movement with allies (Fessler & Holbrook, 2014), or perceived supernatural support (Holbrook, Fessler, & Pollack, 2016). Representations of physical formidability also appear to track the degree of challenge that hostile out-groups are thought to pose, as members of terrorist groups whose leaders are effective are envisioned as of enhanced size and strength, whereas members of terrorist groups lacking effective leadership are envisioned as relatively small and weak (Holbrook & Fessler, 2013).

Integrating the formidability representation hypothesis with the well-established association between conservatism and threat sensitivity, one might at first blush predict that conservatives would envision potentially threatening out-group members as large and strong, in keeping with their view of the world as inherently dangerous. Crucially, however, this would confuse the tendency for conservatives to categorize others as threatening with timidity regarding confronting perceived threats. To the contrary, conservatives tend to favor aggressive responses to conflict (e.g., Altemeyer, 1998; Herrmann, Tetlock, & Visser, 1999; Johnson, McDermott, Cowden, & Tingley, 2012; Jost & Amodio, 2012). For example, conservatives—but not liberals—primed with reminders of the 9/11 terrorist attacks evinced greater support for preemptive assaults and extreme violence against nations perceived as threats to the United States (Pyszczynski et al., 2006). Given that conservatism predicts confidence in the utility of aggressing and that the conceptualized size/strength of enemies is hypothesized to facilitate judgments of the extent to which aggressing would be costly, conservatives should envision potential enemies as less physically formidable (i.e., as vanquishable threats). If supported, this integration of the formidability representation hypothesis with prior work on political orientation, threat detection, and aggression would provide new insight into the intuitive processes undergirding conservatives' proclivity to use force against perceived enemies.

The present studies were designed to test three interrelated predictions generated by this model:

- (i) Conservatism will positively correlate with both perceptions of ambiguous targets as threatening and with confidence in the efficacy of aggressive intervention against these threats.
- (ii) Conservatism will negatively correlate with the envisioned physical formidability of an ambiguously threatening out-group member.
- (iii) Confidence in the efficacy of combating the relevant threatening group will mediate the negative association between conservatism and the envisioned physical formidability of the out-group member.

Building on prior evidence that conservatives tend to perceive ambiguous targets as threatening, we asked participants to assess a Syrian refugee, as, at the time of writing, Syrian refugees are widely regarded as likely terrorists (Jones, 2015). To clarify the specificity of observed relationships to threat assessment in particular, we also asked participants to evaluate a control target, an in-group member described in a similar fashion to the refugee, who was not expected to be represented as threatening, and whose envisioned physical formidability was therefore not expected to correlate with conservatism or confidence in aggressive reactions to threats.

Study I

Method

In exchange for US\$0.50, on March 19, 2016, and March 20, 2016, 500 U.S. participants were recruited via Amazon's MechanicalTurk.com survey platform (Buhrmester, Kwang, & Gosling, 2011). This sample size was chosen on the basis of variance observed in Holbrook and Fessler (2013), in which judgments of terrorist targets were also assessed. Data were prescreened for completeness, nonrepeat participation, reporting that the dynamic slider interface functioned, taking at least 5 min to complete the study, and correctly answering two "catch questions." The final sample consisted of 406 adults (43.8% female; age range 19–75, $M = 34.61$, $SD = 11.14$).

In a within-subjects design, participants were asked to estimate the bodily attributes of two individuals based on brief vignettes. In counterbalanced order (with a distracter task in between, see Supplemental Online Materials [SOM]), participants read about a Syrian refugee seeking entry into the United States and a U.S. citizen seeking employment (control).

Refugee

Hassan is a Syrian seeking refuge in the United States. Hassan woke up Saturday morning and began his day by brushing his teeth. Afterward, Hassan spent the day trying to find a way across the border. That night, Hassan talked about ways to get in with other refugees that he knows.

Citizen (Control)

James is an American seeking work in his hometown. James woke up Tuesday morning and began his day by taking a shower. Later, James spent the day looking for a job. That night, James talked about ways of finding work with other job seekers that he knows.

The two targets' bodily traits were estimated in random order: height (to the nearest inch), size (assessed using an array of six otherwise identical silhouettes differing only in size; see Figure 1), and a measure combining height, size, and muscularity (assessed using a slider interface enabling participants to increase or decrease the size and muscularity of an image of a male body from a small, thin figure [corresponding to a value

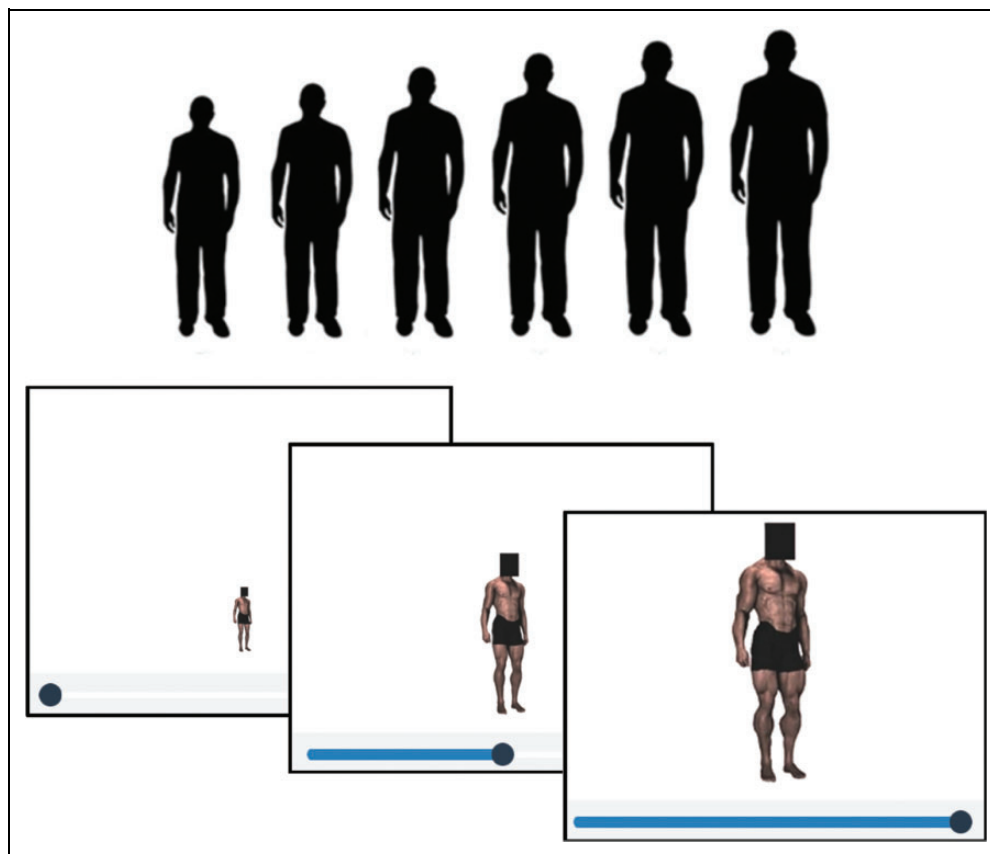


Figure 1. In random order, participants estimated the targets' height (Study 1: in feet and inches; Study 2: in meters and centimeters), overall body size/muscularity using a dynamic slider interface, and overall size according to a static image array. Top: Silhouette array used by participants to estimate size (Fessler et al., 2012). Bottom: Dynamic slider interface used by participants to estimate overall size/muscularity. As participants slide left, the figure becomes smaller and less muscular; as participants slide right, the figure becomes larger and more muscular (López-Rodríguez et al., under review; adapted from Sheikh, Gómez, & Atran, 2016; modified with permission from Frederick & Peplau, 2007; see text for details).

of 0] to a large and very muscular figure [corresponding to a value of 1]; see Figure 1). The estimated physical formidability of both targets was then composited using standardized values for these three measures (Refugee $\alpha = .70$; Citizen $\alpha = .58$).¹

Next, participants' political orientation was measured according to a modified version of a previously validated index that assesses conservative attitudes (Dodd et al., 2012; see SOM). Participants rated whether they agreed, disagreed, or were uncertain about 25 topics, presented in random order, half of which were conservative in nature (e.g., "Biblical truth," "tax cuts," "2003 Iraq invasion") and half of which were liberal in nature (e.g., "abortion rights," "socialism," "pacifism"). For each conservative topic, agreement was scored as +1 and disagreement was scored as -1. For each liberal topic, agreement was scored as -1 and disagreement was scored as +1. In response to either category of topics, "uncertain" responses were scored as 0. The responses to all topics were then tallied such that increasingly positive values indicate greater conservatism ($\alpha = .86$).

Participants then reported the extent to which they perceived refugees to be a threat according to 2 items, $r(404) = .62$, $p < .001$, presented in random order and rated using a horizontal

slider: "How many terrorists do you feel are currently trying to get into the United States by posing as refugees?" (1 = none; 50 = hundreds; 100 = thousands); "What do you feel the chances are that a terrorist attack will occur within the United States during the next 12 months?" (1 = not at all likely; 100 = extremely likely).

Next, participants' confidence in the efficacy of militarily combating Islamic State of Iraq and Syria (ISIS; the acronym commonly used in the United States to designate the jihadist militant group) was assessed according to responses to four questions presented in random order ($\alpha = .78$): "If the United States were to send large-scale ground forces to attack ISIS in Iraq and Syria, to what extent do you feel that ISIS would ultimately be destroyed?" (1 = not at all; 100 = completely); "If the United States were to send large-scale ground forces to attack ISIS in Iraq and Syria, how long do you feel it would take to destroy them?" (1 = a few months; 50 = about five years; 100 = decades or never; reverse scored); "Do you agree that the United States should send large-scale ground forces to attack ISIS in Iraq and Syria?" (1 = totally disagree; 100 = totally agree); "How would you feel about the United States potentially using nuclear weapons as an option to destroy ISIS

Table 1. Bivariate Correlations Between the Estimated Physical Formidability of the Syrian Refugee, Conservatism, Perceived Threat Posed by Refugees, and Confidence in the Efficacy of Military Intervention (Study 1).

| Variable | 1 | 2 | 3 | 4 |
|--|---|------|-------|------|
| 1. Refugee physical formidability | — | -.14 | -.12* | -.16 |
| 2. Conservatism | | — | .55 | .51 |
| 3. Perceived threat posed by refugees | | | — | .44 |
| 4. Confidence in military intervention | | | | — |

Note. $N = 406$.

* $p < .014$. All other $ps < .01$.

strongholds in Iraq and Syria?" (1 = *totally disagree*; 100 = *totally agree*).

Finally, participants answered demographic items and were debriefed. (The data sets and full materials for both studies reported here are provided in the SOM.)

Results

Conservatism, Perceived Threat Posed by Refugees, and Military Confidence

As predicted, we observed significant positive correlations between conservatism, the threat perceived to be posed by refugees, and confidence in the efficacy of military measures (see Table 1; see SOM Table S1 for descriptive statistics).

Correlations With Envisioned Physical Formidability

The envisioned physical formidability of the Refugee was negatively correlated with conservatism, the perceived threat posed by refugees, and confidence in the efficacy of military measures (see Table 1), whereas there were no such correlations with the envisioned physical formidability of the Citizen, $ps > .25$ (for descriptive statistics, see SOM Table S2).

We next used multilevel modeling (the SPSS MIXED command; SPSS Version 22 [IBM Corp., 2013]) to confirm that target type moderated the association between conservatism and envisioned physical formidability, in a model including conservatism (standardized) as an independent predictor (Level 1), shared variance between participants' ratings of different targets (Level 1), target type as a random factor (Refugee vs. Citizen, Level 2), and an interaction term between target type and conservatism. As predicted, target type moderated the effect of conservatism on formidability ratings, $\text{coef} = -.094$, $SE = .045$, $t = -2.09$, $p = .038$, 95% confidence interval (CI) $[-0.182, -0.005]$ (see SOM for code syntax).

Thus, as hypothesized, conservatism predicted envisioning the Refugee target as of diminished physical formidability, with no parallel links to conservatism, conceptualized formidability, refugee threat, or confidence in military intervention obtaining to the control target.

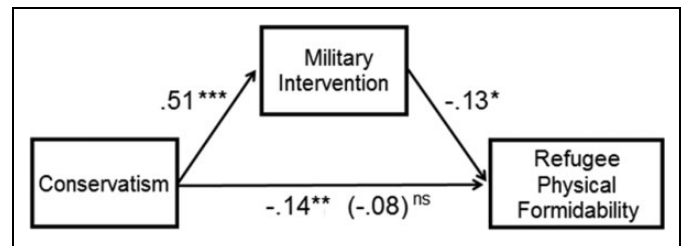


Figure 2. Standardized regression coefficients for the relationship between conservatism and envisioned physical formidability as mediated by confidence in the efficacy of military intervention (Study 1). The standardized regression coefficient between conservatism and estimated physical formidability with the mediator included in the model is given in parentheses. Confidence in military intervention appears to have fully mediated the negative correlation between conservatism and the envisioned physical formidability of the Syrian refugee.

Military confidence negates the link between the perceived threat posed by refugees and envisioned physical formidability. The formidability representation hypothesis holds that, as observed, threats regarded as more vanquishable via intervention should be envisioned as less physically large/strong. The similar negative correlation observed between the degree of perceived threat posed by refugees and the envisioned size/strength of the Refugee target is likely a by-product of shared variance between perceived threat and confidence in intervention. To test this interpretation, we conducted partial correlations to remove shared variance between the perceived threat posed by refugees and confidence in the efficacy of military measures. As predicted, the perceived threat posed by refugees no longer significantly correlates with the envisioned physical formidability of the Refugee if covarying confidence in the efficacy of military measures is controlled for, $p > .25$, whereas the envisioned physical formidability of the Refugee remains negatively correlated with confidence in the efficacy of military measures when controlling for the perceived threat posed by refugees, $r(403) = -.13$, $p = .012$.

Mediation Analysis

We tested the extent to which confidence in the efficacy of military intervention mediated the negative correlation between conservatism and the envisioned physical formidability of the Refugee utilizing the bias-corrected bootstrapping procedure (5,000 samples) in the INDIRECT macro for SPSS (Version 22; Preacher & Hayes, 2008). We entered conservatism as the independent variable, confidence in military intervention as the mediating variable, and the estimated physical formidability of the Refugee as the dependent variable. In the model, military confidence mediated the effect of conservatism on envisioned physical formidability (see Figure 2). The direct effect of conservatism was no longer significant in the model, whereas the

indirect effect of military confidence remained significant and the confidence intervals did not overlap with zero, 95% CI $[-0.011, -0.001]$. (Results are unchanged if the perceived threat posed by refugees is included as a covariate.)

Robusticity Checks

As the issues index used to measure political orientation includes 4 items overtly related to militarism, we recalculated our measure of conservatism omitting responses regarding pacifism, the 2003 Iraq invasion, “military spending,” and “compromise with enemies.” Rerunning the analyses using this revised measure yielded patterns of correlation and mediation comparable to those reported above.

Discussion

In Study 1, we observed a negative correlation between conservatism and the envisioned physical formidability of a Syrian refugee, and this “Gulliver effect” was mediated by confidence in militarily combating terrorism. The links between conservatism, military confidence, perceived threat, and envisioned physical formidability appeared specific to construal of the refugee as a vanquishable threat, as we observed no such associations with the control target.

Although the results support our model of the relations between conservatism and assessments of potential enemies, the United States has accepted few Syrian refugees. To test the model with a sample for whom the Syrian refugee crisis is closer to home, we next conducted a replication in Spain. At the time of research, the Spanish government had agreed to accept approximately 15,000 refugees, and the public was anxiously watching as Spain’s neighbors struggled to accommodate large influxes of refugees. Notably, immediately before we launched Study 2, a major terrorist attack took place in Brussels (approximately 800 miles from the Spanish border). Thus, these data are drawn from a sample of participants for whom the dual prospects of large-scale refugee resettlement and domestic terrorism were particularly salient.

We also extended the design of Study 1 by adding a measure of confidence in domestic police interventions to prevent terrorists posing as refugees from successfully carrying out attacks, as this method of thwarting terrorism at home has more direct relevance to the Syrian refugee described in the vignette as attempting to enter Spain than does military intervention against terrorists in the Middle East. We predicted that confidence in domestic police interventions would operate similarly to confidence in military interventions, inasmuch as both reflect perceptions that terrorist groups can be stymied through the use of force. Finally, we added a face-valid question probing the extent to which participants were conscious of assessing whether the refugee target was a terrorist while evaluating him.

Study 2

Method

Five hundred and eleven Spanish participants were recruited via Spanish online social media for an unpaid study and pre-screened as in Study 1. Data were collected between March 24 and April 3, in the immediate aftermath of the March 22, 2016, terrorist attack in Brussels. The final sample consisted of 468 adults (60.9% female; age range 18–72, $M = 37.05$, $SD = 12.40$). Materials were presented in Spanish.

As in Study 1, participants were asked to estimate the bodily attributes of a Syrian refugee ($\alpha = .73$) and a Spanish citizen ($\alpha = .69$), presented in counterbalanced order. Next, conservatism was assessed as previously, with slight modifications to apply to Spain (see SOM; $\alpha = .63$), followed by a measure of the threat posed by terrorists and an expanded measure of confidence in the ability to stop ISIS, presented in random order. The perceived threat posed by refugees was assessed using Spanish translations of the items employed in Study 1, substituting “Spain” for “the United States,” and adding a measure directly assessing the extent to which participants felt subjective concern about terrorists getting into Spain by posing as refugees (1 = *not at all worried*; 100 = *extremely worried*; see SOM; $\alpha = .71$).

The expanded measure of confidence in the ability to stop ISIS ($\alpha = .83$) was comprised of subscales specific, respectively, to military interventions and domestic police measures. Confidence in the efficacy of military intervention against ISIS in the Middle East was assessed using three of the questions from Study 1 (excluding the inapplicable item involving nuclear weapons), slightly modified to better apply to Spain ($\alpha = .78$; see SOM). Confidence in domestic intervention was measured using 4 items ($\alpha = .86$; see SOM), for example “Do you agree that Spain should closely monitor Syrian refugees who are already in the country, including tracking their e-mails, phone calls, and physical movements?” (1 = *totally disagree*; 100 = *totally agree*; see SOM for details).

Finally, participants answered demographic items, including a question probing the extent to which they had consciously speculated that the refugee might be a terrorist while mentally picturing him (1 = *not at all certain*; 100 = *completely certain*) and were then debriefed.²

Results

Conservatism, the Perceived Threat Posed by Refugees, Intervention Confidence, and Certainty That Refugee Is a Terrorist

Consistent with predictions, conservatism, the perceived threat posed by refugees, confidence in the efficacy of military or domestic interventions, and self-reported certainty that the refugee was a terrorist were all positively correlated (see Table 2; See SOM Table S3 for descriptive statistics).

Table 2. Bivariate Correlations Between the Estimated Physical Formidability of the Syrian Refugee, Conservatism, Perceived Threat Posed by Refugees, Confidence in the Efficacy of Military Intervention, Confidence in the Efficacy of Domestic Intervention, and Certainty That Target Refugee Was Terrorist (Study 2).

| Variable | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|------|-------|------|------|-------|
| 1. Refugee physical formidability | — | -.13 | -.11* | -.16 | -.20 | -.08† |
| 2. Conservatism | | — | .44 | .39 | .48 | .29 |
| 3. Perceived threat posed by refugees | | | — | .32 | .63 | .48 |
| 4. Confidence in military intervention | | | | — | .43 | .24 |
| 5. Confidence in domestic intervention | | | | | — | .58 |
| 6. Certainty target refugee was terrorist | | | | | | — |

Note. $N = 468$.

† $p = .098$. * $p = .017$. All other $ps < .01$.

Correlations With Envisioned Physical Formidability

The envisioned physical formidability of the Refugee was significantly negatively correlated with conservatism, perceptions of refugees as terrorists, and confidence in military or domestic interventions, with a negative but nonsignificant correlation with self-reported certainty that the refugee was a terrorist (see Table 2). In contrast, there were no such correlations between any of these measures and the envisioned physical formidability of the Citizen, nor was there a correlation with the perceived threat posed by refugees, $ps > .25$ (see SOM Table S4 for descriptive statistics).

As in Study 1, using multilevel modeling, we once again confirmed that target type moderated the association between conservatism and envisioned physical formidability, $\text{coef} = -.117$, $SE = .039$, $t = -3.05$, $p = .002$, 95% CI $[-0.193, -0.042]$ (see SOM for code syntax).

Military or domestic confidence negate the link between the perceived threat posed by refugees and envisioned physical formidability. We next conducted partial correlations to remove shared variance between the perceived threat posed by refugees and confidence in the efficacy of military or domestic intervention. As in Study 1, the perceived threat posed by refugees no longer significantly correlates with the envisioned physical formidability of the Refugee when controlling for covarying confidence in the efficacy of military ($p = .16$), or domestic intervention ($p = .59$). Conversely, when controlling for the perceived threat posed by refugees, the envisioned physical formidability of the Refugee remains negatively correlated with confidence in the efficacy of military intervention, $r(465) = -.13$, $p = .006$, or domestic intervention, $r(465) = -.18$, $p < .001$.

Mediation Analyses

We tested the extent to which confidence in the efficacy of military intervention (as observed in Study 1) versus confidence in

the efficacy of domestic intervention (newly measured in Study 2) mediated the negative correlation between conservatism and the envisioned physical formidability of the Refugee. We initially tested these potential mediators in separate models, followed by a model including both simultaneously. In each model, we entered conservatism as the independent variable and estimated physical formidability of the Refugee as the dependent variable. As in Study 1, we utilized the bias-corrected bootstrapping procedure (5,000 samples) in the INDIRECT macro for SPSS (Preacher & Hayes, 2008). (None of the results are changed if the perceived threat posed by refugees is included as a covariate.)

Model 1: Confidence in military intervention. Confidence in military intervention again mediated the effect of conservatism on envisioned physical formidability. The direct effect of conservatism ($\beta = -.13$, $p = .005$) was no longer significant in the model ($\beta = -.08$, $p = .099$), whereas the indirect effect of confidence in military intervention remained significant ($\beta = -.12$, $p = .014$), and the confidence intervals did not overlap with 0, 95% CI $[-0.018, -0.002]$.

Model 2: Confidence in domestic intervention. Confidence in domestic intervention also mediated the effect of conservatism on envisioned physical formidability. The direct effect of conservatism was no longer significant in the model ($\beta = -.04$, $p = .409$), whereas the indirect effect of confidence in domestic intervention remained significant ($\beta = -.18$, $p < .001$), and the confidence intervals did not overlap with zero, 95% CI $[-0.028, -0.007]$.

Model 3: Confidence in military versus domestic intervention. In a model including both confidence in military intervention and confidence in domestic intervention, confidence in domestic intervention mediated the effect of conservatism on envisioned physical formidability (see Figure 3). The direct effect of conservatism was no longer significant in the model, nor was the indirect effect of confidence in military intervention, whereas the indirect effect of confidence in domestic intervention remained significant, and the confidence intervals with regard to domestic intervention did not overlap with 0, 95% CI $[-0.025, -.004]$.

Robusticity Checks

As in Study 1, the issues index used to measure political orientation included 4 items overtly related to militarism. We therefore recalculated the measure of conservatism omitting those items and reran the analyses, yielding patterns of correlation and mediation comparable to those reported above. Another potential concern in Study 2 was that the reliability of the issues index, originally developed for use in the United States, was lower in the Spanish sample ($\alpha = .63$). We therefore conducted follow-up tests replacing the issues index with a single-item politics probe included in the demographics (1 = *extremely liberal*; 7 = *extremely conservative*; $M = 3.02$, $SD = 1.32$).

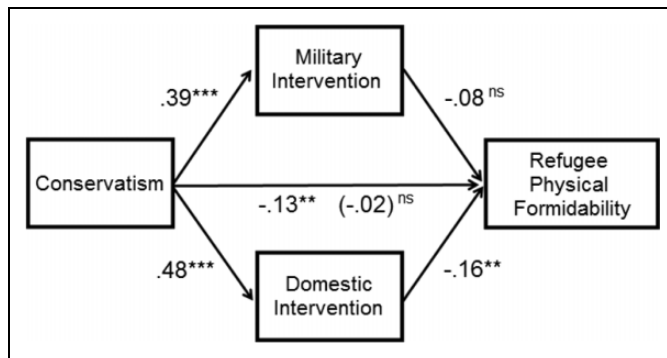


Figure 3. Standardized regression coefficients for the relationship between conservatism and the envisioned physical formidability of the Syrian refugee as mediated by confidence in the efficacy of military and domestic interventions (Study 2). The standardized regression coefficient between conservatism and estimated physical formidability, with the two mediators included in the model, is given in parentheses. In a model containing both potential mediators, confidence in domestic intervention—but not military intervention—mediated the negative correlation between conservatism and the envisioned physical formidability of the Syrian refugee (see text for tests of confidence in military intervention and domestic intervention when entered as potential mediators in separate models).

These tests produced a comparable pattern of results to those observed using the issues index, the only difference being that confidence in military intervention partially rather than fully mediates the effect of conservatism on the envisioned physical formidability of the Refugee. Given these confirmations of the robustness of the overall results, we chose to retain the findings derived using the issues index to permit greater comparability with the findings of Study 1.

General Discussion

In two studies, conducted in the United States and Spain, political conservatism predicted envisioning Syrian refugees as more threatening, yet less physically formidable. The negative association between conservatism and envisioned physical formidability was mediated by confidence in interventions against terrorist groups associated with Syrian refugees. In Study 2, we also compared support for military interventions with support for domestic police interventions (e.g., closing the border, state surveillance of refugee activities). We found that, although confidence in military intervention mediated the influence of conservatism on perceived physical formidability when evaluated separately, only support for domestic intervention emerged as a significant mediator in a model including both forms of intervention. This pattern suggests that confidence in the ability to preserve domestic safety via restrictive policies drove the tendency for conservative participants to envision the refugee as physically smaller, rather than a motive to act violently against terrorists. However, as these two modes of intervention also differed in geographic proximity to the participants and degree of relevance to refugees in particular, future measures controlling for such confounding differences

are required to ascertain the extent to which motives to preserve safety or destroy enemies better explain the link between conservatism and envisioning ambiguously threatening targets as smaller/weaker. Future research is also required to confirm whether conservatives outside Spain would comparably prioritize domestic interventions over military interventions.

We have framed representations of size/strength as reflecting appraisals of relative formidability. However, prior research shows that social prestige is similarly conceptualized in terms of bodily size/strength (e.g., Duguid & Goncalo, 2012; Yap, Mason, & Ames, 2013). Although we agree that, via neural co-optation, size/strength can also represent relative prestige (see Holbrook et al., 2016), there are multiple grounds for interpreting the associations observed in the present studies as primarily concerning threat. First, formidability representation takes precedence over prestige representation when membership in a threatening group is made salient (Holbrook et al., 2016), and Study 2 confirmed that conservatism tracked consciously considering the Syrian refugee to be a potential terrorist. Second, we observed no correlations between conservatism and the envisioned size/strength of the control targets. Had conservatism prompted envisioning the refugees as small by dint of their low social standing, similar patterns might be expected to obtain for the control targets, who were also framed as being of relatively low prestige (as cued by their difficulties finding employment). Third, and most compellingly, the negative association between conservatism and the refugee target's envisioned size/strength was fully mediated in both studies by confidence in antiterror interventions, policies having no direct relevance to prestige attributions.

The present studies employed measures involving real-world groups and policy preferences, generating replicable results in two societies—one of which was sampled in the immediate aftermath of a severe terrorist attack in a neighboring nation. The robustness of these findings invites follow-up research utilizing comparably valid measures pertaining to alternate groups and/or social contexts. For example, the formidability representation hypothesis posits that similar patterns should obtain for conservatives' assessments of ambiguously threatening in-group targets, but, given the valuation of group identity characteristic of conservative psychology, it may be the case that out-group membership interacts with potential threat in a manner that engenders greater bias in formidability assessments. In particular, whereas the present studies built on prior work indicating that conservatives are prone to categorizing ambiguous targets as threatening (Vigil, 2010), future work should explore relationships between conservatism and assessments of unambiguously threatening individuals (e.g., explicitly avowed terrorists), particularly in light of the documented links between conservatism and aversion to ambiguity (Jost, Glaser, Kruglanski, & Sulloway, 2003; Jost et al., 2007).

Although a large corpus of research documents threat sensitivity in conservatives, the present findings provide the first evidence that conservatives tend to envision ambiguous targets not only as more likely to be enemies, but as more readily

vanquished and hence physically small. Prior researchers have construed conservatives' negativity bias and inclinations toward intergroup hostility as rooted in motivations to minimize uncertainty, feel secure, or justify social inequality (e.g., Jost & Amodio, 2012). Our perspective complements such accounts by highlighting size/strength representation as a mechanism that undergirds inclinations toward intergroup hostility. We have approached this from a theoretical framework concerned with decision-making in the world (i.e., whether to aggressively intervene), rather than with further intrapsychic functions; however, our emphasis need not conflict with interpretations of the latter variety (e.g., glossing conservatives' confidence in aggression, and related tendency to view ambiguously threatening targets as small, as providing a sense of security in a dangerous world). On any level of analysis, the present findings attest that conservatives' sensitivity to potential threats should not be mistaken for fear of aggressively confronting them. Characterizing this psychology is vital if we are to avert tragic and devastating consequences when those perceived to be menacing are not only innocent, but potentially valuable allies or future in-group members—as appears to be the case for the overwhelming majority of Syrian refugees.

Declaration of Conflicting Interests

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Supplemental Material

The online supplements are available at <http://spps.sagepub.com/supplemental>.

Notes

1. The composite measure of the Citizen's physical formidability was unexpectedly low in Study 1. However, although a score of at least .7 is generally considered necessary to establish reliability, lower scores can be acceptable if, as here, the measure is theoretically cogent and composed of few and nonredundant items (Robinson, Wrightsman, & Andrews, 1991). Further, although the dynamic formidability measure has not previously been combined with the height and size silhouette measures to create a composite measure of physical formidability, closely comparable ratings of a static array of figures varying in muscularity have been combined with height and silhouette ratings to form reliable composites in

many prior studies (e.g., Fessler & Holbrook, in press; Fessler, Holbrook, & Dashoff, 2016; Holbrook & Fessler, 2013; Holbrook, Fessler, & Navarrete, 2016). Finally, the Refugee character is the target of central theoretical relevance.

2. At the end of the protocol, we also measured emotional reactions to the Brussels attack. These measures and results pertain to distinct research questions and are currently being prepared for separate publication.

References

- Altemeyer, B. (1998). The other "authoritarian personality." In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 30, pp. 47–92). Orlando, FL: Academic Press.
- Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk a new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, 6, 3–5.
- Cararro, L., Castelli, L., & Macchiella, C. (2011). The automatic conservative: Ideology-based attentional asymmetries in the processing of valenced information. *PLoS One*, 6, e26456.
- Dodd, M. D., Balzer, A., Jacobs, C. M., Gruszczynski, M. W., Smith, K. B., & Hibbing, J. R. (2012). The political left rolls with the good and the political right confronts the bad: Connecting physiology and cognition to preferences. *Philosophical Transactions of the Royal Society of London B: Biological Sciences*, 367, 640–649.
- Duguid, M. M., & Goncalo, J. A. (2012). Living large: The powerful overestimate their own height. *Psychological Science*, 23, 36–40.
- Fessler, D. M. T., & Holbrook, C. (2013). Friends shrink foes: The presence of comrades decreases the envisioned physical formidability of an opponent. *Psychological Science*, 94, 797–802.
- Fessler, D. M. T., & Holbrook, C. (2014). Marching into battle: Synchronous walking diminishes the conceptualized formidability of an antagonist in men. *Biology Letters*, 10. doi:10.1098/rsbl.2014.0592
- Fessler, D. M. T., & Holbrook, C. (2016). Synchronized behavior increases assessments of the formidability and cohesion of coalitions. *Evolution and Human Behavior*, 37, 502–509.
- Fessler, D. M. T., Holbrook, C., & Dashoff, D. (2016). Dressed to kill? Visible markers of coalitional affiliation enhance conceptualized formidability. *Aggressive Behavior*, 42, 299–309.
- Fessler, D. M. T., Holbrook, C., & Gervais, M. (2014). Men's physical strength moderates conceptualizations of prospective foes in two disparate human societies. *Human Nature*, 25, 393–409.
- Fessler, D. M. T., Holbrook, C., & Snyder, J. K. (2012). Weapons make the man (larger): Formidability is represented as size and strength in humans. *PLoS One*, 7, e32751. Retrieved from <http://dx.doi.org/10.1371/journal.pone.0032751>
- Fessler, D. M. T., Pisor, A. C., & Holbrook, C. (in press). Red state of fear: Conservatism predicts increased credulity regarding putative hazards. Manuscript available upon request.
- Fessler, D. M. T., Pisor, A. C., & Holbrook, C. (under review). Political orientation predicts credulity regarding putative hazards. Manuscript available upon request.
- Frederick, D. A., & Peplau, L. A. (2007). *The UCLA Body Matrices II: Computer-generated images of men and women varying in body fat and muscularity/breast size to assess body satisfaction and*

- preferences. Poster presented at the annual meeting of the Society for Personality and Social Psychology, Memphis, TN.
- Glueck, K. (2015, December 5). *Cruz pledges relentless bombing to destroy ISIL*. Retrieved from <http://www.politico.com/story/2015/12/cruz-isil-bombing-216454>
- Herrmann, R. K., Tetlock, P. E., & Visser, P. S. (1999). Mass public decisions to go to war: A cognitive-interactionist framework. *American Political Science Review*, *93*, 553–573.
- Hibbing, J. R., Smith, K. B., & Alford, J. R. (2014). Differences in negativity bias underlie variations in political ideology. *Behavioral and Brain Sciences*, *37*, 297–307.
- Holbrook, C., & Fessler, D. M. T. (2013). Sizing up the threat: The envisioned physical formidability of terrorists tracks their leaders' failures and successes. *Cognition*, *127*, 46–56.
- Holbrook, C., Fessler, D. M. T., & Navarrete, C. (2016). Looming large in others' eyes: Racial stereotypes illuminate dual adaptations for representing threat versus prestige as physical size. *Evolution and Human Behavior*, *37*, 67–78.
- Holbrook, C., Fessler, D. M. T., & Pollack, J. (2016). With God on your side: Religious primes reduce the envisioned physical formidability of a menacing adversary. *Cognition*, *146*, 387–392.
- IBM Corp. (2013). IBM SPSS Statistics for Windows (Version 22.0) [Computer software]. Armonk, NY: IBM Corp.
- Johnson, D. D. P., McDermott, R., Cowden, J., & Tingley, D. (2012). Dead certain: Confidence and conservatism predict aggression in simulated international crisis decision-making. *Human Nature*, *23*, 98–126.
- Jones, J. (2015, November 23). *Americans again opposed to taking in refugees*. Retrieved from <http://www.gallup.com/poll/186866/americans-again-opposed-taking-refugees.aspx>
- Jost, J. T., & Amodio, D. M. (2012). Political ideology as motivated social cognition: Behavioral and neuroscientific evidence. *Motivation and Emotion*, *36*, 55–64.
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, *129*, 339–375.
- Jost, J. T., Napier, J. L., Thorisdottir, H., Gosling, S. D., Palfai, T. P., & Ostafin, B. (2007). Are needs to manage uncertainty and threat associated with political conservatism or ideological extremity? *Personality and Social Psychology Bulletin*, *33*, 989–1007.
- Kanai, R., Feilden, T., Firth, C., & Rees, G. (2011). Political orientations are correlated with brain structure in young adults. *Current Biology*, *21*, 677–680.
- López-Rodríguez, L., Vázquez, A., Atran, S., Ginges, J., Sheikh, H., & Gómez, A. (under review). Identity fusion moderates the perception of in-group and out-group formidability.
- McLean, S. P., Garza, J. P., Wiebe, S. A., Dodd, M. D., Smith, K. B., Hibbing, J. R., & Espy, K. A. (2014). Applying the Flanker task to political psychology: A research note. *Political Psychology*, *35*, 831–840.
- Oxley, D. R., Smith, K. B., Alford, J. R., Hibbing, M. V., Miller, J. L., Scalora, M., . . . Hibbing, J. R. (2008). Political attitudes vary with physiological traits. *Science*, *321*, 1667–1670.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*, 879–891.
- Pyszczynski, T., Abdollahi, A., Solomon, S., Greenberg, J., Cohen, F., & Weise, D. (2006). Mortality salience, martyrdom, and military might: The great Satan versus the axis of evil. *Personality and Social Psychology Bulletin*, *32*, 525–537.
- Robinson, J. P., Wrightsman, L. S., & Andrews, F. M. (Eds.). (1991). *Measures of personality and social psychological attitudes*. San Diego, CA: Academic Press.
- Sheikh, H., Gómez, Á., & Atran, S. (2016). Empirical evidence for the devoted actor model. *Current Anthropology*, *57*, S000.
- Vigil, J. M. (2010). Political leanings vary with facial expression processing and psychosocial functioning. *Group Processes and Intergroup Relations*, *13*, 547–558.
- von Rueden, C., Gurven, M., & Kaplan, H. (2008). The multiple dimensions of male social status in an Amazonian society. *Evolution and Human Behavior*, *29*, 402–415.
- Yap, A., Mason, M. F., & Ames, D. R. (2013). The powerful size others down: The link between power and estimates of others' size. *Journal of Experimental Social Psychology*, *49*, 591–594.

Author Biographies

Colin Holbrook is a Research Scientist at the University of California, Los Angeles. He applies an evolutionary framework to the study of social judgment under contexts of threat, with particular focus on ethnocentrism and moral reasoning.

Lucía López Rodríguez is a post-doctoral researcher of Social Psychology at Universidad Nacional de Educación a Distancia (Spain) and a research fellow of ARTIS Research. Her main interests are focused on the psychosocial processes underlying intercultural relations (e.g., stereotypes, emotions, acculturation processes) and extreme behavior (e.g. identity fusion and sacred values).

Daniel M. T. Fessler is a Professor of Anthropology at the University of California, Los Angeles, and Director of the UCLA Center for Behavior, Evolution, and Culture. He explores emotions, decision-making, aggression, and cooperation using an evolutionary perspective on contemporary human behavior.

Alexandra Vázquez is an Assistant Professor of Social Psychology at Universidad Nacional de Educación a Distancia (Spain) and a research fellow of ARTIS. She is interested in the psychosocial factors underlying intergroup conflicts (e.g. identity fusion and sacred values) and in the processes that can lead to social change.

Ángel Gómez is an Associate Professor of Social Psychology, and the director of the Research group “*Social psychology of inter and intragroup relations: Strategies for improvement*” at UNED. His main interest is to understand the nature of human conflicts and its resolution. Since 2014 he is a member of ARTIS Research.

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