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Less Human Than Human: Threat, Language, and Relative Dehumanization

Shane P. Singh[1] and Jaroslav Tir[2]

[1]School of Public & International Affairs, University of Georgia, Athens, GA, USA and [2]Department of Political Science, University of Colorado Boulder, Boulder, CO, USA
Corresponding author: Shane P. Singh; Email: singh@uga.edu

Abstract
A government's decision to communicate in a native tongue rather than a commonly used and understood but non-native language can prompt perception through an ethnically-tinted lens. While native-language communication is commonplace and typically benign, we argue that conveying a threat posed by an out-group in a native tongue can trigger dehumanizing attitudes. We conducted a pre-registered survey experiment focusing on attitudes toward Muslim and Chinese people in India to test our expectations. In our two-stage design, we randomly assigned respondents to a survey language (Hindi or English) and, after that, to threat-provoking or control conditions. While Muslims and China are associated with recent violence against India, the government has routinely portrayed only the former as threatening. Likely due to this divergence, Hindi language assignment alone triggers Muslim dehumanization. Indians' more innocuous views of Chinese are responsive to exogenously-induced threat, particularly when conveyed in Hindi.

Keywords: dehumanization; threat; language; survey design; India

Among negative views that ethnic groups may hold about one another, particularly troubling is relative dehumanization: ethnic 'others' are considered less human than coethnics. Dehumanization is often used to explain how seemingly ordinary individuals become willing not only to fight but also to commit horrific crimes, including ethnic cleansing and genocide, against ethnic others (Bandura, Underwood, and Fromson 1975; Blum et al. 2008; Chirot and McCauley 2006; Gordon 2017; Haslam 2019; Haslam and Loughnan 2014; Staub 1989; Staub 2000). In turn, researchers have long suspected that relative dehumanization stems from perceptions that ethnic others pose a violent threat to one's group (Bruneau and Kteily 2017; da Costa Silva et al. 2019; Horowitz 1985; Kteily et al. 2015; Maoz and McCauley 2008; Pavetich and Stathi 2021; Viki, Osgood, and Phillips 2013; Gordon and Arian 2001; Marcus et al. 1995). Yet, there is little prior evidence of a causal link between violent threats and dehumanization; and researchers have not heretofor considered that the language in which a threat is communicated may act as an important modifier.

We argue that relative dehumanization will most likely come about in response to a threat communicated to an intended audience in its native language, rather than in a commonly used and understood but non-native tongue.[1] Governments in multilingual countries have a

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[1]This is often referred to as a *lingua franca* (see, for example, Albaugh 2014; Liu 2015). We favour 'a commonly used and understood but non-native language' to emphasize the non-nativity of the mutually comprehended tongue in our theory. For instance, although it is a native language in India, Hindi could be considered a *lingua franca*, given that it is often used to facilitate communication among people who speak a regional language as their mother tongue.

choice of which language to use when communicating to their constituents. We theorize that such choices are consequential. Because language is a key marker of ethnic identity (Anderson 1983; Gellner 1983), communicating in a native tongue heightens awareness of identity and primes people to think about sociopolitical issues in ethnic terms (Lee and Pérez 2014; Luna, Ringberg, and Peracchio 2008; Marquardt 2022; Pérez and Tavits 2019; Zavala-Rojas 2018).

A government's choice to communicate in a native language, rather than a commonly used and understood non-native tongue, puts the intended audience on notice that the message is explicitly meant for them to the exclusion of ethnic others. While the attendant lens of ethnic considerations can be benign, it becomes consequential when a communicated message involves a violent threat posed by another group. Such messaging can exacerbate us-versus-them perceptions and lead to extreme negative attitudes such as dehumanization. And given this kind of messaging, mere subsequent mentions of an ostensibly threatening group in a native tongue can prime ethnic considerations and trigger dehumanizing attitudes. Alternatively, mention of the same group in an understood but non-native tongue should not activate the ethnically-tinted lens and will not have the same effects. We test these expectations in stages. First, by randomly varying the language of communication, we seek to activate the lens of ethnic considerations. This is meant to trigger dehumanizing attitudes related to potential prior threat messaging by the government (the test of Hypothesis 1). We then induce exogenous changes in the sense of threat via randomized treatments, all the while contrasting the effects of native versus non-native language communication, and subsequently evaluate the impact on dehumanization (the tests of Hypotheses 2 and 3).

Our tests were conducted in India, where a native (Hindi) and a non-native (English) language are understood and used by a sizeable portion of the population. Via a pre-registered, survey-based experiment, we focused on respondents' views toward Muslims and Chinese. In recent years, both Islamic terrorists and the Chinese military have presented threats to India's security. However, the Indian government has routinely portrayed the Muslim minority as perilous while exercising reticence concerning the threat posed by China. Given these dynamics and utilizing English as a benchmark non-native language often used in government communications and widely spoken in India, the Indian setting allows us to tease out the consequences of native-language threat messaging on the dehumanization of members of an ostensibly threatening group.

In our study, bilingual respondents are randomly assigned to take a survey in Hindi or English. They are then asked about their perceptions of the humanness of Muslim or Chinese people and the group to which they belong. This allows us to test our expectation that communication about an ostensibly threatening ethnic group in respondents' native language triggers dehumanizing attitudes related to prior government messaging. Second, respondents are assigned to a control condition or to one of two treatment vignettes that convey information about violent events that recently took place: a terrorist attack by an Islamic group or Chinese military aggression.

Our findings partially conform to our pre-registered hypotheses. Regarding the language assignment at the start of the survey, as expected, Hindi alone prompts relative dehumanization of Muslims. Dehumanization of the Chinese is, however, insensitive to survey language assignment. We suspect this pattern manifests itself because the Indian government has portrayed Muslims, typically in Hindi, as threatening, while remaining comparatively silent about the threat from China.

Turning to the vignette-based treatment results, as expected, we find that China-related threat induces relative dehumanization of Chinese people. Further, and again as expected, threat conveyed in Hindi, rather than English, does the most to prompt dehumanizing attitudes toward Chinese. Conversely, the Islamic terror attack treatment does not have a detectable effect on attitudes toward Muslims. We suspect this is because the Indian government's 'Muslim menace' rhetoric has reached saturation, making respondents insensitive to additional communicated threats. Pre-existing attitudes toward the Chinese are, in contrast, more benign and thus more

easily manipulated by treatment referencing threats from China. Secondary analyses provide support for this explanation.

Our findings have notable implications for political communication. Compared to communication in a commonly used and understood non-native tongue, a native language environment exacerbates the effect of threat on dehumanization of a rival ethnicity. This suggests that unscrupulous leaders in multilingual countries with identity-based cleavages and a widely-understood non-native language (aside from India, for example, Guyana, Kazakhstan, Kenya, Nigeria, Pakistan, the Philippines, South Africa, Sri Lanka, and Suriname) can select the language of communication to incite xenophobic attitudes. At the same time, a more peaceable leader might communicate in a non-native language to help promote interethnic harmony. It is not lost on us that India's first prime minister, Jawaharlal Nehru, chose English as the language in which to deliver his landmark speech celebrating his country's newfound freedom, which took place against a backdrop of deadly interethnic strife.

Our findings also point to potential methodological and inferential pitfalls when studying the consequences of threat for attitudes toward ethnic others. Experimental analyses conducted in widely understood non-native languages, perhaps to manage costs or increase convenience, may lead to Type II errors. Researchers may erroneously underestimate the strength of a relationship or conclude outright that a violent threat is unrelated to people's attitudes toward rival groups. This may help explain why findings regarding threat and outgroup hostility are often weaker and less robust than expected (see the meta-analysis of Godefroidt 2023). In the concluding section, we expand on these practical challenges and consider the broader implications of our substantive findings.

Background and Theory

Ethnic cleansing and genocide are among the most horrific acts that members of one ethnic group can commit against another people. This brings into question how seemingly ordinary people can become willing to participate in and even spearhead such actions. A broadly accepted explanation is that perpetrators see the ethnic others they intend to target as less human than members of their group (Bandura, Underwood, and Fromson 1975; Blum et al. 2008; Chirot and McCauley 2006; Gordon 2017; Haslam 2019; Haslam and Loughnan 2014; Staub 1989; Staub 2000). This then leads to the question of what prompts such relative dehumanization. A common explanation is that members of the perpetrator group believe that ethnic others pose a violent threat (Bruneau and Kteily 2017; da Costa Silva et al. 2019; Horowitz 1985; Kteily et al. 2015; Maoz and McCauley 2008; Pavetich and Stathi 2021; Viki, Osgood, and Phillips 2013; see also Gordon and Arian 2001; Marcus et al. 1995).

While this explanation is longstanding, researchers have only recently started to seriously consider the etiology of the relationship between violent threat and dehumanization. We are aware of only one attempt. Using a snowball survey experiment, among their other findings, da Costa Silva et al. (2019) show that threat from an Islamic terror attack increases dehumanization of Muslim immigrants in Spain. Our experimental design helps address the need for more causally identified work in this area.[2]

We also seek to refine the logic by which threats prompt relative dehumanization. An ethnic group is commonly surrounded by not one but multiple groups of ethnic others. And given that groups often compete with each other over land, power, and resources (Cederman, Gleditsch, and Buhaug 2013; Cederman, Weidmann, and Gleditsch 2011; Horowitz 1985), there is potential for multiple ethnic groups to be seen as threatening. Yet, the ire underlying ethnic cleansing and genocidal campaigns is typically focused on a single group.

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[2]Kteily et al. (2015) show that the dehumanization of Arabs was higher just after the Boston Marathon bombing than in the months before. Assuming the attack exogenously induced threat, this evidence could be interpreted as quasi-experimental.

We argue that government activity is key to this selection process. Governments want to maintain and enhance their power. Stoking fears of another group's malicious intentions is a common strategy for realizing these goals (Bowen 1996; DeVotta 2005; Gagnon 1994; Glaser 1958; Hintjens 1999; Lake and Rothchild 1996; Snyder and Ballentine 1996). Yet, not every group of ethnic others makes an equally suitable target in this respect. Some groups are more capable of defending themselves than others. Insofar as power maintenance is concerned, when it comes to government-initiated violence, targeting a weaker and relatively defenceless group is more politically expedient and less risky (Tir and Jasinski 2008).

The strategy of Serbian leader Slobodan Milošević in the mid-1980s provides an instructive example. Milošević initially gained notoriety by singling out Kosovar Albanians as a threat. At the time, Kosovar miners were involved in large-scale strikes demanding improved working conditions, wages, and local control. Milošević claimed that the strikers sought to create a Greater Albania by subjugating Serbs and Serbia. The focus on the essentially powerless Kosovars appeared tactical. More powerful groups (for example, the Austrians, Bulgarians, Germans, and Hungarians) had sought to take territory claimed by Serbs. And they did so in the nineteenth and twentieth centuries, while the Battle of Kosovo, frequently referenced by Milošević, in which the Serbs lost their independence to the Ottomans (of whom the Kosovar Albanians are considered partial descendants), took place centuries earlier, in 1389.[3]

Particularly important in this portrayal of a select ethnic group as a threat is, we argue, the choice of language. This is seldom recognized because it is natural to assume that governmental communication would occur in the intended audience's native language; the government wants to ensure its message is understood. Such an assumption, however, risks obscuring the fact that language is much more than just a tool for communication. It has long been recognized as one of the most important markers of ethnic identity (Anderson 1983; Gellner 1983). Communication in a native language has ramifications beyond mere comprehension. When a government chooses a native language over a non-native tongue (for example, by switching from an official, commonly used, and understood language to a particular 'ethnic' language), this sends a signal to the recipients that the message is meant specifically for their group – to the exclusion of ethnic others.[4] This cues the audience's sense of identity and, in so doing, prompts perception through a lens of ethnic considerations. Indeed, work by Lee and Pérez (2014), Luna, Ringberg, and Peracchio (2008), Marquardt (2022), Pérez and Tavits (2019), and Zavala-Rojas (2018) suggests that native-language communication, as opposed to messaging in an understood non-native language, heightens awareness of interethnic issues. Recent work by Zárate, Quezada-Llanes, and Armenta (forthcoming) shows that Spanish-language communication can increase a speechmaker's political appeal among Hispanics in the United States, many of whom speak Spanish as their mother tongue. Consistent with our argument, this suggests that native-language communication is a potential tool for leaders seeking to increase their political support.

While native language communication is commonplace and usually benign, it can underscore ethnolinguistic cleavages (Kulyk 2011) and thus demarcate fault lines between ethnic groups (Bormann, Cederman, and Vogt 2017; Liu and Ricks 2022). This then creates opportunities for maleficent choices. We argue that governments in multilingual countries can strategically privilege certain native languages over other linguistic options present in their countries to create societal divisions and garner support among coethnics (see Gagnon 1994).[5,6] A particularly

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[3]See, for example, Lupu and Peisakhin (2017) on how memories of past political violence are particularly long-lasting.

[4]Kumove (2020) further shows that native language communication associates with cross-country trust, perhaps implying a solidification of in-group bonds and a weakening of interethnic ones.

[5]In other instances, governments can privilege one language over another to impose uniformity on diverse populations, such as with the Soviet Russification strategy (May 2011; Safran 1992; Safran and Liu 2012).

[6]Though not a focus of our paper, the same logic could be applied to leaders of ethnic minority groups seeking to elevate their status, acting as so-called 'ethnic entrepreneurs' (Bowen 1996; Gagnon 1994).

effective strategy for sowing interethnic discord would be, we argue, the coupling of native language use with a message portraying a specific group of ethnic others as posing a violent threat.[7]

Threat can provoke politically and socially intolerant attitudes (Gibler, Hutchison, and Miller 2012; Hutchison and Gibler 2007; Tir and Singh 2015). We maintain that such reactions are exacerbated when a message about ethnic others posing a violent threat is delivered in the audience's native language. Again, the choice to do so activates a lens of ethnic considerations, powerfully connecting the threat with the audience's sense of identity. This not only heightens us-versus-them perceptions but also, we argue, increases the potential that the putative threat will generate extreme negative attitudes about ethnic others, namely dehumanization.

Theorizing how dehumanizing attitudes arise via strategic government messaging about language choice broadly informs extant research on interethnic conflict. A particularly popular argument focuses on group-based grievances. Given the prominence of linguistically-based ethnic identity, issues of language policy and related restrictions, along with other bases of discrimination, such as economic resources allocation or power-sharing, have long been identified as particularly inflammatory (Cederman, Gleditsch, and Buhaug 2013; Cederman, Weidmann, and Gleditsch 2011; Horowitz 1985; Mac Giolla Chríost 2003). Meanwhile, other scholars have focused on the opportunity to rebel; the argument is that ethnolinguistic conflicts are driven by greed rather than to redress grievances (Collier and Hoeffler 2004).

In part critiquing these well-known streams of research, authors such as Sambanis and Shayo (2013) question why highly salient ethnic cleavages (and resultant violence) emerge in some countries but not in others when both sets of countries 'look fairly similar in terms of resources, geography, and patterns of social fragmentation' (p. 309). Our work speaks directly to such debates by moving away from static cross-sectional comparisons and toward a consideration of government strategy, all the while recognizing the importance of language in fomenting interethnic conflicts (see also Bowen 1996; Gagnon 1994; Safran and Liu 2012). Highly salient cleavages (as reflected by the relative dehumanization of ethnic outgroups) emerge as a result of a conscious choice by the government to communicate in the audience's native tongue, as opposed to an understood non-native language, that the ethnic others pose a violent threat. Such choices were made, for instance, in the former Yugoslavia, a relatively harmonious multiethnic country that plunged into a brutal set of wars in the 1990s.

Returning to the Serb-Kosovar example, Milošević made an arguably conscious and strategic language choice. When communicating about the ostensible Kosovar threat, he departed from the then-common official practice of Yugoslav leaders using a communist government-promoted blend of Serbian and Croatian languages (called Serbo-Croatian in English), written in Latin script. Milošević leaned much more heavily on the Serbian language proper, and Cyrillic script signs became common at his rallies (Greenberg 2004). Per our theory, this strategy was more efficacious than if Milošević had communicated using standard Yugoslav-era linguistic practices. Analogous choices are available to, for example, South Asian and African leaders who, depending on their political goals, may choose to communicate in a language with deep ethnic ties versus an 'international' language understood by their populations (typically English or French, depending on their colonial history). If the message concerns an interethnic threat, the language choice will, we argue, be particularly consequential.

The above logic leads us to expect that asking individuals about ethnic others in their native language would trigger dehumanizing attitudes if they have been exposed to messages concerning a violent threat from that group toward their own. Other things being equal, asking individuals about their views toward ethnic others in an understood but non-native language would fail to

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[7]Investigating whether specific linguistic features, such as grammatical gender or tense structure, impact the power of government messaging is beyond the scope of our project. Per Pepinsky (2022), we make no assertions about such features having explanatory power.

cue the attendant ethnic lens. Dehumanizing attitudes would thus be unlikely to result. In hypothesis[8] form:

Hypothesis 1: Communication in a native rather than a non-native language causes people to view members of groups other than their own as less human.

The next pair of hypotheses are meant to evaluate whether threat alone can cause dehumanization, as the literature on the attitudinal impacts of threat would suggest, and whether threat's impact on dehumanization is, as we argue, exacerbated by native language communication.

Hypothesis 2: Violent threat causes people to view members of groups other than their own as less human.

Hypothesis 3: Violent threat causes people to view members of groups other than their own as less human, especially if the threat is communicated in a native rather than a non-native language.

Research Design and Data

We conducted a pre-registered survey-based experiment in India,[9] a particularly appropriate setting to test our hypotheses. India is a multilingual country where a native (Hindi) and a non-native (English) language are understood and used by a sizeable portion of the population. Furthermore, we can ask sensitive survey questions in India without government censorship or respondents fearing official retribution. While other countries may meet these criteria, few have experienced recent threatening events tied to separate groups. This feature couples with variance in the extent to which the Indian government has chosen to focus on or ignore threats from particular groups. We can leverage this selective information dissemination process to probe the effects of the strategic communications portion of our theory, whereby governments purposefully elevate or downplay threats from different ethnicities.

Our survey focuses on two groups of ethnic others and threat-generating violent attacks recently associated with each. The first is India's Muslim minority, consisting of around 200 million people – about 15 per cent of the country's population. Islamic terror groups have staged numerous attacks in India in recent decades. In our survey, we leverage a 2019 attack in Pulwama in the north of the country.

In the following year, India experienced military aggression by China, resulting in about the same number of Indian casualties. This attack, also a part of our experimental design, stems from India's longstanding and intense rivalry with China dating back to the 1962 Sino-Indian War. As such, Chinese constitute the second group of ethnic others on which we focus. Importantly, India's leadership commonly highlights threats from the Muslim minority, which has accelerated under the government of Prime Minister Narendra Modi and his Bharatiya Janata ('Indian People's') Party, which has been in power since 2014. In contrast, the Modi government has not routinely framed the Chinese as a violent threat, especially in comparison to its rhetoric concerning Muslims.

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[8]The pre-registered hypotheses mention 'official' languages because we test our theory in India, where Hindi has constitutional status. We exclude this word here, given that our theory applies regardless of whether a language has official status.

[9]The design is pre-registered at the Center for Open Science at https://osf.io/t2z5c. The pre-registration is reproduced in Section 7 of the Supplementary Material. The University of Georgia Institutional Review Board approved this study in Project #00000815, Version #00001278. Our research adheres to APSA's Principles and Guidance for Human Subjects Research. We made our best efforts to respect our participants' autonomy and protect their well-being. We have also carefully reflected on the ethics of our research beyond the review we outsourced to the Institutional Review Board. We received informed consent from our participants, who were informed that they were participating in a research study.

Turning to the language component of our research design, the Indian constitution identifies Hindi (spoken by about 60 per cent of the population) as the country's official language. Due to the multitude of other native languages in the country and the legacies of the British Raj, communication by the government and media is often in English. The Official Languages Act of 1963 recognizes English and Hindi as the only two languages in which the national government may conduct official business. Two of India's top three most widely-circulated newspapers are in Hindi; the other is in English. The three most commonly visited news websites in India are English-language.[10] The Modi government, for its part, has been a strong advocate of the Hindi language. Modi speaks fluent English (in addition to his mother tongue of Gujarati), but he has relied more heavily on Hindi in his speeches than previous prime ministers. Given the prevalence of English and Hindi in India, we select these as our choice of native and non-native but understood tongues, respectively.

To recruit participants, we hired Dynata, an international market research firm. Dynata maintains a fair-value exchange in India by compensating respondents with rewards points, online marketplace goods, or sweepstakes entries.[11] Toward the beginning of the survey, we presented participants with an instructional manipulation check, and Dynata prevented those who failed this item from continuing in the study. (See Section 6 of the Supplementary Material for wording.)

Per our instructions, Dynata restricted its invitations to an English-speaking participant pool living in Indian states or territories with Hindi as the predominant language.[12] Per the most recent (2011) census, 87 per cent of people in these states and territories speak Hindi as a native language, while another nine per cent speak it non-natively. Potential participants were informed they must be fully fluent in English and Hindi.

Given the dual explanatory components of our theory – threat and the language in which it is conveyed – our experiment has two stages. In the initial stage, respondents were randomly assigned to either an English- or Hindi-language setting, meaning that everything they viewed was in one of the two languages for the survey duration. We used the Devanagari script in the Hindi setting rather than an English transliteration because script is an important feature of any language – particularly Hindi (King 2001). This enhances mundane realism, as typical Hindi-language communications in India are presented in Devanagari. The randomization of language is an essential feature of our design, as a bilingual or multilingual person's preferred operating language may correlate with factors related to their propensity to dehumanize or their susceptibility to threat.

In the second stage, which was presented after several pre-treatment items, participants were randomly assigned to a condition in which they were asked to read a news vignette about the Pulwama terror attack, about the recent militarized threat toward India from China, or an innocuous control condition about ship recycling. Each condition had an accompanying photo. Table 6 of the Supplementary Material provides the survey questions and vignettes. There are a total of 1,614 respondents in our sample.[13]

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[10]One of the three provides an option to toggle between English and Hindi.

[11]For information about Dynata's rewards program in India see https://www.e-rewards.in/rewards and https://www.e-rewards.in/terms.

[12]These are Bihar, Chhattisgarh, Haryana, Himachal Pradesh, Jharkhand, Madhya Pradesh, Rajasthan, Uttar Pradesh, Uttarakhand, the Union Territory of Chandigarh, and the National Capital Territory of Delhi.

[13]The breakdown per experimental group is Pulwama Condition, English (275); Pulwama Condition, Hindi (265); China Condition, English (268); China Condition, Hindi (264); Shipping Condition, English (273); Shipping Condition, Hindi (269). As discussed in the pre-registration, the sample size was driven by a power analysis. Assuming smallish effect sizes (Cohen's $d = 0.25$), about 200 observations per group are needed to detect an effect at the 10 per cent significance level with a power level of 80 per cent. Budget limitations precluded us from purchasing a sample large enough to detect effects at the 5 or 1 per cent significance levels.

To measure our outcome concept, relative dehumanization, we use a frequently-employed visual task developed by Kteily et al. (2015) to capture what they call 'blatant dehumanization'.[14] The task references the popular 'Ascent of Man' diagram and unambiguously asks respondents to repudiate or affirm the humanity of one or more groups of people. Kteily et al. thoroughly investigate the properties of their measure, finding it reliable and to have robust predictive and convergent validity (see also Kteily and Bruneau 2017). Further, the measure is not a mere proxy for negative affect. Indeed, as Kteily et al. (p. 923) explain, it predicts a unique variance in behavioural and attitudinal aversion toward dehumanized groups, even after controlling for outgroup negativity.

An example of the task we provided to respondents is shown in Fig. 1. They were asked to assign humanness ratings twice, before and after assignment to the threat-priming or control vignettes. Figure 2 illustrates the distributions of humanness ratings in our sample, as measured before assignment to the vignette conditions.

Per our pre-registration and the fact that the Pulwama terror vignette relates to Hindu-Muslim conflict, we restrict the respondent sample to Hindus when considering (relative) Muslim dehumanization. Our second source of threat stems from a conflict between India and China. To capture the relevant identities in the models that consider (relative) Chinese dehumanization, we include all Indian respondents.[15] Using a Hindu-only sample in the Chinese (relative) dehumanization models yields substantively congruent conclusions, as discussed below.

Results

We estimate models with and without a slate of sociodemographic covariates,[16] and our discussion of the results refers to the covariate-adjusted models. We model both absolute and relative dehumanization, with relative dehumanization calculated as the score given to a target group subtracted from that given to one's own.

Our first hypothesis concerns the link between communication in a native versus non-native language and relative dehumanization. To test this, we regress the dehumanization variables on a binary variable capturing one's assignment to either the English or Hindi survey condition. We used the humanness ratings gathered before respondents were assigned to the threat cueing or control vignettes for these tests.

Figure 3 shows the results from models of relative dehumanization of Muslims. In line with Hypothesis 1, people in the Hindi-language condition, compared to those in the English-language condition, view Muslims as less human than Hindus. The dehumanization of Muslims relative to Hindus is over nine points greater among those assigned to the Hindi condition. However, counter to Hypothesis 1, Fig. 4 shows that the dehumanization of Chinese people is unaffected by the language of communication.

Per our logic, the Hindi survey (as opposed to the English survey) activated a lens of ethnic considerations among respondents. Outgroup evaluations through this lens triggered the relative dehumanization of Muslims – but not of Chinese. The divergent patterns across the two groups, we believe, reflect the Indian government's frequent conveyance of threats from Muslims versus its comparatively muted assertion of threats from the Chinese. That is, native language assignment triggers dehumanizing attitudes toward a group portrayed as threatening. English language assignment did not have this power.

[14]We use the phrase 'relative dehumanization' to emphasize that we are primarily interested in the dehumanization of an outgroup relative to an ingroup. This aligns with the comparative measurement instruments used in other dehumanization indices. For example, 'infrahumanization' occurs when people attribute human emotions more strongly to an ingroup than an outgroup (Leyens et al. 2000). Kteily et al. (2015, 906, n 6) are indifferent as to whether blatant dehumanization needs to be measured in absolute or relative terms and focus on the latter.

[15]There is no evidence that Muslims somehow feel 'less Indian' than Hindus. Mean responses to a pre-treatment nationalism question that asks about the importance of being Indian do not significantly differ across Hindus and Muslims (two-sided p = 0.765).

[16]These are gender, age, income, and education. See Section 6 of the Supplementary Material for information on coding.
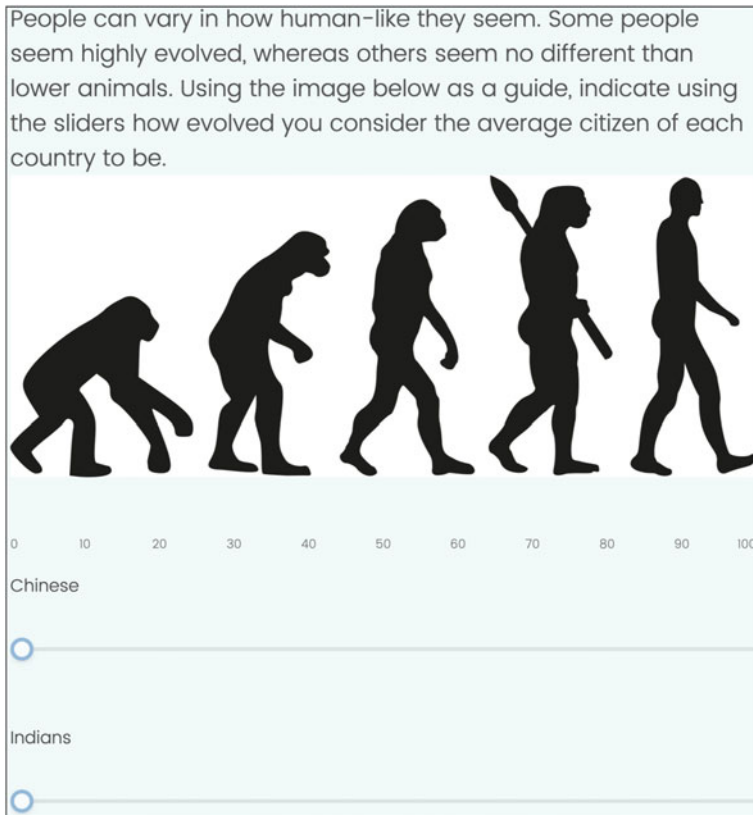
Figure 1. Example of a humanness rating task presented to respondents.
Note: The order in which groups were presented was randomized by respondent. A subsequent question asked respondents to rate Hindu and Muslim humanness. Depending on the survey language to which a respondent was randomly assigned, the accompanying text appeared in either English or Hindi.
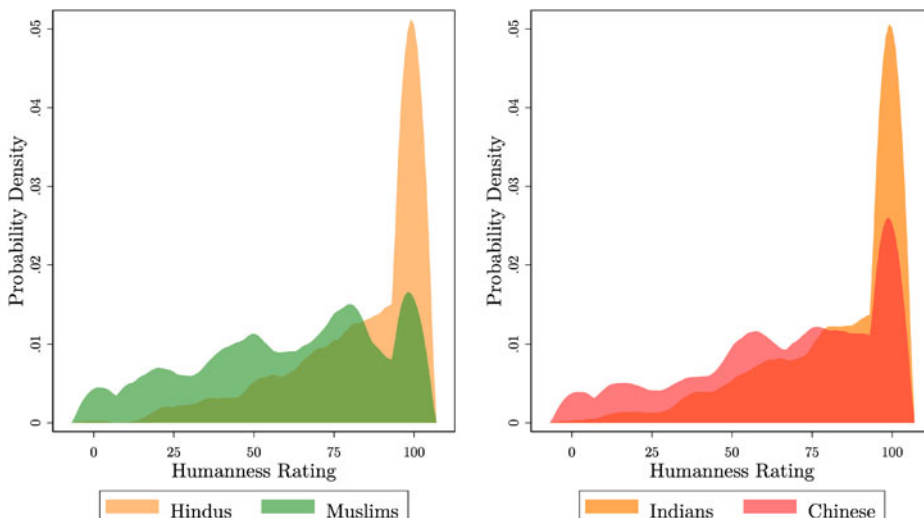

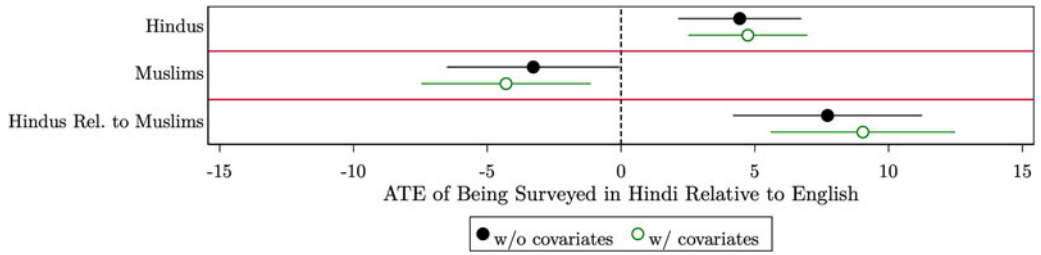**Figure 2.** Distributions of humanness ratings.

Figure 3. Estimated effects of language on Muslim dehumanization.
Note: Point estimates represent the average treatment effect of being assigned to the Hindi language condition relative to assignment to the English condition. The covariate-adjusted models control for a binary female/male gender variable, age in years, income on a 13-point ordinal scale, and education on a 9-point ordinal scale. Horizontal lines indicate 90 per cent confidence intervals. The number of observations in the underlying models is 879. Numerical results are shown in Table SM1 in the Supplementary Material. Data are from an original survey experiment conducted in India.
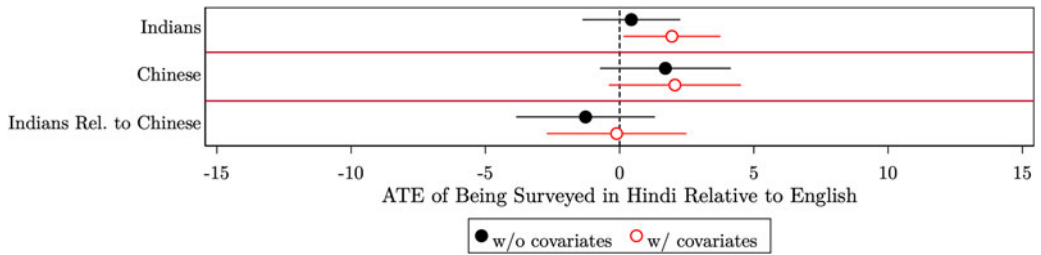

Figure 4. Estimated effects of language on Chinese dehumanization.
Note: Point estimates represent the average treatment effect of being assigned to the Hindi language condition relative to assignment to the English condition. The covariate-adjusted models control for a binary female/male gender variable, age in years, income on a 13-point ordinal scale, and education on a 9-point ordinal scale. Horizontal lines indicate 90 per cent confidence intervals. The number of observations in the underlying models is 1,569. Numerical results are shown in Table SM2 in the Supplementary Material. Data are from an original survey experiment conducted in India.

Turning to the second stage of our experiment, as discussed, we primed violent threats with two separate vignette conditions. One informed respondents about a terror attack in Pulwama, India, perpetrated by an Islamic terror group and the other references an incident of Chinese military aggression. A control condition meant to exclude perilous information discussed ship recycling.

We included a subjective manipulation check (SMC) in our survey to examine whether the independent variable (threat, in this case) was successfully manipulated (Kane and Barabas 2019). In the post-vignette portion of the survey, we asked about 'the biggest problem facing India', with 'terrorism' and 'military threat from China' as possibilities from seven response options. Figure 5 displays the intention to treat (ITT) effects of the vignettes on responses to the SMC question. The ITTs are calculated by regressing binary 'most important problem' variables on treatment assignment. As shown in the figure, both treatments significantly increased respondents' perceptions of threat from the source the vignettes intended to prime. Further, the effects are not significantly different from one another (two-sided p = 0.391). This suggests that the respondents' threat perceptions are not shaped by the source of the threat identified in the vignettes but by the fact of the attack itself.

Hypothesis 2 puts forth that violent threat causes relative dehumanization. To test this, we model the dehumanization variables as a function of the treatment condition to which a respondent was assigned. Consistent with the pre-registration, we estimate ITT and complier average causal effects (CACEs). To estimate the CACEs, we leverage information from a treatment-relevant
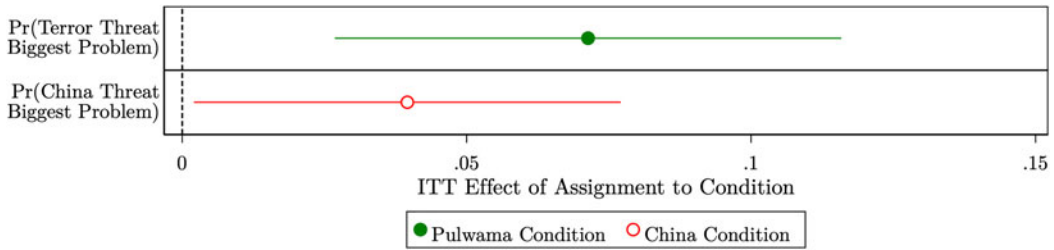
Figure 5. Estimated effects of vignette assignment on perceptions of threat.
Note: Point estimates represent intention to treat (ITT) effects relative to the control condition. Horizontal lines indicate 90 per cent confidence intervals. The number of observations in the underlying models is 1,038 (Pulwama) and 1,033 (China). Numerical results are shown in Table SM3 in the Supplementary Material. Data are from an original survey experiment conducted in India.
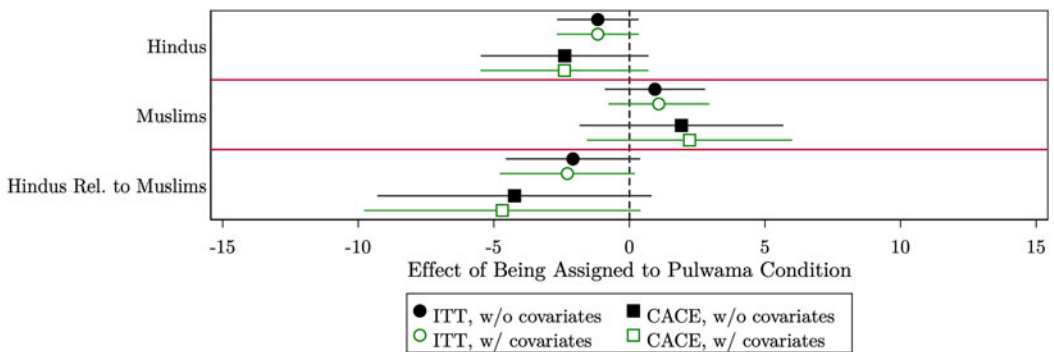

Figure 6. Estimated effects of threat on Muslim dehumanization.
Note: Point estimates represent either intention to treat (ITT) effects or complier average causal effects (CACEs) relative to the control condition. All estimates adjust for the pre-treatment level of the dependent variable. The covariate-adjusted models control for a binary female/male gender variable, age in years, income on a 13-point ordinal scale, and education on a 9-point ordinal scale. Horizontal lines indicate 90 per cent confidence intervals. The number of observations in the underlying models is 566. Numerical results are shown in Tables SM4 and SM5 in the Supplementary Material. Data are from an original survey experiment conducted in India.

factual manipulation check (FMC-TR) (Kane and Barabas 2019) that we included at the end of our survey. This inquired, 'What was discussed in the news story we asked you to read?' The six response options included 'a terror attack' and 'threat from China'. We estimate the CACEs with two-stage least squares regressions of the dehumanization variables on passage of the FMC-TR, using randomization into the China or Pulwama treatment groups as an instrument for FMC-TR passage (Imbens and Angrist 1994). In doing so, we assume one-sided non-compliance: those in the threat-priming treatment groups who passed the FMC-TR received the treatment, while those who failed did not (Gerber and Green 2012). To improve precision, and consistent with the pre-registration, we adjust for the pre-treatment level of the dependent variable.

The effects of assignment to the condition describing the terror attack in Pulwama, shown in Fig. 6, provide no evidence for Hypothesis 2: relative dehumanization of Muslims is not affected by treatment.[17] Conversely, the results shown in Fig. 7 support Hypothesis 2: relative dehumanization of Chinese people among those assigned to the China condition is about 2.3 units higher

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[17]Though effects are statistically insignificant, relative Muslim dehumanization appears to be lower for those in the treatment group than the control condition. While we can only speculate about why this might be, the repeated portrayal of Muslims as threatening may have created a saturation point. Our attempt to further treat respondents with a similar message may be ineffective. This finding could be an artefact of noise, whereby we landed on a negative estimate of an effect that is not truly different from zero.

than those in the control group. For those in the China condition who were effectively manipulated by treatment, relative dehumanization of Chinese people is about 5.75 units greater.

The contrasting patterns across the models of Muslim and Chinese dehumanization may arise because the Islamic threat rhetoric of the Modi government has primed robust anti-Muslim attitudes that are insensitive to further treatment referencing an Islamic threat. In contrast, pre-existing attitudes toward the Chinese are more benign and thus more easily altered by describing a threat from China. Evidence for these uneven baselines is evident in a comparison of the pre-treatment levels of relative dehumanization of Muslims and Chinese people (Fig. 2). Compared to the Hindu reference group, the perceived humanness of Muslims is, on average, 22.91 points lower. In comparison, the perceived humanness of the Chinese is just 15.79 points lower than that of Indians. These differences are statistically significant (two-sided p < 0.001).[18]

Hypothesis 3 anticipates that violent threat is especially likely to cause relative dehumanization when communicated in a native language. First, it is evident from Fig. 8 that, even when the vignette effects are broken out by the language of communication, there remains no evidence that the Islamic terror condition produces relative dehumanization of Muslims. Conversely, as shown in Fig. 9, and in line with our third hypothesis, the Chinese military threat condition's positive effect on relative dehumanization of Chinese is driven by those assigned to the Hindi-language condition. For those taking the survey in English, the effect of assignment to the China Condition on relative dehumanization is 1.53 (two-sided p = 0.378) overall and 4.41 (two-sided p = 0.303) for those who were effectively manipulated by the treatment. For those in the Hindi setting, the effect is 3.05 (two-sided p = 0.080) overall and 7.11 (two-sided p = 0.086) for those who were effectively manipulated. As anticipated by our theory, threat causes the dehumanization of Chinese more forcefully when it is communicated in a native tongue.

Robustness and Follow-Up Analyses

Per our pre-registration, because the relevant axis of conflict in the Sino-Indian border disputes vignette is between Chinese and Indians, our main analyses of (relative) Chinese dehumanization relied on all Indian respondents. For the sake of consistency with the analyses of (relative) Muslim dehumanization, Section 2 of the Supplementary Material shows the results of models of Chinese dehumanization with the sample restricted to Hindus. Substantive conclusions remained unaltered.

Turning to theoretical mechanisms, we argue that communicated threat generates us-versus-them perceptions and, thus, dehumanizing attitudes toward ethnic others. One could alternatively argue that threat prompts a more general heightened sense of nationalism, which could be responsible for dehumanizing attitudes. If this were the case, nationalism-inspired dehumanizing attitudes should be directed not only toward the threatening group but against many groups of ethnic others.

As shown in Section 3 of the Supplementary Material, we find no evidence of threat directly prompting nationalist feelings. Further, as shown in Section 4 of the Supplementary Material, the China threat manipulation does not cause (relative) dehumanization of Taiwanese, a group that largely shares its ethnicity with Chinese. Consistent with our theorizing, this indicates that threats prompt dehumanizing attitudes toward *specific* ethnic others – but do not generate a broader sense of nationalism through which resultant dehumanizing attitudes would be more generalized.

Finally, we examine how respondents are balanced across our treatment groups. Assignment to each group was random, meaning any imbalances across groups will, absent differential attrition, be reflected in p-values (Mutz and Pemantle 2015). However, we recognize the possibility of differential attrition introducing bias into our estimates. As discussed above, we limited our sample

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[18]Concerning baseline levels of absolute humanization, on average, the humanness of Muslims is 60.47, while the humanness of the Chinese is 66.47. The difference in these scores is again statistically significant (two-sided p < 0.001).
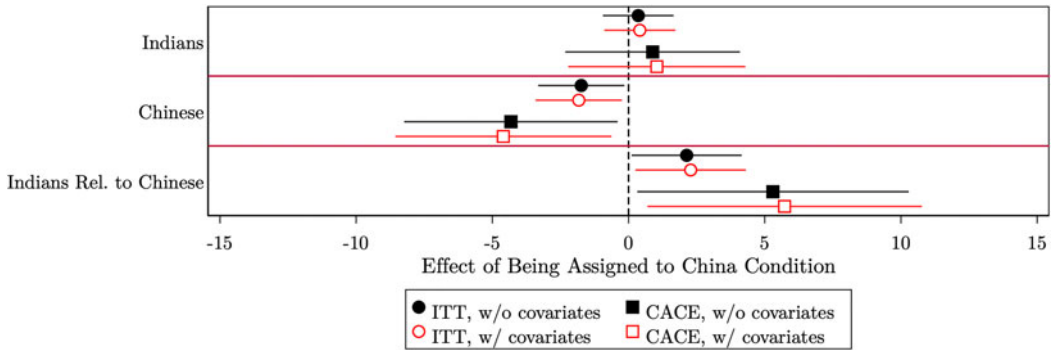
Figure 7. Estimated effects of threat on Chinese dehumanization.
Note: Point estimates represent either intention to treat (ITT) effects or complier average causal effects (CACEs) relative to the control condition. The pre-treatment level of the dependent variable adjusts all estimates. The covariate-adjusted models control for a binary female/male gender variable, age in years, income on a 13-point ordinal scale, and education on a 9-point ordinal scale. Horizontal lines indicate 90 per cent confidence intervals. The number of observations in the underlying models is 1,021. Numerical results are shown in Tables SM6 and SM7 in the Supplementary Material. Data are from an original survey experiment conducted in India.
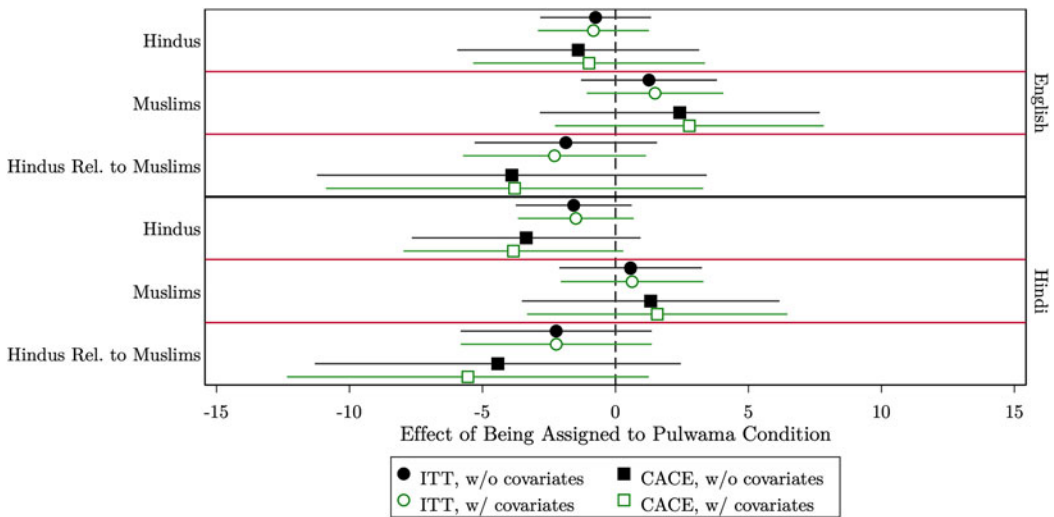

Figure 8. Estimated effects of threat on Muslim dehumanization by language.
Note: Point estimates represent either intention to treat (ITT) effects or complier average causal effects (CACEs) relative to the control condition. All estimates adjust for the pre-treatment level of the dependent variable. The covariate-adjusted models control for a binary female/male gender variable, age in years, income on a 13-point ordinal scale, and education on a 9-point ordinal scale. Horizontal lines indicate 90 per cent confidence intervals. The number of observations in the underlying models is 566. Numerical results are shown in Tables SM8 and SM9 in the Supplementary Material. Data are from an original survey experiment conducted in India.

to people fully conversant in English and Hindi. Certain respondents, even if fluent in both languages, may systematically prefer one over the other. Anticipating this, we pre-registered an intention to control for several observed covariates,[19] and our figures make it clear that results are insensitive to including controls. In any case, in Section 5 of the Supplementary Material, we show that imbalances across treatment conditions are minor.

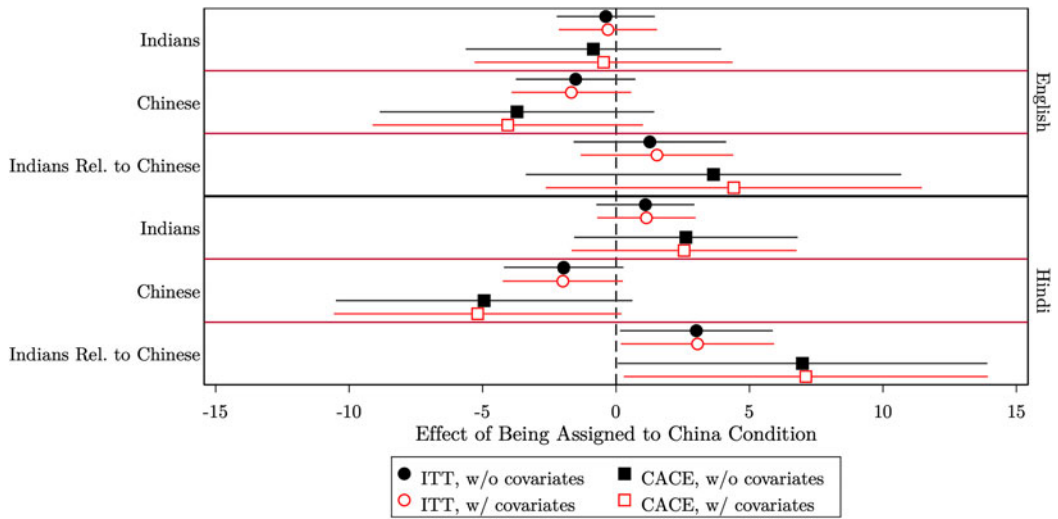[19]Another reason was to increase precision.

Figure 9. Estimated effects of threat on Chinese dehumanization by language.
Note: Point estimates represent either intention to treat (ITT) effects or complier average causal effects (CACEs) relative to the control condition. The pre-treatment level of the dependent variable adjusts all estimates. The covariate-adjusted models control for a binary female/male gender variable, age in years, income on a 13-point ordinal scale, and education on a 9-point ordinal scale. Horizontal lines indicate 90 per cent confidence intervals. The number of observations in the underlying models is 1,021. Numerical results are shown in Tables SM10 and SM11 in the Supplementary Material. Data are from an original survey experiment conducted in India.

Discussion and Conclusion

Leaders have choices about how to convey threats to the public. They can downplay or ignore a threat; report it in factual, innocuous terms; or hype it up. Leaders can also choose the tongue of communicationin bilingual or multilingual settings. Those leaders seeking to maximize public support, which can be attempted by rallying against a menace from ethnic 'others', can strategically articulate threats.

This paper considers a stark consequence of leaders' decisions to communicate threats in an audience's native, as opposed to a commonly used and understood but non-native tongue: interethnic dehumanization. We argue that a native language alone can activate a lens of ethnic considerations through which members of other ethnic groups are perceived. With an experimental design, we find novel evidence from India that a threat communicated in a native tongue can cause the dehumanization of a purportedly threatening ethnic group relative to the perceived humanness of coethnics. This relationship manifests when we, in the respondents' native language, inquire about the humanness of a group that the government previously portrayed as threatening. It is also triggered when we, in a native tongue, convey a sense of threat ostensibly posed by a group not already seen as a peril. However, these relationships do not manifest when communication is conducted in a commonly used and understood non-native language.

Our research implies that resolving political contentions and stopping violence alone would not necessarily lessen harmful attitudes that may provide a foundation for future interethnic conflict if native-language negative messaging about ethnic others were to continue. And because threat communicated in a native language triggers interethnic dehumanization, our work indicates that leaders in non-monoglot societies have a powerful phonetic tool that can be strategically wielded during (purportedly) perilous times. Evidence that leaders may use this tool comes from former Yugoslavia and India – see our above discussions of Slobodan Milošević and Narendra Modi – and likely other countries (Bormann, Cederman, and Vogt 2017; Safran and Liu 2012).

Unknowns about the breadth of our findings remain. Future research should determine which attitudes beyond dehumanization may be sensitive to communicated threats and whether threats

from scenarios outside of interethnic conflicts can also stoke pernicious attitudes. Subsequent work may also seek to confirm that our findings hold outside of India and in native and non-native languages beyond Hindi and English.

Our findings bring up methodological questions and implications. First, one might question whether our sample of (at least) bilingual people implies that our findings do not apply broadly. First, we note that monoglots are a minority in the world (Gal 2006; Marian and Shook 2012), and there are many countries where monolingualism is a rarity. Second, there is little reason to suspect that the psychological processes connecting threats to attitudes are unique to bilingual or multilingual people. Polyglots arguably have more cross-cultural awareness than monolinguals and are less likely to develop negative attitudes about ethnic others (Hu and Liu 2020). Our reliance on non-monolingual respondents may thus have presented a sample of 'least likely cases', making it harder to find effects and increasing our confidence that the findings of this project should generalize to other settings.

Our findings also highlight the importance of contextual awareness for quantitative, experimental researchers. International survey research firms, online platforms, and artificial intelligence-powered translation services have made it possible to conduct experiments from afar and in countries where researchers may have little familiarity. Nevertheless, adequately comparing differences in variables or treatment effects requires that researchers have a deep understanding of their setting. Consider our case of interethnic tensions. These are commonly rife with negative and persistent messaging about ethnic others. Such narratives can ingrain in people latent beliefs that alter the potency of experimental treatments and lead unaware researchers toward dubious, likely falsely, negative inferences.

Lastly, our findings suggest that asking about group-related attitudes in a non-native language, sometimes done for convenience or cost reasons, may make it harder to assess the foundations of sensitive attitudes. We argue that researchers should go beyond merely translating their surveys into a native language. A more informative solution is to conduct the survey in multiple tongues and investigate any differences in response patterns or treatment effects.

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