Hated but still human: Metadehumanization leads to greater hostility than metaprejudice

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Abstract

Metadehumanization, the perception that members of an outgroup dehumanize your group, has been found to exacerbate intergroup conflict by inspiring reciprocal dehumanization of the offending outgroup. Moreover, metadehumanization is distinct from metaprejudice (i.e., the perception that an outgroup hates your group). Given the mutual animosity reported in public opinion polls toward the other side, we believed US–Russia relations would be a worthwhile context in which to extend this model. Therefore, we measured Americans' levels of metadehumanization and metaprejudice of Russians to determine the association between these perceptions and their hostility toward Russians (Study 1). In this novel intergroup conflict, metadehumanization remained a consequential predictor of outgroup hostility over and above metaprejudice, suggesting that it can exacerbate a broader range of intergroup conflicts than those heretofore examined. Given these findings, we then sought to experimentally differentiate between metadehumanization and metaprejudice. In Study 2, we manipulated both metadehumanization and metaprejudice to (a) determine whether one or both cause greater outgroup hostility and (b) elucidate the underlying mechanisms by which they may produce this effect. Whereas metadehumanization produced greater hostility, metaprejudice did not. Moreover, although both metaperceptions inspired greater prejudice, only metadehumanization led to greater dehumanization. We conclude that metadehumanization may be a particularly potent fomenter of hostility because it inspires reciprocal dehumanization over and above more general negative bias.

Auschwitz begins whenever someone
looks at a slaughterhouse and thinks:
they're only animals.

(Adorno, 1995, as cited in Costello &
Hodson, 2010, p. 3)

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The annals of intergroup conflict are replete with instances of perpetrators denigrating their victims as subhuman creatures. Nazi propaganda in *Der Stürmer* depicting Jews as disgusting vermin or articles in the Hutu newspaper *Kangura* portraying Tutsi as cockroaches are rightly etched into public memory (Goldhagen, 2009; Savage, 2009; Smith, 2011). This process of coming to see a group of individuals as fundamentally less than human has aptly been termed dehumanization (Haslam & Loughnan, 2014). Dehumanization of indigenous peoples accompanied their exploitation and enslavement at the hands of imperial colonizers from the 16th to the 19th century (Bridgman & Worley, 2004; Goldhagen, 2009; Madley, 2016; Smith, 2011; Waller, 2007). Along with the aforementioned Nazi and Rwandan genocides, other dehumanized victims of 20th-century mass violence include the Armenians in Turkey (Savage, 2009; Suny, 2017), opponents of Soviet collectivization (Snyder, 2011), Chinese civilians during the Rape of Nanking (Smith, 2011), and ethnic Vietnamese during the Cambodian genocide (Goldhagen, 2009; Staub, 1989). Contemporary conflicts in Darfur and Israel have also been inflamed by dehumanization (Bruneau & Kteily, 2017; Calissendorff et al., 2019; Hagan & Rymond-Richmond, 2008; Smith, 2011). Indeed, dehumanization of the victim group may be a prerequisite for mass violence and genocide (Kelman, 1973; Savage, 2009, 2013).

Investigating Dehumanization

Due to its prevalence in instances of intergroup atrocities, dehumanization has rightly attracted the attention of scholars, and converging theories of dehumanization's role in intergroup conflict have been developed (for a review, see Haslam, 2006). By being deprived of a shared human essence, victims are effectively removed from the realm of common humanity (Kelman, 1973; Opotow, 1990). Once removed, the putative subhumans no longer necessitate the moral considerations afforded to members of humankind, facilitating violence and aggression against them (Bandura, 1999; Bandura et al., 1975). In fact, construing outgroup members

as repulsive vermin or threatening beasts not only disinhibits violent behavior but may actually inspire such behavior, because the dehumanized group is believed to be a source of contamination or danger who need to be eradicated to purify or protect one's own group (Savage, 2009; Smith, 2011).

Empirical research building on this theoretical foundation has implicated dehumanization in myriad intergroup conflicts (for a review, see Kteily & Bruneau, 2017b). For instance, Americans consistently rate Arabs and Mexican immigrants as less than fully human, as do Britons for Blacks and Muslims (Kteily & Bruneau, 2017a; Kteily et al., 2015). Large samples from the Czech Republic, Hungary, Spain, and Greece all dehumanized Syrian refugees entering their country (Bruneau et al., 2018). Perhaps most striking, Hungarians viewed the Roma people as closer to a distant quadrupedal ancestor than a fully developed human, as did Israelis for Palestinians (Kteily et al., 2015; Kteily et al., 2016). Moreover, blatant dehumanization of the kind mentioned is distinct from merely disliking the outgroup, and is uniquely associated with outgroup hostility (Kteily & Bruneau, 2017b).[1]

Metadehumanization and Reciprocal Group Conflict

Perceptions of outgroups, such as dehumanization and prejudice, are themselves often influenced by metaperceptions, people's perception of how an outgroup views their own ingroup (e.g., Vorauer & Kumhyr, 2001; Vorauer et al., 1998). For instance, White Canadians who thought Aboriginals viewed them (White Canadians) through a stereotyped lens tended to express more prejudice towards these Aboriginals (Vorauer et al., 1998). Kteily et al. (2016) built on this work to propose a model whereby metaperceptions of dehumanization can exacerbate reciprocal conflict between opposing groups. Since we derive positive esteem from our membership in valued groups (Tajfel & Turner, 1986), when an outgroup devalues our own group, it threatens our social identity (Branscombe, Ellemers, et al., 1999). This experience of social identity threat inspires a desire to restore the

Figure 1. Kteily et al.'s (2016) metadehumanization model.
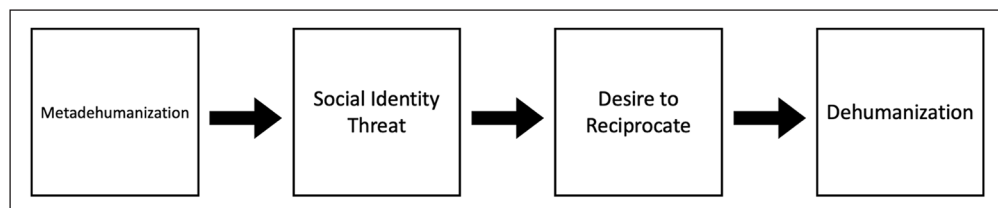
ingroup's status. Since group status is always evaluated in relation to other relevant comparison groups (Tajfel & Turner, 1986), individuals may seek to restore their threatened status by reciprocally denigrating the offending outgroup (e.g., Bourhis et al., 1979; Branscombe, Schmitt, & Harvey, 1999; Branscombe & Wann, 1994).

Thus, the perception that another group dehumanizes your group inspires social identity threat and a desire to reciprocate the threat. This, in turn, leads to reciprocal dehumanization of the outgroup (see Figure 1 for a diagram of Kteily et al.'s [2016] reciprocal dehumanization model). In this manner, metadehumanization opens the way for a vicious cycle of intensifying conflict, as both sides' dehumanization of the other is magnified (Kteily et al., 2016). Indeed, a process of reciprocal dehumanization may have inflamed violence between the Vietnamese and Cambodians, Hutu and Tutsi, Serbs and Croats, and could be at work in the contemporary conflict between Israelis and Palestinians (e.g., Bruneau & Kteily, 2017; Goldhagen, 2009; Staub, 1989).

The reciprocal dehumanization model has been supported across a series of studies (Kteily et al., 2016). For instance, Americans who were presented with an article purportedly describing Middle Eastern Muslims' dehumanizing perceptions of them, dehumanized these Muslims in turn. Moreover, metadehumanization has been related to consequential outcomes such as Americans' support for aggressive military action, torture, and restriction of immigration against Arabs. These effects persist even when accounting for Americans' perceptions that Arabs disliked Americans (i.e., metaprejudice). Based on such results, the researchers concluded

that metadehumanization is distinct from metaprejudice, and that the former "contributes importantly to the perpetuation of cycles of intergroup conflict" (p. 365).

Extending the Reciprocal Dehumanization Model

We sought to extend the reciprocal dehumanization model to a novel intergroup conflict marked by substantial enmity, that of US–Russia relations. To this end, we examined Americans' baseline attitudes toward Russians to determine if (meta)dehumanization played a consequential role in this conflict (Study 1). We also attempted to differentiate the effects of metadehumanization from those of metaprejudice. Although both metadehumanization and metaprejudice independently predict hostile outgroup attitudes, their differential effects have not been systematically investigated in the context of an experiment. That is, whereas Kteily et al. (2016) manipulated metadehumanization, finding it to inspire reciprocal dehumanization, they did not contrast it to the effects of experimentally manipulated metaprejudice.

Moreover, Kteily et al. (2016) did not assess whether their manipulation of metadehumanization had downstream effects on hostile policies taken against the offending outgroup. Therefore, we manipulated both metadehumanization and metaprejudice in Study 2 and measured support for hostile social policies to disentangle the relative impact of these metaperceptions on consequential intergroup outcomes. Additionally, we sought to test the theoretical process by which metadehumanization inspires reciprocal dehumanization, namely because it evokes social identity threat and

a desire to reciprocate the threat (see Figure 1). Demonstrating that this process contributes to conflict not just in American–Arab relations (Kteily et al., 2016) but also in US–Russia relations would be a worthwhile extension of this relatively nascent theory.

Study 1

To broaden the scope of metadehumanization theory, Study 1 investigated Americans' perceptions not only of Arabs but also of Russians. The vast majority of Americans evaluate Russia unfavorably (Pew Research Center, 2019; Saad, 2019; Stent, 2015). Moreover, at the time of data collection, the United States and Russia had recently been embroiled in an international controversy concerning the latter's role in tampering with the 2016 U.S. presidential election. This controversy sparked outrage and indignation on behalf of many Americans, who viewed Russia as threatening the integrity of their democracy (Milligan, 2019). In fact, a representative survey found that the majority of Americans believed Russia to be a critical threat to American interests, and Russia was recently deemed the greatest national enemy of America (Saad, 2019). We wanted to determine whether, as with their attitudes toward Arabs, Americans' animosity toward Russians was driven in part by (meta)dehumanization.

Hypotheses

Although Americans' animosity toward Russians is well documented, public opinion polls show this feeling is mutual, with the vast majority of Russians harboring negative views toward Americans (e.g., Nisbet & Kamenchuk, 2018; Poushter, 2015, 2018). Since polls of this kind can influence the metaperceptions of those being evaluated (O'Brien et al., 2018), Americans may hold negative metaperceptions of Russians. Therefore, we anticipated that Americans who thought Russians dehumanized them would be especially likely to express anti-Russian hostility. This effect was hypothesized to occur over and above the effects of metaprejudice and prejudice, as well as social dominance orientation and
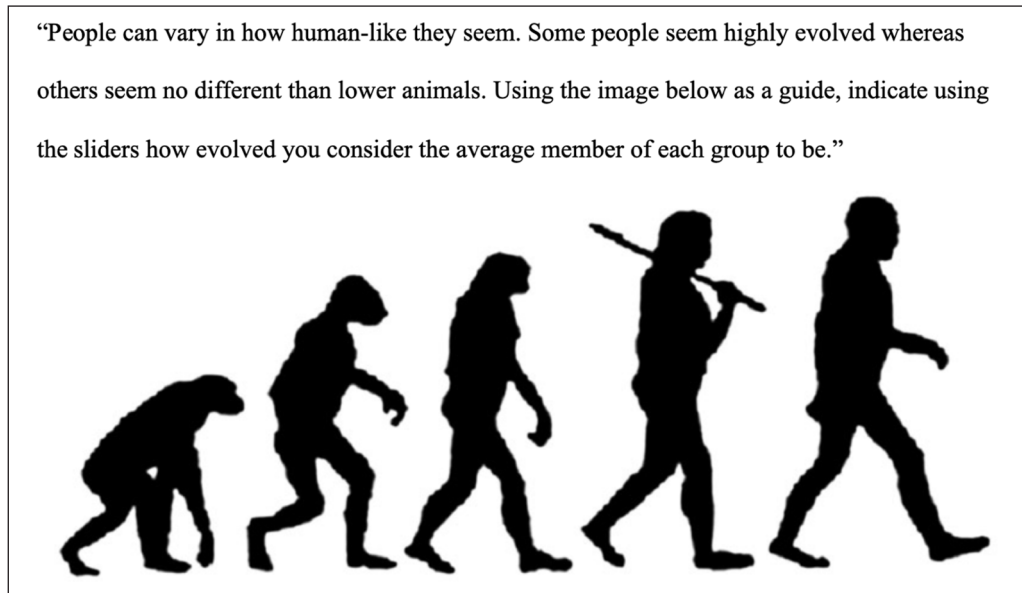
conservatism, all of which have been shown to be associated with dehumanization and outgroup antipathy (H1; e.g., Costello & Hodson, 2010; Kteily et al., 2015; Kteily et al., 2016). Given that metadehumanization inspires reciprocal dehumanization (Kteily et al., 2016), and dehumanization facilitates aggression (e.g., Bandura et al., 1975), we hypothesized that metadehumanization would predict hostility toward Russians through dehumanization of them, again accounting for the aforementioned covariates (H2). We expected to obtain analogous effects when considering Americans' attitudes toward Arabs. Namely, metadehumanization was expected to uniquely predict hostility toward Arabs (H3), and to exert an indirect effect on Arab hostility through dehumanization (H4). Thus, we expected to replicate past research that demonstrated these relationships between metadehumanization, dehumanization, and Arab hostility (Kteily et al., 2016).

Method

Participants. We collected data from 384 subjects through Amazon Mechanical Turk, an online platform for social scientists seeking to recruit more diverse samples than those typical of undergraduate institutions (MTurk; Buhrmester et al., 2018). Informed consent was obtained, and each participant was compensated $0.50 for their participation, administrated to them electronically via the MTurk platform (Litman et al., 2017).

We excluded 13 participants who failed an attention check, and an additional five who were not American citizens, leaving 366 Americans for our analyses. Of these remaining subjects, 282 were European American (77%), 41 were African American (11.2%), 20 were Asian American (5.5%), seven were Native American (1.9%), and 16 identified as another nationality (4.4%). Two hundred were male (54.6%), 165 were female (45.1%), and one individual reported being non-binary. All subjects had attained a high school degree, and the majority (69.4%) had attained a college degree, with the modal degree being a bachelor's (42.1%). The age of the sample ranged from 18 to 77 years ($M = 37.08$, $SD = 11.69$).

Figure 2. The "Ascent of Man" measure of blatant dehumanization.

"People can vary in how human-like they seem. Some people seem highly evolved whereas others seem no different than lower animals. Using the image below as a guide, indicate using the sliders how evolved you consider the average member of each group to be."

Materials

Social dominance orientation. Social dominance orientation reflects one's support for establishing or maintaining hierarchical differences between social groups (SDO; Pratto et al., 1994). We measured SDO using the SDO$_7$ Scale (Ho et al., 2015), which consists of eight items measuring individuals' support for group-based domination, and opposition to egalitarian social policies (α = .90). For instance, an item assessing support for group-based dominance is, "An ideal society requires some groups to be on top and others to be on the bottom," while one measuring antiegalitarianism is, "It is unjust to try to make groups equal." Participants indicated their endorsement of these items on a 7-point scale (1 = *strongly oppose*, 7 = *strongly favor*).

Conservatism. We measured conservatism by asking participants to "Please indicate the extent to which you consider yourself to be liberal or conservative on most political and social issues," using a slider scale which ranged from 0 (*extremely liberal*) to 100 (*extremely conservative*; Kteily et al., 2016).

Dehumanization. Dehumanization was assessed using the Ascent of (Hu)Man scale (Kteily et al., 2015; see Figure 2). Participants were presented with the popular "Ascent of Man" image depicting evolutionary progress, ranging from a quadrupedal primate ancestor to a fully modern human. They were told,

> People can vary in how human-like they seem. Some people seem highly evolved whereas others seem no different than lower animals. Using the image below as a guide, indicate using the sliders how evolved you consider the average member of each group to be.

They then rated the humanity of various social groups using a slider scale which ranged from 0 (*least evolved*) to 100 (*most evolved*). Along with Russians and Arabs, we also included Mexicans and Chinese people as comparison groups, as well as the ingroup (i.e., Americans) to include as a covariate in our analyses. Scores were reversed such that higher scores indicated greater dehumanization of the outgroup.

Prejudice. Prejudice was measured using a feeling thermometer (Haddock et al., 1993), which asked participants to evaluate a typical outgroup member on a slider scale ranging from 0 (*extremely unfavorable*) to 100 (*extremely favorable*). The same five groups were assessed as on the dehumanization measure, and here too scores were reversed such that higher scores indicated greater levels of prejudice.

Outgroup hostility. To assess outgroup hostility, we asked participants to rate their agreement with eight items reflecting their desire for social distance and discriminatory social policies (e.g., restriction of immigration), punitive economic sanctions, and aggressive military action against the outgroup (hostility toward Russians: α = .72; hostility toward Arabs: α = .82). Several of these items were adapted from related work (Kteily et al., 2016; Spanovic et al., 2010; see the full scale in the Appendix). Participants indicated their agreement using a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*).

Metadehumanization. Metadehumanization was assessed with a five-item measure developed by Kteily et al. (2016), which included items such as, "Russians perceive Americans to be subhuman" (Russian metadehumanization: α = .97; Arab metadehumanization: α = .96). Participants rated their agreement with these items using a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*).

Metaprejudice. Metaprejudice was assessed using a two-item measure developed by Kteily et al. (2016), which included items such as, "Russians feel cold toward Americans" (Russian metaprejudice: $r(366) = .82$, $p < .001$; Arab metaprejudice: $r(366) = .85$, $p < .001$). Participants rated their agreement with these items on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*).

Procedure. Participants took part in a study "to better understand individuals' perceptions of other national and ethnic groups." After giving informed consent, participants completed demographic items (including conservatism) and the measures of dehumanization and prejudice. For both the dehumanization and prejudice measures, each of the five social groups were presented in randomized order. Then, participants completed measures of hostility, metadehumanization, and metaprejudice. For these measures, we only assessed their attitudes toward Arabs and Russians, presented in counterbalanced order.[2] Participants then completed the SDO measure before being thoroughly debriefed and compensated for their participation.[3]

Results and Discussion

Russians: Metadehumanization. We first examined the relationships between metadehumanization, dehumanization, and hostility toward Russians.[4] Pearson correlations revealed that metadehumanization was associated with both dehumanization, $r(366) = .36$, $p < .001$, and hostility, $r(366) = .39$, $p < .001$. To test our hypotheses that metadehumanization would uniquely predict hostility toward Russians (H1), and that this effect would be mediated by reciprocal dehumanization (H2), we conducted a parallel mediation with 5,000 bootstrap resamples using the PROCESS macro for SPSS (Model 4; Hayes, 2018).[5] We entered metadehumanization as the predictor, hostility as the outcome, and included both dehumanization and prejudice as parallel mediators.[6] Moreover, we included ingroup dehumanization,[7] metaprejudice, SDO, and conservatism as covariates.[8] In line with our hypothesis, metadehumanization had a direct effect on hostility toward Russians, $\beta = .18$, $b = 0.13$, $SE = 0.03$, $p < .001$, 95% CI [0.06, 0.19].[9] Moreover, dehumanization also uniquely predicted hostility, $\beta = .23$, $b = 0.01$, $SE = 0.003$, $p < .001$, 95% CI [0.01, 0.02], see Figure 3 for the full path model. Additionally, the indirect effect of metadehumanization on hostility was significant through dehumanization, $\beta = .03$, $b = 0.02$, $SE = 0.01$, 95% CI [0.01, 0.04], see Table 1. Thus, metadehumanization remained a consequential predictor of outgroup hostility in the context of US–Russia relations, both directly and through reciprocal dehumanization.

Figure 3. Path model showing effects of metadehumanization on hostility towards Russians via dehumanization and prejudice in Study 1, controlling for metaprejudice, ingroup dehumanization, SDO, and conservatism (not shown).
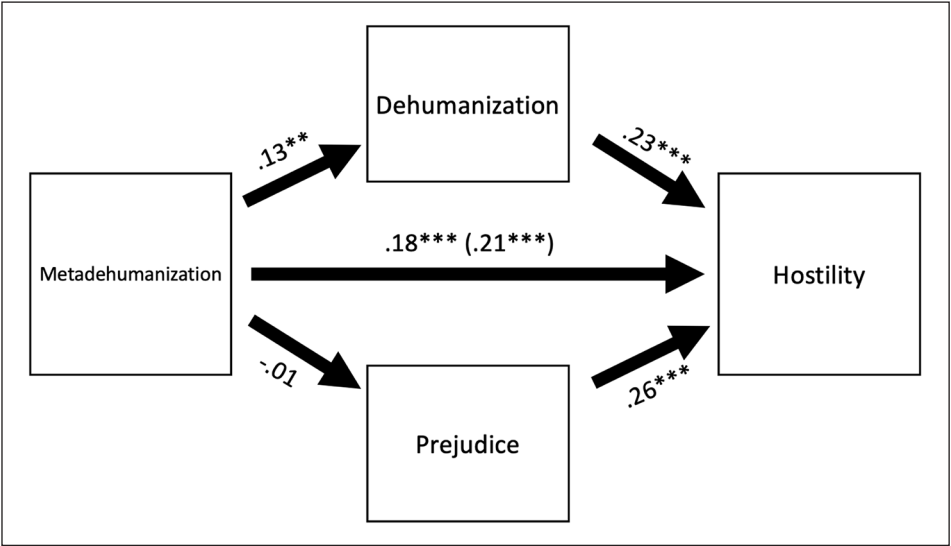
Note. Numbers reflect standardized beta coefficients.
***$p < .001$. **$p < .01$. *$p < .05$.

Table 1. Unstandardized indirect, direct, and total effects of metadehumanization on hostility via dehumanization and prejudice: Study 1.

	Russian hostility	Arab hostility
Indirect effect (dehumanization)	.02 [0.01, 0.04]	.01 [−0.003, 0.03]
Indirect effect (prejudice)	−.002 [−0.02, 0.02]	.01 [−0.01, 0.04]
Indirect effect (total)	.02 [−0.01, 0.05]	.03 [−0.01, 0.06]
Direct effect	.13 [0.06, 0.19]	.06 [−0.003, 0.12]
Total effect	.14 [0.08, 0.21]	.09 [0.02, 0.16]

Note. Metaprejudice, social dominance orientation (SDO), conservatism, and ingroup dehumanization were included as covariates.

Arabs: Metadehumanization. Pearson correlations revealed that metadehumanization was associated with dehumanization, $r(366) = .31, p < .001$, and hostility toward Arabs, $r(366) = .44, p < .001$. In the same manner as with Russians, we conducted a parallel mediation to test our hypotheses that metadehumanization would uniquely predict hostility toward Arabs (H3), and that this effect would be mediated by dehumanization (H4). Metadehumanization exerted a marginal direct effect on hostility toward Arabs, $\beta = .08, b = 0.06, SE = 0.03, p = .06$, 95% CI [−0.003, 0.12]. Moreover, dehumanization of Arabs was itself uniquely associated with hostility, $\beta = .19, b = 0.01, SE = 0.002, p < .001$, 95% CI [0.005, 0.01], see Figure 4 for the full path model. However, the indirect effect of metadehumanization on Arab hostility through dehumanization was not significant, $\beta = .02, b = 0.01$, 95% CI [−0.004, 0.03],[10] see Table 1. Nonetheless, our general pattern of

Figure 4. Path model showing effects of metadehumanization on hostility towards Arabs via dehumanization and prejudice in Study 1, controlling for metaprejudice, ingroup dehumanization, SDO, and conservatism (not shown).
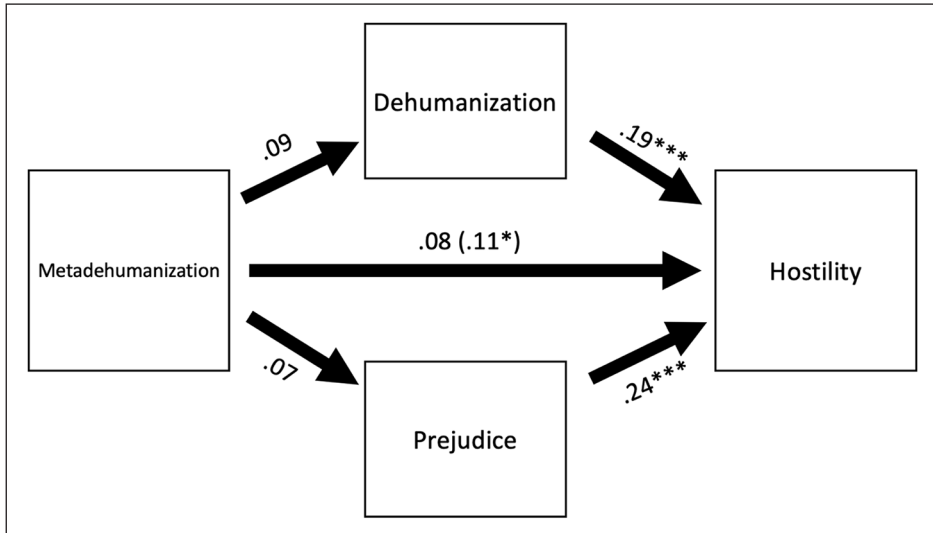
Note. Numbers reflect standardized beta coefficients.
***$p < .001$. **$p < .01$. *$p < .05$.

results supports the theory that metadehumanization fosters outgroup hostility by inspiring reciprocal dehumanization (Kteily et al., 2016), and the fact that both metadehumanization and dehumanization exerted unique effects on hostility provides further evidence for their potent roles in intergroup conflict.

Study 1 Conclusions

Collectively, Study 1 provided further evidence for Americans' tendency to dehumanize Arabs (Kteily & Bruneau, 2017a; Kteily et al., 2015; see also Derous et al., 2009), and suggests that this is in part due to the perception that Arabs dehumanize them in turn (Kteily et al., 2016). However, the effect of metadehumanization on reciprocal dehumanization and hostility was not unique to Arabs. Although Russians were not dehumanized to the extent Arabs were, metadehumanization continued to exert unique effects on hostility, independently of metaprejudice and prejudice, as well as SDO, conservatism, and ingroup dehumanization. Moreover,

the effect of metadehumanization on Russian hostility was mediated by dehumanization of them, in support of the notion that metadehumanization inspires reciprocal dehumanization, which in turn facilitates outgroup hostility (Kteily et al., 2016).

Although we observed a similar pattern of results for both Russians and Arabs, it is worth noting that Americans' perceptions of these groups likely differ in consequential ways. For instance, Russia currently occupies a position of relatively high status in the international community. It has one of the largest economies in the world in terms of GDP (International Monetary Fund, 2019; The World Bank, 2019), a formidable military (Global Firepower, 2020), and a high human development index (United Nations Development Programme, 2019). Since an impressive civilization and cultural achievements are considered uniquely human characteristics (Haslam, 2006), this may explain why Americans dehumanized Russians to a lesser extent than Arabs. Indeed, in line with these findings, Russians have been found to be

dehumanized significantly less than Middle Eastern immigrants (Bruneau et al., 2018).[11] The fact that metadehumanization was a relevant factor in Americans' attitudes toward both these groups, despite their differences, further speaks to Kteily et al.'s (2016) notion that reciprocal dehumanization is consequential across myriad intergroup conflicts.

Study 2

After demonstrating that metadehumanization predicts Americans' hostility even toward Russians, an outgroup less likely to be dehumanized than those heretofore examined, we sought to determine whether metadehumanization has a causal effect on hostility, independently of metaprejudice. Moreover, as mentioned before, metadehumanization (i.e., they think we're less than human) is distinct from metaprejudice (i.e., they dislike us), and both have been independently associated with outgroup hostility (Kteily et al., 2016; Moore-Berg et al., 2020). However, their differential causal effects on hostility have yet to be examined. Thus, along with determining a causal pathway from metadehumanization to hostility, we were also interested in systematically differentiating metadehumanization from metaprejudice by experimentally manipulating both constructs.

Hypotheses

Given the potential for metadehumanization to inspire reciprocal dehumanization (Kteily et al., 2016), we hypothesized that those in the metadehumanization condition would express greater dehumanization than those in the metaprejudice or control conditions (H1). Analogously, we expected those in the metaprejudice condition to express greater prejudice than those in the other conditions (H2). Moreover, in line with Kteily and colleagues' reciprocal dehumanization model (2016; see Figure 1), we hypothesized that for those experiencing metadehumanization, this would inspire social identity threat and a desire to reciprocate the threat, which in turn would lead to greater outgroup dehumanization (H3).

We also expected those in the metadehumanization and metaprejudice conditions to both express greater hostility toward Russians than those in the control condition, consistent with past research associating both these constructs with outgroup hostility (H4; Kteily et al., 2016; Moore-Berg et al., 2020). Finally, we hypothesized that metadehumanization would produce greater outgroup hostility by inspiring greater dehumanization than the other conditions (H5), while metaprejudice would produce greater hostility by inspiring greater prejudice than the other conditions (H6).

Method

Participants. We collected data from 523 American citizens through MTurk. Informed consent was obtained, and each participant was compensated $0.75. We excluded 59 participants who failed an attention check, leaving 464 Americans for our analyses. This sample consisted of 352 European Americans (75.9%), 54 African Americans (11.6%), 32 Asian Americans (6.9%), six Native Americans (1.3%), and 20 individuals who identified as another ethnicity (4.3%). Four hundred sixty-one subjects had attained a high school degree (99.4%), and the majority had attained a college degree (66.5%), with the modal degree being a bachelor's (38.8%). Two hundred thirty-eight individuals were male (51.3%), 225 were female (48.5%), and one individual reported being nonbinary. The age of the sample ranged from 18 to 72 years ($M = 36.66$, $SD = 11.72$). A sensitivity analysis using G*Power software (Faul et al., 2007) determined this sample enabled us to detect an effect of our manipulation of $d = 0.29$, with 80% power.

Materials

Article manipulations. To manipulate metadehumanization, we adapted an article developed by Kteily et al. (2016, Study 1b). The article appeared to have been published in the *Boston Globe*, with a title reading "In Large Parts of Russian World, Americans Perceived as 'Animals.'" It purported to be a report on the results of a recent United Nations survey of Russians' perceptions of Ameri-

cans, and described several instances of Russians expressing dehumanizing views of Americans before concluding that "The reality is that Russians' views of Americans as sub-human and animal-like are highly normative, with the majority of people, both in leadership positions and the everyday Russian on the street, seeing them as self-evident."

We modified this article to construct a metaprejudice manipulation. The metaprejudice article was identical in format to the metadehumanization article and matched for length but was titled "In Large Parts of Russian World, Americans Hated." For instance, one "Russian" was quoted as saying, "The Americans? I'm completely cold toward them. I detest their conceited and reckless way of life. They may like to think of themselves as hardworking and diligent, but really they are just fat, lazy, and ignorant." For a third group of participants, we designed a control article which was formatted exactly the same as the other two articles and was matched for length. However, it did not make reference to Russians' views of Americans, but instead merely described aspects of Russian geography, climate, and biodiversity (see Supplemental Material 4 for full articles).

Pilot test of article manipulations. Moreover, we pilot-tested the metadehumanization and metaprejudice articles to ensure they were matched for affective valance (i.e., negativity). Specifically, we recruited 100 participants via MTurk and randomly assigned them to read one of the articles. After reading the article, they responded to the item, "How positive or negative did you perceive this article to be?" using a 7-point scale (1 = *very negative*, 7 = *very positive*). An independent samples t test with 1,000 bootstrap resamples revealed no significant differences between how negative subjects perceived the metadehumanization and metaprejudice articles to be, $t(98) = -1.22$, $p = .23$, $Ms = 1.48$ versus 1.66. We are thus confident that any differences observed across conditions cannot be reduced to the articles differing in general negativity.

Previous measures. Social dominance orientation, conservatism, dehumanization, prejudice, and hostility were assessed as in Study 1.

Manipulation checks. To assess the efficacy of our metadehumanization and metaprejudice manipulations, we adapted measures previously developed by Kteily et al. (2016). The metadehumanization manipulation check asked participants to rate their agreement with five items such as, "Russians perceive Americans to be subhuman" ($\alpha = .96$). The metaprejudice manipulation check instructed participants to respond to seven items such as, "Russians feel cold toward Americans" ($\alpha = .92$). Participants responded using a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*).

Social identity threat and desire to reciprocate. To measure participants' experience of social identity threat and desire to reciprocate after reading the article, we again adapted materials developed by Kteily et al. (2016). Participants indicated their experience of social identity threat by responding to five items such as, "When I think about the way that Russians perceive Americans, I find it threatening" ($\alpha = .81$). To indicate their desire to reciprocate, participants responded to the stem, "When I think about the way that Russians perceive Americans. . ." by rating their agreement with the items "It makes me want to respond back negatively" (reverse-coded) and "It makes me want to respond back positively"; $r(464) = .17$, $p < .001$.[12] Participants responded using a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*).

Procedure. After giving informed consent, all participants completed demographic measures, including conservatism. Then, they were randomly assigned to read either the metadehumanization ($n = 158$), metaprejudice ($n = 158$), or control article ($n = 148$). After reading the article, they completed the dehumanization measure. Along with Russians, we included Arabs, Chinese people, Mexicans, and Ukrainians as comparison groups.[13] We then administered measures of prejudice and hostility toward Russians, their experience of social identity threat and desire to reciprocate, manipulation checks, and social dominance orientation, in that order. Finally, participants were thoroughly debriefed and compensated.

Results and Discussion

Descriptive statistics, mean differences between conditions, and intercorrelations for Study 2 variables are presented in Supplemental Material 5.

Manipulation checks. We assessed the efficacy of our metadehumanization manipulation by conducting two one-way ANOVAs, with article condition (metadehumanization, metaprejudice, and control) as a between-subjects factor, scores on the metadehumanization and metaprejudice manipulation checks as the dependent variables, and planned comparisons between each condition. There was a significant effect of article condition on the metadehumanization manipulation check, $F(2, 461) = 88.41$, $p < .001$, $\eta_p^2 = .28$. Planned comparisons showed that those reading the metadehumanization article perceived their group as being dehumanized by Russians ($M = 5.29$, $SD = 1.21$) more than those reading the control ($M = 3.15$, $SD = 1.61$, $p < .001$) and metaprejudice articles ($M = 3.90$, $SD = 1.46$, $p < .001$). There was also a significant effect of article condition on metaprejudice, $F(2, 461) = 92.19$, $p < .001$, $\eta_p^2 = .29$. Those reading the metaprejudice article reported greater perceptions of Russians being prejudiced against their group ($M = 5.86$, $SD = 0.95$) than those reading the control ($M = 4.38$, $SD = 1.11$, $p < .001$) or metadehumanization articles ($M = 5.63$, $SD = 1.00$, $p = .038$). We thus replicated previous research demonstrating the efficacy of a faux news article in inspiring metadehumanization (Kteily et al., 2016), while the novel metaprejudice manipulation was also effective in evoking the intended metaperception. Moreover, Americans' perceptions that Russians dehumanized them were moderately correlated with their perceptions that Russians were prejudiced toward them, $r(464) = .44$, $p < .001$, in support of the claim that metadehumanization and metaprejudice are distinct, yet related, constructs (Kteily et al., 2016; Moore-Berg et al., 2020).[14]

Effects of metaperceptions on dehumanization and prejudice. To test the hypothesis that those reading the metadehumanization article would dehumanize Russians more than the other groups would (H1), we conducted a one-way ANCOVA with article condition as a between-subjects factor, ratings on the Ascent of Man scale of Russians as the dependent variable, and ratings on the Ascent of Man scale of Americans (i.e., ingroup dehumanization) as a covariate, $F(2, 460) = 3.23$, $p = .04$, $\eta_p^2 = .01$. Those reading the metadehumanization article indeed dehumanized Russians ($M = 19.13$, $SD = 24.39$) more than those reading the metaprejudice ($M = 16.09$, $SD = 18.95$, $p = .039$) and control ($M = 14.12$, $SD = 19.95$, $p = .022$) articles. Moreover, the metaprejudice and control conditions did not differ in their dehumanization of Russians ($p = .79$). Thus, metadehumanization inspired greater dehumanization, while metaprejudice did not.

We proceeded to test our hypothesis that those reading the metaprejudice article would report greater prejudice toward Russians than those in the other conditions (H2) with a one-way ANOVA with article condition as a between-subjects factor, and scores on the feeling thermometer as the dependent variable, $F(2, 461) = 18.30$, $p < .001$, $\eta_p^2 = .07$. Both those in the metaprejudice and the metadehumanization conditions scored higher on the feeling thermometer (metaprejudice: $M = 38.52$, $SD = 21.95$; metadehumanization: $M = 39.92$, $SD = 24.21$) than those reading the control article ($M = 26.10$, $SD = 18.93$, $ps < .001$), indicating a greater level of prejudice toward Russians. However, those in the metaprejudice and metadehumanization conditions did not differ in their levels of prejudice ($p = .57$). Thus, metadehumanization appears to inspire greater dehumanization but no less prejudice than metaprejudice, suggesting the former may be an especially pernicious instigator of negative outgroup sentiment.

Metadehumanization → dehumanization pathway. We proceeded to test the pathway hypothesized to underlie the metadehumanization condition's greater levels of dehumanization: that Americans who believed Russians dehumanized their group would experience social identity threat, leading

Figure 5. Path model showing the effect of metadehumanization on dehumanization via social identity threat (SIT) and desire to reciprocate (Rec) in Study 2, controlling for prejudice, ingroup dehumanization, SDO, and conservatism (not shown).
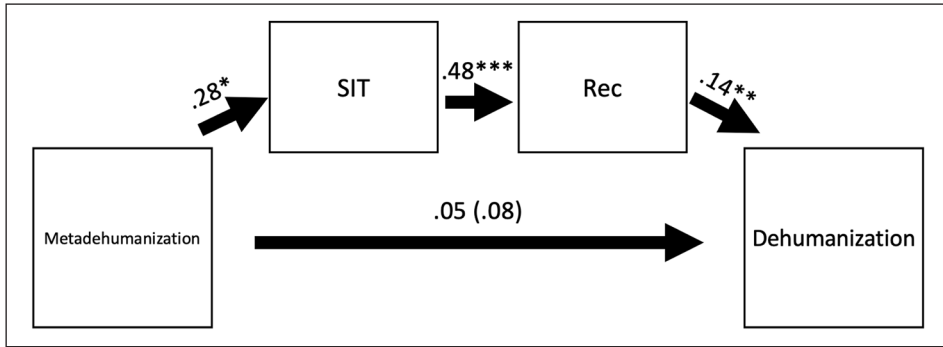
Note. Numbers reflect standardized beta coefficients.
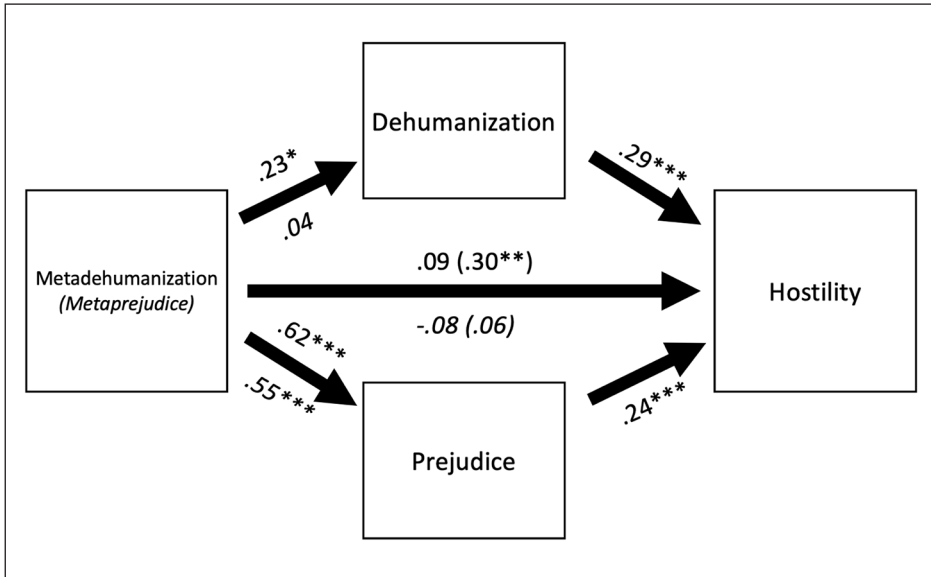***$p < .001$. **$p < .01$. * $p < .05$.

them to desire to reciprocate, which in turn would account for their greater dehumanization of Russians (H3; see Figure 1). To this end, we performed a serial mediation analysis using PROCESS (Model 6; Hayes, 2018). We created a dummy-coded variable such that the control condition was used as a reference group to compare the metadehumanization and metaprejudice conditions against. Thus, experimental condition (metadehumanization, metaprejudice, or control) was entered as the predictor, dehumanization of Russians was the outcome, and social identity threat and reciprocity were the serial mediators.[15] Additionally, we entered ingroup dehumanization, SDO, and conservatism as covariates.[16] For the metadehumanization condition, there was a significant indirect effect of condition on dehumanization through social identity threat and reciprocity, $\beta = .04$, $b = 0.95$, $SE = 0.02$, 95% CI [0.34, 1.81]. Moreover, when these mediators were taken into account, the effect of metadehumanization on outgroup dehumanization was no longer significant ($p = .12$), providing strong support for the pathway by which metadehumanization is theorized to inspire reciprocal dehumanization (see Figure 5 for the full pathway model).[17]

Effect of metaperceptions on outgroup hostility. To test our hypothesis that the metadehumanization and

metaprejudice conditions would evince greater outgroup hostility than the control condition (H4), we performed a one-way ANOVA with article condition as a between-subjects factor, and scores on the hostility measure as the dependent variable, $F(2, 461) = 3.19$, $p = .04$, $\eta_p^2 = .01$. We obtained partial support for this hypothesis, as the metadehumanization condition indeed reported greater hostility ($M = 3.48$, $SD = 0.99$) than the control condition ($M = 3.20$, $SD = 1.05$, $p = .016$). However, those in the metaprejudice condition did not express greater outgroup hostility ($M = 3.27$, $SD = 1.01$, $p = .53$) than those in the control condition.

We then tested our prediction that Americans who believed Russians dehumanized their group would reciprocally dehumanize them, which would account for their greater levels of anti-Russian hostility (H5). To this end, we performed a parallel mediation analysis in PROCESS (Model 4; Hayes, 2018). In the manner previously described, experimental condition was dummy-coded and entered as the predictor, hostility was the outcome, and dehumanization and prejudice were the parallel mediators. A significant indirect effect of metadehumanization on outgroup hostility through dehumanization emerged, $\beta = .07$, $b = 0.07$, $SE = 0.03$, 95% CI [0.02, 0.13]. Conversely, the path from metaprejudice to outgroup hostility through dehumanization was not significant, $\beta =$

Figure 6. Path model showing the effects of metadehumanization (blue) and metaprejudice (black) on hostility via dehumanization and prejudice in Study 2, controlling for ingroup dehumanization, SDO, and conservatism (not shown).

Note. Values for the metaprejudice condition are italicized and presented below those for the metadehumanization condition. Numbers reflect standardized beta coefficients.
***p <.001. **p < .01. * p < .05.

.01, $b = 0.01$, $SE = 0.02$, 95% CI [−0.04, 0.06]. This suggests that metadehumanization and metaprejudice operate distinctly, with metadehumanization, but not metaprejudice, facilitating outgroup hostility by inspiring dehumanization.

The results of this parallel mediation also allowed us to test our hypothesis that the effect of metaprejudice on outgroup hostility would be mediated by outgroup prejudice (H6). Indeed, a significant indirect effect of metaprejudice on hostility through prejudice emerged, $\beta = .13$, $b = 0.13$, $SE = 0.04$, 95% CI [0.07, 0.22]. Moreover, there was also an indirect effect of metadehumanization on outgroup hostility through prejudice, $\beta = .15$, $b = 0.15$, $SE = 0.04$, 95% CI [0.08, 0.25]. Full pathway models for metadehumanization and metaprejudice are depicted in Figure 6. While metadehumanization inspired outgroup hostility through both dehumanization and prejudice, metaprejudice did so only through prejudice (see

Table 2). The combination of both dehumanization and intense dislike of the outgroup that metadehumanization produced likely account for why it, but not metaprejudice, inspired greater outgroup hostility than the control condition. Importantly, these effects were obtained while controlling for dehumanization of the ingroup, SDO, and conservatism.

Study 2 Conclusions

Collectively, the results from Study 2 provide further evidence that metadehumanization is a distinct and important factor in many intergroup conflicts, even when baseline dehumanization is relatively low. We replicated past research demonstrating that metadehumanization causes reciprocal dehumanization, and does so because it inspires social identity threat and a desire to reciprocate (Kteily et al., 2016). Moreover, those

Table 2. Unstandardized indirect, direct, and total effects of metadehumanization and metaprejudice on hostility via dehumanization and prejudice: Study 2.

	Metadehumanization	Metaprejudice
Indirect effect (dehumanization)	.07 [0.01, 0.13]	.01 [−0.03, 0.06]
Indirect effect (prejudice)	.15 [0.08, 0.25]	.13 [0.07, 0.22]
Direct effect	.09 [−0.10, 0.28]	−.08 [−0.27, 0.11]
Total effect	.31 [0.11, 0.51]	.07 [−0.14, 0.27]

Note. Social dominance orientation (SDO), conservatism, and ingroup dehumanization were entered as covariates.

reading the metadehumanization article also expressed greater levels of prejudice than those in the control condition. Importantly, Study 2 provided the first evidence that metadehumanization causes greater outgroup hostility than metaprejudice does. Conversely, those reading the metaprejudice article did not report greater hostility than those in the control condition. We conclude that this likely occurred because, along with inspiring prejudice toward them, metadehumanization also inspired dehumanization of Russians. Metaprejudice, on the other hand, only inspired prejudice, which alone may not have been enough to promote extreme levels of hostility. These findings lend causal support to a previous body of correlational evidence associating metadehumanization, but not metaprejudice, with hostility through dehumanization (Kteily et al., 2016; Moore-Berg et al., 2020).

General Discussion

Kteily et al. (2016) provided initial evidence that metadehumanization was a potent instigator of reciprocal dehumanization, distinct from metaprejudice and uniquely associated with outgroup hostility. We replicated these findings in the context of Americans' attitudes toward Arabs, and also observed the same pattern in their attitudes toward Russians. Although Russians and Arabs are both targets of substantial enmity among Americans (e.g., Derous et al., 2009; Kteily et al., 2015; Saad, 2019; Stent, 2015), they also likely differ on many evaluative dimensions (e.g., perceived competence, international status; Feklyunina, 2008; Fiske et al., 2018; Slade, 1981;

Stent, 2015). Thus, metadehumanization may inflame a broader range of intergroup conflicts than those previously considered. Moreover, the effect of metadehumanization on Americans' hostility toward Russians was mediated by dehumanization, consistent with the pathway proposed by Kteily et al. (2016; see Figure 3).

We also replicated previous research demonstrating that metadehumanization causes reciprocal dehumanization because it inspires social identity threat and a desire to reciprocate (Kteily et al., 2016; see Figure 1). Conversely, metaprejudice did not inspire greater dehumanization. Given dehumanization's specific role in facilitating moral disengagement and aggression (Bandura, 1999; Bandura et al., 1975), this attitude may have been necessary for participants to endorse extreme hostility toward Russians (e.g., support for torture and military action levied against them). Thus, the reciprocal dehumanization unique to metadehumanization may account for why it, but not metaprejudice, was found to produce greater outgroup hostility. Metaprejudice may not have led to such extreme hostility because it failed to inspire dehumanization and the consequent moral disengagement (Bandura, 1999). That is, although Americans who believed Russians hated their group tended to hate them in turn, they still considered them human, and thus subject to the moral considerations afforded to members of the human community (see also Opotow, 1990). Since we did not test the relative moral considerations conceded to Russians, this is of course only one possibility for the greater hostility observed in the metadehumanization condition. Thus, we encourage further research to investigate dehumanization's role in promoting moral

disengagement and hostility (see Pacilli et al., 2016, for an example).

Altogether, our results demonstrate that metadehumanization (a) remains a potent instigator of hostility when considering American–Russian relations, (b) can produce greater hostility than metaprejudice, and does so because it (c) inspires reciprocal dehumanization above any more general negative bias, which may be necessary to foment such extreme attitudes. We also provided a key replication of the pathway thought to underlie these effects, namely that metadehumanization inspires social identity threat and a desire to reciprocate, which is what leads to reciprocal dehumanization. Together, these studies bolster Kteily and colleagues' (2016) claim that metadehumanization is a unique and pernicious metaperception that can exacerbate intergroup conflict, and is worthy of further investigation in its own right.

Nonetheless, the present research was subject to several limitations. For instance, Study 1 included relatively few comparison groups, compared to similar research (e.g., Bruneau et al., 2018; Kteily et al., 2015). This limits our ability to draw conclusions about Americans' levels of (meta)dehumanization and prejudice toward Russians relative to other national outgroups. Moreover, it should be noted that although the general pattern of results from Study 1 was consistent with that observed by Kteily et al. (2016), the indirect effect of metadehumanization on hostility through dehumanization of Arabs was only marginally significant, contradicting their findings of a fully significant indirect effect in this context. Looking at the mean values in our sample and that in Kteily et al. (2016, Study 2), our sample was higher in SDO and conservatism.[18] This may have accounted for the discrepancy in our findings, because the relatively high SDO and conservatism in our sample could have accounted for more variance in our model as opposed to that in Kteily et al. (2016). Regardless, we emphasize the need to further investigate the relatively novel construct of metadehumanization to determine its effects on outgroup hostility across diverse contexts and samples.

Additionally, although the metaprejudice manipulation employed in Study 2 was matched for negative valence with the metadehumanization manipulation, it evoked a wide range of stereotypes, some of which could have been potentially dehumanizing. The article described Americans as reckless, ignorant, and lazy, consistent with the diminished capacity for higher order mental faculties associated with animalistic dehumanization (Haslam, 2006). Indeed, although those in the metaprejudice condition expressed less metadehumanization than those in the metadehumanization condition, they nonetheless expressed more than those in the control condition. Since it is not evident what precise aspects of our manipulations affected (or did not affect) downstream hostility, we encourage future research to investigate alternative ways of manipulating metaprejudice and metadehumanization before drawing definitive conclusions about metaprejudice's lack of ability to incite dehumanization and hostility.[19]

Another shortcoming of the present research is its low ecological validity. Although we provide evidence that (meta)dehumanization facilitates outgroup hostility, the survey methodology employed here is a far cry from the real-world instances of atrocity which inspired the present investigation. Despite dehumanization's integral role in many, if not all, instances of genocide and mass violence (Kelman, 1973; Savage, 2009; Smith, 2011; but see Over, 2020, for a recent critique), our understanding of how it influences the minds and behavior of perpetrators "on the ground" is fuzzy at best. In order to more adequately elucidate (meta)dehumanization's role in intergroup conflict, cross-disciplinary efforts from social and evolutionary psychology, sociology, history, philosophy, cognitive science, and anthropology are necessary. Promising work in this vein comes from Savage (2009) and Smith (2011), both of whom span various disciplines to weave together integrated theories of dehumanization.

Despite these limitations, our results contribute to a growing body of evidence suggesting that metadehumanization can powerfully exacerbate intergroup conflict (Kteily et al., 2016; Moore-Berg et al., 2020). Indeed, we found metadehumanization to be more consequential than metaprejudice in driving Americans' hostility toward Russians, an intergroup context which has

become increasingly stormy given the contemporary sociopolitical climate (Poushter, 2018; Saad, 2019; Stent, 2015). In light of these results, it should be remembered that this research was motivated by instances of real-world violence inflamed by reciprocal dehumanization (e.g., Bruneau & Kteily, 2017; Goldhagen, 2009; Smith, 2011). By inspiring reciprocal dehumanization, metadehumanization may indeed facilitate hostility and perpetuate intergroup conflict. In the shadow of such reciprocal conflicts, both historical and contemporary, we encourage rigorous, ecologically valid research to build on our results and better elucidate the antecedents and consequents of metadehumanization.

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Supplemental material

Supplemental material for this article is available online (https://osf.io/2ekdp/).

Notes

1. Blatant dehumanization refers to explicitly denying another's humanity, and is typically considered to be overt and aggressive. It is contrasted to subtle or implicit forms of dehumanization in which a person may be implicitly associated with nonhuman animals or denied characteristics considered to be uniquely human or a critical aspect of human nature (see Haslam & Loughnan, 2014, for a review). We focus on blatant dehumanization here because it is often a more consequential factor in extreme intergroup conflicts (Kteily &

Bruneau, 2017b; Kteily et al., 2015).

2. Independent sample t tests revealed no order effects for participants' metadehumanization and hostility toward Russians and Arabs, nor for their metaprejudice toward Russians. However, those who responded to the metaprejudice measure for Arabs second, reported significantly greater prejudice toward them than those responding to this measure first, $t(386) = 1.97$, $p = .049$.

3. Participants completed additional measures for exploratory purposes, which can be provided upon request.

4. Full tables of variable intercorrelations and descriptive statistics are presented in Supplemental Material 1.

5. All subsequent mediation analyses were also performed with 5,000 bootstrap resamples. All other analyses were performed with 1,000 bootstrap resamples.

6. Given that we were focused on the role of (meta) dehumanization, we do not report results for prejudice. However, we include prejudice in the full path model (see Figure 3). We also ran an analogous set of tests to determine the effects of metaprejudice on our outcomes. These results are reported in Supplemental Material 2.

7. All subsequent analyses concerning outgroup dehumanization were also performed with ingroup dehumanization as a covariate.

8. These covariates were also included in the subsequent mediation analysis for Arabs. However, we also reran all analyses reported in this manuscript that controlled for conservatism and SDO without including these covariates. Results are reported in Supplemental Material 3.

9. Confidence intervals here and throughout the manuscript refer to the unstandardized coefficient.

10. However, when we removed SDO and conservatism as covariates, the result became fully significant (see Supplemental Material 3).

11. However, as one anonymous reviewer pointed out, dehumanization is often employed, in part, for functional purposes (e.g., to justify atrocities against others). Therefore, high-status groups may be dehumanized if it serves the interests of certain groups (see also Kteily & Bruneau, 2017a, for evidence that low-status groups can dehumanize higher status groups).

12. Given the relatively weak correlations between these items, we also examined each in isolation. We can provide the results of our analyses using each individual item upon request.

13. As in Study 1, we also included and controlled for the ingroup (i.e., Americans) in our analyses.

14. Those in the metaprejudice condition also reported greater metadehumanization than those in the control condition, $p < .001$. Additionally, those in the metadehumanization condition reported greater metaprejudice than those in the control condition, $p < .001$. Although we did not formally hypothesize these results, given the strong relationships between these constructs, it is reasonable to think that evoking one of these metaperceptions also raised the other beyond levels observed in a neutral condition.

15. These mediators where themselves highly correlated, $r(464) = .54, p < .001$.

16. These covariates were also included in the parallel mediation reported in what follows.

17. In contrast, the indirect effect of condition on dehumanization, serially mediated by the experience of social identity threat and desire to reciprocate, was not significant for those reading the metaprejudice article. We also ran an analogous model where the outcome variable was prejudice, as opposed to dehumanization. We obtained similar results such that the indirect effect was significant for those in the metadehumanization condition but not for those in the metaprejudice condition.

18. A comparison of descriptive statistics can be provided upon request.

19. We credit this insight to Nour Kteily.

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Appendix

Hostility Measure Used in Studies 1 and 2

Please indicate your agreement with each of the following statements:

- It would bother me if my son or daughter ended up marrying a Russian.
- The U.S. government should restrict the immigration of Russians into the country.
- I support affirmative action to increase the representation of Russian immigrants on college campuses in the United States (reverse-scored).
- Just as we do in areas in the United States with many Spanish speakers, we should translate announcements and signage into

Russian in areas with large Russian communities (reverse-scored).
- The US should impose strong economic sanctions on Russia (e.g., penalties, tariffs, trade restrictions).
- I support military action against Russia.
- The US should respect Russia's sovereignty (reverse-scored).

- The U.S. military has the right to torture Russian terrorists.

Items were answered on a 7-point scale (1 = *strongly agree*, 7 = *strongly disagree*). In Study 1, subjects also completed this measure for Arabs (i.e., a separate measure with identical wording, except that Arabs were the target group).