The Contagion of Interstate Violence: Reminders of Historical Interstate (but Not Intrastate) Violence Increase Support for Future Violence Against Unrelated Third-Party States

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Abstract
Five experiments investigated the war contagion phenomenon in the context of international relations, hypothesizing that reminders of past inter- (but not intra-) state war will increase support for future, unrelated interstate violence. After being reminded of the Korean War as an interstate rather than intrastate conflict, South Koreans showed stronger support for violent responses to new, unrelated interstate tensions (Study 1). Replicating this war contagion effect among Americans, we demonstrated that it was mediated by heightened perceived threat from, and negative images of, a fictitious country unrelated to the past war (Study 2), and moderated by national glorification (Study 3). Study 4, using another international conflict in the U.S. history, provided further conceptual replication. Finally, Study 5 included a baseline in addition to the inter- versus intrastate manipulation, yielding further support for the generalized effect of past interstate war reminders on preferences for aggressive approaches to new interstate tensions.

Keywords
interstate violence, war contagion, intergroup threat, image, ingroup identification/glorification

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One of the most well-established phenomena in the psychological literature on aggressive and violent behavior is that violence begets violence. In a wide variety of contexts—from child abuse, to homicide, to community violence—scholars of aggression have demonstrated that suffering, committing, or even observing violence increases the likelihood of engaging in violent acts against others in the future (Bandura, 1973; Goldstein, Davis, & Herman, 1975; Huesmann, 2011; Patel, Simon, & Taylor, 2013; Severance et al., 2013; Widom, 1989a, 1989b). While the “violence begets violence” hypothesis has been extensively researched in the realm of interpersonal relations, empirical research on the radiating effect of violence among large social groups such as nation states is limited. Is interstate violence also contagious in the sense that reminders of a state’s past engagement in violent conflict with another state can predispose its citizens to supporting future violence against other, unrelated third-party states? If so, what are the psychological processes underlying such contagion of interstate violence?

In the current contribution, we argue that when reminded of a historical interstate war, citizens of the participating states will perceive any foreign state (even ones not involved in the historical war) as more threatening and dangerous. Such heightened perceived threat of other third-party states will in turn increase these third-party states’ negative images in the eye of citizens from the observing state, which will eventually lead to citizens’ support for violence in response to contemporary tensions with third-party states.

The Contagion of Interstate Violence
Events between two states rarely affect only the states involved. They often percolate through each state’s respective networks, (re-)shaping each state’s relations with
other third-party states. Throughout history, conflicts and wars between two nations have created “traps” that draw other nations into their grasp. International relations scholars often refer to this phenomenon as contagion, or diffusion, of war (Houweling & Siccama, 1985; Kedera, 1998; Levy, 1982; Most & Starr, 1990; Siverson & Starr, 1991). The logic of war contagion, in its original form, is that the spread of war is rather immediate both temporally and spatially, directly associated with the original war. More recent scholarship in the field of international politics has extended this notion by examining the influence of a state’s historical ties with other states on its present and future foreign relations (Crescenzi, 2007). In this case, it has been argued that two states are more likely to engage in war if one of them perceives the other as having a history of hostile interactions with other (third-party) states.

While interstate relations can become more violent due to a state’s reputation for hostility, we propose another, perhaps more direct form and cause of violence contagion across space and time. Interstate violence can spread, we argue, because a state’s prior experience of interstate violence makes its own citizens more prone to perceiving any other state (including third-party states not involved in the original violence) as hostile and threatening to their own state, and therefore more likely to behave violently in the face of new interstate tensions with any other state. After the invasion of Afghanistan, for example, the United States placed several other states, even those unrelated to Afghanistan or 9/11, on an “axis of evil.” One of the states on this axis was Iraq, which was subsequently invaded by the United States in 2003. Certainly, public support for the use of force can be attributed to a variety of reasons other than their states’ historical engagement in interstate violence (e.g., Berinsky, 2007; Jentleson, 1992). In fact, defending national interests, along with other benefits that supposedly outweigh the costs of war, is a rhetoric that political elites commonly use when justifying their decisions to go to war. The opinion of ordinary citizens, however, is rarely determined by such rational-choice approaches to evaluating military decisions (e.g., Berinsky, 2007; Long & Brecke, 2003). Thus, our war contagion hypothesis above by no means rejects other explanations for violent interstate behaviors. Rather, it offers a complementary outlook on why countries repeatedly engage in interstate violence, particularly from the perspective of ordinary people.

Against the background of war contagion theory, it is important to note that a state’s prior experience of violence, as we argue, will only spill over to new interstate situations when the prior violence has been between, not within (e.g., intrastate violence, such as civil war, political violence within a state), states. This is because past engagement in interstate violence will likely provide information that people use to generalize, accurately or not, to other foreign states. Past intrastate violence, however, does not provide information generalizable to other interstate contexts—though such information may arguably be generalizable to other intrastate contexts. With this distinction between different types of violence in mind, we consider past intrastate violence an important and methodologically rigorous comparison with past interstate violence when examining the contagion of interstate violence through the generalization of perceived threat and negative images of foreign states.

**Attitude Generalization**

Although psychological research has not empirically examined the contagion of interstate violence—specifically, how and why reminders of past interstate violence increase citizens’ support for violence to address new, unrelated interstate tensions (but see Gelfand et al., 2012, for qualitative evidence for cultural contagion of conflict)—it has shed innovative light on the generalization of attitudes from past intragroup conflicts to new conflicts with seemingly unrelated third parties. In one study, Wohl and Branscombe (2009) showed that a reminder of historical ingroup victimization (i.e., attack on Pearl Harbor by the Japanese) was sufficient to elicit collective angst, or the concern about the future vitality of one’s ingroup, among American participants. This concern subsequently motivated ingroup-protective actions in current intergroup situations—participants expressed more forgiveness of the harm that Americans committed in the Iraq war. In another study, Americans and Canadians showed dramatically less favorable attitudes toward foreigners and immigrants after the attacks of 9/11, 2001, regardless of whether their origins were related to the attackers (Essex, Dovidio, & Hodson, 2002). Similarly, Americans showed increased support for war and violence in general after being reminded of the 9/11 attacks (Carnagey & Anderson, 2007). In their research on schadenfreude, Leach and Spears (2009) demonstrated that when one’s own nation was outshone by a second nation, the dejection at such defeat can lead to feelings of schadenfreude toward the misfortune of an uninvolved third nation (also see Leach, Spears, Branscombe, & Doosje, 2003, Study 2). Importantly, dislike of the second nation predicted schadenfreude toward the third nation, which in turn promoted negative evaluations of the third nation. Again focusing on group-based emotions, Rees and colleagues (2013) demonstrated a generalization effect of collective moral shame, suggesting that feelings of moral shame elicited by past ingroup-committed atrocities are associated with increased support for unrelated, contemporary, third-party groups. These findings lend tangential support to the notion that negative interstate experiences in the past can have important implications for how citizens view and interact with other states in the future.

The above-mentioned studies also collectively speak to a more general psychological phenomenon that is of importance here: attitude generalization. The attitude generalization effect has been demonstrated in many different domains, suggesting that attitudes toward one object can generalize to
International Images and Intergroup Threat

International image theory, originally developed by international relations scholars, posits that perceptions of actors on the international stage are organized into different schemas, stereotypes, or images (Alexander, Brewer, & Hermann, 1999; Alexander, Levin, & Henry, 2005; Cottam, 1977; Herrmann, Tetlock, & Visser, 1999; Herrmann, Voss, Schooler, & Ciarrachi, 1997). According to the theory, perceived images stem primarily from ongoing relationships between nations and serve to guide or justify strategic action and policy choices in international affairs. Image theorists have identified five major images in the international arena: enemy, ally, imperialist, dependent, and barbarian. The enemy image arises when the relationship between two international actors of comparable power and cultural sophistication is characterized by intense competition and threat. In direct contrast to the enemy image, the ally image derives from a rather cooperative and mutually beneficial relationship between actors that also share similar status. The imperialist image arises when the observer perceives another actor as more powerful and culturally similar or superior, thus possessing both the capability and opportunity to exploit the observer (e.g., colonizers in the eyes of their current or future colonies). The complement to the imperialist image is the dependent image, which portrays the target country as vulnerable and inferior, presenting the opportunity for the more powerful observer to take control over. Finally, the barbarian image portrays the target as more culturally backward and yet more powerful as compared with the observer.

Building upon image theory, we propose that one state’s relation with a second state not only shapes the images of that second state in the eyes of the first, but it also generalizes beyond the specific interstate context to affect perceived images of unrelated third-party states (i.e., images of “other states in general”). Thus, reminders of past interstate war between the observer’s own state and another will likely increase his or her perceived negative images (i.e., enemy, imperialist, dependent, or barbarian) and decrease his or her perceived positive images (i.e., ally) of any foreign states in general. It is unclear, however, whether this generalization effect will increase perceptions of any kind of negative images or limit to negative images that reflect specific structural relations between the target and perceiver’s own country (e.g., imperialist). While image theory focuses on the distinctions among different images, the hypothesized war contagion effect could manifest as a generalized antagonism against foreign countries as a whole, regardless of the specific image an individual country carries.

As mentioned earlier, image theory postulates that perceived threat from a target state plays a crucial role in the initial formation of images of that state. It is plausible, then, that an increase in perceived threat drives the hypothesized effects of reminders of past violent conflict on perceived images of other states. Indeed, past research has shown that support for or opposition to war is often determined by the perceived salience and immediacy of these threats (Berinsky, 2007; Paez & Liu, 2011). Based on past research on intergroup threat, we explored perceptions of threat to both the ingroup’s physical existence and well-being, as well as its cherished values and principles. The more tangible threat is often referred to as realistic threat, pertaining to perceiving the outgroup as endangering the existence (e.g., through warfare), political or economic power, and the physical or material well-being of the ingroup or its members (LeVine & Campbell, 1972; Sherif & Sherif, 1953, 1979). In contrast, symbolic threat concerns dangers to the ingroup’s “way of life” due to perceived intergroup differences in values, norms, standards, and worldviews (Stephan & Stephan, 2000). As such, both realistic and symbolic threat might evoke perceptions of negative international images.

Integrating research on intergroup threat and international images, we propose that reminders of one’s state’s past engagement in violence against another state will elicit generalized perceptions of symbolic and realistic threat from previously uninvolved third-party states, which will in turn result in increased perceived negative international images. Negative images, according to image theory, should then lead to preferences for aggressive foreign policies in response to new interstate tensions (see Figure 1). Adding another layer of complexity to the proposed war contagion process, and in keeping with literature on attitude generalization, the target country of perceived threats and images does not necessarily have to be the same as the target country of foreign policies. In other words, perceived threats from and negative images of a foreign country can further generalize to influence policy preferences regarding yet other foreign countries. Such generalization effects are also evident in the research on outgroup homogeneity (e.g., Judd & Park, 1988; Park & Rothbart,
Figure 1. The conceptual model depicting the hypothesized effects of reminders of past interstate violence (as opposed to reminders of past intrastate violence) against State A on support for future interstate violence against State C through perceived symbolic and realistic threats from, and international images of, State B (as a stand-in for any foreign state).

Research has revealed that glorification is negatively related to collective guilt for ingroup-committed transgressions, whereas attachment is positively related to collective guilt for ingroup-committed transgressions (Roccas et al., 2006). Similarly, when the ingroup (rather than an outgroup) was responsible for intergroup violence, glorification but not attachment predicted dehumanization of outgroup victims and decreased demands for justice (Leidner, Castano, Zaiser, & Giner-Sorolla, 2010), as well as a shift from violence-condemning harm and fairness morals to violence-legitimizing loyalty and authority morals (Leidner & Castano, 2012).

In line with past research on group identification, we predicted that the extent to which individuals are psychologically invested in their national group would moderate the effects of past interstate violence on responses to ongoing interstate tensions. Strongly glorifying group members, at the very least those who are high on both glorification and attachment, should be most affected by reminders of past interstate violence, and therefore perceive other states as most negative and threatening, which should ultimately lead to support for more violent responses to new interstate tensions. In contrast, reminders of the ingroup’s past conflict with other states are unlikely to affect low glorifiers due to their lack of motivation or psychological need to defend the ingroup.

The Present Research

In five experiments and three different international contexts, we tested the general war contagion hypothesis that reminders of a historical interstate (rather than intrastate) war can increase citizens’ support for unrelated future interstate violence (Studies 1, 2, and 4). Moreover, we explored the underlying mechanisms of this war contagion phenomenon (Studies 2 and 5) as well as the moderating role of ingroup glorification (Studies 3, 4, and 5). Study 5 also included a baseline condition that allowed us to determine the directionality of the difference between responses to the inter- and intrastate violence reminder. In all five studies, we also tested for any additional effects of gender, age, and political ideology. Gender was not associated with any of the outcome variables of interest, nor did it interact with condition (inter- vs. intrastate violence reminder). Age was negatively associated with support for future interstate violence in three of the five studies, but did not interact with condition. More conservative political ideology predicted support for future violence in all five studies, but no consistent interaction patterns emerged between political ideology and condition. Because none of these demographic variables interacted with the experimental manipulation, we did not include them in the analyses reported below.

Study 1

Study 1 tested the main hypothesis that reminding people of their country’s engagement in past interstate (but not
intragroup) violence will increase their support for violence in
response to new interstate tensions with other countries. To
offer a stringent test of this hypothesis, we examined South
Korean participants’ reactions to both real and hypothetical
contemporary tensions between South Korea and other
nations after being reminded of the Korean War, framed as
either an interstate or intrastate war. Although North and
South Korea had been established as independent nations
shortly before the war, the divide between the two Koreas
was not clear due to their long history of shared cultural and
ethnic heritage. It was the Korean War that officially estab-
lished a clear, enduring national boundary between the two
Koreas. The ambiguity in the inter-/intrastate nature of the
Korean War thus allowed us to emphasize either its interstate
or intrastate characteristics and to compare South Koreans’
reactions after being exposed to the different framings of the
conflict. As the Korean War was clearly an intragroup con-

Method

Participants. The sample consisted of 300 South Koreans
recruited through Embrain, an online research agency in
South Korea. Three participants were statistically outliers on
the manipulation check questions and thus excluded from the
subsequent analyses. In all, 297 participants were retained
for data analysis (50% men; age: $M = 34, SD = 8.58$).

Procedure. Participants were randomly assigned to read a fic-
titious, but allegedly real, news article describing the Korean
War either as an international war or a civil war. In the inter-
state war condition, the Korean War was depicted as an inter-
national conflict, in which the North declared independence
as a separate nation and named their country Democratic
People’s Republic of Korea (North Korea), while the South
also set up an independent nation named Republic of Korea
(South Korea). In the intrastate condition, the Korean War
was depicted as a civil war with an emphasis on the common
cultural heritage between the North and the South. The arti-
cle stated that the civil war pitted neighbors against neigh-
bors and, in some cases, brothers against brothers.

Following the reading task, participants completed sev-
eral manipulation checks and dependent measures as
described below. At the end of the study, participants reported
their demographic information and were fully debriefed.

Materials

Manipulation checks. After reading the article, partici-
pants in the interstate war condition indicated the extent to
which they perceived the conflict depicted in the article as an
international war. Participants in the intrastate war condition
indicated the extent to which they perceived the conflict as a
domestic/civil war. We used different manipulation check
scales in the two conditions because answering the question
about civil or international war might in itself prime par-
ticipants with the intra- or interstate framing of the Korean
War. In other words, given the subtle differences between the
intra- and interstate framings, a mere mention of the alter-
native framing in the manipulation check could undermine
the effectiveness of the original manipulation. The downside
of this design choice—that is, that we could not compare
either of the two manipulation check questions between
conditions—was addressed in Study 2.

Results and Discussion

Manipulation checks. After excluding three statistical outliers
on the manipulation checks, participants’ responses to the
question about how much they perceived the Korean War as
an international conflict ranged from 6 to 9 ($M = 7.57, SD = 1.11$) in the interstate war condition. A one-sample $t$ test
revealed that the mean was significantly different from the
midpoint of the 9-point scale, $t(147) = 28.08, p < .001$. In the
intrastate war condition, participants’ responses to the ques-
tion about how much they perceived the war as a civil war
also ranged from 6 to 9 ($M = 7.61, SD = 1.07$). The mean was
again significantly different from the midpoint of the scale,
Assuming participants’ perceptions of the Korean War were in accordance with the respective condition to which they were assigned (i.e., inter- and intrastate war, respectively).

**Analytical strategy.** Because we hypothesized that reminders of past interstate violence would influence attitudes toward contemporary tensions with other, unrelated countries in general, we first treated the four conflict scenarios as a single scale. An exploratory factor analysis yielded an acceptable one-factor solution with items of diplomatic solutions loading negatively and items of military solutions loading positively. Based on the factor analysis and our theoretical reasoning, we reverse-scored support for diplomatic responses and created a composite score combining diplomatic (reversed) and military solutions to all four conflict scenarios, regardless of possible differences between scenarios (e.g., different target countries, different types or severity levels of tension). Although the scale was reliable (α = .69, M = 3.93, SD = 1.11) and unidimensional, it is important to ensure that any within-subject effects representing such differences were non-significant and did not alter the effect of condition on the dependent variable (DV). Thus, we also ran a mixed ANOVA, in which condition was entered as a between-subjects variable and conflict scenario as a within-subjects variable. Results from both analyses converged; thus, we only report below the analysis with all four scenarios combined (see Supplementary Materials for results of the mixed ANOVA).

**Support for violent responses to current interstate tensions.** We submitted the composite score for support for violent responses as the DV to a general linear model (GLM) in SAS 9.4. Consistent with our war contagion hypothesis, the analysis yielded a significant effect of condition, indicating that framing the Korean War as an interstate conflict (M = 4.06, SD = 1.11) increased participants’ support for violent responses to unrelated, contemporary conflicts as compared with framing the same war as an intrastate conflict (M = 3.78, SD = 1.10), F(1, 295) = 4.37, p = .038, ηp² = .01 (LCI < .01, UCI = .05).

In the context of the conflict between North and South Korea, Study 1 provided preliminary evidence for our war contagion hypothesis. When reminded of the Korean War as an interstate rather than intrastate conflict, people were more likely to adopt aggressive approaches to resolving new tensions with previously uninvolved third parties. In Study 2, we explored the hypothesized underlying mechanisms of the war contagion effect—that is, generalized perceptions of threat from and negative international images of third-party states.

**Statistical power.** A post hoc power analysis using the G*Power program (Erdfelder, Faul, & Buchner, 1996) revealed that on the basis of the effect size for the effect of condition on support for future violence (ηp² = .01), and a sample size of 297, the power to detect the hypothesized effect was 0.40. Although the power is relatively low, it is similar to the average power of 0.35 in the field of psychology (Bakker, van Dijk, & Wicherts, 2012), and we obtained significant, a priori hypothesized effects.

**Study 2**

The main goal of Study 2 was to test the mediation hypothesis that reminding people of their country’s engagement in past interstate (but not intrastate) violence would heighten their negative perceptions of third-party states in general, which will in turn increase support for violence in response to new interstate tensions with other countries. To test the generalizability of the war contagion effect established in Study 1, Study 2 was conducted in a different cultural, political, and historical context. We examined American participants’ reactions to contemporary tensions between the United States and other nations after being reminded of either the American Revolutionary War (interstate conflict) or the American Civil War (intraporate conflict). We predicted that Americans would react more hostily to current tensions between the United States and other foreign countries after the reminder of the Revolutionary War as compared with that of the Civil War. To further investigate whether war contagion is driven by generalized perceived threats from and negative images of any foreign state, we assessed perceived threats and images of a fictitious, but allegedly real, country as a “stand-in” for third-party states in general. Given that participants had no knowledge of this fictitious state’s foreign relations, using a fictitious country as the target state provided a stringent test of whether, and to what extent, past interstate violence can change the perceived threat and image of a completely uninvolved third-party state.

**Method**

**Participants.** The sample consisted of 194 Americans recruited through Amazon’s Mechanical Turk (MTurk). Our screening of the data quality resulted in the exclusion of three participants who did not pay sufficient attention to the manipulation materials (as indicated by their incorrect summaries of the news articles), five participants who spent significantly more time reading the manipulation materials than the rest of the sample, and 22 multivariate outliers (Tabachnick & Fidell, 2007). Although we excluded approximately 15% of the total sample, the exclusion rate was similar to the average benchmarks for online studies (Chandler, Mueller, & Paolacci, 2014). In all, 164 participants were retained for data analysis (40% men; age: M = 35, SD = 12.81).

**Procedure.** Participants followed a similar procedure as in Study 1. They were first randomly assigned to read a fictitious, but allegedly real, New York Times article depicting either the American Civil War (intraporate war condition) or...
the American Revolutionary War ( interstate war condition). In the intrastate war condition, participants read about the vast cultural and political differences between the American South and North, which eventually led to the outbreak of the American Civil War. In the interstate war condition, participants read about the mounting tensions between Great Britain and what is now the United States prior to and during the Revolutionary War. To minimize the differences between the two articles, the descriptions of the Civil War and the Revolutionary War were identical in terms of casualty numbers and injuries. Although the numbers of deaths and injuries were thus inaccurate, no participant raised suspicion in the summaries of the articles or at the end of the study. To rule out the possibility that any observed effect is due to the perceived intra- versus intergroup (as opposed to intra- vs. inter-state) nature of the conflict, we also emphasized in both articles that the war was one of the most costly instances of intergroup warfare in the sense that two groups were in conflict with each other. Furthermore, both articles ended on a rather positive note, emphasizing the abolition of slavery in the Civil War condition and the independence of the United States in the Revolutionary War condition.

After the reading task, participants completed several manipulation checks. To ensure that participants read the article carefully, they also summarized it in their own words. Then they filled out the dependent measures in the order outlined below. All items were measured on 9-point analog visual scales (1 = strongly disagree; 9 = strongly agree) unless noted otherwise. At the end of the study, participants reported their demographic information and were fully debriefed.

Materials
Manipulation check. After reading the article, participants answered three questions to indicate the extent to which they perceived the conflict depicted in the article as (a) two groups fighting against each other, (b) a domestic/civil war, and (c) an international war.

Symbolic and realistic threat. Adapted from Stephan, Ybarra, Martinez, Schwarzwald, and Tur-Kaspa (1998; Stephan, Ybarra, & Bachman, 1999), two items measured symbolic threat posed by perceived differences in values and cultures between the United States and a fictitious country called Coebia (e.g., “Coebia is a threat to American culture.”). Two items measured realistic threat posed by military or economic competition between the United States and Coebia (“Coebia’s military development poses a threat to U.S. interests.”).

International images. We examined participants’ perceptions of three international images: ally, enemy, and imperialist. Ally and enemy images are the most widely studied images, which are also the most central to contemporary international relations. The imperialist image, in addition, is highly relevant to the American Revolution against the British Empire. Adapted from Alexander et al. (2005), perceived images of Coebia were assessed using three subscales tapping the three different images, respectively. Each image was measured with two items (e.g., Ally: “Coebia is good-willed toward other countries”; Enemy: “Coebia has hostile intentions toward others”; Imperialist: “Coebia exploits other countries and keeps all the profits for itself.”).

Support for violent responses to current interstate tensions. Similar to Study 1, participants responded to six scenarios describing contemporary tensions (real or fictitious) between the United States and other countries. Of the six conflict scenarios, one described the nuclear program in Iran as a potential threat to the United States and its allies; one described the recent nuclear threats issued by North Korea; one described America’s increasing economic and trade tensions with China; and one described the military tensions between the United States and Russia. In addition to countries that currently have real tensions with the United States, we also examined participants’ reactions to fictitious, but allegedly real, tensions between the United States and countries with which the United States has neutral or rather amicable relationships. Two scenarios described tensions between the United States and Australia as well as the Netherlands, respectively. As the focus of our main hypothesis is support for military rather than diplomatic conflict resolution strategies, participants in this study only indicated the extent to which they favored military strategies to address the tensions (1 = not at all; 9 = very much).

Results and Discussion
Manipulation checks. As expected, participants in the intrastate (M = 7.56, SD = 1.85) and interstate war (M = 7.83, SD = 1.76) conditions did not differ significantly in their perceptions of the violent conflict described in the article as two groups fighting against each other, F(1, 162) = 0.93, p = .36, ηp2 = .01. Participants in the interstate war condition perceived the conflict significantly less as a domestic/civil war (M = 4.03, SD = 2.68) compared with those in the intrastate war condition (M = 8.03, SD = 1.69), F(1, 162) = 129.88, p < .001, ηp2 = .45. Conversely, participants in the interstate war condition perceived the conflict significantly more as an international conflict (M = 6.80, SD = 2.38) than participants in the intrastate war condition (M = 2.45, SD = 2.29), F(1, 162) = 142.20, p < .001, ηp2 = .47. Thus, as expected, the conditions did not differ in terms of perceived intergroup conflict, but they did differ in terms of inter versus intrastate conflict. To further test the differences between participants’ responses to the two questions about the extent to which they perceived the war as domestic and international, we also conducted a mixed factorial ANOVA with the type of war asked about in these two manipulation check questions (domestic/civil war vs. international conflict) as a
within-subjects independent variable (IV) and condition (intra- vs. interstate war reminder) as a between-subjects IV. The analysis revealed a significant interaction between war type and condition, $F(1, 162) = 185.06, p < .001$, indicating that the effect of condition on participants’ responses to the question regarding domestic war was significantly different from that on responses to the question regarding international war.

**Main analyses**

**Support for violent responses to current interstate tensions.** As in Study 1, we submitted the composite score for support for future violence against the six foreign countries$^5$ ($M = 3.71, SD = 1.69$) as the DV to a GLM. The analysis yielded a marginally significant effect of condition, $F(1, 162) = 3.59, p = .060, \eta^2_p = .02$ (LCI < .01, UCI = .08). As predicted, participants supported future interstate violence somewhat more strongly after reading about the American Revolutionary War ($M = 3.98, SD = 1.64$) as compared with the American Civil War ($M = 3.49, SD = 1.67$).

**Symbolic and realistic threat.** Due to the strong correlation between symbolic and realistic threat ($r = .94$), we first conducted a factor analysis to test whether these two types of threat are indeed two distinct constructs in our data. Only one factor emerged, however, indicating that we should treat symbolic and realistic threat as one construct in the subsequent analyses (as suggested by a scree plot and the “Eigenvalue > 1” criterion; see Table 1 for the factor loading patterns).$^4$ A GLM with perceived threat from Coebia as the DV ($\alpha = .96, M = 3.85, SD = 1.76$) revealed a significant effect of condition, such that participants who had been reminded of interstate war reported significantly greater perceived threat ($M = 4.42, SD = 1.61$) compared with participants who had been reminded of intrastate war ($M = 3.45, SD = 1.83$), $F(1, 158) = 8.56, p = .004, \eta^2_p = .05$ (LCI = .01, UCI = .13).

**International images.** We also conducted a factor analysis on all international image items to test whether the three subscales indeed measured three distinct images in our study: enemy, imperialist, and ally. $^5$ Two factors emerged from the analysis (as suggested by a scree plot and the “Eigenvalue > 1” criterion; see Table 2 for the factor loading patterns). Items for enemy and imperialist images loaded onto a single factor, while items for ally image defined the second factor. Although enemy and imperialist images are considered two distinct constructs according to image theory, their factor loadings indicate that they should be treated as one single construct in our data.$^6$ Therefore, we created a new variable, negative image ($\alpha = .97, M = 4.22, SD = 1.52$), including both enemy and imperialist image. The analysis revealed a significant effect of condition on negative image, $F(1, 158) = 5.67, p = .018, \eta^2_p = .03$ (LCI < .01, UCI = .11). Consistent with our hypothesis, participants reported greater perceived negative image of Coebia after being reminded of interstate war ($M = 4.50, SD = 1.27$) as compared with intrastate war ($M = 3.93, SD = 1.70$). The same analysis with perceived ally image of Coebia ($\alpha = .96, M = 4.88, SD = 1.54$) as the DV, however, did not yield a significant effect of condition ($M_{\text{intrastate}} = 5.04, SD_{\text{intrastate}} = 1.14; M_{\text{interstate}} = 4.77, SD_{\text{interstate}} = 1.84), F(1, 158) = 1.25, p = .265, \eta^2_p = .01$ (LCI < .01, UCI = .06).

**Path Analyses**

To test our hypothesized model of the effect of condition on support for future interstate violence through (a) perceived threat and (b) perceived images of foreign countries (see Figure 1), we conducted a path analysis, in which condition was entered as an exogenous variable, and perceived threat, negative and ally images, and support for future interstate violence were entered as endogenous variables.$^7$ Mirroring our GLMs described above, we modeled the effect of condition on perceived threat as the “Step 1 mediator.” Perceived threat in turn affected perceived negative image as the “Step 2 mediator,” which then affected support for future interstate violence as the ultimate outcome variable. The model, as depicted in Figure 2, fit the data well, with the desirable non-significant exact-fit index, $\chi^2(4) = 3.75, p = .318$, and very good close-fit indices, comparative fit index (CFI) = 1.00, normed fit index (NFI) = .97, standardized root mean square residual (SRMSR) = .04. Significance and directions of the paths were in line with our expectations. We also tested several alternative models using both mediation and path analyses (see Supplementary Materials).

Study 2 replicated the main war contagion effect in an entirely different context. When reminded of the American Revolutionary War (compared with the American Civil War),
American participants were more supportive of aggressive approaches to resolving new tensions with previously uninvolved third-party states, including those with rather amicable relationships to the United States (i.e., Australia, the Netherlands). It is worth noting that this effect was only marginally significant and therefore should be interpreted with caution. Study 2 further demonstrated the mediating roles of perceived threat and negative international images. When reminded of an interstate (rather than intrastate) war, American participants viewed an uninvolved, even fictitious, third-party state as more threatening, which in turn predicted heightened perceived negative international images of that state. Negative images then led to increased support for violent responses to new, unrelated interstate tensions with other, real states.

Statistical power. A post hoc power analysis revealed that the power to detect the main effects of condition on the DVs was 0.65.

Study 3

The main goal of Study 3 was to investigate potential moderators, thereby establishing boundary conditions of war contagion. Study 3 was therefore designed to examine the moderating roles of ingroup glorification and attachment in the war contagion phenomenon. In an effort to directly replicate our findings in Study 2 (for the primacy of direct replications, see Simons, 2014), we employed the same manipulation materials in this study.

Method

Participants. The sample consisted of 180 Americans recruited through MTurk. A prescreening procedure was employed to prevent people who participated in Study 2 from taking part in this study. After excluding eight participants who did not pay sufficient attention to the manipulation, and six participants who spent less than 30 s reading the manipulation material or significantly longer than the rest of the sample (outliers), 166 participants were retained for data analysis (49% men; age: M = 33, SD = 12.08).

Procedure. Participants followed the same procedure as in Study 2. Participants in the intra- and interstate war conditions read the same New York Times articles about the American Civil War and the American Revolutionary War, respectively. Following the reading task, participants completed the same manipulation checks as in Study 2, and then summarized the news article in their own words. Afterward, they filled out the dependent measures in the order outlined below.

Materials

Support for violent responses to current interstate tensions. To measure support for violent and nonviolent solutions to new interstate tensions, participants were presented with three of the six international conflict scenarios that were used in Study 2. To maximize ecological validity, realism, and real-world applicability of our findings, we focused on countries that, at the time, had real tensions with participants’ own country (United States). Thus, the three scenarios described the tensions with Iran, North Korea, and China.

National attachment and glorification. Attachment was measured with eight statements about the United States, tapping the importance of the United States to participants’ identity and their commitment to the United States (e.g., “Being American is an important part of my identity.”). Glorification was measured with eight statements tapping participants’ belief in American superiority over other countries, and their deference to American authorities (e.g., “The United States is better than other nations in all respects”; “It is disloyal for Americans to criticize the United States.”). These statements were adapted to the American context from Roccas et al.’s (2006) scales. Following others (e.g., Feygina, Jost, & Goldsmith, 2010; Leidner et al., 2010), the moderators were administered at the end of the study to avoid raising participants’ suspicion about the study goal.

Results and Discussion

National attachment and glorification. Neither attachment (α = .94, M = 6.30, SD = 1.84), F(1, 164) = 0.71, p = .393, ηp² = .01, nor glorification (α = .85, M = 4.56, SD = 1.42), F(1, 164) = 0.31, p = .580, ηp² = .00, was significantly affected by condition, thus allowing us to use them, together with condition, as IVs in subsequent GLMs.

Support for violent responses to current interstate tensions. A composite score for support for violent responses to the conflict scenarios (α = .76, M = 4.71, SD = 2.35) was submitted as a DV to a moderated regression analysis with condition as a categorical IV and glorification and attachment as continuous moderating variables (and all interaction terms between these variables). The analysis yielded the expected two-way interaction between glorification and condition (see Figure 3), F(1, 158) = 5.37, p = .022, ηp² = .03 (LCI < .01, UCI = .10). Follow-up analyses revealed that participants who strongly glorified their ingroup (1 SD above the mean) were more likely to favor future interstate violence after reading about interstate war (M = 6.70, SE = .53) as

![Figure 2](image-url)
compared with intrastate war, ($M = 5.03, SE = .43), t(158) = 2.45, p = .015. In contrast, exposure to interstate or intrastate war did not have a significant effect on low glorifiers’ (1 SD below the mean) support for future violence; if anything, they showed the opposite tendency ($M_{\text{interstate}} = 3.36, SE_{\text{interstate}} = .48; M_{\text{intrastate}} = 4.13, SE_{\text{intrastate}} = .44), t(158) = −1.19, p = .238.9

Looking at the same two-way interaction from a different angle, glorification was positively associated with support for future violence in the interstate war condition, $\beta = .71, t(158) = 4.19, p < .001$, but not in the intrastate war condition, $\beta = .19, t(158) = 1.32, p = .190$. The interaction between attachment and condition was also significant, $F(1, 158) = 5.93, p = .016, \eta^2_p = .04$ (LCI < .01, UCI = .10). Participants who were low on attachment showed a similar pattern compared with those high on glorification—a reminder of interstate war ($M = 5.90, SE = .56$) increased these participants’ support for violence as compared with a reminder of intrastate war ($M = 4.12, SE = .46$), $t(158) = 2.45, p = .015$. Strongly attached individuals did not show significantly differential support for future violence depending on condition; if anything, they exhibited the opposite pattern compared with weakly attached participants ($M_{\text{interstate}} = 4.42, SE_{\text{interstate}} = .47; M_{\text{intrastate}} = 5.04, SE_{\text{intrastate}} = .43), t(158) = −1.39, p = .166. These findings suggest that highly glorifying and weakly attached participants in this study reacted in a similar manner after being exposed to interstate war rather than intrastate war. The analysis also revealed a significant main effect of glorification, $F(1, 158) = 16.29, p < .001, \eta^2_p = .09$, indicating that glorification was positively associated with support for future violence regardless of condition, $\beta = .45$. No other effects reached significance, $F$s(1, 158) < 1.20, p$s > .275, \eta^2_p$s < .01.

Study 3 confirmed our moderation hypothesis that reminders of past interstate violence should matter the most, in terms of their effects on support for aggressive responses to contemporary interstate tensions, to people who strongly glorify their own country. Even though we did not hypothesize a moderating effect of attachment, previous research has demonstrated the positive role of attachment in intergroup relations (Roccas et al., 2006). In line with this research, strongly attached participants responded similarly to those who only weakly glorified their ingroup (i.e., no increased support for violence after reminders of interstate war). While it is not yet clear why interstate as compared with intrastate war led to more support for future interstate violence among weakly attached individuals, resembling the reactions of high glorifiers, this “mirror effect” among weakly attached individuals has emerged in other intergroup research as well (e.g., Leidner, 2015; Leidner et al., 2010).

Statistical power. A post hoc power analysis revealed that the statistical power to detect the interaction between condition and glorification was 0.62. Again, however, the a priori hypothesized interaction effect was significant, with patterns confirming our hypotheses.

Study 4

In two different cultural contexts, Studies 1 to 3 provided evidence for the war contagion phenomenon, its underlying mechanisms (Study 2) and boundary conditions (ingroup glorification; Study 3). Both the Korean War and the American Revolutionary War, however, are unique interstate wars. While the Revolutionary War established the United States as an independent sovereign state, the Korean War resulted in a clear social and political divide between the two Koreas, which had shared a long national history. The historical and political significance of these two interstate wars may
distinguish them from other interstate wars, and thus may have contributed to the observed differences between the inter- and intrastate conditions in the previous studies. The main goal of Study 4 was therefore to examine whether interstate wars other than those upon which national identities were established can elicit the same war contagion effect. To this end, we explored Americans’ responses to the United States’ involvement in WWII, in addition to the Revolutionary War and the Civil War. In this study, we also aimed to replicate the moderating effects of national glorification and attachment.

Method

Participants. The sample consisted of 347 Americans recruited through MTurk. A prescreening procedure was used to prevent people who participated in Studies 2 and 3 from taking part in this study. After excluding three participants who encountered technical difficulties and thus did not see the manipulation materials, 60 participants who did not pay sufficient attention to the manipulation materials, and four participants who spent significantly more time reading the manipulation materials than the rest of the sample, 280 participants were retained for data analysis (43% men; age: M = 36, SD = 13.25).

Procedure and materials. Participants were first randomly assigned to read a New York Times article describing one of the three wars: the American Civil War, the American Revolutionary War, and WWII. The articles on the Civil War and the Revolutionary War were identical to the ones used in the previous studies. The article on WWII described the role that the United States played in the war. The description of WWII matched to the other two conditions in terms of casualties and injuries. It also described the war as an instance of intergroup warfare in the sense that two broad groups—the Nazis and their allies on one side, the United States and its allies on the other—were in conflict with each other. Like the other two conditions, the article on WWII also had a rather positive ending, stating that the war led to the liberation of concentration camps and prevented further genocide based on racist ideologies. Following the reading task, participants completed the same manipulation checks as in Studies 2 and 3, and then summarized the news article in their own words. Afterward, they filled out the same measures for dependent and moderator variables as in the previous studies.

Results and Discussion

National attachment and glorification. Neither attachment (α = .96, M = 6.61, SD = 1.92), F(2, 278) = 1.09, p = .339, η²p = .01, nor glorification (α = .87, M = 4.79, SD = 1.58), F(2, 278) = 0.11, p = .898, η²p = .00, was significantly affected by condition, thus allowing us to use them, together with condition, as IVs in subsequent GLMs.

Support for violent responses to current interstate tensions. To test our hypothesis that reminders of the Revolutionary War and WWII should increase support for violence in response to current interstate tensions, particularly among high glorifiers, we first conducted a GLM with condition (Revolutionary War vs. WWII vs. Civil War) as the IV, support for future violence as the DV, and glorification and attachment as moderators. The analysis revealed a significant main effect of condition, F(2, 268) = 4.34, p = .014, η²p = .03 (LCI < .01, UCI = .08). Participants reported greater support for future violence after the Revolutionary War reminder (M = 3.30, SD = 1.33), compared with the Civil War (M = 2.94, SD = 1.35) and the WWII (M = 2.95, SD = 1.27) reminder. The hypothesized interaction between condition and glorification did not reach statistical significance, F(2, 268) = 2.15, p = .119, η²p = .02 (LCI < .01, UCI = .05). However, the simple slopes for the relationship between glorification and support for future violence were significant in the predicted directions (see Figure 4). Whereas glorification was positively associated with support for future violence in both the Revolutionary War condition, β = .53, t = 4.22, p < .001, and the WWII condition, β = .57, t = 3.60, p < .001, the association was not significant in the Civil War condition, β = .14, t = 0.83, p = .407. Regardless of condition, there was also a significant main effect of glorification, F(1, 268) = 22.11, p < .001, η²p = .08 (LCI = .03, UCI = .14), indicating that glorification was positively associated with support for future violence, β = .41. No other effects reached significance, Fs(1, 268) < 1.60, ps > .204, η²ps < .015.

We also tested whether the slopes representing the association between glorification and support for future violence for the two interstate war conditions were different from the slope for the Civil War condition, and equally importantly, whether the slopes for the two interstate war conditions were not significantly different from each other. To do so, we first created two dummy variables representing two orthogonal contrasts: (a) the contrast between the Revolutionary War/WWII conditions and the Civil War condition, and (b) the contrast between the Revolutionary War and the WWII conditions (leaving out the Civil War condition). Next, we created two glorification interaction terms, two attachment interaction terms, and two three-way interaction terms including both glorification and attachment based on the two dummy variables described above. We then entered support for future violence, condition, the six interaction terms, glorification, and attachment in the GLM. As predicted, the glorification interaction term reflecting the contrast between the slopes for the Revolutionary War/WWII conditions and the Civil War condition was significant, F(1, 268) = 4.30, p = .039, η²p = .02 (LCI < .01, UCI = .06). In contrast, the glorification interaction term reflecting the contrast between the slopes for the Revolutionary War condition and the WWII condition was not significant, F(1, 268) = .05, p = .826, η²p < .01 (LCI < .01, UCI = .01).
When treating the Revolutionary War, WWII, and Civil War as three separate conditions in a GLM, the procedure does not allow us to conduct planned contrasts comparing both interstate war conditions with the intrastate war condition (i.e., treating the Revolutionary War and WWII conditions as one condition) at high and low levels of glorification, respectively. The GLMs reported above therefore did not directly test our hypothesis that reminders of any past interstate war, compared with intrastate war, should increase support for violent responses to current interstate tensions (among high but not low glorifiers). To test this hypothesis more directly, we created a dummy variable that collapsed across the two interstate wars (Revolutionary War and WWII), coding participants in the Civil War condition as “0” and participants in either of the other two conditions as “1.” This way, we could then test the simple contrast between each of the two levels of this dummy variable at high and low levels of glorification separately (Cohen, Cohen, West, & Aiken, 2003). The main effect of this dummy variable on support for violent responses was marginally significant, $F(1, 272) = 2.86$, $p = .092$, $\eta^2_p = .01$ (LCI < .01, UCI = .05). Participants exposed to past interstate war ($M = 2.94$, $SD = 1.35$) were somewhat more supportive of violent responses, compared with those exposed to past intrastate war ($M = 2.94$, $SD = 1.35$). As expected, there was a significant two-way interaction between the dummy variable and glorification, $F(1, 272) = 4.07$, $p = .045$, $\eta^2_p = .01$ (LCI < .01, UCI = .05). Further analysis of simple effects revealed that high glorifiers supported more violent responses after reading about past interstate war ($M = 3.95$, $SE = .14$) than intrastate war ($M = 2.69$, $SE = .29$), $t(272) = −1.93$, $p = .054$, strongly attached participants did not differ depending on the manipulation, $t(272) = 0.45$, $p = .652$. No other effects reached significance, $F$s$(1, 272) < 1.30$, $p$s$ > .250$, $\eta^2$ps$ < .01$.

While none of these analytical approaches is ideal due to the complicated hypothesis (because there is no ideal, straight-forward analysis in this particular case), they all converged and thus gave us confidence in the findings. Study 4 provided a conceptual replication of the previous studies, showing that not only wars that established the sovereignty of a country but also other interstate wars such as WWII can increase citizens’ support for future interstate violence. This finding thus strengthens our hypothesis that the carryover effects of past interstate violence observed in our studies will also hold for other types of interstate wars.

**Statistical power.** A post hoc power analysis revealed that the statistical power to detect the two-way interaction between condition and glorification for support for future violence was 0.66.

**Study 5**

Study 5 aimed to replicate and, more importantly, integrate the mediation and moderation findings of Studies 1 to 4 (see Figure 5 for the full conceptual model depicting the effects of past interstate war on future violence through perceived...
China as a target country in the measures of threats and images. We also used more elaborate measures of international images and threat to further examine the different aspects of threat and image, as well as their distinct roles in predicting future interstate violence.

**Method**

**Participants.** The sample consisted of 311 Americans recruited through MTurk. After excluding seven participants who did not pay sufficient attention to the manipulation materials, 15 participants who did not take the experiment seriously (as indicated by suspicious response patterns, that is, selecting the same answer for all questions), and 18 participants who spent less than 30 s reading the manipulation material or significantly more time than the rest of the sample, 271 participants were retained for data analyses (40% men; age: $M = 36, SD = 13.55$).

**Procedure.** First, participants were randomly assigned to one of three conditions: intrastate war, interstate war, and baseline. Participants in the intra and interstate war conditions read the same *New York Times* articles about the American Civil War and the American Revolutionary War, respectively. Following the reading task, participants in these two conditions completed the same manipulation checks as in the previous studies, and summarized the news article. Afterward, they filled out the dependent measures in the order outlined below. In the baseline condition, participants completed the dependent measures without reading any manipulation material or responding to manipulation checks.

**Materials**

**Symbolic and realistic threats.** Three items measured perceived symbolic threat from China (e.g., “American norms and values are being threatened by China.”), and another three measured perceived realistic threat from China (e.g., “China’s economic development poses a threat to the American economy.”).

**International images.** In addition to enemy, imperialist, and ally images, we also assessed perceived barbarian image of China (e.g., “Power in the hand of China is a dangerous thing.”) to test whether the effects observed in Study 2 could generalize to a different negative image. To enhance scale reliability, we also increased the number of items in each measure, again adapted from Alexander et al. (2005).

**Support for violent responses to current interstate tensions.** Participants responded to the scenarios describing the nuclear program in Iran and the increasing tensions between the United States and North Korea.

**Ingroup attachment and glorification** were measured identically to Studies 3 and 4.
Results

Main analyses. Glorification and attachment. Neither attachment ($\alpha = .95$, $M = 6.34$, $SD = 1.78$), $F(2, 270) = 1.30$, $p = .274$, $\eta^2_p = .01$, nor glorification ($\alpha = .85$, $M = 4.84$, $SD = 1.50$), $F(2, 270) = 0.06$, $p = .938$, $\eta^2_p = .00$, was affected by condition, thus allowing us to use them, together with condition, as IVs in the same GLMs as in Studies 3 and 4.

Support for violent responses to current interstate tensions. The same moderated regression analysis with the composite score for support for new interstate violence$^{13}$ ($\alpha = .80$, $M = 5.34$, $SD = 2.25$) as the DV yielded a significant main effect of condition, $F(2, 261) = 3.35$, $p = .037$, $\eta^2_p = .03$ (LCI < .01, UCI = .07), in that reading about interstate war ($M = 5.81$, $SD = 2.46$) increased participants’ support for future interstate violence as compared with reading about intrastate war ($M = 5.14$, $SD = 2.15$), $t(261) = 1.75$, $p = .082$. In contrast, the intrastate war condition did not differ significantly from the baseline, $t(261) = -0.97$, $p = .333$. The main effect of condition was qualified by a three-way interaction of condition by glorification and attachment (see Figure 6), $F(2, 261) = 3.23$, $p = .041$, $\eta^2_p = .02$ (LCI < .01, UCI = .07). Follow-up analyses revealed that participants who strongly glorified and were strongly attached supported more violent solutions after reminders of interstate war ($M = 7.15$, $SE = .32$) as compared with the intrastate war condition ($M = 6.18$, $SE = .36$), $t(261) = -2.00$, $p = .047$, as well as the baseline ($M = 6.28$, $SE = .29$), $t(261) = -2.01$, $p = .046$. The intrastate war condition did not differ significantly from the baseline, $t(261) = 0.21$, $p = .836$. Participants who were high on glorification but low on attachment exhibited a similar pattern, such that they were significantly more supportive of future interstate violence after reading about interstate ($M = 6.69$, $SE = .83$) rather than intrastate war ($M = 4.48$, $SE = .74$), $t(261) = -1.98$, $p = .049$; the difference between the interstate war condition ($M = 6.69$) and the baseline ($M = 5.12$, $SE = .76$) was in the same direction but did not reach statistical significance, $t(261) = -1.39$, $p = .166$. Again, responses in the intrastate war condition and the baseline were not significantly different, $t(261) = 0.60$, $p = .546$. In contrast to strongly glorifying participants high or low on attachment, weakly glorifying participants high or low on attachment did not differ significantly in their support for future violence depending on the manipulation, $t(261) < 1.59$, $ps > .114$. Looking at the same three-way interaction from another angle, glorification in the interstate war condition was positively associated with support for future violence among both highly and weakly attached participants, $\beta$s > .47, $t(261) > 3.10$, $ps < .002$. In contrast, glorification in the intrastate war condition was not significantly associated with support for future violence among both highly and weakly attached participants, $\beta$s < .22, $ts(261) < 1.35$, $ps > .180$. In the baseline condition, glorification was somewhat positively associated with support for future violence among highly attached participants, $\beta = .23$, $t(261) = 1.91$, $p = .057$, and the slope was not significant among weakly attached participants, $\beta = .21$, $t(261) = 1.48$, $p = .139$. The moderated regression analysis also revealed main effects of glorification and attachment, $F$s(1, 261) > 8.85, $ps < .003$, $\eta^2_p$s > .03, indicating that both glorification and attachment were positively associated with support for future violence, $\beta$s > .23. No other effects reached significance, $F$s < 1.46, $ps > .235$, $\eta^2_p$s < .01.14

Figure 6. Support for future violence as a function of past violence reminders (Baseline vs. Civil War vs. Revolutionary War) and national glorification and attachment (Study 5).
Note. CW = Civil War; RW = Revolutionary War.
We first conducted factor analyses to assess whether the measures of perceived threat and international images loaded onto distinct factors as theory predicts (see Tables 3 and 4 for the factor loading patterns). The factor analysis on all threat items revealed two factors (according to a scree plot and the “Eigenvalue > 1” criterion) corresponding to symbolic and realistic threat, respectively, thus allowing us to use them as two separate variables in subsequent analyses. The factor analysis on all image items, however, indicated that all four images loaded onto one factor, with items of ally image loading negatively and items of the other three images loading positively. Based on the factor analysis, we reverse-scored the items of ally image and then created a new variable, negative image, combining all image items.15

**Table 3.** Rotated Factor Pattern for Symbolic and Realistic Threats (Study 5).

<table>
<thead>
<tr>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realistic threat 1</td>
<td>0.84</td>
</tr>
<tr>
<td>Realistic threat 2</td>
<td>0.77</td>
</tr>
<tr>
<td>Realistic threat 3</td>
<td>0.72</td>
</tr>
<tr>
<td>Symbolic threat 1</td>
<td>0.05</td>
</tr>
<tr>
<td>Symbolic threat 2</td>
<td>0.10</td>
</tr>
<tr>
<td>Symbolic threat 3</td>
<td>0.04</td>
</tr>
</tbody>
</table>

**Table 4.** Factor Pattern for Ally, Enemy, Imperialist, and Barbarian Images (Study 5).

<table>
<thead>
<tr>
<th>Factor 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barbarian 1</td>
</tr>
<tr>
<td>Barbarian 2</td>
</tr>
<tr>
<td>Enemy 1</td>
</tr>
<tr>
<td>Enemy 2</td>
</tr>
<tr>
<td>Imperialist 1</td>
</tr>
<tr>
<td>Enemy 3</td>
</tr>
<tr>
<td>Barbarian 3</td>
</tr>
<tr>
<td>Imperialist 2</td>
</tr>
<tr>
<td>Imperial 3</td>
</tr>
<tr>
<td>Enemy 4</td>
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<tr>
<td>Barbarian 4</td>
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<td>Enemy 5</td>
</tr>
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<tr>
<td>Ally 2</td>
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<td>Ally 5</td>
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<td>Ally 6</td>
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<td>Ally 7</td>
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</tbody>
</table>

**Factor analyses.** We first conducted factor analyses to assess whether the measures of perceived threat and international images loaded onto distinct factors as theory predicts (see Tables 3 and 4 for the factor loading patterns). The factor analysis on all threat items revealed two factors (according to a scree plot and the “Eigenvalue > 1” criterion) corresponding to symbolic and realistic threat, respectively, thus allowing us to use them as two separate variables in subsequent analyses. The factor analysis on all image items, however, indicated that all four images loaded onto one factor, with items of ally image loading negatively and items of the other three images loading positively. Based on the factor analysis, we reverse-scored the items of ally image and then created a new variable, negative image, combining all image items.15

**Symbolic threat.** As predicted, a moderated regression analysis with perceived symbolic threat (α = .76, M = 4.11, SD = 1.77) as the DV yielded a significant interaction between condition and glorification (Figure 7),

\[ F(2, 261) = 3.62, p = .028, \eta_p^2 = .03 \text{ (LCI < .01, UCI = .07).} \]

Simple effects revealed that participants who strongly glorified the United States perceived significantly more symbolic threat from China after reading about interstate war (M = 5.45, SE = .37) as compared with intrastate war (M = 4.05, SE = .34), \( t(261) = −2.76, p = .006, \) and the baseline (M = 4.46, SE = .32), \( t(261) = −1.99, p = .048. \) Low glorifiers, however, did not differ significantly in perceived symbolic threat depending on the condition they were assigned to (M interstate = 3.30; M intrastate = 3.97; M baseline = 3.50), \( ts(261) < 1.37, p_s > .172. \) Looking at the same two-way interaction from a different angle, glorification was positively associated with perceived symbolic threat in the interstate war condition, \( \beta = .60, t(261) = 4.15, p < .001. \) The slope was also significant in the baseline condition, but to a much lesser degree, \( \beta = .27, t(261) = 2.10, p = .036. \) Glorification was not significantly associated with perceived symbolic threat in the intrastate violence condition, \( \beta = .02, t(261) = 0.13, p = .897. \) The main effect of glorification was also significant, \( F(1, 261) = 12.41, p < .001, \eta_p^2 = .05, \) indicating that glorification was positively associated with perceived symbolic threat, regardless of condition, \( \beta = .30. \) No other effects reached significance, \( Fs(1, 261) < 1.04, p_s > .350, \eta_p^2 s < .01. \)

Because the slope for the association between glorification and symbolic threat was also significant in the intrastate war condition, it was important to show that the slopes for the intrastate war and the baseline conditions were both different from the slope for the interstate war condition, and that the slope for the intrastate war condition was not significantly different from the slope for the baseline condition. As in Study 4, we first created two dummy variables representing (a) the contrast between the Revolutionary War condition and the Civil War/baseline conditions, and (b) the contrast between the Civil War and the baseline conditions (leaving out the Revolutionary War condition). Next, we created two glorification interaction terms, two attachment interaction terms, and two three-way interaction terms including both
glorification and attachment based on the two dummy variables described above. We then carried out the same GLM as specified in Study 4. As predicted, the glorification interaction term reflecting the contrast between the slope for the Revolutionary War condition and the slopes for the Civil War/baseline conditions was significant, $F(1, 261) = 7.72, p = .006$, $\eta_p^2 = .03$ (LCI < .01, UCI = .08). In contrast, the glorification interaction term reflecting the contrast between the slopes for the Civil War condition and the baseline condition was not significant, $F(1, 261) = .04, p = .837, \eta_p < .001$ (LCI < .01, UCI = .01).

Realistic threat. The same moderated regression analysis with perceived realistic threat ($\alpha = .85, M = 5.69, SD = 1.87$) as the DV yielded a significant main effect of attachment, $F(1, 261) = 7.83, p = .006, \eta_p^2 = .03$, with attachment positively associated with perceived realistic threat from China, $\beta = .45$. No other effects reached significance, $Fs(1, 261) < 2.46, ps > .118, \eta_p s < .001$.

International images. Analysis with perceived negative image of China ($\alpha = .81, M = 5.19, SD = 1.42$) as the DV yielded a significant interaction between glorification and condition (Figure 8), $F(2, 261) = 4.03, p = .019, \eta_p^2 = .03$ (LCI < .01, UCI = .07). High glorifiers held a significantly more negative image of China in the interstate war condition ($M = 5.82, SE = .28$) as compared with the baseline ($M = 4.95, SE = .24$), $t(261) = -2.34, p = .020$, and marginally significant so as compared with the intrastate war condition ($M = 5.19, SE = .26$), $t(261) = -1.67, p = .095$. Importantly, perceived negative image among participants in the intrastate war condition was not significantly different from that in the baseline, $t(261) = -0.66, p = .511$. The manipulation did not have any significant effects on low glorifiers; if anything, they held a somewhat less negative image of China after the interstate war reminder ($M = 4.62, SE = .23$) than the intrastate war ($M = 5.24, SE = .29$) or no reminder ($M = 5.15, SE = .20$), $ts(261) < 1.73, ps > .085$. Looking at the same two-way interaction from a different angle, glorification was positively associated with perceived negative images in the interstate war condition, $\beta = .44, t(261) = 4.15, p < .001$. The associations were not significant in both the intrastate violence and the baseline conditions, $bs > .08, ts(261) < 0.57, ps > .567$.

The analysis also revealed a main effect of ingroup attachment, $F(1, 261) = 4.58, p = .033$, $\eta_p^2 = .02$, with attachment positively associated with perceived negative image of China, $\beta = .24$. The interaction between glorification and attachment again reached significance, $F(1, 261) = 6.98, p = .009, \eta_p^2 = .03$. Among highly attached participants, glorification was positively associated with perceived negative image, $\beta = .26, t(261) = 2.91, p = .004$. In contrast, among weakly attached participants, this positive relationship disappeared, $\beta = -.04, t(261) = -.36, p = .722$. No other effects reached significance, $Fs(1, 261) < .78, ps > .461, \eta_p s < .01$.

Path Analyses

To test our overall model of the effect of condition by glorification and attachment on support for violence in response to current interstate tensions through (a) perceived symbolic and realistic threat, and (b) perceived negative images of foreign countries (see Figure 5), we again conducted a path analysis in which condition was dummy coded with the baseline as the reference group. The dummy variables, glorification and attachment, and all interactions were used as exogenous variables. Perceived symbolic and realistic threat, negative image, and support for future interstate violence were introduced as endogenous variables. Mirroring our GLMs described above, we modeled the interaction between condition and glorification on perceived symbolic and realistic threat (the “Step 1 mediators”). Perceived symbolic and realistic threat in turn significantly affected perceived negative image as the “Step 2 mediator,” which then led to support for future interstate violence as the ultimate outcome variable. In addition, glorification also directly affected perceived symbolic threat and support for future violence, whereas attachment directly affected realistic threat and future violence. This model, as depicted in Figure 9, fit the data very well, with the desirable non-significant exact-fit index, $\chi^2(40) = 54.50, p = .063$, and satisfactory close-fit indices, CFI = .99, NFI = .98, SRMSR = .04.18

Statistical power. A post hoc power analysis revealed that the statistical power to detect the three-way interaction of condition by glorification and attachment for support for future violence was 0.63, and the average power to detect the two-way interaction between condition and glorification for realistic threat and negative images was 0.80.

Study 5 reproduced the effects found in Studies 1 to 4 with an additional baseline condition, confirming that the
observed differences between inter- and intrastate violence conditions were indeed driven by reminders of interstate, rather than intrastate, violence. Although we did not statistically replicate Studies 3’s and 4’s two-way interaction effect on support for future interstate violence—instead finding a three-way interaction—this three-way interaction was driven by the low- (but not high-) glorification cells and the additional baseline (but not the intrastate war condition). Specifically, the difference between the interstate war condition and the baseline was only significant at high levels of both glorification and attachment, but not at high level of glorification and low level of attachment, whereas the difference between inter and intrastate war was significant for high glorifiers with both low and high levels of attachment. Thus, Studies 3’s and 4’s finding that high glorifiers support future interstate war more after reminders of past inter (rather than intra) state war was reproduced in Study 5—as this difference was found in both high-glorification cells. Most importantly, our path analysis replicated the effects of perceived threat and images regarding a fictitious country in Study 2 with a real third-party country in Study 5, confirming that interstate violence is contagious because past experience of interstate violence induces a generalized perception of third-party states as threatening and hostile.

It is worth noting that American participants perceived realistic and symbolic threats from China differently, as indicated by the factor loadings as well as the different effects of the experimental manipulation on these two types of threat. China is widely known for its rapid economic growth while maintaining a strict authoritarian political structure, thus posing two clearly distinct types of threat to the United States. The use of a fictitious country in Study 2, in contrast, did not allow participants to make meaningful distinctions between realistic and symbolic threat. This might explain why participants construed realistic and symbolic threat differently when the target was China, but not when it was “Coibia.” It remains unclear, however, why the reminder of a historical interstate war in Study 5 only increased high glorifiers’ perceived symbolic, but not realistic threat, compared with the intrastate war and baseline conditions. While we were able to disentangle realistic and symbolic threat in this study, we again could not distinguish between different types of images. A potential explanation is that when the target country is completely unfamiliar or a strong rival like China, people may hold more general negative perceptions without clearly differentiating between the multiple sub-aspects of negative perceptions.

Meta-Analytical Results

The statistical power for the hypothesized condition main effects or interaction effects in each study ranged between 0.30 and 0.70. Although it exceeded the average power of 0.35 in social psychological studies (Bakker et al., 2012), it was lower than the recommended benchmark of 0.80 (Cohen, 1977). To address the power limitation and to provide cumulative evidence across studies, we also conducted two mini meta-analyses in which we combined comparable data (a) from all five studies to test the main condition effect on support for future violence, and (b) from Studies 3 to 5 to test the interaction between condition and glorification. In both analyses, we focused on the comparison between interstate and intrastate war conditions. We also standardized support for future violence as the measures differed slightly between studies. In both analyses, we entered “Study” as a random effect. The first analysis across all five studies revealed a significant effect of condition (inter- vs. intrastate war) on support for future violence, $F(1, 968) = 14.61, p < .001$. As predicted, the interstate war reminder ($M_{ad} = 0.12, SD = 1.00$) increased participants’ support for future violence, compared with the intrastate war reminder ($M_{ad} = -0.12, SD = 0.98$). The second analysis with data from Studies 3 to 5 revealed a significant interaction between glorification and condition, $F(1, 503) = 8.68, p = .003$. The simple effects and slopes (see Figure 10) again confirmed the predictions.

General Discussion

The current research demonstrated that reminders of past interstate violence can lead to more support for contemporary interstate violence, even with states not involved in the past war, through increasing generalized perceived threat from and negative images of foreign countries. Furthermore, we identified boundary conditions of the generalization effect by examining the roles of national glorification and attachment. While these findings suggest that the proposed war contagion effect is particularly strong among a subgroup of the population (i.e., high glorifiers), they should not be taken as reducing the importance of the phenomenon. Rather, they add another layer of complexity important for understanding the war contagion

![Figure 9](image-url)
effect, pinpointing which people are most susceptible to it. Furthermore, it is important to note that leaders and decision makers of a country are usually individuals who glorify the country or political party they represent. Although high levels of glorification may not necessarily be a prerequisite for holding important decision-making positions, this is certainly the case in the contexts studied in the current research (i.e., the United States and South Korea). It should also be noted that some of the effects obtained in the current research were relatively weak or did not reach statistical significance. Given that a wide range of factors can influence people’s foreign policy preferences, it is not surprising that reminders of past interstate violence and national identification only explain a small portion of the variances in people’s responses to contemporary international tensions. Despite this constraint, the results were remarkably consistent across all five studies, and the mini meta-analyses with higher statistical power offered cumulative evidence for both the general war contagion effect and the moderating role of glorification. Moreover, we expect these effects to be stronger in a real-world setting where people are surrounded by more salient reminders of wars and conflicts such as monuments, official commemorations, and museums.

**The Generalization of Interstate Attitudes and Behavior**

The studies presented here contribute to the literature on the “violence begets violence” phenomenon by investigating how and why violence spreads across large social groups. The findings revealed a striking generalization effect of interstate violence in the remote past on attitudes and behavior toward uninvolved third-party states in the present. Extending previous research on the contagion of international war, the present work demonstrates that aggressive interstate violence can potentially spread to nation states that are both temporarily and spatially independent from the original war. Although public opinion does not always align with political elites’ foreign policy decisions, public support for or opposition to war can play a key role in the decisions to use or not use military force (e.g., Sobel, 2001).

This phenomenon also speaks directly to the long-standing social psychological question of how attitudes in different domains link to each other across time and space (Bouman et al., 2014; Gilovich, 1981; Ranganath & Nosek, 2008; Shook et al., 2007). When explaining the indirect influence of contact between two primary groups on attitude toward secondary groups that are not involved in the initial contact, Pettigrew (2009) speculated that such transfer effects can emerge between two different attitudinal domains that are psychologically, but not necessarily logically, related to each other (also see Alvaro & Crano, 1997; Martin & Hewstone, 2008; Tausch et al., 2010). This notion is also applicable to our work on interstate war, the direct opposite to positive intergroup contact. Such negative (if vicarious) intergroup contact presents a similar psychological “trap” that attracts secondary outgroup targets that bear some resemblance to the primary target of violence—in our case, other foreign states—even though the new intergroup situation is not logically related to the original one.

**Alternative Explanations of the Contagion of Interstate Violence**

Although the findings from the present studies support our hypothesis that heightened negative perceptions of foreign states in general explain the increased support for future interstate violence, several alternative explanations exist for the observed war contagion phenomenon. Discussing generalized intergroup contact effects, Pettigrew (1997) also

![Figure 10. Support for violence as a function of past violence reminders (Civil War vs. Revolutionary War) and national glorification (Studies 3-5 combined).](image-url)
proposed that initial contact with an outgroup encourages ingroup members to adopt a more critical view on ingroup norms, cultures, and lifestyle, which leads to less psychological distance from outgroups in general. The possibility thus exists that the observed increase in support for future interstate violence after a reminder of past interstate war resulted from participants’ reappraisal of their own nation—for instance, South Koreans might have perceived South Korea as a more cohesive entity after reading about the Korean War, which led to increased violent responses to new interstate tensions. Future research should examine the various aspects of ingroup appraisal, thus establishing a more complete account of why interstate violence is contagious.

Generalizability of Interstate Violence Contagion

One important question that arises from the present research is the generalizability of the interstate war contagion effect. While we offered converging evidence from South Korea and the United States—two vastly different countries in almost every respect—it is important to recognize their relatively high power status on the international stage. As highly developed countries, both South Korea and the United States have adequate military and economic resources to engage in violence against other countries. Will the same war contagion effect occur among citizens of nations that are less resourceful and powerful, and thus unable to afford military actions? When applying the war contagion effect to explain interstate attitudes and behavior, it is also important to consider the pre-existing relationship between the perceiver’s country and the target country. The current data suggest that when a generalized interstate threat is made salient, prior ally or enemy status of the target country plays a secondary role in affecting people’s foreign policy preferences (Study 2). However, we cannot preclude the possibility that such threat might also strengthen interstate alliances with prior ally countries in some cases, especially when the alliance can help mitigate the perceived threat. Future research should examine the conditions in which nations may engage in alliance building rather than military actions when confronted with interstate threat.

In addition to the characteristics of the perceiver’s country and the target country, another generalizability question concerns the nature of the historical conflict. The use of WWII in Study 4 provided evidence that interstate wars other than “nation-founding” wars can also increase support for future interstate violence. Yet, the often-glorified American victories in the Revolutionary War and WWII beg the question of whether people will be equally likely to support future interstate violence after being reminded, for instance, of a war that their country has lost or is perceived as unjust (e.g., the United States in the Vietnam War). Gilovich (1981) showed that priming Americans with a war that was perceived as just and successful (i.e., WWII), compared with unsuccessful (i.e., Vietnam War), military interventions increased their support for military interventions in unrelated, future international crises. Similarly, other research has found a positive association between citizens’ willingness to fight in a new war and their country’s victorious or positive experiences in WWII (Basabe & Valencia, 2007; Paez et al., 2008). Bobowik and colleagues’ (2014) recent study, however, failed to find converging evidence for the direct effect of a country’s type of involvement (victory or defeat) in historical wars on support for future collective violence. Among nations involved in WWII, citizens of victorious nations did not show more willingness to engage in future wars compared with those of defeated nations. Given these mixed findings, future research is warranted to further examine these potential boundary conditions and generalizability of the current findings. Yet, considering the ubiquity and significance of the Korean War in Korean history, and the Revolutionary War, American Independence (e.g., Independence Day), as well as WWII in American history, the importance of the effects of these particular wars should not be underestimated in any case.

Concluding Remarks

Across two different countries and three different historical contexts, five experiments provided converging evidence that exposure to a state’s past involvement in interstate violence increases its citizens’ support for future violence when confronted with tensions with previously uninvolved third-party states. The carryover effects of past violent behavior were most pronounced among individuals who strongly glorify their country, and were explained by an increase in perceived intergroup threat and negative perceptions of other foreign states in general. The present work lays the foundation for future research on the scope of attitude generalization in intergroup violence in general and international conflict in particular.

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Notes

1. Indeed, conflict between different subgroups of a superordinate group also seems to perpetuate itself—countries that have experienced one civil war are more likely to experience a second or third civil war compared with those that have no prior history of civil war (Walter, 2004). This contagion of intrastate violence, however, is not the focus of our research.
2. Strictly speaking, the American Revolutionary War did not begin as an interstate conflict due to the colonial status of the United States. However, it gradually grew into an international
war and is now arguably remembered more as an interstate war by the American public.

3. As in Study 1, the six conflict scenarios loaded onto the same factor. We also conducted mixed ANOVA to test the within-subject effect of conflict scenario. The results again converged (see Supplementary Materials).

4. The following results are virtually the same if we treat symbolic and realistic threat as two separate variables.

5. We also conducted a confirmatory factor analysis to test whether perceived threat and negative images were distinct constructs. The analysis revealed that while threat and negative images were positively correlated, the model that freely estimated the correlation between these variables fitted significantly better than the model that fixed the correlation to 1 (equivalent to a model collapsing across factors into one factor), indicating that threat and images were correlated but ultimately distinct factors.

6. The following results were virtually the same if we treated both images as separate variables.

7. As path analysis provides evidence for indirect effects but not for mediation, we also conducted separate meditational analyses to establish the mediating roles of threats and images. See Supplementary Materials for the results.

8. As in previous studies, we also conducted mixed ANOVA to test the within-subject effect of conflict scenario. The results again converged (see Supplementary Materials).

9. Concerned about the potential effects of demographic factors on participants’ attitude toward the Civil War and current U.S. foreign policies, we also conducted the same analysis while controlling for whether our American participants came from the Southern or Northern United States, as well as their political orientation, and the results remained unchanged. Using these demographic characteristics as moderators also did not have any significant interaction effects on support for future interstate violence.

10. See Supplementary Materials for results of mixed ANOVA testing the within-subject effect of conflict scenario.

11. As in Study 3, controlling for whether participants came from the South or the North, as well as their political orientation, did not change the results. Using these demographic characteristics as moderators also did not have any significant interacting effects on support for future interstate violence.

12. To directly replicate the findings of Studies 1 to 4, we also analyzed the data only with participants in the intra- and interstate war conditions, excluding those in the baseline condition. The results converged with the previous studies (see Supplementary Materials).

13. See Supplementary Materials for results of mixed ANOVA testing the within-subject effect of conflict scenario.

14. As in Studies 3 and 4, controlling for whether participants come from the South or the North, as well as their political orientation, did not change the results. Using these demographic characteristics as moderators also did not have any significant interacting effects on support for future interstate violence.

15. The following results were virtually the same if we treated the images as separate variables.

16. When treating realistic and symbolic threat as one factor (as in Study 2), the interaction between condition and glorification was also significant.

17. See Supplementary Materials for the results of separate meditational analyses testing each step of the path model separately.

18. See Supplementary Materials for results of alternative models.

19. We tested several possible alternative explanations such as negative and positive affect, ingroup pride, perceived severity, and reprehensibility of the war. None of these variables explained the war contagion effect (see Supplementary Materials).

**Supplemental Material**

The online supplemental material is available at http://pspb.sagepub.com/supplemental.

**References**


