Virtuous violence from the war room to death row

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How likely is it that someone would approve of using a nuclear weapon to kill millions of enemy civilians in the hope of ending a ground war that threatens thousands of American troops? Ask them how they feel about prosecuting immigrants, banning abortion, supporting the death penalty, and protecting gun rights and you will know. This is the finding from two national surveys of Democrats and Republicans that measured support for punitive regulations and policies across these four seemingly unrelated issues, and a fifth, using nuclear weapons against enemy civilians (in survey 1) or approving of disproportionate killing with conventional weapons (in survey 2). Those who support these various policies that threaten harm to many people tend to believe that the victims are blameworthy and it is ethical to take actions or policies that might harm them. This lends support to the provocative notion of "virtuous violence" put forth by Fiske and Rai [A. P. Fiske, T. S. Rai, *Virtuous Violence: Hurting and Killing to Create, Sustain, End, and Honor Social Relationships* (2014)], who assert that people commit violence because they believe it is the morally right thing to do. The common thread of punitiveness underlying and connecting these issues needs to be recognized, understood, and confronted by any society that professes to value fundamental human rights and wishes to prevent important decisions from being affected by irrelevant and harmful sociocultural and political biases.

dehumanization | virtuous violence | nuclear weapons

In the decades since World War II ended in a nuclear firestorm, scholars have observed a decline in United States public support for the use of nuclear weapons. Some have attributed this to a taboo against the "first use" of these uniquely violent and destructive weapons (1). Others have optimistically viewed this as part of a larger humanitarian revolution that is in keeping with acceptance of a just war principle of noncombatant immunity (2–5). A major reduction in the size of the world's nuclear arsenal since the end of the cold war lends support to this optimistic view that, in an otherwise violent world, the use of nuclear weapons has been declared off limits.

But recent events paint a less comforting picture. Arms control policies and treaties are being abandoned and violated (6), nuclear weapons arsenals are being updated, redesigned, and enlarged (7), and volatile leaders in control of those weapons have shown a cavalier willingness to engage in dangerous forms of nuclear "saber-rattling," as when President Donald Trump threatened to "totally destroy North Korea" (8).

Sagan and Valentino (9) conducted a survey to understand whether public opinion in the United States would oppose or support a decision by the president to use nuclear weapons in international crises. Their findings are disturbing, showing no signs of a nuclear taboo. Indeed, they found that almost 60% of their respondents would support a government decision to use a nuclear bomb against enemy civilians to end a difficult war that threatened the lives of many American troops. Moreover, they found that this support was insensitive to scope: It did not decline when the estimated number of civilian casualties was increased 20-fold, from 100,000 to 2,000,000. Other noteworthy findings were that support for use of nuclear weapons was accompanied by a belief that the action was ethical and the victims

were to blame for their fate. Moreover, political and attitudinal factors that should not be relevant in a decision about whether to unleash nuclear weapons on civilians were, nevertheless, strongly associated with public support. Specifically, support for nuclear weapons use was far greater among Republicans and among persons who advocated the death penalty for convicted murderers.

An extensive multidisciplinary literature has documented the prevalence and correlates of revenge, retribution, and punishment in American personal, political, and military contexts. Vengeful tendencies have been found to predict support for wars and assassinations (10–16) and to be prevalent in the desire to punish transgressors in everyday life as well (17). The strongest attitudinal predictor of vengefulness in warfare has been the degree to which an individual supports the death penalty for persons convicted of murder (16, 18), a finding replicated in the Sagan and Valentino study (9).

The present study reports the results of two surveys designed to replicate and extend Sagan and Valentino's (9) important findings and explore their implications. Whereas our survey 1 used their hypothetical scenario asking about support for a decision to attack Iran with nuclear weapons, survey 2 was based on an actual decision faced by President Trump about whether to launch conventional missiles against Iran in retaliation for their downing of an unmanned American surveillance drone over the Strait of Hormuz.

In both surveys, we were concerned about the extent to which fundamentally irrelevant political and ideological factors, such as political identity or support for gun control, might relate to support for the mass killing of civilians with nuclear or

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Significance

Two surveys of United States public opinion found that support for killing enemy civilians and combatants disproportionately with nuclear or conventional weapons was deeply divided along partisan political lines. Those approving such excessively lethal attacks tended to be Republican and conservative. They felt socially distant from the enemy, dehumanized them, and believed that the victims were to blame for their fate. These same individuals also tended to support domestic policies that protect gun owners, restrict abortion, and punish immigrants and criminals (excessively). Understanding the origins and motives underlying the widespread support for such punitive behaviors is essential to mitigating violence that threatens millions of people and our democracy.

conventional weapons. We also felt a need to probe further into the sense of moral retribution that accompanied public support for disproportionate killing of enemy civilians.

In addition, we approached the replication and expansion of the Sagan and Valentino (9) study as a way to gain further insight into theoretical perspectives gained from earlier analyses of mass killing associated with warfare and genocide, as reviewed by Slovic and Lin (19). In particular, the historical record shows a tolerance for genocidal atrocities and a willingness to kill or threaten civilian populations in warfare that reflects cognitive and emotional limitations of human compassion, such as psychic numbing and security prominence. The former is an insensitivity, consistent with the failure to appreciate the difference between 100,000 and 2,000,000 civilian fatalities. Psychic numbing has been invoked to explain indifference to genocides and other humanitarian crises, as well as the willingness to carry out or contemplate disproportionate killing in nuclear and conventional warfare (19–22). Security prominence occurs when decision makers face an apparent conflict between maximizing personal or national security and protecting foreign lives. Choosing to protect security often prevails no matter how much harm the decision causes to others (20, 23).

Although the statistics of warfare may often be devoid of feeling, anger and hatred of the enemy is real and thrives in an "us vs. them" environment. In turn, this creates strong tribal bonds with one's ingroup and extreme hostility toward members of the outgroup who may be dehumanized and seen as deserving cruel treatment. Fiske and Rai (24) document this sense of moral righteousness across a wide range of harmful acts and characterize it as "virtuous violence." Sagan and Valentino (16) illustrate this righteousness in a study finding that Americans gave moral approval to soldiers committing war crimes if they believed the cause of the war was "just."

Psychic numbing, security prominence, and virtuous violence were evident in the study by Sagan and Valentino (9). Their finding of a link between such disparate violence as nuclear war and the death penalty, mediated by political identity, suggests that further investigation might find similar associations with other punishing policies that are prevalent in today's America.

Our first survey attempted to replicate the study by Sagan and Valentino (9). We sought to determine whether the relationships between political identity, attitudes toward the death penalty, and support for the use of nuclear weapons were reliable findings. We added new questions to determine whether other presumably irrelevant personal factors and punishing attitudes might also influence support for decisions about using nuclear weapons.

Survey 1 Methods

The procedures and materials for both surveys in this study were reviewed and approved by the Decision Research Institutional Review Board. All participants provided informed consent. The data for surveys 1 and 2 are publicly available at openICPSR at https://www.openicpsr.org/openicpsr/project/117344/version/V1/view.

Sample. We recruited 444 Americans on August 27, 2019 using the online polling site Prolific. They were paid for participating. Because our focus was on political identity, we attempted to recruit an equal number of Democrats and Republicans and obtained 51% Democrats and 49% Republicans in the sample. Fifty-two percent of the respondents were male. Their ages ranged from 18 to 77 y with a mean age of 34.9 y. Fifty percent of the respondents identified politically as liberal, 43% as conservative, and 7% considered themselves moderate or middle of the road politically. Seventy-four percent were White, 10% were African American, 8% were Asian or Pacific Islander, and 6% were Hispanic. Seventy percent had at least some college or were college graduates. An additional 13% had postgraduate education.

Procedure. Participants entered the Prolific survey interface, consented to participate, and were told that they would make judgments related to a mock news story about a military conflict. The story, taken exactly from the study by Sagan and Valentino (9), described a ground war between the United States and Iran, instigated by an Iranian attack in response to severe sanctions imposed by the United States. A ground invasion by United States forces stalled after several months of fighting and heavy American military casualties. The Pentagon presented the president with two options to end the war. The first option was to continue the ground war. The second was to "shock" the Iranian government into accepting unconditional surrender by dropping a single nuclear weapon on Mashhad, Iran's second-largest city. The number of United States military fatalities expected in a continued ground war was estimated at 20,000. Half of the survey participants were told that the nuclear option would kill an estimated 100,000 Iranian civilians. The other half were told that the casualty estimate was 2,000,000 Iranian civilians. The full news stories are shown *SI Appendix*, Figs. S1 and S2.

After reading the news report, participants were asked to answer questions about their personal preference between continuing the dangerous ground war or trying to end the war quickly with a nuclear attack. These questions read:

> Given the facts described in the article, if you had to choose between launching the nuclear strike against the Iranian city or continuing the ground war against Iran, which option would you prefer? [The response options were slightly, moderately, or strongly prefer to continue the ground war or slightly, moderately, or strongly prefer to launch the nuclear strike.]

> Regardless of which option you preferred, if the United States decided to conduct the nuclear strike against the Iranian city, how much would you approve or disapprove of that decision? [The response options were slightly, moderately, or strongly disapprove of the nuclear strike or slightly, moderately, or strongly approve of the nuclear strike.]

Other Measures. We were particularly intrigued by the findings in the Sagan and Valentino (9) survey that attitudes toward the death penalty and Republican identity, which should have nothing to do with strategic military decisions, were predictive of support for using nuclear weapons. These findings raised an important question: What other punitive and politicized attitudes might similarly be associated with support for using nuclear weapons?

To address this question, we included in the survey the question about the death penalty and added questions about three other controversial issues: Abortion, gun control, and treatment of immigrants within the United States and at the United States southern border. We sometimes asked several questions about an issue. Answers tended to be correlated so we selected one question to represent each issue for subsequent analysis.

Our rationale for selecting the three new items stemmed from a sense that those supporting the nuclear strike and the death penalty were choosing to punish people perceived as deserving of punishment (enemies and murderers). We wanted to learn whether other policies that involve punishing a group of people who are felt to be deserving of harm were also correlated with support for the hypothetical nuclear strike. Immigrants have been characterized by President Trump as murderers, rapists, and terrorists, who threaten to take our jobs, burden our economy, and dilute our cultural identity. Proponents of gun rights seek the ability to protect themselves with firearms from people who threaten them. We selected abortion to study because antiabortion laws inflict harm on women by forcing them to carry unwanted pregnancies to term and many people who support antiabortion legislation feel that abortion is immoral and threatens the social fabric. Support for all five of these issues has been associated with conservative politics and the Republican party.

The specific questions we asked were as follows.

Death penalty. "Do you strongly favor, favor, oppose, or strongly oppose the death penalty for persons convicted of murder?"

Abortion. "Suppose your state was considering this new legislation on abortion. The legislation says that if a patient is seeking an abortion, the doctor must use 'standard medical practice' to determine whether the fetus has a heartbeat. If a heartbeat is present, the doctor is prohibited from performing an abortion, unless it is necessary to save the mother's life or 'to prevent a serious risk of the substantial and irreversible impairment of a major bodily function.' The legislation does not include an exception for rape or incest. Do you support or oppose this legislation? [Strongly support, support, oppose, strongly oppose]"

Gun control. "What do you think is more important: To protect the right of Americans to own guns OR to control gun ownership?"
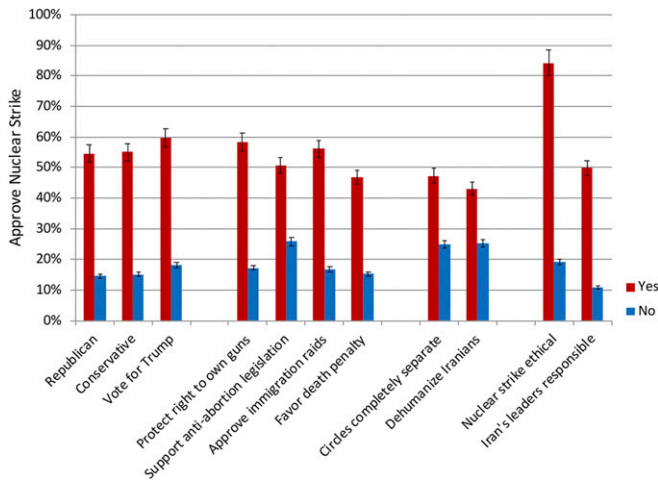
Fig. 1. Percent of respondents who would approve a decision by the United States government to conduct the nuclear strike against the Iranian city. Red bars show the percent who approve the nuclear strike among those who answered in the affirmative: For example, "I am a Republican." The blue bars show the percent who approve the nuclear strike among those who answered the question differently: For example, "I am a Democrat."

Immigration. "Do you approve or disapprove of the current immigration raids that are being carried out across the country by federal immigration enforcement agents? [Approve/Disapprove]"

Ethics and moral responsibility. We included two questions taken from the Sagan and Valentino (9) survey pertaining to the ethics and morality of launching a nuclear strike against Iran:

> Regardless of which option you preferred, how ethical or unethical do you think it would be if the United States decided to conduct the nuclear strike against the Iranian city in the situation described in the article? [Highly unethical to highly ethical].

> Since Iran's leaders started the war, they are morally responsible for any Iranian civilian deaths caused by the US nuclear strike described in the news story. [Strongly disagree to strongly agree].

Social Distance and Dehumanization. Because the survey asked about attitudes toward using nuclear weapons against Iranian civilians, we included two questions to assess the respondents' perceived distance from Iranians. The first was the Inclusion of the Other in the Self (IOS) measure (25), asking people to select one of five pairs of circles representing degrees of closeness between themselves and Iranians, starting with full separation and gradually increasing in overlap (*SI Appendix*, Fig. S3).

The second measure of distance used five "Ascent of Man" figures (26) to assess dehumanization of others (*SI Appendix*, Fig. S4). Participants were asked to move sliders on the 0 to 100 scales below the figures to indicate how evolved Iranians and six other groups of people were.

Additional questions asked about political party identification (Republican, Democrat, other), identification as liberal or conservative, religious stance (very religious to not at all religious), and "Would you vote for President Trump in the 2020 election?" Standard demographic variables (age, gender, education, and ethnicity) closed out the survey.

Survey 1 Results

Answers to the prefer and approve questions pertaining to the nuclear strike were highly correlated ($r = 0.81$) and related in the same manner to other items in the survey. We report only the results from the question about approval of a government decision to launch a nuclear strike.

Across all respondents, approval for the nuclear strike against Iranian civilians was 34.2%. This was lower than in the Sagan and Valentino study (9), although still substantial. But, as will be demonstrated below, overall support may be higher or lower depending on the nature of the sample, specific wording of questions, and the real-world conditions at the time of the

survey. But what is noteworthy is that the effects of individual differences in beliefs in virtuous violence on the results are large and systematic.

Approval of the strike was 34.5% when estimated Iranian fatalities were 100,000. And it was essentially the same, 33.9%, when the estimated number of civilian deaths was 2,000,000. This insensitivity to scope, reflective of psychic numbing, was also found by Sagan and Valentino (9). Subsequent analyses combine the results from the 100,000 deaths and 2,000,000 deaths conditions.

Predicting Approval of a Nuclear Weapons Strike. Fig. 1 shows that answers to survey questions about political identity and domestic social issues that ask nothing about nuclear weapons and are not relevant to decisions about their use strongly predict the approval of a nuclear attack that might kill many Iranian civilians.

As we expected, political and ideological factors loomed large. Republicans, conservatives, and Trump voters were more than three times more likely than Democrats, liberals, and Trump nonvoters to approve the nuclear strike.

Similarly, we see that those wanting to protect the right to own guns (Fig. 1, red bar) were more than three times more likely to approve the nuclear strike relative to those who wanted gun control (Fig. 1, blue bar). Answers to questions indicating support for antiabortion legislation, approval of raids on immigrants, and favoring the death penalty were also associated with high levels of approval of the nuclear strike.

Also noteworthy in Fig. 1 is that those who distanced themselves from Iranians in the IOS (circles) question, dehumanized Iranians on the Ascent of Man scale, believed that Iran's leaders would be morally responsible for any civilian casualties caused by the United States nuclear strike, or believed a nuclear strike against Iran would be ethical were far more likely to approve the nuclear strike compared to others with different views.

Social Distance and Dehumanization: A Closer Look. Social distance from Iranians, as measured using the IOS scale, was strongly related to approval of the nuclear strike against them (Fig. 2). Among those who selected separate (nonoverlapping) circles from the IOS scale, 47% approved of the strike. But, among those who selected the two highest degrees of closeness, D and E, only 7% and 12% approved.

On the Ascent of Man scale measuring dehumanization, about half of the respondents saw Iranians as fully human (rated as 100). The others were split into two groups of approximately equal size. One had ratings between 0 and 73; the other had ratings between 74 and 99. As Fig. 3 shows, those who rated Iranians as less than 100 were considerably more likely to approve the nuclear strike.
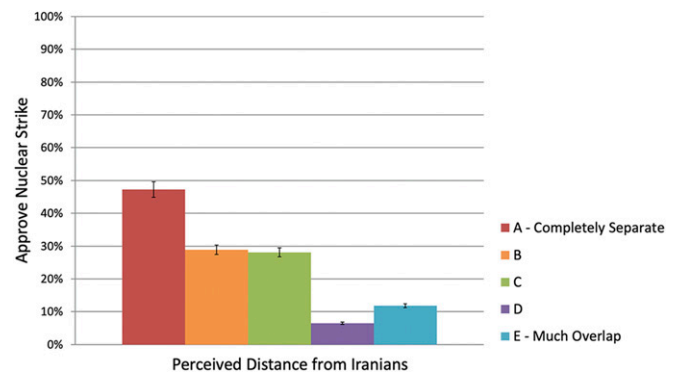

Fig. 2. Perceived distance from Iranians on the IOS scale predicts approval of the nuclear strike.

Because the survey was oriented toward predicting support for the use of nuclear weapons against Iran, we did not ask the questions with the IOS or Ascent of Man scales about the targets of the other punitive policies, such as immigrants, murderers, or women seeking abortions. But, remarkably, the measures of social distance and dehumanization of Iranians were highly predictive of approval of antiimmigrant, antigun control, prodeath penalty, and antiabortion policies as well as the nuclear strike against Iranians (*SI Appendix*, Figs. S5–S12). This appears indicative of a general tendency among many of our respondents to socially distance and dehumanize others they disapprove of.

Virtuous Violence. The survey questions asking whether the nuclear strike would be ethical and whether Iran's leaders are morally responsible for any civilian deaths caused by a United States nuclear strike provide further insight into the views underlying support for the five punishing policies studied in the survey. We combined these two questions and contrasted those who answered yes to both with those who disagreed with both (Fig. 4).

Those who judged using nuclear weapons against a civilian population as ethical and also believed Iranian leaders were morally responsible were far more likely than those with opposite beliefs to be Republicans, conservative, and Trump voters. Not surprisingly, these individuals strongly approved the nuclear strike (87%). But particularly noteworthy in Fig. 4 is that those who believed that nuclear killing of Iranians was ethical and the Iranian leaders were responsible for the fate of civilians also were far more likely to support punitive policies pertaining to gun control (72%), abortion (62%), immigration (81%), and the death penalty (89%) having nothing particularly to do with Iranians.

Conversely, respondents who believed the nuclear strike was unethical and Iran's leaders were not responsible for the resulting deaths of Iranian civilians were more likely to oppose the nuclear strike and the punishing policies pertaining to gun control, abortion, immigration, and the death penalty. They were far more likely to identify as a Democrat, liberal, and a Trump opponent than as Republican, conservative, or a Trump voter, and were less likely to dehumanize Iranians on the Ascent of Man or IOS measures (*SI Appendix*, Figs. S13–S15).

SI Appendix, Table S1 presents the response patterns to the ethicality and blame questions conditioned by the respondents' answers to the political, policy, and dehumanization questions. Whereas Fig. 4 indicates that among those who said the strike was ethical and Iran's leaders were to blame for civilian deaths, 85% were Republicans and 15% were Democrats, *SI Appendix*, Table S1 shows that only 38% of Republicans endorsed this particular pattern compared to 6% of Democrats. The data in *SI*
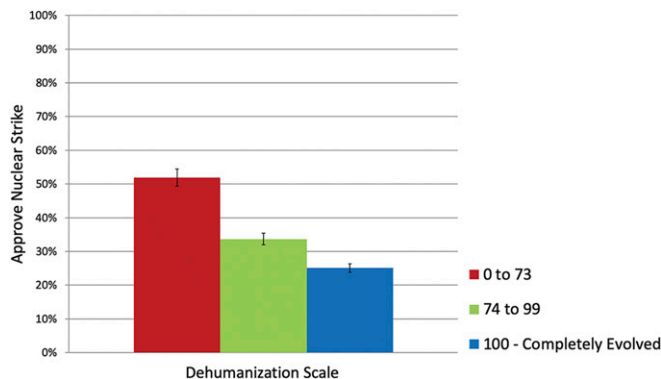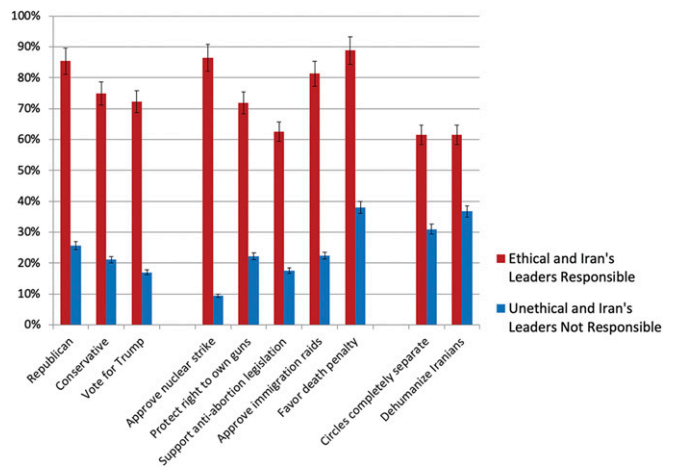
Fig. 4. Respondents who judged the nuclear strike to be ethical and Iran's leaders morally responsible for the harm to its citizens (red bars) differ in their political views, policy preferences, and feelings toward Iranians compared to those who judged the nuclear strike to be unethical and Iran's leaders not morally responsible for the harm to its citizens (blue bars).

Appendix, Table S1 confirms the pattern of virtuous violence shown in Fig. 4.

Demographic Predictors of Approval of the Nuclear Strike. The age distribution of respondents was divided into tertiles. Those in the upper tertile, above age 38 y, were more likely to approve the nuclear strike (40.4%) compared to 31.8% and 30.9% in the middle and lowest tertiles. White respondents were more likely to approve than those who were non-White (36.8% vs. 27.0%). Approval rates for males and females were 38.4% and 30.1%, respectively. Approval was 35.9% among those with college or postgraduate educations and 32.4% among those with some college or less.

Religiosity showed a strong effect. In response to the question, "How would you define your religious stance?" those who professed to be very or somewhat religious were more likely to approve of dropping a nuclear bomb on Iranian civilians (45.7%) compared to 26.2% among those who said they were slightly or not at all religious. The relationship between religiosity and approval expressed as a correlation ($r = 0.25$; $P < 0.01$) appeared to be driven by those stating they would vote for Donald Trump. It dropped to $r = 0.08$ ($P = ns$) when support for Trump was held constant statistically.

Measuring Each Respondent's Desire to Punish Others. In Fig. 1, we saw that answers to a wide range of single questions were associated with approval of using nuclear weapons. For purposes of analysis, we combined answers across the four nonnuclear policy questions in what we term "the punishment index." This index is calculated by summing the number of responses given by an individual that matched these answers: Support current immigration raids, support antiabortion legislation, support the death penalty for convicted murderers, and believe protecting gun rights is more important than controlling gun ownership.

A respondent received one point for each such answer. The scores thus ranged from zero (no punitive answers) to four.

We named the index the punishment index because each of the policies involves a punitive response to class of people viewed as deserving of punishment. Support for the death penalty is clearly punitive, and there is an element of punitiveness in conducting immigration raids. We included the antiabortion item in the index because forcing women to carry a pregnancy to term, even when the pregnancy is the result of rape or incest, is a
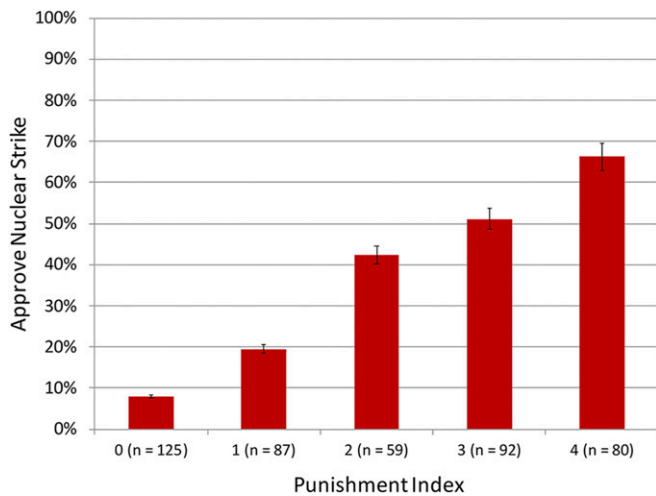
Fig. 3. Dehumanization of Iranians using the Ascent of Man scale predicts approval of the nuclear strike.

Fig. 5. Percent of respondents at each level of the punishment index who approved the use of nuclear weapons against civilians.

harm to those women. Because abortion is seen by them to be immoral and threatening to the social fabric, supporters of antiabortion laws are either unconcerned with the harm to women or feel that the women deserve such harm. We acknowledge that antiabortion advocates may disagree with our labeling of support for antiabortion legislation as punitive, and our main results and conclusions would not be materially altered if the abortion question was removed. Proponents of gun rights are advocating for their right to use firearms against threatening others. In each case, the proponent of the policy is willing to cause harm to others to advance what they perceive to be a societal good. This mentality of virtuous violence is especially evident in support for disproportionate killing of Iranians, and thus connects these policies to the question about the nuclear strike.

Because of the common element of punitiveness, we expected to see an increase in the nuclear weapons approval percentage with an increase in the number of other, nonnuclear policies an individual supported. As expected, the percentage of respondents approving the nuclear strike on Iranian civilians increased systematically as the punishment index rose (Fig. 5). Among respondents with a score of four on the index, 66% approved of using a nuclear weapon to kill enemy civilians. Of those who approved of none of these nonnuclear policies, fewer than 10% approved.

We compared the responses regarding the ethicality and moral responsibility of the nuclear strike to the responses on the four domestic policies that comprise the punishment index. Ethicality and responsibility had not been assessed for each of these policies. On average, those who thought that the nuclear strike would be unethical and Iranian leaders would not be responsible, approved only about one of the four punishing domestic policies. Seventy-five percent of these individuals approved zero policies or one. The average tripled to about three policies approved among those who believed that the nuclear strike would be ethical and Iran would be responsible for the resulting civilian deaths, and 76% of these respondents approved three or four. Clearly, there was a proclivity for virtuous violence that transferred from the nuclear to the nonnuclear policies.

Demographics of the Punishment Index. Additional analyses were done with a five-item punishment index based on adding approval of the nuclear weapons attack to the four other answers for which one point could be assigned. The index thus ran from zero to five. Those with high scores on the index tended to be White, male, conservative, Republican, religious, and older than the median age of 32 y (*SI Appendix*, Table S2).

The Trump Effect. Support for punitive policies and actions regarding the use of nuclear weapons, the death penalty, abortion, treatment of immigrants, and opposition to gun control was associated with voting for Donald Trump. Scores on the five-item punishment index show that the percentage of respondents who plan to vote for President Trump in the 2020 election increased steadily as the number of punitive answers on these five questions rose (Fig. 6). Among those who endorsed four or five of these policies or actions, 79.4% and 96.2%, respectively, said they would vote for Trump. Among those who endorsed none or one of the harmful positions, only 0.9% and 3.8% said they would vote for Trump.

Might all of the key findings of our survey simply be the result of what Kunst et al. call "identity fusion" (27), a visceral feeling of oneness with a leader such as Donald Trump, whose values and perspectives are perceived as aligned with one's own? In their paper, published after our survey was conducted, Kunst et al. measured fusion with a seven-point scale containing items such as, "I am one with Donald Trump," and found that it predicted stated willingness to persecute Iranians living in the United States and willingness to volunteer to personally travel to the Mexican border to protect it from the immigrant caravan.

As important as Trump's contribution to hate and punishing attitudes may be, the vengefulness many of our respondents clearly expressed has influenced military, political, and everyday decisions since before Trump's election (see, e.g., refs. 13–15, 17, and 28) and will continue when he is no longer in office. Moreover, further analysis of our survey data indicates that there is more to these attitudes than simply echoing Trump. Specifically, we entered answers to the questions about immigration, the death penalty, abortion, and gun control along with the question about voting for Trump in 2020 as variables into four separate stepwise regression analyses predicting approval of the nuclear weapons strike. Vote for Trump was always entered first. Approving immigration raids, favoring the death penalty, and protecting gun rights each produced statistically significant increases in R^2 when entered in step 2, with f values of 17.2, 27.2, and 20.2, respectively, all with $P < 0.001$. Only antiabortion attitudes did not add to predicting nuclear approval beyond what the Trump variable predicted. The responses to the four policy questions exclusive of the nuclear question were then combined
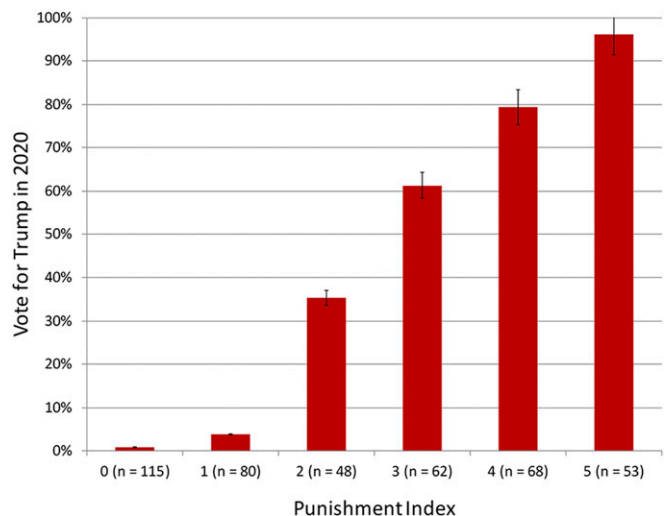

Fig. 6. Percent of respondents at each level of the punishment index who said they will vote for Trump in 2020.

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in a punishment index using the additive scoring method described earlier. When this index was entered in step 2, after the Trump vote in step 1, R^2 increased from 0.22 to 0.27, $f = 33.0$; $P < 0.001$. It appears that the attitudes associated with support for nuclear war were not solely due to oneness with Donald Trump as measured by our voting question.

Survey 2: Killing Iranians with Conventional Weapons

The results from survey 1 showed that our respondents appeared to allow irrelevant sociocultural and political attitudes to intrude upon and impact a decision that placed the lives of up to 2,000,000 civilians in jeopardy. This raises the possibility that such intrusions might bias decisions at the presidential level. But the nuclear scenario we studied was hypothetical. In addition, it forced a choice between two unwanted possibilities, killing millions of Iranian civilians versus losing up to 20,000 American soldiers in a difficult ground war. There were no middle options, such as entering diplomatic negotiations to resolve the conflict. The news story describing the scenario was also quite long and may not have been read and considered carefully by online participants.

We designed a second survey to test the replicability of the survey 1 findings with a different military decision that does not raise these concerns. The nuclear war decision was replaced by a simulation of a real decision faced by President Trump in June 2019, after Iran downed an unmanned United States surveillance drone. President Trump felt a need to retaliate for what was seen as an act of aggression. He decided to fire conventional missiles at the site from which the Iranian missiles were launched. United States missiles were "cocked and loaded" (29) but Trump made a last-minute decision to abort the attack when a military advisor convinced him that it would be a disproportionate response, possibility killing 150 Iranians for an attack that took no American lives (30).

The decision scenario we designed stayed close to the facts except it was not described as a decision that had been faced by President Trump and it said that one American had died in the attack, identified by name, age, and some personal information. The 150:1 ratio of possible Iranian fatalities to one American death is disproportional, even more extreme than the 100:1 ratio between Iranian and American casualties in one of the nuclear weapons scenarios in survey 1.

The scenario and decision question read as follows:

As you may know there are serious tensions between the United States and Iran that have led to direct military and cyberattacks. In this brief survey we will ask you a few questions about ethical issues regarding the acceptability of Iranian military and civilian casualties in the event that the US is considering a missile strike on an Iranian military target in response to Iran shooting down a US plane that they assert was over Iranian territory.

Specifically, Iranian air defenses shot down a US surveillance aircraft over the Strait of Hormuz at a location that Iran claimed was its sovereign territory, but the US claims was over international waters. One American died in the attack, the plane's pilot [fictitious name, age, and photo was provided here]. He is survived by his wife and son.

The US believes it must respond to what it sees as a provocative act of aggression. Plans call for US fighter planes to launch a missile strike that would destroy the Iranian facility that launched the missiles that downed the US plane. Intelligence estimates indicate that, due to collateral damage, as many as 150 Iranian lives may be lost as a result of the US air strike.

Would you support the decision to destroy the Iranian missile launching facility? [Yes/No].

How strongly do you feel about your answer? [Six responses ranging from very strongly, moderately, or slightly opposed to the strike to slightly, moderately, or very strongly in favor of the strike].

The survey then asked about attitudes toward the same issues covered in survey 1: Abortion, gun control, immigration, and the death penalty, along with questions about political party, liberal/conservative, vote for Trump, Iran's responsibility for deaths due to the strike (ethicality of the strike was accidentally omitted), and the circles and dehumanization questions pertaining to Iranians, as in the first survey.

Survey 2 Methods

Survey 2 Sample. Survey 2 was conducted with a sample of 219 Americans, recruited on August 27, 2019 using the online polling site Prolific. They were paid for participating. We attempted to recruit an equal number of Democrats and Republicans but the sample had slightly more Democrats, 55% vs. 45%. Forty-six percent were male. Their ages ranged from 18 to 77 y with a mean age of 35.6 y. Fifty-three percent identified politically as liberal, 38% as conservative, and 9% considered themselves moderate or middle-of-the-road politically. Eighty-one percent of the respondents were white, 8% were African-American, 3% were Asian or Pacific Islander, and 4% were Hispanic. Seventy-five percent of the sample had at least some college or were college graduates. An additional 13% had postgraduate degrees.

Survey 2 Results

Across all respondents, 36.5% slightly, moderately, or strongly favored conducting the retaliatory strike against the Iranian missile-launching base. Fig. 7 shows that the approval rates varied greatly across respondent subgroups in ways that were very similar to those of Fig. 1 based on the nuclear war scenario in survey 1. Again, answers to questions that asked about guns, abortion, immigrants, and the death penalty strongly predicted approval of a missile attack that might kill 150 Iranians. As in survey 1, political and ideological factors loomed large. Republicans, conservatives, and Trump voters were far more likely than Democrats, liberals, and Trump nonvoters to approve the retaliatory strike.

Also noteworthy in Fig. 7 is that those who distanced themselves from Iranians (IOS scale), dehumanized Iranians (Ascent of Man scale), and believed that Iran's leaders would be morally responsible for any civilian casualties caused by the United States retaliatory strike were also far more likely to support the strike compared to others with different views.

All of the other analyses conducted on the data of survey 1 were repeated for survey 2, substituting the drone retaliation decision for the nuclear weapons decision. The findings were highly consistent with those from survey 1, as can be seen by
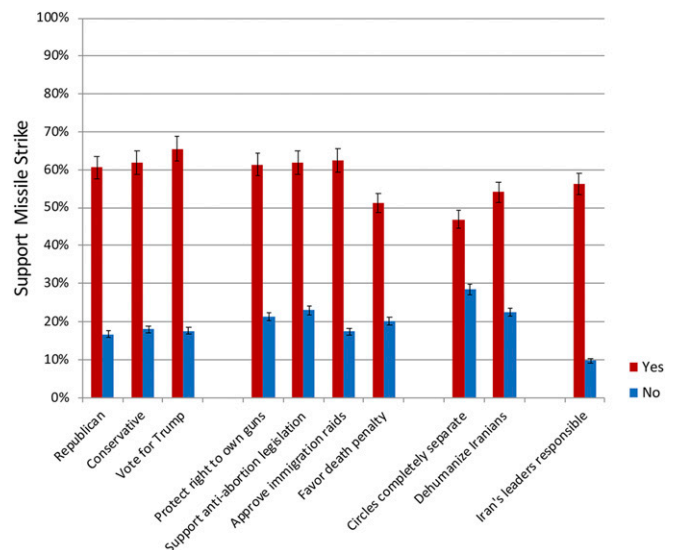

Fig. 7. Percent of respondents who would support a decision to destroy the Iranian missile-launching base.

comparing Fig. 1 and Fig. 7 and by examining data provided in *SI Appendix* (*SI Appendix*, Figs. S5–S12 and S16–S19).

Demographic Predictors of Approval of the Conventional Weapons Strike. Being older than age 40 y (50.7% approval) and religious (55.9% approval) was strongly associated with support for the conventional missile strike, compared to 22.5% for those younger than age 29 y and 22.2% for those who were not religious. Those who were White were more supportive than those who were non-White (39.9 to 22.0%) and 42.1% of those with college or postgraduate education supported the strike compared to 29.6% of those with some college or less. Approval rates were 39.6% for males and 33.9% for females.

Discussion

This study aimed to replicate and extend Sagan and Valentino's (9) finding that almost 60% of a cross-section of the American public would approve of killing vast numbers of Iranian civilians with a nuclear bomb in hopes of ending a ground war that threatened the lives of 20,000 American troops. In addition to this high overall percentage, Sagan and Valentino found that approval was particularly high among those who were older, Republican, and emotionally distant from Iranians. Those who approved of the nuclear attack justified it as ethical and believed the Iranian leaders were responsible for the harm that would befall their civilians. Responses to open-ended questions showed evidence of dehumanization of Iranians and vengefulness. A noteworthy finding was that persons who approved of using the death penalty to punish convicted murderers were more than twice as likely than others to approve the nuclear strike. Their study also found approval was about the same for a scenario estimating the civilian death toll at 100,000 and one where the estimate was 2,000,000 casualties, consistent with the phenomenon of psychic numbing observed with indifference to genocide (31) and in the historical record of actual and planned killing with nuclear weapons (19, 32–34).

Survey 1 in the present paper replicated this pattern of results and extended them in several important ways. We documented the political differences observed by Sagan and Valentino (9) and found them to be extreme. We documented the strong effects associated with emotional distancing and dehumanization using the IOS scale and the Ascent of Man scale. We, too, found that those who approved the nuclear option believed that it was ethical and the Iranian government would be culpable for the killing of their civilians. We also found insensitivity to a 20-fold increase in estimated casualties across two scenarios.

The 34% approval of the nuclear strike we observed was considerably lower than the near 60% rate found in the original study, conducted 4 y earlier. This might be due to our explicitly labeling points four and five on the six-category response scale as indicating approval of the nuclear strike and points two and three as indicating disapproval; in the original study conducted by Sagan and Valentino (9), points two to five in the response scale were unlabeled. This is supported by findings from earlier surveys we ran in 2019 replicating the Sagan and Valentino survey, one of which left points two to five unlabeled, and one of which had points one to six all labeled, as in survey 1 of the present paper. In these surveys, a higher percentage of respondents approved of the nuclear strike when points two to five were unlabeled (*SI Appendix*, Table S3). Support for the nuclear strike may be higher if the responses are unlabeled because marking a 4 or a 5 is less explicit than saying you approve of using nuclear weapons against civilians. The high-profile tensions between the United States and North Korea and concerns surrounding dismantling of nuclear control treaties in 2019 may also have played a role in reducing support for a nuclear war. Another possibility is that, despite the fact that the stories did not mention who was president, Democratic respondents may have been less willing

support a nuclear attack presumably ordered by Donald Trump than to support a decision by Barack Obama, president at the time of the Sagan and Valentino survey. This partisan influence is suggested by the higher percentages of Democrats supporting the nuclear strike in the 2017 study than in this one.

But the lower approval rate in the present study is not reassuring in light of high levels of support for the nuclear option among sizable political subgroups, such as Republicans, conservatives, and supporters of President Trump. And while the Sagan and Valentino (9) scenario of survey 1 was lengthy, hypothetical, and provided no option that did not involve unacceptable casualties, our findings with the short, realistic drone-retaliation scenario in survey 2, which did afford a nonlethal alternative, were virtually identical in showing that political and sociocultural factors that should be irrelevant, nevertheless were strongly predictive of a decision to inflict disproportional casualties on an enemy. In fact, the 150:1 ratio of possible Iranian losses versus American losses in survey 2 was even greater than the 5:1 and 100:1 ratios in the two nuclear war scenarios of survey 1.

Before advisors intervened, President Trump—an older, White, male, conservative Republican—gave the order to launch a missile strike in retaliation for the Iranian drone attack (29). These social and demographic traits that characterize President Trump also characterize a nontrivial number of people across the United States. Among older, White, male conservative Republicans in our surveys, we observed strong approval of both the nuclear weapons strike (58%) and the retaliatory missile strike (68%).

Also disturbing is our finding that the correlation between approval of mass killing with nuclear or conventional weapons and approval of killing a single individual via the death penalty [found also by Sagan and Valentino (9)] was conjoined with support for deporting immigrants, restricting abortion, and preserving gun ownership. Support for each of these activities was far greater for conservatives, Republicans, and Trump voters.

Support for killing Iranians with nuclear and conventional weapons was also associated with measures of social distance and dehumanization of Iranians. But these distanced views of Iranians were also strongly predictive of support for American domestic policies in the domains of immigration, gun control, abortion, and the death penalty.

Ethicality and moral responsibility were strong predictors of approving the nuclear strike. Questions about ethics and responsibility were not asked in connection with each of the four domestic policies, but a remarkable finding was that asserting that the nuclear strike was ethical and Iranians were responsible for the consequences predicted support not only for the nuclear strike but for these domestic policies as well.

What may bind these five disparate actions and policies together? Perhaps it is the sense that members of one's outgroup are "bad" because they offend our moral sensibilities or threaten our safety and security in some way. For supporters of these policies, undocumented immigrants may be seen as immoral because they crossed the border illegally and are perceived to further threaten and offend society by competing for jobs, harboring terrorists, and violating cultural mores; abortion is viewed as immoral and threatening to the social fabric; murder is deserving of the highest punishment—death; guns are needed to protect oneself against threatening others; and the Iranians are deserving of nuclear destruction for initiating a war against the United States. Harm toward these "bad" people is believed to be virtuous because the objectives are desirable (e.g., protecting our troops, the unborn, our families, and so forth, and deterring crime) and the victims are to blame. All of these findings are consistent with the broader literature on punishment and revenge cited earlier.

The social distancing and dehumanization we observed also needs further study. It is hard to believe that about half of our

respondents truly consider Iranians to be less than fully human. Rather, as has been claimed by Fiske and Rai (24) and Rai et al. (35), those who punish others want to believe their victims are fully sentient human beings who can feel the pain, humiliation, disgrace, and fear of dying that their punisher believes they deserve. In this view, dehumanization and social distancing thus can be seen as mechanisms that allow one to punish with less inhibition and enable bystanders to look away with less guilt, rather than as the primary motivations for the punishment (see also ref. 36). Dehumanizers may live in a twilight zone between knowing their targets are human yet not wanting to acknowledge it. Psychic numbing works this way, creating indifference to large statistical losses of life without appreciation or acknowledgment of the individual humanity beneath the surface of the numbers. It may also be the case that the distancing and dehumanization responses we observed simply reflected a dislike for Iranians and the targeted outgroups in the other policy items, consistent with the affect heuristic (37). Sagan and Valentino (9) asked their respondents to rate Iranians on an affective scale between 0 (very cold) and 100 (very warm). They found that those who favored the nuclear strike rated Iranians far lower (colder) on the scale than did those who opposed the strike.

Implications for Nuclear Weapons Decision Making. Sagan and Valentino (9) cautiously concluded that their survey experiments "cannot tell us how future U.S. presidents and their top advisers would weigh their options if they found themselves in a conflict in which they faced a trade-off between risking large-scale U.S. military fatalities and killing large numbers of foreign noncombatants."

We draw a somewhat different message from our survey results coupled with the sober realities from World War II and the Cold War, where military and civilian leaders showed no reluctance to kill hundreds of thousands of Japanese to end a difficult war and then aimed their nuclear weapons at hundreds of millions of people in the Soviet Union (32). These actions show evidence of psychological biases, such as psychic numbing and security prominence, that are apparent both in the survey data and in decisions made by Presidents Clinton, George W. Bush, Obama, and Trump not to intervene in genocides and other mass atrocities (20, 38, 39).

There is little evidence that presidents, with authority to unleash nuclear weapons, are trained to make the most fateful decisions any human being will ever face (19). But there is evidence that, like most people who rely heavily on fast, intuitive thinking (40), some presidents are comfortable, even proud, to leave important military decisions "to their gut" (21). Simply put, our study raises these questions: How can we be assured that political ideologies and sociocultural biases, so prevalent among the public, do not influence important military decisions as well? What decision-making skills, training, and procedures are needed to keep these biases from affecting decisions that are essential to human wellbeing and survival?

Many have noted the limited time available to respond if an enemy mounts a surprise missile attack (41). These and other scenarios need to be analyzed in advance of any nuclear crisis, examining the action options, objectives, values, and consequences central to the structure of such decisions and formalizing procedures for weighing the complex benefits of a nuclear attack against the enormous and perhaps even incalculable costs (see e.g., ref. 42). But our results suggest that such analyses, inevitably suffused with uncertainty and subjectivity, might predictably be crafted to support the partisan decisions preferred by the analysts in charge and the president (see e.g., ref. 43). The team of analysts thus needs to be diverse in their political and ideological perspectives and values. Advisors to the president need to be diverse as well, and they should be consulted. Given the potential for faulty or biased judgment, no president should have sole authority to launch nuclear weapons (44, 45). The importance of a president listening to advisors was demonstrated in the reversal of the drone retaliation decision that was the basis for survey 2.

Implications for Human Rights and Democracy. Our findings have implications regarding the divisiveness and cruelty so apparent in today's America. Anyone following the news knows that President Trump and many of the conservative Republicans loyal to him support the policies opposing gun control, abortion, and immigration, and favoring the death penalty that we chose to study here. And Trump, at the least, seems flippant and unconcerned about controlling nuclear weapons, except for those possessed by North Korea.

But the survey data inform us in ways that news reports do not. They show vividly how deep the partisan divisions are across important domestic and military policy issues. And they show a base of support for cruelty and violence that may implicate a substantial proportion of the American public. In this regard, our findings appear compatible with the conceptual framework known as "The Pyramid of Hate" (*SI Appendix*, Fig. S20) created by the Anti-Defamation League to illustrate how more serious levels of violence toward the tip are supported and enabled by a broad base of common and normalized acts of bias and discrimination. Based on our survey data, the authors of this paper propose placing nuclear war alongside genocide at the tip of the pyramid.

How can we shrink this pyramid? Will contact with others who threaten and offend us reduce the desire to punish them? Cross-national studies of contact with migrants show promise in that regard (46), as does nonjudgmental interpersonal conversation (47). Educating children to respect and empathize with others who are different from them may be an effective antidote to hating and punishing those people later in life. What other societal changes might reduce the perceived physical, moral, social, and economic threats that motivate violent sentiments among large numbers of Americans who feel that America no longer works for them?

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