

**REVENGE IN U.S. PUBLIC SUPPORT FOR WAR AGAINST IRAQ:
“GETTING THE ONES BEHIND BIN LADEN” OR “JUST OUT LOOKING FOR A FIGHT”?**

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ABSTRACT

This paper examines the role of revenge in U.S. public support for the Iraq War. Citizens who mistakenly blamed Iraq for 9/11 felt relatively strongly that it would satisfy a desire for revenge, and such feelings significantly predicted war support after controlling for security incentives, beliefs about the costs of war, and political orientations. But many of those who said Iraq was not involved also expected war would satisfy a desire for revenge, which we interpret as a foreign policy analogue of displaced aggression. This research helps us understand how the Bush Administration was able bring the nation to war against a country having nothing to do with 9/11, testifies to the roles of emotion and moral motivation in public opinion, and demonstrates the feasibility of utilizing independently conducted online surveys in secondary data analysis.

KEY WORDS

Terrorism, public opinion, Iraq War, anger, retribution, vicarious retribution, displaced aggression, prosecutorial mindset.

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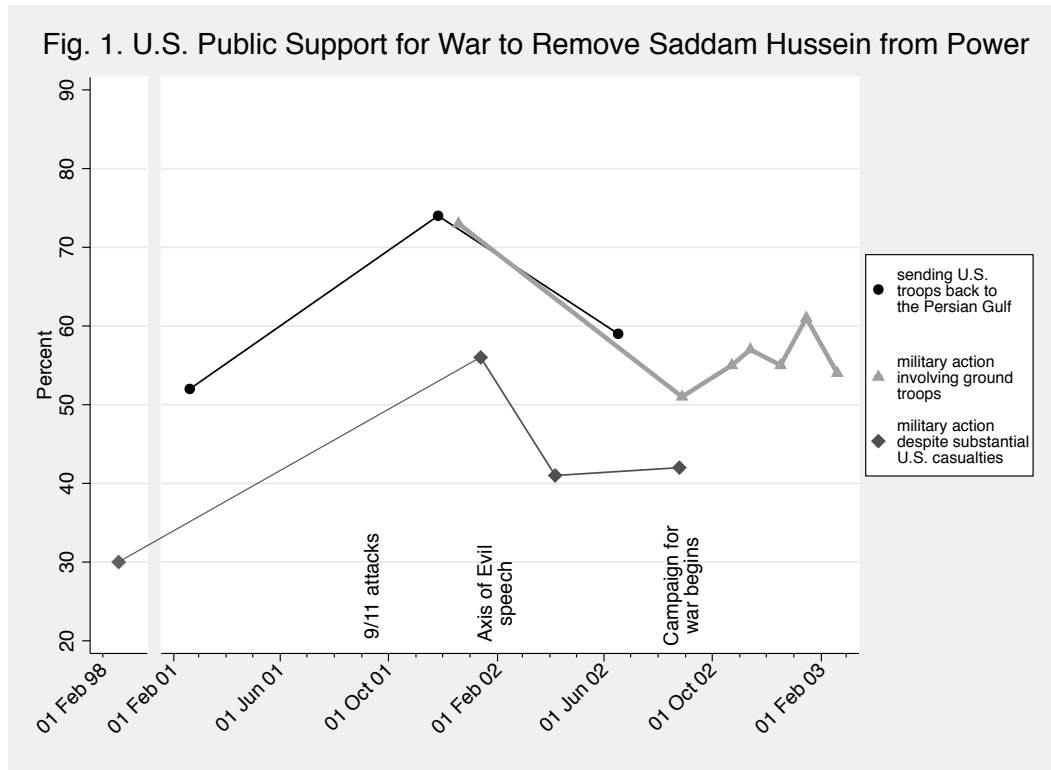
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Have you forgotten, how it felt that day?
To see your homeland under fire
And her people blown away
Have you forgotten when those towers fell?
We had neighbors still inside going thru a living hell
And we vowed to get the ones behind bin Laden
Have you forgotten?

They took all the footage off my T.V.
Said it's too disturbing for you and me
It'll just breed anger that's what the experts say
If it was up to me I'd show it everyday
Some say this country's just out looking for a fight
Well, after 9/11 man I'd have to say that's right!

--Daryl Worley, "Have You Forgotten,"
the #1 country single in United States, February 2003

The September 11th, 2001 terror attacks gave a jolt to U.S. public support for going to war against Iraq, a country with no known involvement in 9/11 or anti-U.S. terrorism. Although few poll questions were repeated in identical form before and after the attacks, support for "sending American troops back to the Persian Gulf in order to remove Saddam Hussein from power in Iraq" and for military action despite heavy U.S. casualties both increased following 9/11 and then began to decline (see Figure 1). Fading support for war during spring and summer 2002 also can be seen from repeated items on "military action involving ground troops," and from many others as well (Everts and Isernia 2005; Jacobson 2007). Still, the surge in belligerence persisted at least into fall 2002, and appears to have influenced Congress's October vote—just before mid-term elections—to authorize the use of force. It thus loosened the political constraints on President George W. Bush's ability to take the nation to war the following spring.



Two of the most popular explanations for this “9/11 Effect”—administration allegations about the Iraqi threat and mass fears of terrorism—do not explain its immediate appearance following the terror attacks. Public belligerence surged well before the Bush Administration began publicly campaigning for war, at a time when its discourse and the media focused almost exclusively on al-Qaeda, Afghanistan, and terrorism. Bush first sounded the tocsin about the Iraqi threat in his January 29th, 2002 “Axis of Evil” speech, and began a study drumbeat for war only in August 2002 (Althaus and Largio 2004; Nacos et al. 2011). Discourse on the terrorist threat might have affected threat perceptions, fear, and more diffuse anxieties. But the two studies of U.S. public emotions and support for war against Iraq found that, as in other contexts, fear and anxiety were associated with desires to avoid rather than confront threats, and that anger is the emotion most strongly linked to belligerence (Huddy et al. 2007; Skitka et al. 2006).

Questions remain about why this is so. Huddy et al. (2007) provide evidence that citizens' anger reduced their appraisals of the risks of war and diminished their cognitive processing of information about Iraq. But neither Huddy et al. (2007) nor Skitka et al. (2006) test or control for additional explanations for observed correlations between anger and support for war: mistaken beliefs that Saddam Hussein was involved in 9/11, beliefs that Iraq posed a dire threat to the United States, or just post-9/11 desires to lash out. Progress on these questions has been impeded by the rarity, despite the massive amount of polling and survey research performed on public opinion about 9/11 and Iraq, of surveys containing measures of anger or revenge, and the fact that none that did also measured perceptions of Iraqi links to al-Qaeda.¹

To overcome this hurdle, we constructed a new dataset from independently designed surveys from 2003 that separately measured the requisite combination of beliefs and attitudes. Because a single survey firm administered these surveys to its large, nationally representative respondent panel, many panelists were unintentionally solicited for multiple surveys. Though smaller in size than conventional random samples, the overlap between the samples includes an unusually rich array of measures useful for investigating the role of revenge in U.S. public support for war against Iraq. "Synthetic panel survey data" is an apt label for this novel type of data, in virtue of its post-hoc design and multi-wave structure.

We find evidence that, as Daryl Worley's February 2003 country song "Have You Forgotten?" quoted at the top of this paper put it, Americans after 9/11 both wanted to "get the ones behind bin Laden" and were "just out looking for a fight." Citizens who blamed Iraq for 9/11 more strongly expected war would satisfy their desire to avenge 9/11, compared to those who said Iraq was not involved in the attacks, and this predicts levels of war support after

¹ A related study that analyzed retributive dispositions and war support also lacked data on Iraqi complicity (Lieberman 2006).

controlling for political orientations, threat perceptions, and perceived war risks. However, in an apparent international analogue of displaced aggression, many who said Iraq was *not* involved also felt that war would satisfy desires to avenge 9/11.

Our study contributes to deeper understandings of post-9/11 support for war against Iraq and of the roles of emotion and moral motivations in public reactions to terrorism. It also offers a cautionary political lesson—political leaders may be able to exploit similar reactions to future “days of infamy,” and advance their own war agenda against unrelated states.

EXPLANATIONS FOR THE “9/11 EFFECT”

Several explanations for post-9/11 public belligerence are suggested by its correlations with anger over the attacks (Huddy et al. 2007; Skitka et al. 2006; see also convenience sample studies by Cheung-Blunden and Blunden 2008a; Cheung-Blunden and Blunden 2008b; Lambert et al. 2010). This section reviews the main theories that predict these correlations. Some suggest that anger and revenge would have heightened belligerence toward Iraq, whereas others suggest that anger, revenge, and support for war were all caused by other factors, such as threat perceptions, the expected costs and risks of war, or political loyalties.

Perhaps the most obvious explanation is that misperceptions of Iraqi complicity in 9/11 aroused anger at Iraq and desires for just punishment. Such “mistaken retribution” seems plausible in light of polls, immediately following the attacks and for a long period after, finding that around 8 in 10 Americans agreed that Iraqi involvement was at least “somewhat likely” (Althaus & Largio 2004). However, it remains unclear how much genuine blame such evidence represents. In response to questions with more varied response options, only about 20% of the public agreed that Saddam Hussein was “directly involved,” and this was after months of

administration allegations of Iraqi links to al-Qaeda. Specifically naming Iraq in the question also appears to have affected responses, as only 8% of the public named Iraq or Saddam Hussein when asked open-ended questions about who bore responsibility for 9/11 (Althaus and Largio 2004).

Anger and desires to take revenge on an offender can spring from security motivations, justice motivations, or both. Although anger and punishment are typically useful for promoting deterrence and cooperation, research on actual punishment motivations indicates that “just deserts” is an important end-in-itself. Audiences often increase punishment of exploitative or unfair behavior in experimental games (Camerer 2003, chap. 2; McCullough 2008), which is consistent with a strategic mechanism, but punishment also occurs in experimental games when only the punishers are aware of when it occurs (Nadelhoffer et al. 2013). Punishments that “send a message” to offenders are particularly gratifying to the punisher (Funk et al. 2014; Gollwitzer and Denzler 2009; Gollwitzer et al. 2011). But such messages often appear to be motivated by desires to restore the victim’s self-esteem and status, rather than to deter future transgressions (Shnabel and Nadler 2008). In addition, laypeople’s punitiveness toward criminals appears to be scarcely affected by publicity surrounding a case, the difficulty of detection, and the likelihood of recidivism, factors solely affecting the social utility of punishment, whereas punitiveness is strongly shaped by the harm done and maliciousness of intent, factors emphasized most by retributive justice norms (reviewed by Carlsmith and Darley 2008).

Anger’s effects on judgment and decision making provide additional possible mechanisms for why anger links to support for war, including against countries having nothing to do with 9/11. Psychology experiments show that incidental anger—that is, anger over unrelated judgment tasks—tends to diminish systematic information processing as well as appraisals of

future risks (reviewed by Lerner and Tiedens 2006). Incidental anger also can increase punitiveness by affecting appraisals of wrongdoing. Learning about serious, unpunished crimes against third parties heightens perceptions of wrongdoing and punitiveness toward the uninvolved, an effect that has been labeled the “prosecutorial mindset” (e.g., Lerner et al. 1998; Rucker et al. 2004; Tetlock et al. 2007).

Anger can also heighten aggressiveness directly, seemingly without appraisal or information-processing effects playing a critical role (Zeelenberg et al. 2008), which is how researchers have generally understood displaced aggression, i.e., the phenomenon in which an unrequited personal insult or injury (such as being chewed out by one’s boss) results in lashing out toward unrelated targets (such as kicking the dog back at home). Although displaced aggression occurs infrequently, it is made more likely by the target’s engaging in comparatively minor unwanted behavior (such as barking; Bushman et al. 2005; Pedersen et al. 2008) and by perceived similarities between perpetrator and target (Sjöström and Gollwitzer 2015; Marcus-Newhall et al. 2000), conditions that would have made Iraq an especially tempting target to lash out against following 9/11.

In theory, displaced aggression and making examples out of innocents can have a general deterrence function: signaling “don’t mess with me” or that actual offenses will be punished. Consistent with this idea, threats, both realistic and symbolic, are a common source of intergroup anger (reviewed by Cottrell and Neuberg 2005), and relatively strong individuals and groups are more likely to react angrily than fearfully to provocation (e.g., Carver 2004; Mackie et al. 2000). But displaced aggression experiments generally do not provide relevant audiences for deterrent signals. In addition, the prosecutorial mindset effect correlates with desires for retribution but not

for deterrence, and can be aroused not only by information about unpunished crimes, but also by angering music (Rucker et al. 2004; Seidel and Prinz 2012; Tetlock et al. 2007).

The experimental research on anger and punishment thus suggests that anger over 9/11 could have reduced appraisals of the risks of war, reduced cognitive processing of information about the Iraq crisis, and more directly increased general aggressiveness. Such effects could have occurred long after the actual attacks, due to rumination, exposure to angering reminders about the attacks, or both. One year later 40% of the public said that they still thought about the attacks every day, and 66% said they still felt “very angry” at the culprits (ABC News 2002). In addition, anger-influenced judgments stored in long-term memory can affect decision-making long after the emotion has dissipated (Andrade and Ariely 2009; see also Lodge and Taber 2013; MacKuen et al. 2011).² We would expect hostility toward those actually believed to have plotted the attacks to remain strong for many years, but as at least some of them were punished, anger and its carryover effects would fade. This could explain the gradual fading of the post-9/11 surge in support for war against Iraq over 2002.

Huddy et al. (2007) provide four findings consistent with anger carryover effects on war support in fall 2002 data. Consistent with a risk appraisal effect, U.S. citizens who were relatively angry at the terrorists and Saddam—with these highly correlated feelings combined into a single anger measure—perceived fewer risks of war with Iraq. Consistent with an information-processing effect, knowledge about Iraq was uncorrelated with war support among angry citizens, but predicted diminished war support among those expressing little anger. Anger also predicted the perceived severity of the Iraqi threat, which they interpret as motivating reasoning

² Desires to avenge 9/11 assessed in 2003, for example, predicted reactions to the capture and death of Osama bin Laden—and continued desire for vengeance and support for war—10 years later (Gollwitzer et al., 2014).

to justify lashing out at Iraq, but could also reflect the prosecutorial mindset effect.³ The final finding is that anger predicted heightened support for war. But mistaken retribution provides a plausible alternative explanation for at least three of these findings. Beliefs about Iraqi involvement in 9/11, which might have been shaped by prior beliefs about Iraq or misinformation in the media, rather than anger over the attacks, could have aroused anger at Iraq, heightened threat perceptions, and increased support for war.

Intuitive strategic motivations also could have result in correlations between post-9/11 support for war against Iraq and anger or revenge. U.S. public support for military force is consistently heightened by threats and reduced by perceived costs and risks of war (e.g., Eichenberg 2005; Gartner 2008; Gelpi et al. 2009; Herrmann et al. 1999). Misattributions of 9/11 to Iraq would have made Iraq appear much more dangerous than before, apart from its impact on anger or revenge. Both perceived Iraqi and terrorist threats correlated with support for war against Iraq in fall 2002 and after (Kam and Kinder 2007; Kull et al. 2003-04). Some citizens even may have wanted to make an example of Iraq to deter others from aiding anti-American terrorists or otherwise harming the United States. U.S. officials gave this as a reason for toppling Saddam Hussein's regime in National Security Council meetings shortly after 9/11, although its absence from the administration's public case for war probably reflected a judgment it would be contentious or unpersuasive to the public (Suskind 2006).

Political partisanship and cue taking from elite discourse also could have yielded correlations between post-9/11 support for war against Iraq and anger/revenge, at least after the administration began making its case for war. Few if any prominent political figures explicitly justified war against Iraq as retribution for 9/11, much less openly claimed that war against uninvolved nations would avenge the attacks. But citizens who supported war because they

³ Another interpretation, however, is that threat caused anger rather than the reverse.

trusted the president or for other reasons, and who were unswayed by the taboo on revenge, might have endorsed retribution as a reasonable sounding justification. Although partisan gaps in anger or revenge have not been previously studied, a large gap did emerge between Republicans and Democrats over Iraqi involvement in 9/11 and possession of WMD (Berinsky and Druckman 2007; Gaines et al. 2007; Jacobson 2010; Prasad et al. 2009).

In sum, past research suggests that mistaken retribution, perceived threats and the riskiness of war, and a variety of anger/revenge carryover effects could have bolstered post-9/11 support for war against Iraq. To better understand the role of revenge, we now turn to an empirical study that simultaneously tests the effects of perceived threats, the perceived costs and efficacy of war, beliefs about Iraqi complicity in 9/11, and desires to avenge 9/11.

RESEARCH DESIGN, DATA, AND MEASURES

Our empirical analysis is divided into four sections. The first describes the nature of the data, potential selection/attrition biases, and handling of missing data, whereas the second section describes our main measures. In the third section we analyze how U.S. citizens' feelings that war against Iraq would satisfy a desire to avenge 9/11 related to beliefs about Iraqi involvement in the attacks, and the possibility that the latter reflected motivated reasoning or post-hoc rationalization. The fourth analyzes how support for going to war against Iraq related to views on Iraqi involvement in 9/11 and feelings that invading Iraq would satisfy desires for revenge.

“Synthetic” Panel Survey Data

As noted in the introduction, no single survey or panel study measuring anger over 9/11 or desires for revenge also assessed beliefs about Iraqi guilt. However, Knowledge Networks, Inc. (KN; since acquired by GfK) measured both in independent, uncoordinated surveys using random samples from its large, online respondent panel. Although the KN panel included about 40,000 U.S. citizens in the early 2000’s, large surveys are likely to have a significant number of common participants simply by chance.⁴

We use the term “synthetic panel survey” to describe datasets created by the merging of two or more such surveys, to reflect their post-hoc combination of data collected from the same respondents, but at different times. Although it is an apparently novel use of archived online survey data, synthetic panel surveys may provide the only feasible way to analyze associations between variables from a particular historical period that were not collectively measured within single studies.⁵ In addition, synthetic panel surveys share some of the methodological advantages of conventional panel surveys, such as avoiding question-order effects and strengthening causal inference when predictor variables are measured before criterion variables.

Sample size is the primary limitation, and will depend on the original survey sample sizes, the sampling frames employed (the total size of the online panel and any narrowing to subsets, such as those from whom specialized profile data has been collected), and the passage of time between the surveys (which diminishes overlap due to panel dropout and tenure limitations). Sample size can also be expanded by pooling identical items from multiple surveys,

⁴ KN originally recruited these panelists by random-digit dialing and address-based sampling, making its results highly representative of the population (Chang and Krosnick 2009; Yeager et al. 2011).

⁵ In personal communication, senior executives responsible for academic research at GfK and YouGov/Polimetrix, another large online survey firm, said they could not recall previously having assembled such a dataset.

where feasible, as well as by including additional, single-wave respondents and imputing their missing data. We use both of these methods here.

The restriction of complete case data to the overlap of two random samples, although sharply limiting statistical power, does not by itself bias parameter estimates. The extensive wave-nonresponse for the large majority of cases who participated in only one survey, stems from the random sampling of a large respondent panel for separate, uncoordinated surveys, and is thus missing completely at random (MCAR).⁶ However, individual proclivities to drop-out and to accept survey solicitations, as with ordinary survey panel attrition, also affects inclusion in overlapping samples and may well result bias results.

Most of the data for our study was originally collected in two unusually and fortuitously large surveys. Between March 13-April 9, 2003, KN fielded a survey (commissioned by one of us) that included a measure of revenge motivations, with 3,534 completions (81% being completed prior to the outbreak of war on March 20th, we refer to this as the “March” survey). Without any coordination with that project, the Program on International Policy Attitudes (PIPA) at the University of Maryland commissioned a series of surveys from KN on beliefs in attitudes about the Iraq War in 2003, fielded in February 1-15 (N=3,163), June 18-25 (N=1,051), July 11-20 (N=1,060), and August 26-September 3 (N=1,217; Kull et al. 2003-04). The February survey was particularly useful because it was conducted prior to the outbreak of war and had such a large sample size.

Unique respondent identification numbers furnished by KN/GfK revealed that 363 March respondents completed the February 2003 PIPA survey, and an additional 345 March respondents completed at least one of the summer PIPA surveys. Another 258 February 2003

⁶ Although this results in much higher missingness rates, the missing data pattern is otherwise similar to a rotating panel design, or a panel survey with refreshment samples (Kalton and Citro 1995).

respondents who did not participate in the March survey participated in PIPA's June or July surveys. We include all of these groups in our synthetic sample, resulting in a total sample size of N=966. The added June/July PIPA respondents, although lacking data on revenge, increase the density of observed data on February 2003 attitudes about Iraq and on beliefs about Iraqi possession of WMD, which were measured only in June and July.⁷

Due to individual survey response dispositions, as well as the lack of sampling weights available for this synthetic panel sample, it is less educated, affluent, and young than the U.S. population, and disproportionately male and Black.⁸ However, political awareness is no greater among those who completed multiple surveys than the full February sample, which is highly representative of the U.S. population, despite consistent findings that political interested citizens are more likely to acquiesce to surveys.⁹ That is fortunate, because political interest and knowledge commonly affect cue taking, constraint among political attitudes and emotions (Miller 2011; Olson and Witt 2011).

We use multiple imputation (MI) of missing data to make the most efficient and unbiased use of the partial-data cases. MI involves generating multiple complete datasets with algorithms that incorporate the uncertainties in the imputations into their cross-dataset variance. The

⁷ Adding the PIPA-only cases reduces missingness in *WMD* to 42%, though at a cost of greater missingness in the March 2003 data. But missingness of the revenge measure remains only 34%, thanks to the additional March/summertime cases. Additional details on missingness rates are provided in Appendix §3.

⁸ An attrition model comparing the full February sample to the 677 participants in the synthetic panel sample showed the differences are statistically significant. See Appendix §2 and §4 for details on missingness and demographics. California, Florida, Illinois, New York, and Texas residents are also overrepresented due oversamples of these states in the February 2003 survey.

⁹ The full February sample was statistically indistinguishable in political interest and knowledge (as measured by the six February 2003 items in the *Awareness* scale) from the subset of respondents who completed one of the summer PIPA surveys, or who completed the March 2003 survey. There was also no difference in political interest and news consumption between the full March sample and the subset that also completed a PIPA survey.

statistical models are then run on each dataset and the results pooled, by taking the means of the parameter estimates and incorporating between-model variance into the standard errors. MI results in unbiased parameter estimates when the missing data mechanism is unrelated to the values of the imputed variables, and corrects for bias from missingness predicted by observed variables (Rubin 1987; King et al. 2001; Van Buuren 2012).

To the extent that observed factors predict missingness, their impact on results can be tested and adjusted for. Missingness from non-observed variables (“missing not at random,” or MNAR) is more problematic and difficult to detect. However, we are interested here in testing for hypothesized relationships among feelings and attitudes, rather than making precise population estimates. In addition, there are no other obvious selection/attrition mechanisms that would bias the results of our hypothesis tests in their favor. We thus provide multiply-imputed estimates along with several robustness checks, and leave for further research fine-tuning bias corrections using techniques specifically designed for MNAR data (see, e.g., Si et al. 2015).¹⁰

Measures

In this paper we measured retributive motives by the satisfaction that citizens said they expected from war, using March 2003 items asking to what extent going to war would [changed to “did” for the 15% of respondents who received the survey after the war began on March 20th] “satisfy or resolve” for respondents a “compelling need for vengeance for the 9/11 terrorist attacks,” a “desire to hurt those responsible for the 9/11 attacks,” a “sense of moral outrage,” and

¹⁰ We used the Markov chain Monte Carlo algorithm, implemented in Mplus 7.1, to generate 50 complete datasets (Muthén and Muthén 2012). For additional details on the imputation model and diagnostics, see Appendix §5.

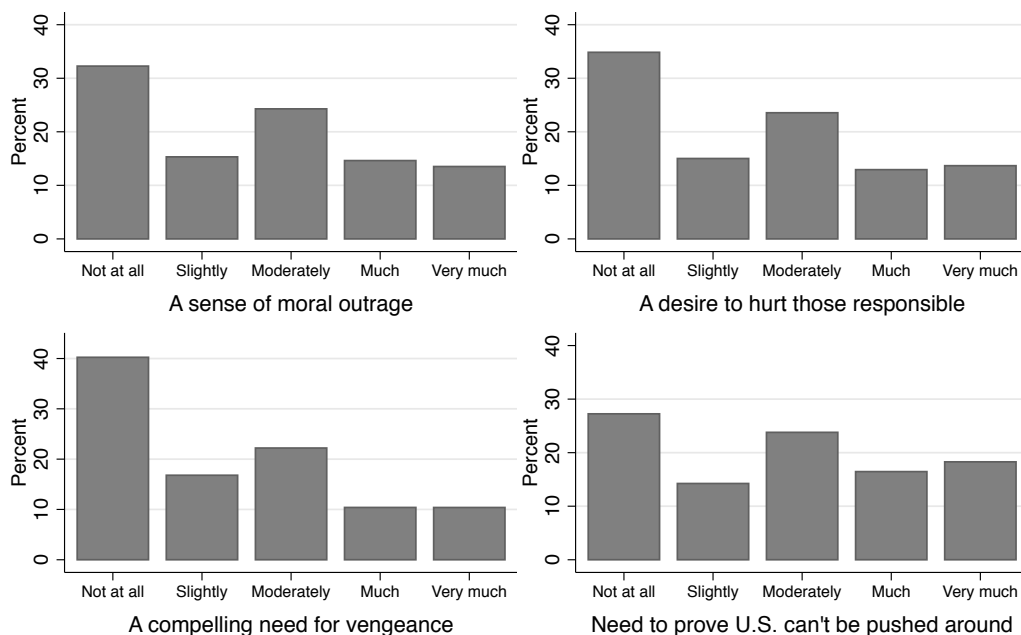
“a need to prove that the U.S. can't be pushed around.”¹¹ Such “retributive satisfaction” is a valuable measure for testing hypotheses about retributive motivations. Although punishers sometimes overestimate the degree of satisfaction that revenge brings (Carlsmith et al. 2008), the anticipation of taking revenge correlates with activity in regions of the brain associated with gratification, and the activity level correlates with punishment severity and cost (de Quervain et al. 2004). Moreover, as noted earlier, punishments that “send a message” to offenders are particularly satisfying for the punisher.

An average of half of the public said they expected “moderately” or more to feel retributive satisfaction from war against Iraq across these four items (see Figure 2). Responses to these items inter-correlated very highly, so we combined them into a simple additive scale, *Avenges*.¹² The outbreak of war and slight change in wording on March 20th had no significant effect on *Avenges* or its relationship with war support, so we pooled the prewar and wartime cases to maximize statistical power.

¹¹ Details on question wording and scale construction can be found for this and all other variables in Appendix §3.

¹² Cronbach's Alpha = .89. An exploratory factor analysis pointed to a single factor, with an eigenvalue of 3.23 followed by .36. A single-factor CFA model fit extremely well (RMSEA = 0.015) when including a residual covariance between the “vengeance” and “hurt” items (whose references to punishment probably accounts for their particularly strong intercorrelation), with standardized factor loadings all falling between 0.82-0.86.

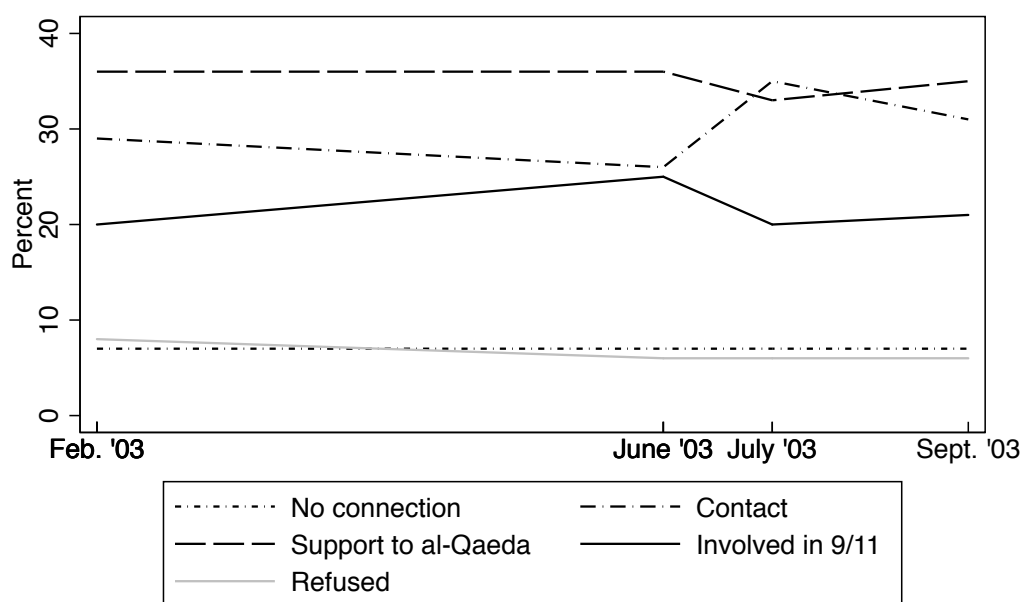
Figure 2. 'How much would/did going to war satisfy or resolve the following for you?' (March/April 2003)



Note: Columns show weighted proportions from full March 2003 sample (N=3,534), after dropping ~2% nonresponses to each item.

To examine how retributive satisfaction relates to beliefs about the Iraq/al-Qaeda connection, we used a question repeated in all four PIPA surveys asking respondents to identify the “best description of the relationship between the Iraqi government and the terrorist group al-Qaeda: There is no connection at all; A few al-Qaeda individuals have visited Iraq or had contact with Iraqi officials; Iraq has given substantial support to al-Qaeda, but was not involved in the September 11th attacks; Iraq was directly involved in carrying out the September 11th attacks.” Anyone believing that Iraq had been actively involved in the attacks should have selected the “directly involved” option (consistently selected by 20-25% of the public, as can be seen in Figure 3), and definitely should *not* have selected “no connection” or “contact.” The fact that the fourth option of “substantial support to al-Qaeda” explicitly ruled out direct Iraqi involvement in 9/11 implies the same for the two options describing weaker Iraqi/al-Qaeda ties.

Figure 3. Public Views on Iraq's Relationship to al-Qaeda and 9/11, February–September 2003



Note: Weighted results from the full PIPA surveys.

The PIPA surveys included several measures of security incentives for war and its likely costs and difficulty. One was respondents' assessment in June or July that "Iraq had weapons of mass destruction" on the eve of the war.¹³ A February item asked if invading Iraq would "help the war on terrorism" (*Help WOT*) have "no significant effect either way" (*No impact on WOT*) or "hurt the war on terrorism" (reference category). Additional February items asked about expectations that terrorists would retaliate against the United States for an invasion of Iraq

¹³ Full details on question wording of this and all other items and scales are provided in Appendix §2. The administration's public campaign for war repeatedly emphasized that the main goal was to "disarm Iraq," and the February PIPA data provides evidence that this citizens cared more about the immediate terrorist threat than preventing Iraq from obtaining nuclear weapons. When asked to rank five different types of threats from terrorists and states, 46% ranked "Attacks by terrorist groups using chemical or biological weapons" as the greatest threat and 32% ranked it second. "Attacks by terrorist groups using nuclear weapons" was ranked first and second by 9% and 13%, respectively, and "nuclear attacks by other nations" was ranked first or second by only 10% and 11%, respectively.

(*Blowback*), the estimated duration of war against Iraq (*Long War*), the number of expected U.S. casualties (*Killed*), and confidence in the U.S. ability to defeat Iraq and North Korea simultaneously (*US Prowess*), which should reflect expectations of the cost and outcome of war with Iraq.

We measured war support by combining three February 2003 PIPA items, on whether the US should invade Iraq alone if necessary, on whether “it is necessary to invade Iraq and remove the Iraqi government” or this should only be a “last resort” after exhausting every effort “to make the inspection process work,” and support for war even in the face of UN opposition and a high expected cost. Finally, to control for political orientation and Bush’s leadership of public opinion, we utilized standard measures of partisanship and ideology, as well as a scale of general approval of administration foreign policies. Political awareness was measured by a scale assessing factual foreign affairs knowledge, self-reported attentiveness to the Iraq crisis and to television news, and self-reported political interest.

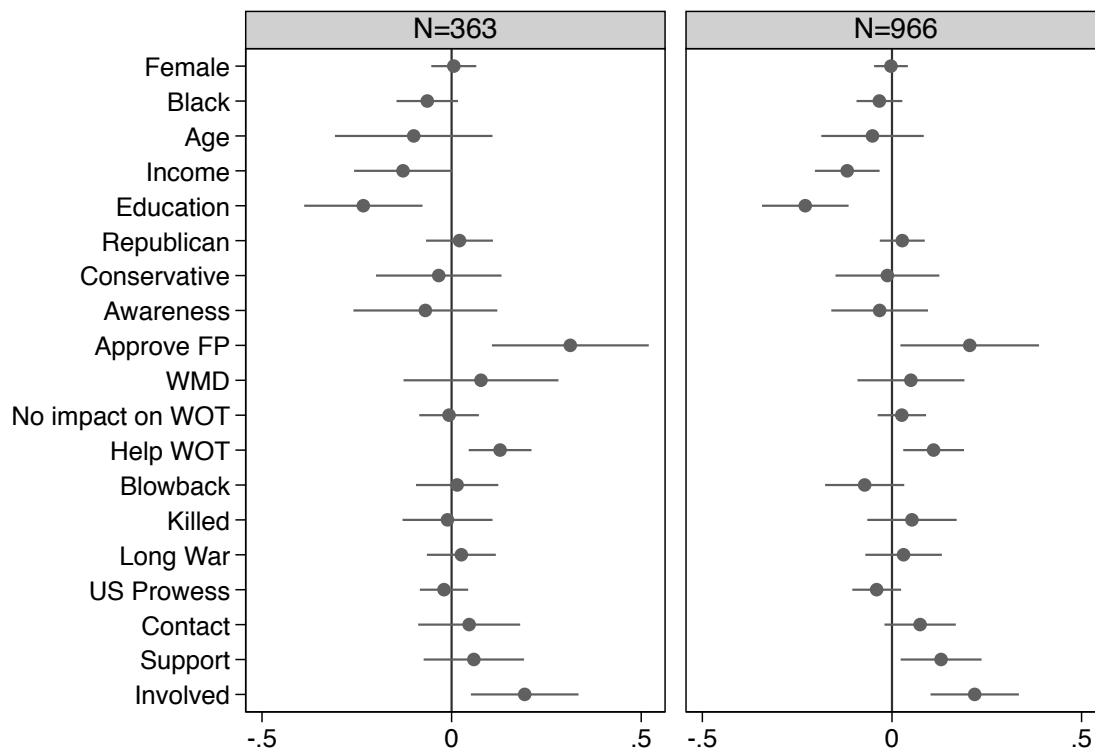
Invading Iraq Satisfied a Desire to Avenge 9/11

To analyze how U.S. citizens’ feelings that war against Iraq would satisfy a desire to avenge 9/11 related to beliefs about Iraqi involvement in the attacks, we regressed *Avenges* on these security and political control variables and on indicator variables for the “involved,” “support,” and “contact” responses to the Iraq/al-Qaeda connection question (with “no connection” as the reference category). For results presented here, we used February perceptions of the Iraqi/al-Qaeda link, or imputed data for the 36% missing data this item, but the results are the same when observed summer data is substituted for imputed responses. We also estimated different models for the joint February/March sample alone and for the expanded sample. The

results were largely the same, but the larger sample provides more precise estimates (i.e., smaller confidence intervals), despite the greater reliance on imputed data for most variables, and the attendant cross-imputation variance being incorporated into the standard errors. Figure 4 provides coefficient plots from the results of the models for each sample; to facilitate interpretation, the variables are all scaled 0-1 and unstandardized.

Involved was a significant predictor of *Avenges* in both models, showing that those saying that Iraq was “directly involved” expressed significantly higher levels of retributive satisfaction than those who said “no connection.” The difference in *Avenges* between “directly involved” and those who said Iraq gave substantial “support” is also statistically significant ($p < .01$).

Figure 4. Predictors of Feeling War Would Avenge 9/11



Note: Point estimates and 95% confidence intervals of unstandardized, multiply-imputed OLS regression coefficients. The left and right panels are based on Models 1 and 2, respectively, in Appendix §6.

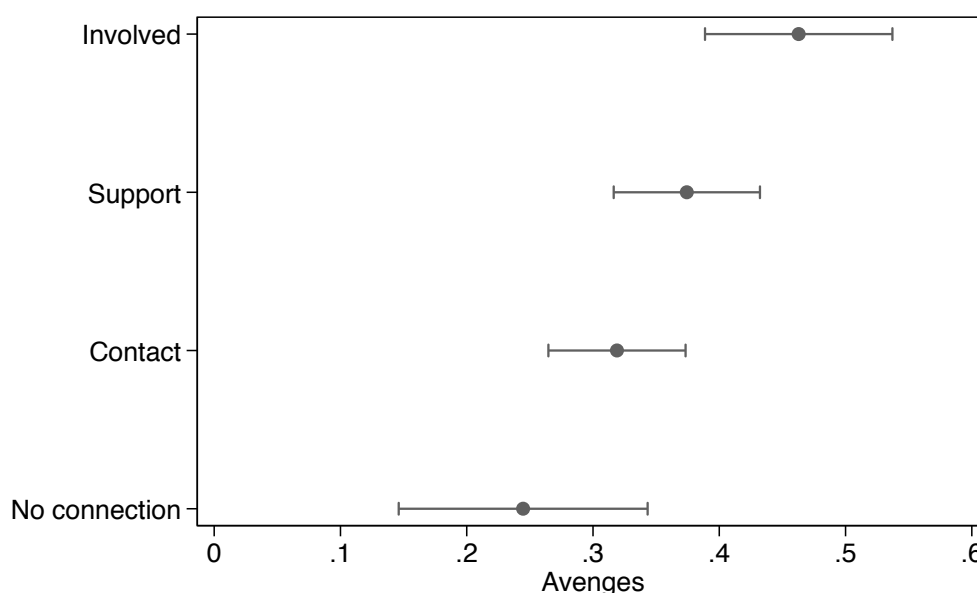
However, mistaken retribution cannot explain expressions of retributive satisfaction among those who said there was “no connection” between Iraq and al-Qaeda or among those who said there was no more than “contact.” The level of *Avenges* for each group can be more readily seen in Figure 5, which provides plots of the estimated means of *Avenges* for each view of the Iraqi/al-Qaeda connection, based on the model fitted to the N=966 multiply-imputed sample, among males who said invading Iraq would neither help nor hurt the war on terror, and holding the rest of the control variables at their population means.¹⁴ The mean of *Avenges* for “no connection” corresponds to an average response of “slightly” to the retributive satisfaction items.¹⁵ This result is not inflated by general approval of the president’s foreign policies. The predicted means of *Avenges* plotted in Figure 6 assume an average level of *Approve FP*, which across the items represented an average assessment that the U.S. government was handling its foreign policy about halfway between “very poorly” and “very well.” But even for those who judged U.S. performance as doing “very poorly” (i.e., reducing *Approve FP* to its minimum), the mean of *Avenges* among those who said Iraq only had contact with al Qaeda was still significantly greater than zero (.21 on a 0-1 scale, 95% CI .10-.32).¹⁶

¹⁴ Using population means adjusts for some of the idiosyncrasies of the synthetic panel sample, owing to panel attrition, survey acquiescence, and the lack of sampling weights, as mentioned above (e.g., older and lower income and education level).

¹⁵ Our estimate of *Avenges* among those doubting Iraqi involvement is not inflated by panel attrition or imputation biases in *Avenges*, which has nearly identical means (M=.40-.42) in the original sample and the synthetic panel samples. Nor are the results inflated by people changing their minds about Iraqi involvement between February, when beliefs about Iraqi involvement were recorded, and March, when the *Avenges* data was collected, as explained in Appendix §7.

¹⁶ The mean for “no connection” at all shrinks to a level that is significantly greater than zero only at the $p < .1$ level (.13, 95% CI .00-.27). Other variables at the same values used for Figure 5.

Figure 5. Average Feeling War Would Avenge 9/11,
by Belief About Iraq's Connection to Al-Qaeda



Note: Error bars illustrate 95% confidence intervals for each estimate. Estimated from Model 2 in Appendix §6.

Avenges was not affected by the estimated costs and risks of invading Iraq; *Blowback*, *Long War*, *Killed*, or *US Prowess* were insignificant predictors. The Iraqi threat also does not appear to have been a key factor, because *Avenges* was unrelated to *WMD*. The significant effect of the belief that invading Iraq would help the war on terrorism (*Help WOT*) might reflect perceived threats or security benefits from war. But this result also could reflect feelings that invading Iraq would “help” requite the humiliation and need for justice Americans felt following 9/11.

General approval of U.S. foreign policies emerges as one of the strongest predictors of retributive satisfaction. This could reflect general hawkishness not captured by the security

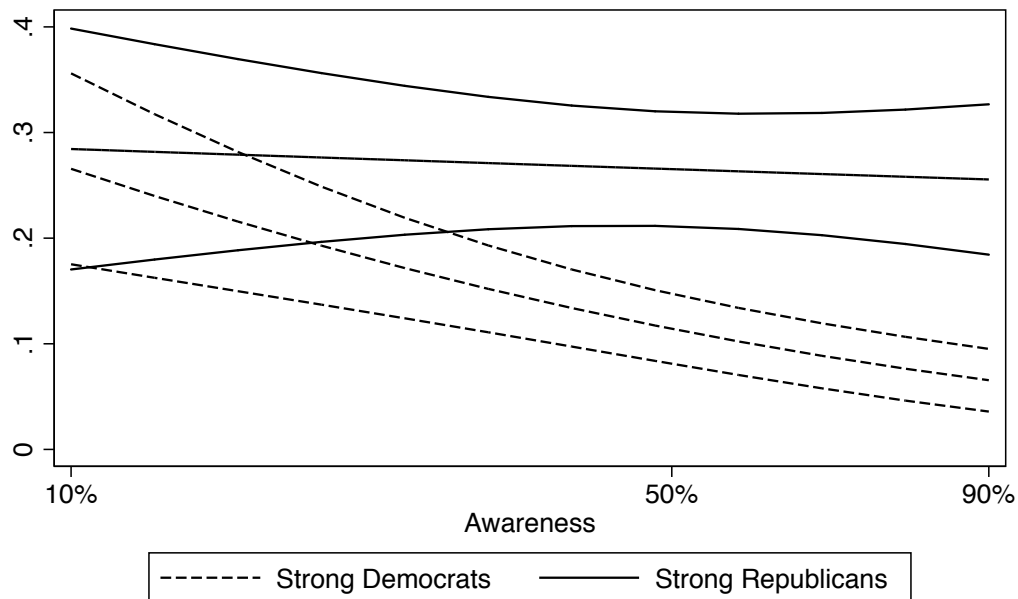
measures, or the feeling that Bush was successfully avenging 9/11 rubbing off on the ratings of his other policies. It seems less likely to reflect partisan or ideological echoing of Bush's signals about retribution or Bush supporters endorsing retribution as a rationalization for his bellicose policies. Such partisan or ideological biases would be evident in the *Conservative* and *Republican* terms, at least when not controlling for *Approve FP*, but these terms remain substantively and statistically insignificant even after removing *Approve FP* from the model illustrated in the right panel of Figure 4. Polarizing cue taking also would be evident from interactions between awareness and ideology, partisanship, or approval of U.S. foreign policies. But none of these were statistically significant or altered the main results.¹⁷

That said, there is clear evidence from the February 2003 PIPA survey, consistent with Jacobson's (2010) findings from 2006-2008 opinion surveys, that Republicans were more likely than Democrats to blame Iraq for 9/11. Moreover, political awareness significantly diminished the blame Democrats attributed to Iraq, but did not have any effect on Republicans. Although partisan polarization is often attributed to cue taking, in a two-message environment we would expect awareness to increase the prevalence of blame among Republicans. The interaction pattern observed could have resulted, however, from a combination of information and motivated reasoning. Awareness might have meant exposure to the lack of incriminating evidence against Iraq, for Democrats and Republicans alike, but only Republicans were motivated to ignore or downplay this inconvenient truth.¹⁸

¹⁷ See Models 3-5 in Appendix §6.

¹⁸ For a similar argument on war support, see Feldman et al. (2012).

Figure 7. Effect of Political Awareness on Probability of Saying That Iraq Was 'Directly Involved' in 9/11



Note: Figure shows estimated effect of *Awareness* on the probability of selecting “directly involved,” with 95% confidence intervals. The x-axis labels show the 10th, 50th, and 90th percentiles of *Awareness*. Based on the full February 2003 PIPA sample for which complete *Awareness* data is available (N=2199), with sampling weights. For further details, see Appendix §8.

The mistaken retribution account presumes genuine convictions about Iraqi guilt, based on prior beliefs or misinformation in the media. To the extent that attributions of 9/11 to Iraq were due to motivated reasoning or post-decisional justification, their effect on war support represents the effect of the underlying partisan or other motivations, rather than that of mistaken retribution.¹⁹ Inferences of Iraqi guilt from being asked a question about specifically Iraqi

¹⁹ Additional evidence that people’s views on the war shaped their claims about Iraqi guilt more than vice-versa. A cross-lagged panel correlational model show that, consistent with motivated reasoning, people appeared to adjust their summertime views on the Iraqi connection to al-Qaeda to comport with positions taken on the war in February. In fact, prior war support had just as much effect on these summertime views as did prior views on the Iraq/al-Qaeda connection. In contrast, February assertions about the Iraq/al-Qaeda connection had a relatively small effect on subsequent changes in war support. For model details, see Appendix §11.

involvement, which appears to have accounted for a significant proportion of the affirmative responses to such questions (Althaus and Largio 2004), also should not count as mistaken retribution. Thus, some of the retributive satisfaction expressed by those who said Iraq was “directly involved” in 9/11 may have represented a revenge carryover effect rather than mistaken retribution.

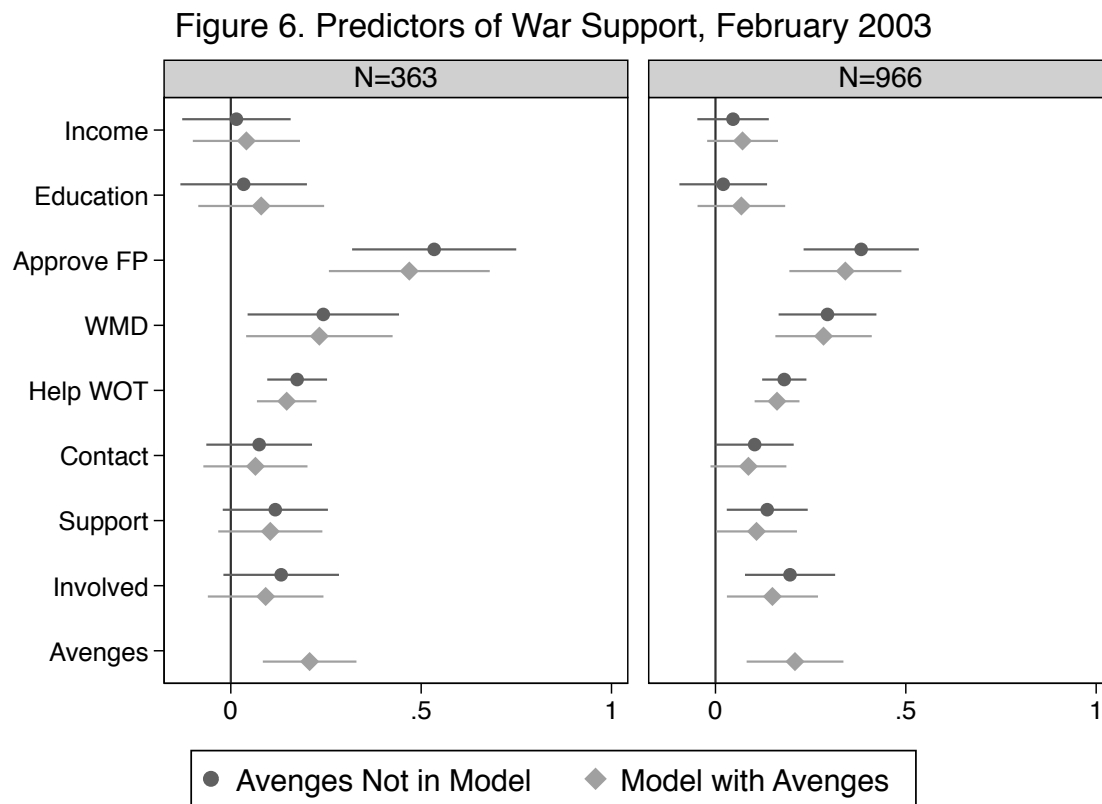
To sum up thus far, the levels of retributive satisfaction expected from war, observed from both those who blamed Iraq for 9/11 as well as those who did not, were consistent with both mistaken retribution and a revenge carryover effect. These results are somewhat biased in favor of mistaken retribution, and against a revenge carryover effect, due to partisan bias inflating attributions of blame to Iraq among Republicans.

Did Revenge Motivate Support for Invading Iraq?

If a genuine retributive motivation for war, rather than being a side benefit or rationalization for a war favored for other reasons, then *Avenges* should predict war support when controlling for other political and security reasons for endorsing war. In addition, the mistaken retribution hypothesis holds that *Avenges* mediates the effect of *Involved* on war support, whereas the revenge carryover hypothesis predicts that the mean level of retributive satisfaction felt by those doubting Iraqi guilt is high enough to predict greater support for war than for those who did not expect any retributive satisfaction at all.

We begin testing these hypotheses by regressing the war support measure on *Avenges*, controlling for the perceived Iraqi/al-Qaeda connection, possession of WMD, and—because they were significant predictors of *Avenges*—income, education, and *Approve FP*. Coefficients for models with and without *Avenges* are plotted in Figure 6, with results for the joint

February/March sample presented in the left panel and those for the expanded sample on the right.



Note: Point estimates and 95% confidence intervals of unstandardized regression coefficients. Left panel based on results from Models 1 and 2 of Appendix §8, whereas the right-side panel is based on Models 3 and 4.

Avenges is a significant predictor of war support in both samples. Greater anticipated revenge satisfaction for 9/11 predicted greater support for war. If the belief that Iraq was involved in 9/11 heightened war support by arousing desires for revenge, we ought to observe an indirect effect of *Involved* on war support through *Avenges*. Mediation tests assume rather than test causal direction among observed variables, and unobserved covariates can bias estimates of indirect effects (Green et al. 2010). But we can at least verify whether the predicted pattern of

correlations is consistent with a mediation effect. A path mediation model finds a small but significant indirect effect of *Involved* on *Prowar1* through *Avenges* ($b=0.03$, $p<0.05$ with bootstrapped standard errors; $N=966$), representing 25% of the total effect of *Involved*.²⁰ This result is consistent with a mistaken retribution effect.

The association between *Avenges* and *Prowar1* is strong enough that the level of *Avenges* among those who said Iraq had just “contact” with al-Qaeda, compared to those who expressed zero retributive satisfaction, significantly affected public support for war, by .07 on a 0-1 scale ($p<.01$). Another way to interpret this effect is through change in predicted probabilities of affirmative responses to PIPA’s categorical war support items. For example, those with the level of *Avenges* equal to the average for those who said “contact” were 22% likely to have endorsed invasion even without UN authorization and at a cost of “hundreds of billions of dollars for the US,” compared to only an estimated 16% of those who expressed zero retributive satisfaction.

Risk appraisal does not account for the correlation between *Avenges* and war support. Beliefs about U.S. power and the risks and costs of war (as measured by *Blowback*, *Long War*, *Killed*, and *Prowess*) are not significant predictors of *Avenges*, as already noted, and controlling for these variables in additional models does not affect the coefficient of *Avenges*.²¹ We also do not find a significant interaction between *Avenges* and *Awareness*.²² To the extent these measures can serve as proxies for anger and political information, this finding fails to support Huddy et al.’s (2007) contention that anger attenuated people’s use of relevant information in deciding whether to support or oppose war against Iraq. In addition, adding awareness interactions with

²⁰ In the path model *Avenges* is endogenous to *Support* and *Involved* and the same control variables as in Figure 6, and *Prowar1* is endogenous to all of these. More details are provided in Appendix §9.

²¹ See Appendix §8, Model 5.

²² See Appendix §10, Model 1.

partisanship, ideology, or approval of US foreign policy does not significantly alter the *Avenges* coefficient, suggesting that the estimated effect of *Avenges* is not an artifact of cue taking.²³

Finally, the observable idiosyncrasies of the survey panel sample (in age, education, income, and residence in overrepresented states) do not moderate the effect of *Avenges* on war support.²⁴

Our results thus support the hypotheses that blaming Iraq for 9/11 predicts war support, mediated by expected satisfaction from avenging the terror attacks, and cannot be explained by risk appraisal, anger-attenuated cognitive processing, political orientation, or cue taking. Taken together, these results support the mistaken retribution hypothesis. In addition, the level expected satisfaction from avenging the terror attacks among those who did not blame Iraq was high enough to have a meaningful impact on public support for war. Retributive satisfaction is not the only significant predictor. Among factors, the beliefs that Iraq gave substantial support to al-Qaeda (*Support*) and was directly involved in 9/11 (*Involved*) both predict higher levels of war support even when controlling for *Avenges* (in the N=966 model at least). These direct effects could reflect security motivations for war arising from perceived Iraqi involvement in terrorism and in 9/11. Or they could reflect retributive motivation not captured by the *Avenges* term, e.g., for those who failed to report satisfaction they actually expected due to embarrassment or lack of self-awareness.

²³ See Appendix §10, Models 2-5.

²⁴ See Appendix §10, Model 6.

DISCUSSION

Our findings provide new evidence that the desire to avenge 9/11 played an important role in post-9/11 public support for war against Iraq, and that this was due to a combination of a revenge carryover effect from 9/11 (analogous to displaced aggression), and mistaken blame attributed to Iraq. Here we briefly review our main findings and discuss their implications for understanding public belligerence toward Iraq, foreign policy opinion, and the possible role of retribution in international politics.

To summarize, the importance of desires to avenge 9/11 is evident from the substantial proportion of U.S. citizens saying they felt war against Iraq would satisfy or resolve their anger over 9/11 and desires for retribution, and from the correlation between retributive satisfaction and war support. Retributive satisfaction is not the only or even the strongest predictor of war support, but it contributed significantly even when controlling for political orientations and security incentives. These results may have been attenuated, moreover, by widespread cultural norms against retribution.

Some of this retributive satisfaction effect was due to mistaken retribution, i.e., to citizens believing the Iraqi regime was involved in the attacks and wanting to make it “pay” for what they thought it had done. This mistaken retribution effect will not surprise those familiar with the psychology of retribution, public views on Iraqi involvement recorded in numerous polls, and prior work showing that this misperception predicted war support. But by incorporating a measure of revenge and controlling for alternative explanations, our analysis provides particularly stringent tests of the role of mistaken retribution in support for war against Iraq.

More counter-intuitive is the evidence that, as country singer Daryl Worley put it, the United States was “just out looking for a fight.” Despite saying Iraq had “no connection” with al-Qaeda or just “contact,” many citizens nevertheless said that war would satisfy their anger and desires to avenge 9/11, to an extent that meaningfully elevated support for going to war. They seem to have experienced gut feelings that *somebody* must pay for such an outrageous, inadequately punished crime. The norm against punishing innocents is significantly stronger than that against revenge, and any resulting downward bias and measurement error in self-reported satisfaction from such acts of revenge would make our tests of this effect more conservative.

Although we have focused on citizens who said “no connection” or only “contact” between Iraq and al-Qaeda as providing the clearest cases of a revenge carryover effect, one might also interpret assertions that Iraq gave “substantial support” to al-Qaeda but was “not involved” in 9/11 as falling short of blaming Iraq for the attacks. Indeed, even many respondents who explicitly said Iraq *was* involved may have only said this to justify the war, rather than out of mistaken retribution. Thus, some of the retributive satisfaction these groups expressed may represent additional redirected revenge.

The displaced aggression interpretation of these findings gains credence from controls on political orientations and the beliefs about the costs and risks of war. Although data limitations preclude controlling for all conceivable security incentives for war, our analyses controlled for the ones emphasized most by the Bush administration. These included Iraqi support for terrorism, Iraqi WMD capabilities, and the effects of invading Iraq on the terror threat. Given the effort the administration devoted to its campaign for war, these justifications for toppling the Iraqi regime were probably the most convincing reasons for the general public. We also

controlled for expectations about the cost and duration of war with Iraq, factors that often affect support for the use of force, especially when the strategic benefits are uncertain.

Another possible security goal might have been to improve general deterrence following the humiliation of 9/11. In support of this interpretation, citizens' acknowledgments that war would satisfy a "compelling need for vengeance," a desire to "hurt those responsible," a "sense of moral outrage" were virtually indistinguishable in the March 2003 data from their agreement that war would satisfy a "need to prove US can't be pushed around," which resembles a deterrent strategy. However, citizens wanting revenge may have wanted demonstrate that the United States "can't be pushed around" to restore national pride rather than security per se. The main results control for the belief that invading Iraq would help fight terrorism, which in theory could encompass general deterrence. But this single, three-level ordinal measure may be too crude to fully capture this motive. We cannot resolve this ambiguity any further with the present data.

The findings are more clearly not attributable to diminished risk appraisals or information processing from retributive satisfaction. Because retributive satisfaction is not identical to anger/revenge over 9/11, these results do not directly challenge Huddy's (2007) contentions that anger dampened U.S. citizens' appraisal of war risks and their consideration of information about the crisis in forming preferences on going to war. But given the ordinarily strong connections between anger, revenge, and expected satisfaction from revenge, the present findings at a minimum invite further research on these questions.

Due to the limitations on our control variables, not to mention the lack of experimental designs best suited for demonstrating emotion carryover effects, we regard our results as strongly suggestive rather than definitive. That said, they suggest that symbolic/justice motivations and emotion swayed public attitudes in ways distinct from the desire for security. Our findings thus

lend weight to more general theories holding that symbolic motivations, justice concerns, and emotion—theories only recently being applied to the realm of foreign policy opinion (e.g., Huddy et al. 2007; Kertzer et al. 2014)—can result in departures from material rationality. Displaced aggression would seem to represent a particularly striking departure, unless one favors making examples of innocents for the sake of general deterrence, and it also from universal moral principles against punishing innocents or mere suspects.

Our findings leave many questions unresolved and requiring further research. One set of questions concerns the boundary conditions of displaced aggressiveness toward uninvolved targets. How great an offense is needed to generate such effects? The 9/11 attacks' lethality, civilian victimization, targeting of national symbols, and—from the point of view of most Americans—inexplicable intent aroused unusually strong public anger and desires for retribution. Does ethno-religious similarity to a primary foe magnify displaced foreign policy aggressiveness, as in the interpersonal variety? Data from a different survey suggest that Iraq's shared Arab and Muslim identities with al Qaeda heightened the effect of anger over 9/11 on post-9/11 U.S. public belligerence toward Iraq (AUTHOR 2015). What accounts for individual differences in desires for revenge? Prior research suggests that differences in exposure to graphic, angering details about 9/11 could have had an important impact (Lerner et al. 2003), as well as individual dispositions such as retributivist values (Lieberman 2006, 2013, 2014).

These conclusions are not merely of historical and theoretical interest. Some scholars have argued that states use force for retribution, even when security or other material concerns are missing or negligible (e.g., Löwenheim and Heimann 2008). Decision-makers' political expertise and accountability logically should diminish their reliance on gut feelings in considering costly and risky military ventures. But retributive popular support for war can make

military action more politically viable, to the extent that public opinion is at least somewhat autonomous and constrains the policy choices of decision-makers (e.g., Baum and Potter 2015). Particularly relevant to the model of public opinion presented here, Stein (2015) finds that democracies that practice the death penalty are relatively war-prone, a pattern she attributes to leaders' ability to whip up popular desires for military retribution.

Arguably, Bush would have been more reluctant to go to war against Iraq without the domestic political support provided by the boost 9/11 gave to public belligerence. As is often the case with desires for revenge, anger over 9/11 diminished over time. So did support for war, until September 2002, when it stabilized at a level about 10% higher than before 9/11 (Jacobson 2007, 250). To the extent that lingering desires for retribution continued to buoy public support for war, however, it would have influenced Congress's vote to authorize the threat and use of force to disarm Iraq just before mid-term elections were to be held (Blinder 2007). Thus both mistaken and redirected retribution appear to have helped the Bush Administration bring the nation to war against a country having nothing to do with 9/11.

This represents an important lesson for the future. Terrorists might again manage to inflict a horrible attack on a powerful country and prove difficult to locate and punish. In such circumstances, our findings suggest, political leaders could exploit both mistaken retribution and redirected retribution effects to advance a costly war agenda against uninvolved states. Understanding the political psychology of anger and retribution would be valuable not only to those trying to orchestrate such effects, but also those wanting to avoid them.

Finally, our analysis indicates the utility of using synthetic panel surveys to analyze measures collected at different times by different researchers, who happened to use the same online survey firm. Although sample sizes are likely to be small, the extensive partial-case data

available from the non-overlapping samples and the standard demographic data collected by the survey firm from all panelists provide useful predictors for use in imputing missing data; additional common political profile data may be available for multiple surveys fielded to panel subgroups for whom the firm has already collected political profile data. For some questions, such as those involving specific historical conditions and momentous events, it may be the only avenue researchers can pursue. Such research would be facilitated were the online firms to make publicly available a database of archived survey questions, which the original researchers have consented to make available for secondary data analysis.

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REVENGE IN U.S. PUBLIC SUPPORT FOR WAR AGAINST IRAQ

APPENDICES

July 15, 2015

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PRIOR APPROVAL.

APPENDIX §1. SOURCES FOR FIGURE 1

Question wording and survey organizations:

Sending U.S. troops:

- Would you favor or oppose sending American troops back to the Persian Gulf in order to remove Saddam Hussein from power in Iraq? (Gallup)

Military action involving ground troops:

- Do you think that the U.S. should or should not use military action involving ground troops to attempt to remove Saddam Hussein from power in Iraq? (Harris/Time/CNN)

Military action despite substantial U.S. casualties:

- Feb 1998: Would you favor or oppose taking military action to force Saddam Hussein from power if...it would result in substantial US military casualties? (Gallup/CNN/USA)
- Jan 2002, August 2002: As part of the U.S. (United States) war on terrorism, would you favor or oppose taking military action in Iraq to end Saddam Hussein's rule, even if it meant that U.S. forces might suffer thousands of casualties? (Pew Research Center for the People & the Press)
- April 2002: Do you favor or oppose taking military action against Iraq and Saddam Hussein if it would require a major commitment of American ground forces with a possibility of a significant number of casualties? (NBC News/Wall Street Journal)

Source: iPoll Databank, Roper Center for Public Opinion Research, University of Connecticut.

APPENDIX §2. DEMOGRAPHIC CHARACTERISTICS OF FEBRUARY 2003 AND SYNTHETIC PANEL SAMPLES (PERCENTAGES)

Variable	February 2003 PIPA Survey (N=3163, weighted)	Synthetic Panel Sample 1 (N=363, unweighted)	Synthetic Panel Sample 2 (N=966, unweighted)
Gender			
Male	49	52	52
Female	51	48	48
Age			
18-29	21	9	10
30-44	29	9	17
45-59	25	29	26
60 or older	24	52	47
Highest level of education			
Less than high school	15	14	16
High School	33	41	41
Some college	28	26	25
Bachelor's degree or higher	24	18	18
Household annual income			
Less than \$14,999	15	15	16
\$15,000-\$29,999	20	23	22
\$30,000-\$49,999	31	29	28
\$50,000-\$74,999	20	20	21
\$75,000-\$99,999	9	8	7
\$100,000-\$124,999	3	3	3
\$125,000 or higher	2	2	3
Race/ethnicity			
White	73	74	76
Black	11	18	14
Hispanic	11	5	7
Other	4	3	4
Region			
Northeast	20	20	19
Midwest	23	28	26
South	34	38	37
West	23	14	17
CA, FL, IL, NY, and TX*	39	66	54
Metropolitan areas	81	84	84
Party identification			
Democrat	30	41	35
Lean Democrat	9	10	10
Independent	25	18	24
Lean Republican	10	6	8
Republican	25	25	23

Notes: Percentages may not add to 100 due to rounding. * CA, FL, IL, NY, and TX are states oversampled in the February 2003 PIPA survey.

APPENDIX §3. MEASURES

March 2003 Measures

- *Avenges*. Additive scale of three items asking to what extent going to war would [changed to “did” for the 15% of respondents who received the survey after the war began on March 20th] “satisfy or resolve....a compelling need for vengeance for the 9/11 terrorist attacks, a desire to hurt those responsible for the 9/11 attacks, a sense of moral outrage,” with response options of not at all, slightly, moderately, much, and very much. The dichotomous measure used for Figure 3 was coded from these three items as described in the text.

2003 PIPA Measures

- *Contact, Support, and Involved*. Dichotomous indicator variables based on the following February 2003 item: “Please select what you think is the best description of the relationship between the Iraqi government and the terrorist group al-Qaeda: There is no connection at all; A few al-Qaeda individuals have visited Iraq or had contact with Iraqi officials; Iraq has given substantial support to al-Qaeda, but was not involved in the September 11th attacks; Iraq was directly involved in carrying out the September 11th attacks.” The reference category is “No connection.”
- *Iraq/aq1*: Ordinal responses to the February 2003 item on the Iraq/al-Qaeda connection.
- *Iraq/aq2*: Pooled ordinal responses to the June and July 2003 Iraq/al-Qaeda connection questions.
- *Prowar1*. An additive scale of three equally weighted February 2003 PIPA variables:
 - “There has been some discussion about whether the US should use its troops to invade Iraq and overthrow the government of Saddam Hussein. Which of the following positions is closest to yours... The US should not invade, the US should only invade Iraq with UN approval and the support of its allies, [or] The US should invade Iraq even if we have to go it alone;”
 - “Which of the following positions is closer to yours... Even if the UN showed too little resolve in dealing with Iraq the past, we can and should insist that it do a better job this time. War should only be used as a last resort after having tried in every way to make the inspection process work, [or] Past experience has shown that with time the UN will lose its resolve in the inspection process, and Iraq will become increasingly uncooperative. Therefore it is necessary to invade Iraq and remove the Iraqi government;”
 - Four-level ordinal variable constructed from three branching questions allowing those favoring invasion in each question to express a still higher level of support in the next: 1. “Do you favor... The UN seeking to disarm Iraq of its weapons of mass destruction through a strengthened inspection process, [or] The UN passing a new resolution authorizing an invasion to overthrow the Iraqi government.” 2. “If the UN Security Council does not pass a new resolution authorizing the invasion Iraq, would you then favor... The UN continuing the inspection process [or] The United States and some other countries invading Iraq anyway.” 3. “What if the cost of invading and occupying Iraq would be hundreds of billions of dollars for the US, would you... Favor continuing the inspection process for the time being, [or] Still favor invading Iraq?”
- *Prowar2*. An additive scale of pooled responses to two equally weighted items:

- “Do you think the US made the right decision or the wrong decision in going to war against Iraq?” Pooled responses to June and July surveys, using the earliest responses for those asked more than once.
- “Do you think the decision to go to war in Iraq was the right decision or the wrong decision? Please answer on a scale of -5 to +5, with -5 being certain it was the wrong decision, +5 being certain it was the right decision, and 0 being unsure.” Pooled responses to June and July surveys, using the earliest responses for those asked more than once.
- *No Impact WOT, Help WOT*. Indicators based on single February 2003 item asking: “If the US were to go to war with Iraq, how do you think this would affect America’s war on terrorism? Do you think it would...help the war on terrorism, hurt the war on terrorism, or have no significant effect either way.” Reference category is “hurt the war on terrorism.”
- *WMD*. Pooled responses to identical PIPA June and July questions asking: “Please indicate your position on the question of whether, just before the war, Iraq had weapons of mass destruction. Please answer on a scale of 0 to 10 with 0 meaning you are completely certain that Iraq did NOT have weapons of mass destruction, 10 meaning that you are completely certain that Iraq DID have weapons of mass destruction, 5 meaning you are unsure.”
- *Awareness*. An additive scale of equally weighted items; the first six are from the February 2003 PIPA survey, the remainder from the Knowledge Networks political affairs profile.
 - A four-level ordinal item asking how closely respondents followed news about Iraq.
 - A question asking R’s if they heard about Secretary of State Colin Powell’s recent speech to the United Nations, scored 1 for yes, 0 for no.
 - A question asking R’s to identify the number of the permanent members of the U.N. Security Council identified from a list of 10 countries, minus the number of wrong answers.
 - A question asking if the US can veto U.N. Security Council decisions, scored 1 for correct, otherwise scored 0.
 - A question asking R’s to identify the lead UN weapons inspector in Iraq, from four options; scored 1 for correct, otherwise scored 0.
 - A question asking R’s if the U.S. has troops based in South Korea, scored 1 for correct, otherwise scored 0.
 - Average of: How often do you...Watch National network news programs such as NBC Nightly News, ABC World News Tonight, or The CBS Evening News?... Watch local news programs on television? Response options: “Three times a week or more”, “Every week or almost every week”, “One to three times a month”, “Less than once a month”, and “Never.”
 - “In general, how interested are you in politics and public affairs?” Response options: very interested, somewhat interested, slightly interested, not at all interested.
 - “It is a citizen’s duty to keep informed about politics even if it is time-consuming.” Response options: strongly agree, agree, neither agree nor disagree, disagree, strongly disagree.
- *Approve FP*. An additive scale of six equally weighted February 2003 PIPA 10-level items:
 - Overall, how well do you think the US government is managing its foreign policy-- that is, dealing with international problems and handling relations with other

countries around the world? Please answer on a scale of 0 to 10, with 0 being very poorly and 10 being very well.

- How well do you think the US government is dealing with the following international problems and issues? Please answer on a scale of 0 to 10, with 0 being very poorly and 10 being very well.... The situation with North Korea? The spread of nuclear weapons?
- How well do you think the US government is handling relations with the following countries? Please answer on a scale of 0 to 10, with 0 being very poorly and 10 being very well...Russia? China? Our European allies?

KN Profile and Cross-Survey Measures

- *Republican*. Constructed from items in the KN political profile data included in the March 2003 dataset and PIPA partisanship items. In the KN political profile data, “not strong” Democrat and Republican options are combined into the “strong” partisan categories to provide a five-level item comparable to the PIPA item, which asked “In politics today, do you think of yourself as strong Democrat, leaning toward Democrat, leaning toward Republican, strong Republican, independent, or other.” For both measures, independents are coded as a middle category and “other” is dropped. The responses were then pooled across surveys, using the profile data when available and otherwise the earliest available PIPA measure.
- *Conservative*. Item from KN political profile data, available for only a subset of respondents: “In general, do you think of yourself as...very liberal, liberal, moderate, conservative, very conservative, or don’t know.” Seven response options range from extremely liberal to extremely conservative.
- *Education*. 9-level item on highest degree received, from KN profile data, ranging from less than high school to doctorate.
- *Black*. Coded =1 if household ethnicity identified as non-Hispanic black, and otherwise 0.

APPENDIX §4. SUMMARY STATISTICS OF KEY VARIABLES

	% Missing in N=966	Mean or Proportion (%)		Cronbach's Alpha
<u>PIPA Feb 2003</u>				
Prowar1	30	0.58	0.48	0.77
Awareness	33	0.69	0.74	0.59
Approve FP	31	0.53	0.54	0.92
Casualties	53 ^a	0.52	0.54	
Blowback	32	0.55	0.56	
Long War	39	0.48	0.49	
Iraq-AQ	36			
No connection		7%	6%	
Contacts		32%	33%	
Support		39%	39%	
Involved		22%	21%	
Impact on WOT	33	26%		
Hurt		27%	30%	
No impact		26%	26%	
Help WOT		47%	43%	
US Prowess	33	59%	56%	
<u>PIPA Multiple</u>				
WMD	42 ^b	0.66	0.64	
Republican	2	0.46	0.44	
<u>March 2003</u>				
Avenges	34	0.40	0.42	0.89
Conservative	43 ^c	0.53	0.51	

Notes: Average item missingness is provided for scales. All variables scaled to range from 0-1, and statistics for *Awareness* are for the February 2003 items only. “Observed” means and proportions for the February 2003 and March 2003 variables are based on weighted non-missing responses to the original surveys; Alpha’s are also based on original observed data. “Completed” means and proportions are multiply-imputed estimates for the N=966 sample across M=50 imputations.

^a Missingness heightened by split-sample design.

^b Missingness high due to WMD items available only in June and July surveys.

^c Missingness heightened by sampling frame that included respondents lacking political profile data.

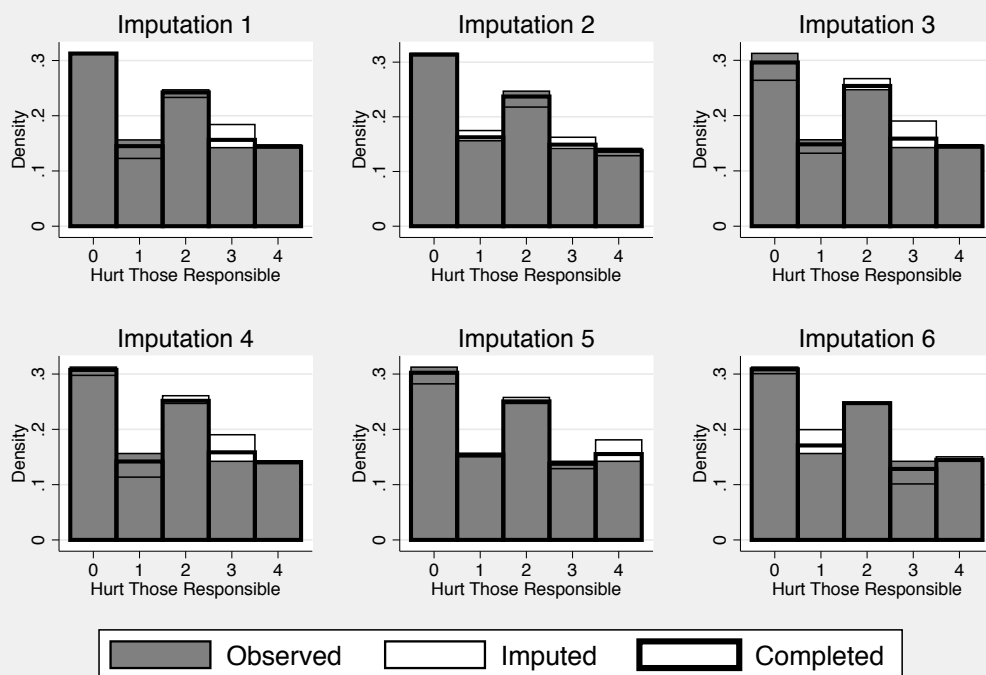
APPENDIX §5. IMPUTATION MODEL AND DIAGNOSTICS

The imputation model included all the analysis variables plus additional auxiliary variables. These included measures of war support and beliefs about the Iraq/al-Qaeda connection from the summer 2003 surveys (which are particularly strong predictors of the February 2003 measures of these variables used in the analysis models), March items on war support, and demographics collected from all respondents upon recruitment into the panel. Most ordinal variables with five or fewer categories were imputed as ordinal variables; variables with more categories were imputed as continuous.

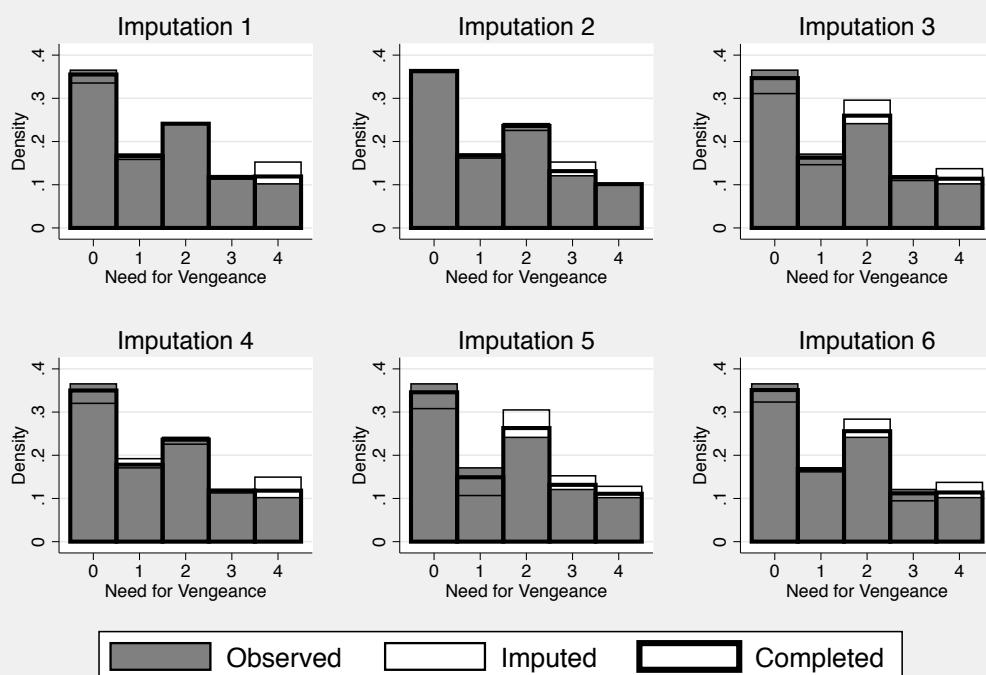
Visual inspection revealed the imputed data to have distributions similar to those of the observed variables, a key diagnostic for problematic imputation models. Histograms for several key imputed items are provided below. As can be seen for the WMD variable, imputed values for continuous variables are permitted to fall outside their observed range and are more normally distributed. This is deliberate, on the assumption that the boundaries and heaping effect in the observed data represent error or artificial constraints in the measurement of the underlying construct.

DISTRIBUTION PLOTS OF IMPUTED AND OBSERVED DATA FOR SELECTED VARIABLES

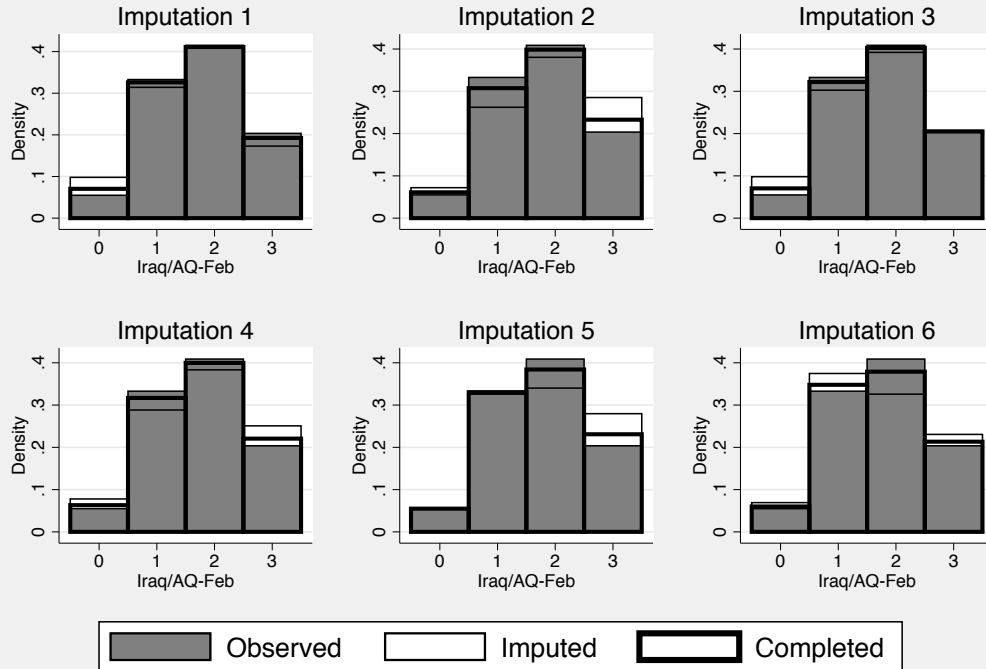
Hurt Those Responsible: Distributions of Observed and Imputed Data (M=1/6)



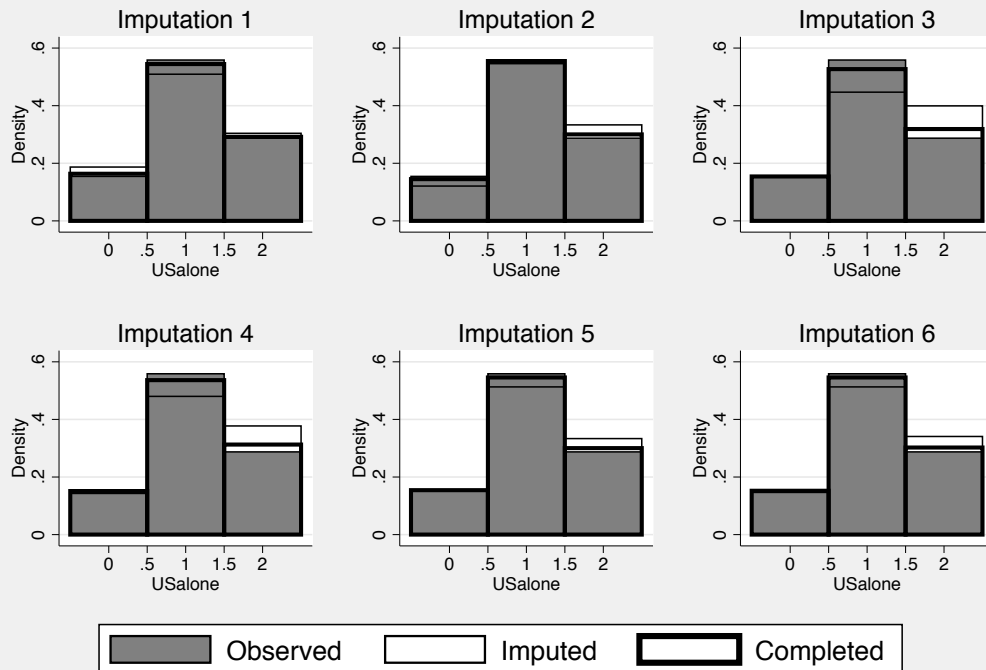
Need for Vengeance: Distributions of Observed and Imputed Data (M=1/6)



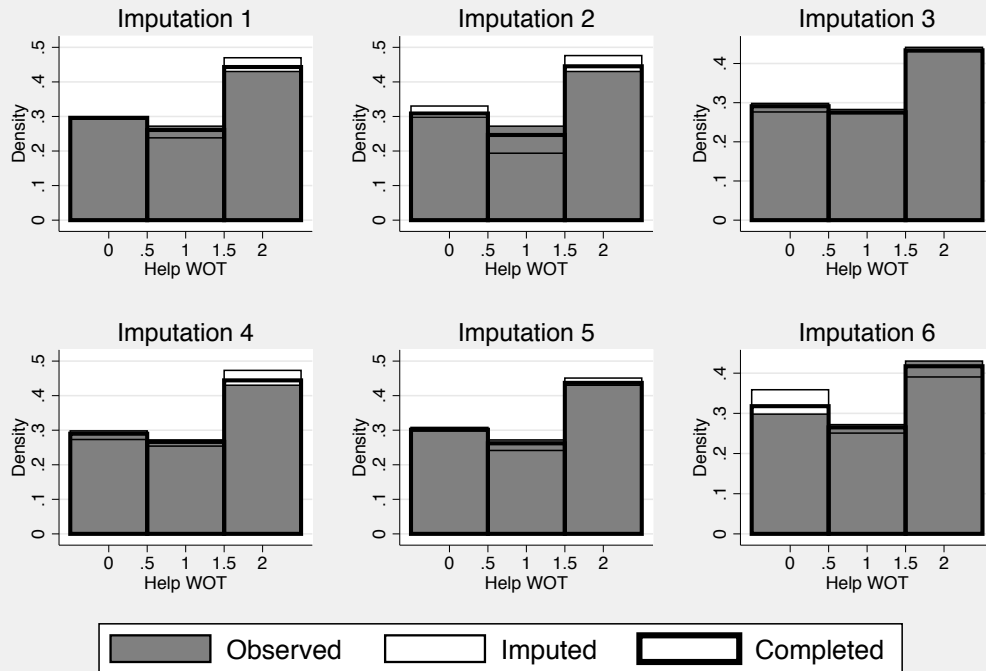
Iraq/AQ-Feb: Distributions of Observed and Imputed Data (M=1/6)



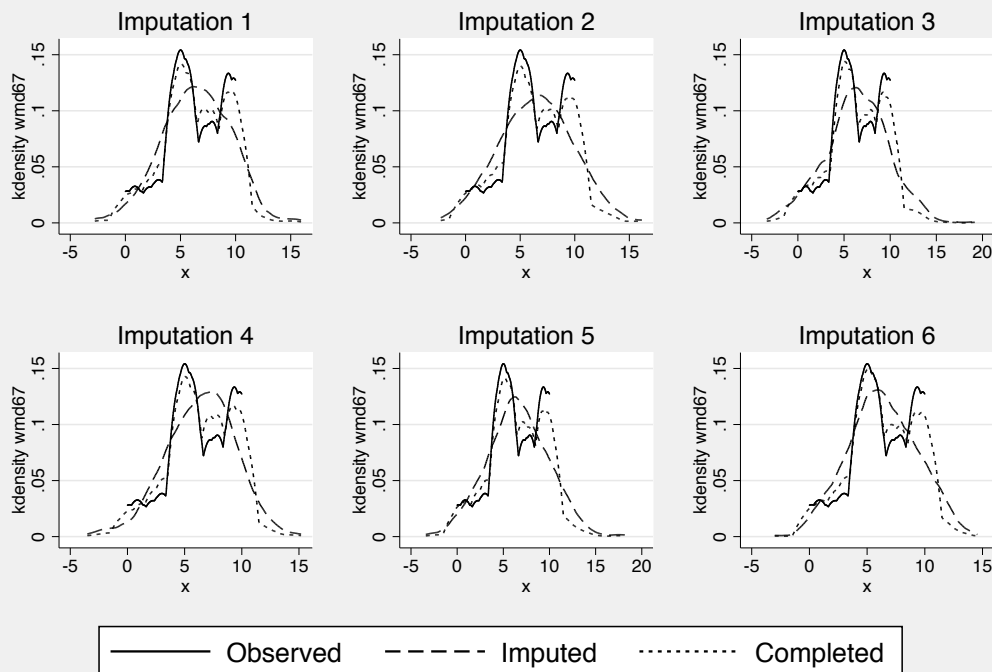
Invade Even Without Allies: Distributions of Observed and Imputed Data (M=1/6)



Impact on War on Terror: Distributions of Observed and Imputed Data (M=1/6)



WMD: Distributions of Observed and Imputed Data (M=1/6)



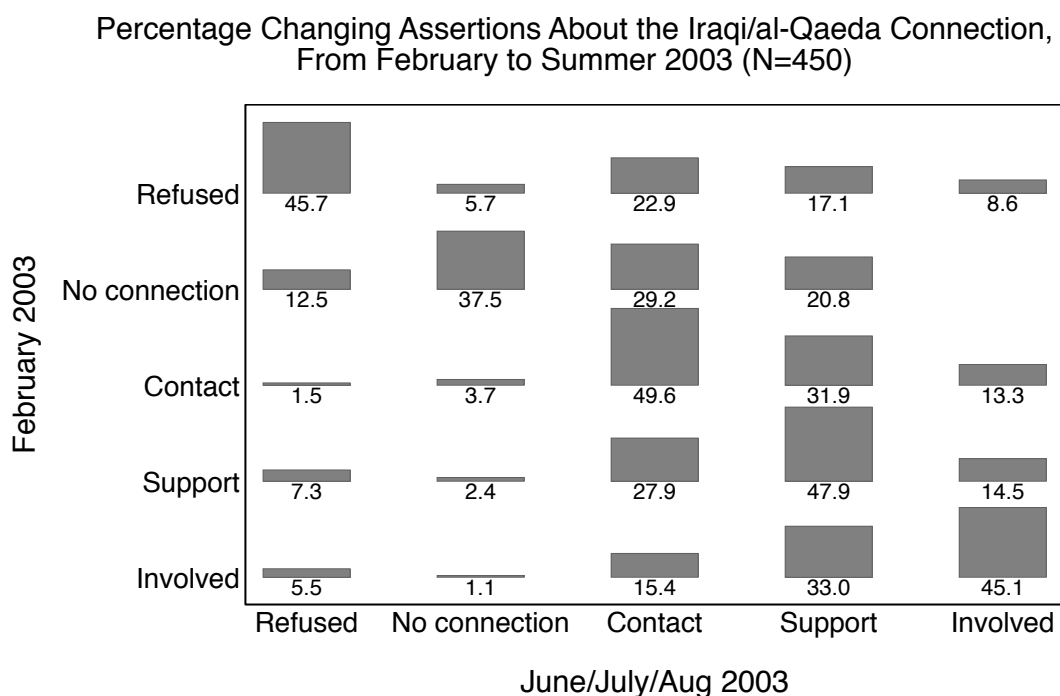
APPENDIX §6. PREDICTORS OF RETRIBUTIVE SATISFACTION

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Female	0.01 (0.03)	-0.00 (0.02)	0.00 (0.02)	0.00 (0.02)	0.00 (0.02)	0.00 (0.02)
Black	-0.06 (0.04)	-0.03 (0.03)	-0.02 (0.03)	-0.03 (0.03)	-0.03 (0.03)	-0.02 (0.03)
Age	-0.10 (0.11)	-0.05 (0.07)	-0.03 (0.07)	-0.03 (0.07)	-0.03 (0.07)	-0.03 (0.07)
Income	-0.13 [†] (0.07)	-0.12 ^{**} (0.04)	-0.12 ^{**} (0.04)	-0.12 ^{**} (0.04)	-0.12 ^{**} (0.04)	-0.12 ^{**} (0.04)
Education	-0.23 ^{**} (0.08)	-0.23 ^{***} (0.06)	-0.22 ^{***} (0.06)	-0.22 ^{***} (0.06)	-0.22 ^{***} (0.06)	-0.22 ^{***} (0.06)
Awareness	-0.07 (0.10)	-0.03 (0.06)	-0.06 (0.08)	-0.15 (0.14)	-0.17 (0.17)	-0.05 (0.06)
Republican	0.02 (0.04)	0.03 (0.03)	0.01 (0.11)	0.03 (0.03)	0.03 (0.03)	0.03 (0.03)
Conservative	-0.03 (0.08)	-0.01 (0.07)	-0.02 (0.06)	-0.17 (0.20)	-0.02 (0.06)	-0.02 (0.06)
Approve FP	0.31 ^{**} (0.10)	0.21 (0.09)	0.21 ^{**} (0.08)	0.21 ^{**} (0.08)	0.04 (0.24)	0.21 ^{**} (0.08)
WMD	0.08 (0.10)	0.05 (0.07)				
No impact on WOT	-0.01 (0.04)	0.03 (0.03)	0.03 (0.03)	0.02 (0.03)	0.02 (0.03)	0.03 (0.03)
Help WOT	0.13 ^{**} (0.04)	0.11 ^{**} (0.04)	0.11 ^{**} (0.04)	0.11 ^{**} (0.04)	0.11 ^{**} (0.04)	0.11 ^{**} (0.04)
Blowback	0.01 (0.06)	-0.07 (0.05)				
Killed	-0.01 (0.06)	0.05 (0.06)				
Long War	0.03 (0.05)	0.03 (0.05)				
US Prowess	-0.02 (0.03)	-0.04 (0.03)				
Contact	0.05 (0.07)	0.07 (0.05)	0.08 [†] (0.05)	0.08 [†] (0.05)	0.08 [†] (0.05)	0.08 [†] (0.05)
Support	0.06 (0.07)	0.13 [*] (0.05)	0.14 ^{**} (0.05)	0.13 ^{**} (0.05)	0.14 ^{**} (0.05)	0.14 ^{**} (0.05)
Involved	0.19 ^{**} (0.07)	0.22 ^{***} (0.06)	0.22 ^{***} (0.06)	0.22 ^{***} (0.06)	0.22 ^{***} (0.06)	0.22 ^{***} (0.06)
Republican #			0.03 (0.15)			
Awareness						
Conservative #				0.21 (0.26)		
Awareness						
Approve FP #					0.24 (0.31)	
Awareness						
Oversample						-0.00 (0.02)
Constant	0.30 ^{**} (0.12)	0.29 ^{**} (0.10)	0.29 ^{**} (0.09)	0.36 ^{**} (0.12)	0.38 ^{**} (0.14)	0.29 ^{***} (0.08)
Adj. R-Square	0.26	0.21	0.19	0.19	0.19	0.19
Observations	363	966	966	966	966	966

Note: Table entries are unstandardized regression coefficients, combined from multiply-imputed datasets, with two-tailed significance levels indicated by: † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$. All variables range from 0-1.

APPENDIX §7. CHANGE OVER TIME IN INDIVIDUALS' ASSERTIONS ABOUT THE IRAQ/AL-QAEDA CONNECTION

Any underestimates of mistaken retribution for those blaming Iraq more in March than in February are probably counter-balanced by overestimates for those who blamed Iraq less. This is evident from the fact that just as many said Iraq was more involved with al-Qaeda in summer than in February, as said it was less so over the same period (see graph below), which accounts for the aggregate stability observed over time in Figure 3.



Note: For those having expressed each view in February 2003, the bars and figures represent the percentage expressing each view in summer 2003.

APPENDIX §8. RETRIBUTIVE SATISFACTION AND WAR SUPPORT

	Model 1	Model 2	Model 3	Model 4	Model 5
Income	0.01 (0.07)	0.04 (0.07)	0.05 (0.05)	0.07 (0.05)	0.08† (0.05)
Education	0.03 (0.08)	0.08 (0.08)	0.02 (0.06)	0.07 (0.06)	0.09 (0.06)
Approve FP	0.53*** (0.11)	0.47*** (0.11)	0.38*** (0.08)	0.34*** (0.07)	0.25** (0.08)
WMD	0.24* (0.10)	0.23* (0.10)	0.29*** (0.06)	0.28*** (0.06)	0.28*** (0.07)
Help WOT	0.17*** (0.04)	0.15*** (0.04)	0.18*** (0.03)	0.16*** (0.03)	0.13*** (0.03)
Blowback					-0.02 (0.04)
Killed					-0.11* (0.05)
Long War					0.01 (0.04)
US Prowess					0.12*** (0.03)
Contact	0.07 (0.07)	0.06 (0.07)	0.10* (0.05)	0.09† (0.05)	0.07 (0.05)
Support	0.12† (0.07)	0.10 (0.07)	0.14* (0.05)	0.11* (0.05)	0.10† (0.05)
Involved	0.13† (0.08)	0.09 (0.08)	0.20** (0.06)	0.15* (0.06)	0.14* (0.06)
Avenges		0.21*** (0.06)		0.21** (0.06)	0.23*** (0.06)
Constant	-0.17* (0.08)	-0.21** (0.08)	-0.15* (0.06)	-0.20*** (0.06)	-0.14* (0.07)
Adj. R-Square	0.37	0.39	0.35	0.37	0.41
Observations	363	363	966	966	966

Note: Table entries are unstandardized regression coefficients, combined from multiply-imputed datasets, with two-tailed significance levels indicated by: †p<.10, * p<.05, ** p<.01, ***p<.001. All variables range from 0-1.

APPENDIX §9. PATH MODEL TESTING INDIRECT EFFECT OF INVOLVED ON WAR SUPPORT, MEDIATED BY RETRIBUTIVE SATISFACTION

Excerpted Mplus output

SUMMARY OF ANALYSIS

Number of groups	1
Average number of observations	966
Number of replications	
Requested	50
Completed	50
Number of dependent variables	2
Number of independent variables	8
Number of continuous latent variables	0
Estimator	ML

MODEL FIT INFORMATION

Number of Free Parameters 21

Loglikelihood

H0 Value	-287.494
H1 Value	-287.494

Information Criteria

Akaike (AIC)	616.988
Bayesian (BIC)	719.324
Sample-Size Adjusted BIC	652.628
(n* = (n + 2) / 24)	

Chi-Square Test of Model Fit

Value	0.000
Degrees of Freedom	0
P-Value	1.0000

RMSEA (Root Mean Square Error Of Approximation)

Estimate	0.000	
90 Percent C.I.	0.155	0.179
Probability RMSEA <= .05	0.000	

CFI/TLI

CFI	1.000
TLI	1.000

Chi-Square Test of Model Fit for the Baseline Model

Value	172.834
-------	---------

Degrees of Freedom	17
P-Value	0.0000

SRMR (Standardized Root Mean Square Residual)

Value	0.000
-------	-------

MODEL RESULTS

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value	Rate of Missing
PROWAR1 ON					
INCOME	0.071	0.048	1.496	0.135	0.180
EDUCATION	0.068	0.056	1.205	0.228	0.205
APPROVE_FP	0.341	0.075	4.570	0.000	0.347
WMD	0.284	0.063	4.484	0.000	0.398
HELP_WOT	0.162	0.031	5.215	0.000	0.309
CONTACT	0.087	0.045	1.939	0.053	0.286
SUPPORT	0.108	0.049	2.219	0.027	0.322
INVOLVED	0.150	0.057	2.637	0.008	0.334
AVENGES	0.209	0.064	3.257	0.001	0.413
AVENGES ON					
INCOME	-0.118	0.042	-2.836	0.005	0.140
EDUCATION	-0.228	0.053	-4.302	0.000	0.244
APPROVE_FP	0.201	0.080	2.504	0.012	0.395
WMD	0.055	0.061	0.895	0.371	0.402
HELP_WOT	0.091	0.030	3.046	0.002	0.357
CONTACT	0.076	0.044	1.729	0.084	0.268
SUPPORT	0.132	0.049	2.660	0.008	0.332
INVOLVED	0.217	0.055	3.919	0.000	0.338
Intercepts					
PROWAR1	-0.206	0.054	-3.839	0.000	0.288
AVENGES	0.258	0.056	4.630	0.000	0.301
Residual Variances					
PROWAR1	0.085	0.005	18.842	0.000	0.332
AVENGES	0.073	0.004	19.802	0.000	0.337
New/Additional Parameters					
INVOL_IND	0.046	0.020	2.281	0.023	0.404
INVOL_TOT	0.196	0.056	3.523	0.000	0.330

STANDARDIZED MODEL RESULTS

	StdYX Estimate	StdY Estimate	Std Estimate
PROWAR1 ON			
INCOME	0.046	0.192	0.071
EDUCATION	0.037	0.184	0.068
APPROVE_FP	0.200	0.921	0.341
WMD	0.230	0.767	0.284

HELP_WOT	0.216	0.437	0.162
AVENGES	0.170	0.170	0.209
CONTACT	0.110	0.234	0.087
SUPPORT	0.142	0.291	0.108
INVOLVED	0.166	0.404	0.150
AVENGES ON			
INCOME	-0.095	-0.392	-0.118
EDUCATION	-0.151	-0.755	-0.228
APPROVE_FP	0.145	0.667	0.201
WMD	0.055	0.182	0.055
HELP_WOT	0.150	0.302	0.091
CONTACT	0.118	0.251	0.076
SUPPORT	0.213	0.436	0.132
INVOLVED	0.295	0.721	0.217
Intercepts			
PROWAR1	-0.558	-0.558	-0.206
AVENGES	0.855	0.855	0.258
Residual Variances			
PROWAR1	0.623	0.623	0.085
AVENGES	0.801	0.801	0.073
R-SQUARE			
Observed			
Variable	Estimate		
PROWAR1	0.377		
AVENGES	0.199		

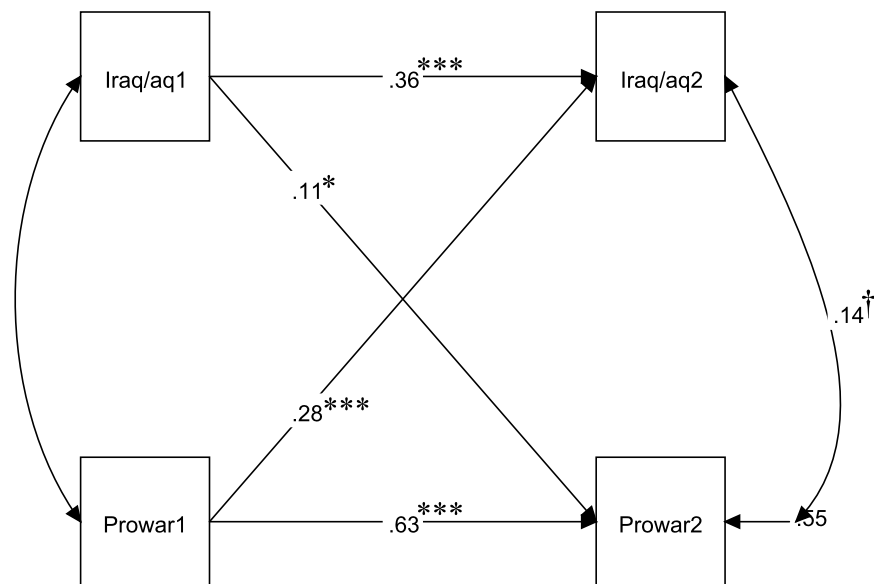
APPENDIX §10. RETRIBUTIVE SATISFACTION AND WAR SUPPORT—ADDITIONAL MODELS

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Avenges	0.22 (0.16)	0.22*** (0.06)	0.22*** (0.06)	0.22*** (0.06)	0.22*** (0.06)	0.14 (0.18)
Awareness	0.30 (0.12)	0.34** (0.08)	0.26** (0.09)	0.20 (0.15)	-0.06 (0.15)	
Avenges # Awareness	0.29 (0.22)					
Age		-0.26*** (0.07)	-0.26*** (0.07)	-0.26*** (0.07)	-0.25*** (0.07)	-0.11 (0.13)
Income		0.03 (0.05)	0.03 (0.05)	0.03 (0.05)	0.02 (0.05)	-0.00 (0.10)
Education		0.02 (0.06)	0.02 (0.06)	0.02 (0.06)	0.02 (0.06)	-0.03 (0.11)
Republican		0.06† (0.03)	-0.08 (0.11)	0.05 (0.03)	0.05 (0.03)	
Conservative		0.20 (0.08)	0.20 (0.08)	-0.01 (0.22)	0.20 (0.08)	
Approve FP		0.39*** (0.07)	0.39*** (0.07)	0.39*** (0.07)	-0.17 (0.19)	
Help WOT		0.17*** (0.03)	0.16*** (0.03)	0.16*** (0.03)	0.17*** (0.03)	
Contact		0.11 (0.05)	0.11 (0.05)	0.11 (0.05)	0.11 (0.05)	
Support		0.13** (0.05)	0.13 (0.05)	0.13 (0.05)	0.13 (0.05)	
Involved		0.19** (0.06)	0.19 (0.06)	0.18 (0.06)	0.19 (0.06)	
Republican # Awareness			0.19 (0.15)			
Conservative # Awareness				0.29 (0.27)		
Approve FP # Awareness					0.77** (0.27)	
Oversample						-0.05 (0.05)
Avenges # Oversample						0.05 (0.09)
Avenges # Age						0.10 (0.25)
Avenges # Income						0.29 (0.19)
Avenges # Education						0.28 (0.24)
Constant	0.09 (0.09)	-0.27*** (0.08)	-0.21* (0.09)	-0.17 (0.13)	0.02 (0.13)	0.40*** (0.10)
Adj. R-Square	0.17	0.39	0.39	0.39	0.39	0.13
Observations	966	966	966	966	966	966

Note: Table entries are unstandardized regression coefficients, combined from multiply-imputed datasets, with two-tailed significance levels indicated by: †p<.10, * p<.05, ** p<.01, ***p<.001. All variables range from 0-1.

APPENDIX §10. BELIEFS ABOUT IRAQ/AL-QAEDA CONNECTION AND WAR SUPPORT, CROSS-LAGGED PANEL MODEL

Cross-lagged panel correlational models provide a method that can be used to test the causal direction between variables for which repeated measures over time are available (Finkel 1995). Using the merged data from the multiple PIPA surveys we used such a model to test whether February measures of the perceived Iraq/al-Qaeda connection and of war support predicted change in each variable over time. The sample is the 267 February respondents who also participated in the June or July surveys, for whom there is February and summertime data on the Iraq/al-Qaeda connection and war support. The model consists of a pair of simultaneous regressions, the first regressing the pooled June/July Iraq/al-Qaeda items on the earlier version and on *Prowar1*, and the second model regressing a (somewhat different) pooled June/July war support measure on both of the February ones.



Note: N=267. Standardized estimates; two-tailed significance levels indicated by: $\dagger p < .10$, $* p < .05$, $** p < .01$, $*** p < .001$. The four-level Iraq/al-Qaeda item is treated as a continuous variable in the first wave and ordinal in the second. The second-wave war support measure is a combination of

two items asking about how strongly people believed invading Iraq was the right or wrong decision.

The results of the model show that, consistent with motivated reasoning, people appeared to adjust their summertime views on the Iraqi connection to al-Qaeda to comport with positions taken on the war in February. Prior war support had just as much effect on these summertime views as did prior views on the Iraq/al-Qaeda connection, whereas February assertions about the Iraq/al-Qaeda connection had a relatively small effect on subsequent changes in war support.

These findings suggest that people's views on the war shaped their claims about Iraqi guilt more than vice-versa. That is harder to reconcile with the mistaken retribution account than with a revenge carryover effect. If prosecutorial mindsets aroused by the inadequately punished crime of made Iraq seem more guilty, the resultant desires for revenge and war ought to be considered a revenge carryover effect. However, any motive for war support, including partisan ones, could have resulted in motivated reasoning or rationalization about Iraqi guilt.