**Emotional Reactions to Terrorism and U.S. Public Support for the Iraq War**

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Abstract

In retrospectively integrated survey data, U.S. citizens who were relatively angry and wanting revenge soon after the September 11, 2001 terror attacks more strongly supported war against Iraq over one year later. This was not due to mistaken beliefs that Iraq had been involved in the attacks, to angry citizens' perceptions of a greater terrorist threat or lesser war risks, to political orientations, or to cue taking from elite discourse. Rather, angry desires for revenge appear to have been psychologically redirected toward Iraq. These findings demonstrate the importance of anger in political attitudes, challenge widely accepted interpretations of the impact of 9/11 on U.S. public support for war, and help explain how President George W. Bush was able to lead the United States to war in 2003 against a country having nothing to do with the terror attacks.

Keywords

Public opinion, Iraq War, terrorism, September 11th, 2001, retribution, anger, threat, displaced aggression.

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The September 11th, 2001 terror attacks on New York and Washington had an immediate impact on U.S. public support for going to war against Iraq. Having hovered around 50% since the end of the 1991 Gulf War, support for sending U.S. troops to remove Saddam Hussein from power leaped above 70% immediately following the attacks (Everts & Isernia 2005; Foyle 2004). Questions on support for military action entailing heavy U.S. casualties tell the same story (see Liberman and Skitka 2017: 637). To the extent that this “9/11 effect” persisted into fall 2002, when the U.S. Congress voted to authorize the use of force against Iraq, it helped President George W. Bush take the nation to war the following spring.

Most observers have attributed this 9/11 effect to public threat perceptions, fear and anxiety, an alarmist administration discourse, and an echoing media (e.g., Altheide 2009; Gadarian 2010; Lustick 2006; Nacos et al. 2011; Pyszczynski et al. 2006). For example, Gadarian (2010: 469) contends that, once the attacks had “shattered America’s sense of invulnerability and unparalleled might,…the media’s emphasis on threatening information…increased the public’s probability of supporting the hawkish policies advocated by political leaders, principally the president.”

However, studies examining public emotions and attitudes toward Iraq have found that anger at the terrorists was a much stronger predictor of public belligerence toward Iraq than was fear (Huddy et al. 2007; Skitka et al. 2006; see also convenience sample studies by Cheung-Blunden & Blunden 2008a; Cheung-Blunden & Blunden 2008b). Huddy et al. (2007) attribute this to anger’s tendencies to attenuate perceived risks and to promote simple heuristic reasoning. However, other “carryover effects” of anger might have affected support for war. Just as anger over a serious, inadequately punished offense leads people to lash out against uninvolved individuals, perhaps Americans felt a need to lash out after 9/11 (Bushman et al. 2005; Marcus-Newhall et al. 2000; Pedersen et al. 2008). Although studied mainly in interpersonal contexts, similar effects have been observed in other contexts as well, including intergroup ones (e.g., Tetlock et al. 2007; Vasquez et al. 2010).

However, there is another obvious explanation for the link between anger over 9/11 and war support, one that does not require any carryover effects at all, but which has received little attention in research on anger and war: misperceptions that Iraq was involved in the terror attacks would have led outraged citizens to want to make Iraq “pay.” By some measures these misperceptions were quite widespread (Althaus & Largio 2004; Kull et al. 2003-04). Unfortunately, no single opinion survey measured emotional reactions to 9/11, beliefs about Iraqi involvement, and support for war, although some did examine two of the three. Lacking measures of public beliefs about Iraqi involvement, prior studies of emotion and support for war against Iraq were unable to test this hypothesis, or differentiate it from anger carryover effects (Huddy et al. 2007; Skitka et al. 2006). Liberman and Skitka (2017) examined links between citizens’ beliefs about Iraqi culpability and their feelings that the Iraq War would satisfy desires for avenge, but lacked more direct measures of anger and revenge.

To shed more light on these questions, I constructed a new dataset that combines data from a Fall 2001 survey on emotional reactions to 9/11 with a February 2003 survey on attitudes about Iraq. Although designed independently, these surveys were administered by the same online survey firm to overlapping samples of its nationally representative respondent panel. Missing data imputation methods permit incorporating additional incomplete data from both periods in order to increase efficiency and decrease biases in the data analysis.

The resulting retrospectively integrated survey data yields several significant new findings. Anger and desires for revenge in fall 2001 predict support for war over a year later, showing that associations previously found at single points in time had considerable stability over time. More importantly, war support’s relationships with fall 2001 anger and revenge were *not* caused by beliefs about Iraqi involvement in 9/11, optimism about the risks of war, attenuated information processing, threat perceptions, trait anger, or cue taking from elite discourse. Displaced aggression thus provides the most convincing explanation for the apparent effect of anger and desires for revenge on support for going to war against Iraq.

These findings clarify how 9/11 affected public support for war against an uninvolved state. They also speak to broader theoretical debates about how democracies respond to terrorism and about the roles of emotion, moral motivation, and material interest in public opinion. Finally, by demonstrating the feasibility of analyzing data from uncoordinated online surveys, this paper introduces a new way for opinion researchers to exploit online survey firms’ data archives for secondary analysis.

# Explaining the Link Between Post-9/11 Anger, Revenge, and Support for War Against Iraq

Correlations observed between war support, on the one hand, and anger, revenge, and punitive dispositions suggest that public anger and revenge played a role, but there are many possible explanations for this connection.

## *Mistaken Revenge and Justice*

The lethality, targeting of civilians and national symbols, and unfathomable intent of the 9/11 terror attacks inevitably aroused angry U.S. desires for revenge. Appraisals of wrongdoing, especially insufficiently punished wrongdoing against those one cares about, generally arouse strong feelings of anger and desires for retribution (Carlmith & Darley 2008). Moreover, justice often outweighs security in people’s motivations for punishing harmful acts. To be sure, retribution often incapacitates threats and deters future exploitation, effects that probably account for the underlying psychological mechanism’s evolutionary origins (reviewed by McCullough et al. 2013). (Although philosophers and psychometricians often distinguish between anger and revenge, this goal-directed emotion and emotion-freighted goal are close enough for our purposes to treat them here as two elements of a single “anger–revenge” psychological mechanism.) But experiments on criminal punishment judgments and cooperation games show that people also want wrongdoers punished as an intrinsically desirable, moral end-in-itself, sometimes more than instrumental ends (Camerer 2003: chap. 2; Carlsmith & Darley 2008; McCullough 2008; Nadelhoffer et al. 2013). Even if the psychological mechanism responsible for anger and retribution is generally functional, it appears to sometimes “misfire” and generate support for needless or counterproductive levels of punishment.

Attacks on one’s nation often arouse anger responses very similar to those at the individual or societal level. A large body of findings in social psychology shows that people feel “intergroup emotions” on behalf of groups with which they identify, which parallel social emotions in many ways (see, e.g., Gordijn et al. 2006; Mackie et al. 2000; Yzerbyt et al. 2003). It remains unclear how much morality and justice drive support for international revenge. But the potential for noninstrumental goals to shape foreign policy attitudes is supported by research showing that prudential cost-benefit reasoning is often sidelined in conflicts where “sacred values” are at stake (e.g., Baron & Spranca 1997; Ginges et al. 2007).

Thus, it seems likely that U.S. citizens who mistakenly thought Saddam Hussein had been involved would have wanted to destroy his regime for the sake of justice as well as for U.S. security. In fact, a majority of citizens in fall 2001 and during the following year said it was “likely” or “somewhat likely” that Saddam Hussein had been involved in 9/11. But these poll results are misleading. Using questions that asked specifically about Iraqiinvolvement and that did not offer response options with lesser forms of Iraqi support for terrorism artificially inflated affirmative responses (Althaus & Largio 2004). Open-ended questions in fall 2001 found a much smaller percentage—only 4–8% of the public—named Iraq or Saddam Hussein as being responsible for the attacks (Althaus & Largio 2004; Small et al. 2006). When a February 2003 survey finally asked about different possible Iraqi roles in terrorism, after months of administration efforts to link Iraq to al-Qaeda, only 20% said that Saddam Hussein was “directly involved” in 9/11. Liberman and Skitka (2017) found that these citizens tended to express stronger feelings that invading Iraq would satisfy their desires for revenge, consistent with a mistaken retribution effect. But the ultimate effect on support for the Iraq War via these feelings was surprisingly modest.

## *Anger and Revenge Spillover Effects*

Emotions aroused by stimuli not logically related to a judgment task can often affect judgment and decision-making. Anger, which is closely related to perceived crime severity, tends to heighten punitiveness, appraisals of certainty, belief that a person rather than a situation is responsible, confidence in one’s coping ability, and heuristic information processing (reviewed by Lerner et al. 2015; Lerner & Tiedens 2006; Litvak et al. 2010). For example, vivid and emotionally arousing crime-scene details increase the likelihood of judging accused suspects guilty, even when the gory details provide no incriminating evidence (e.g. Douglas et al. 1997; Bright & Goodman-Delahunty 2006, 2011). In addition, anger at an offender can under some conditions “spill over” and affect punitiveness toward uninvolved targets. Those who have been personally injured or offended sometimes engage in “displaced aggression” toward unrelated third parties, particularly those who have engaged in unwanted behavior (“triggered displaced aggression”) or who superficially resemble the original offender (e.g., Bushman et al. 2005; Marcus-Newhall et al. 2000; Pedersen et al. 2008; Sjöström & Gollwitzer 2015). In addition, learning about serious, unpunished crimes increases appraisals of uninvolved individuals’ misbehavior as more wrongful and deserving of harsh punishment (e.g., Lerner et al. 1998; Rucker et al. 2004; Tetlock et al. 2007). These “prosecutorial mindsets,” moreover, correlate with desires for retribution— despite violating the widely accepted retributive-justice principle that only wrongdoers deserve to be punished—rather than for enhanced deterrence (Rucker et al. 2004; Tetlock et al. 2007).

Another seeming anger spillover phenomenon occurs when members of an externally injured group support “vicarious retribution” against uninvolved members of the perpetrator’s social group (e.g., Lickel et al. 2006; Vasquez et al. 2010). It is not clear whether these acts reflect a functional desire to incapacitate or deter or a less strategic way to salve the in-group’s self-esteem or to let off steam (Sjöström et al. 2018). But they may appear to be driven by oversimplified categorization of the offending group as monolithic in nature.

If these phenomena generalize to foreign policy opinion, then Americans outraged over 9/11 may have supported lashing out at symbolic substitutes for the elusive al-Qaeda ringleaders. Saddam Hussein’s notorious record of misbehavior could have functioned as a “trigger” in the triggered displaced aggression effect. And Saddam Hussein’s Arab and Muslim similarities to the actual perpetrators, however superficial, might have channeled post-9/11 anger through the mechanisms that underlie vicarious retribution and the similarity-moderator in displaced aggression. Some evidence for this might be seen in Liberman and Skitka’s (2017) finding that many U.S. citizens who did *not* blame Iraq for 9/11 nevertheless also acknowledged anticipating that invading Iraq war would satisfy their desire for revenge. Though weaker than among those who did blame Iraq, this feeling was strong enough to have affected war support, even after controlling for threat perceptions, other security incentives for war, and political beliefs.

Two other ways in which anger over 9/11 might have heightened support for war against Iraq are by lowering the perceived risks of war and by curtailing people’s thoughtful reflection. Jennifer Lerner and colleagues have shown that anger, including anger over 9/11, tends to diminish appraisals of future unrelated risks, whereas fear has the opposite effects (Lerner et al. 2003; Lerner & Tiedens 2006; Rydell et al. 2008). Consistent with this, Huddy et al. (2007) found that angry citizens expressed greater optimism about the risks of war with Iraq. Incidental anger also can attenuate information processing and foster cognitive reliance on simple heuristics like stereotypes (e.g., Bodenhausen et al. 1994; Rydell et al. 2008; Valentino et al. 2008; but see Moons & Mackie 2007). Huddy et al. (2007) also found evidence consistent with angry citizens overlooking negative information about invading Iraq: information about the Iraq crisis was uncorrelated with war support among those relatively angry at the terrorists and Saddam Hussein, whereas it predicted diminished war support among less angry citizens.

Although research on emotions’ cognitive effects usually examine outcomes occurring shortly after the emotions’ initial arousal, these effects can shape beliefs and decisions for weeks, months, or even years. Reminders about the cause of the emotion—such as presidential statements or media stories about 9/11—may readily revive previously experienced feelings. Even in their absence, rumination can prolong anger and desires for revenge, along with their effects on judgment (Bushman et al. 2005; Denson 2013). In addition, emotions recurrently experienced over time in response to an event, individual, or group become linked in long-term memory with memories and attitudes about them, which in turn can have persistent effects on judgment and behavior (Andrade & Ariely 2009; Lodge & Taber 2013).

There is ample evidence of reminders, rumination, and prolonged anger in post-9/11 United States. Skitka et al (2004) found that U.S. public anger measured within days of the 9/11 attack strongly predicted anger recalled four months later, as well as policy responses like restrictions on civil liberties and personal behavior, like flag flying. On the anniversary of 9/11, two-fifths of Americans said they still thought about the attacks every day. Nearly three-quarters of these ruminators said they still felt “very angry” at the culprits, in contrast to only about half of those who thought about the attacks less often (Liberman & Skitka 2017: 640). Even a decade later, President Barack Obama reportedly felt that the long hunt for Osama bin Laden “was about a lot more than taking a monstrous leader off the battlefield. It was about so much more than that. It was about righting an unspeakable wrong [and] healing a nearly unbearable wound in America’s heart” (Biden 2012). Thus anger and revenge spillover could have shaped citizens’ war support long after their initial outrage over 9/11 had subsided.

## *Perceptions of Threat and Risk*

Even apart from beliefs about Iraqi involvement, mistaken revenge, and revenge spillover effects, 9/11 might have led Americans to conclude that Iraq now posed an intolerable threat to national security. Ruthless and skillful terrorists wanted to inflict mass-casualty attacks on the United States, and might be able to obtain help from U.S. enemies. Such an inference is consistent with poll data showing that more people described Iraq as a “very serious threat” in the first half of 2002 than they had in the years prior to 9/11 (59%, up from 34-35%).[[1]](#footnote-1) Perceived threat, moreover, predict anger at the source of the threat (e.g., Cottrell & Neuberg 2005; Mackie et al. 2000) as well as support for military action against it (e.g., Eichenberg 2005; Gelpi et al. 2009; Herrmann et al. 1999; Jentleson & Britton 1998). Even if the perceived Iraqi threat did not change, an elevated terrorist threat might have led some people to support attacking Iraq as a demonstration of US resolve, to deter other states from supporting anti-U.S. terrorism. Either reaction to the attacks could explain why perceptions of the terror threat correlated with support for war against Iraq in Fall 2002 (Kam & Kinder 2007).

Exogenous risk orientations or beliefs about the risks of war also theoretically might generate correlations between anger and war support (Lazarus 1991; Sell et al. 2009; on intergroup contexts, see Carver 2004; Mackie et al. 2000). Perhaps related to perceptions of strength and self-efficacy, people high in trait anger and trait aggression tend to react angrily to obstacles as well as to endorse aggressive and violent state policies (Kalmoe 2011). Possibly, anger about 9/11 and desires for revenge were only spuriously related to support for the Iraq War due to all three springing from this underlying personality trait.

## *Political information*

If Republican opinion leaders, or a united front of opinion leaders, expressed outrage over 9/11 and support for war against Iraq, that might have generated correlations between anger and war support in public opinion via heuristic cue taking. Nacos et al (2011: 55, 58) argue that “the Bush administration used the mass media to convey their messages of fear,” and that “the propaganda of threat and fear was…designed to enlist public support for controversial policies adopted in the name of counterterrorism, national crisis, and war.” In addition to highlighting security threats, Bush condemned the terrorist evildoers and called for justice in a war of “good versus evil,” a frame that would later be extended to Saddam Hussein (Coe et al. 2004; Krebs & Lobasz 2007; Loseke 2009; Nacos et al. 2011: chap 4). Cue taking and differential news consumption patterns help explain why politically aware Democrats’ support for war in Fall 2002 faded while Republican support held firm (Jacobson 2007; Berinsky 2009; Feldman et al. 2015). Thus, it is also possible that conservatives and Republicans may have echoed the president’s angry denunciations of the terrorists and his desire to go to war against Iraq simply because they trusted him more strongly than did liberals and Democrats. In that case, emotions or threat perceptions might not have played any causal role at all in public war support.

# Anger, Revenge, Beliefs about Iraq, and Support for War Against iraq

Despite the plausibility that anger and desires for revenge affected U.S. public support for invading Iraq, these effects remain little understood. This stems in part from the absence of any single survey in the years following 9/11 that measured emotional reactions to 9/11, beliefs about Iraqi involvement, *and* support for war.

Fortunately, surveys conducted by two independent research teams collected data on all three variables–and on many useful potential confounds besides–using the same online survey firm, Knowledge Networks (KN; now GfK, Inc.). For the analysis that follows, I merged these datasets and used multiple imputation to handle the missing data, following the approach that Liberman and Skitka (2017) used to examine how beliefs about the Iraq–al-Qaeda connection, measured in one survey, related to feelings that the Iraq War would avenge 9/11, which were measured in another. Here I analyze a different combination of independent KN surveys to investigate whether anger and desires for revenge for 9/11 predicted war support even among those who did not think that Iraq had been involved, and whether these reactions to 9/11 were stronger predictors of war support among those who thought Iraq was guilty.

## Retrospective Integration of Online Panel Survey Data

Online surveys are typically administered to samples drawn from large, stable panels of respondents who complete surveys periodically until retired from the panel (Hays et al. 2015). Samples drawn from a single panel, especially within a limited timeframe, often intersect, providing valuable information about cross-survey associations. The size of the overlap, and hence the quality of this information, depends on the sizes of the original samples and of the full panel, the sampling frames used, and intervening panel rotation and dropout.

In preparing to analyze such data, researchers can reduce selection bias and increase statistical power significantly by combining the entire survey datasets and imputing the resultant missing data (Deng et al. 2013). Online survey firms typically use random or nearly random within-panel sampling frames to solicit panelists to complete surveys, so that the solicitations for completing any two surveys are essentially random. But individual propensities for panel dropout and survey acquiescence also affect the composition of the intersecting samples, just as in ordinary panel studies. Thus, analysis of just the complete-case intersecting samples can result in biased parameter estimates, and sacrifices the extensive partial data collected from the panelists who completed only one of the surveys.

Missing-data methods developed to minimize attrition bias and to maintain statistical power in ordinary panel studies can do the same for retrospectively integrated survey data. A particularly useful method is multiple imputation (on MI see Rubin 1987; Enders 2010; King et al. 2001; Little & Rubin 2014). MI involves generating multiple complete datasets, with the imputed values varying across the datasets according to the degree of uncertainty in the imputation model. Using rules developed by Rubin (1987), these between-imputation variances are then incorporated into the parameters’ standard errors when pooling the results of statistical analyses performed separately on each of the completed datasets. By imputing values conditional on all the variables included in the imputation model, MI algorithms correct for biases from attrition (or other causes of missing data) predicted by these variables. Missing data explained by observed variables is referred to as “ignorable missingness,” because it can be handled without bias by MI or maximum-likelihood missing data techniques. These techniques do not correct for “nonignorable” missingness caused by non-observed factors, but they yield more efficient and unbiased estimates than complete-case analysis.

MI permits using auxiliary variables (i.e., those not needed for the data analysis) in the imputation model, giving it an important advantage over maximum-likelihood methods for analyzing integrated online survey data. Profile data, typically collected from online panelists upon recruitment, provide a wealth of complete variables that can be employed for this purpose. The combination of intersecting samples and common profile data facilitate the integration of data collected from a single online panel.

For this study I integrate two surveys that KN/GfK administered to its online respondent panel, then numbering 34,748, which itself had been constructed by random sampling from the US population.[[2]](#footnote-2) Lerner et al.’s (2003) panel study collected data on desires to avenge 9/11 in September 20–October 4, 2001 (for convenience, referred to as the “September” survey; N=1,402 adult U.S. citizens) and on emotions and perceived terrorism and other risks in November 10-29, 2001 (the “November” survey; N=830 adults).The other survey, fielded February 1–15, 2003 for the University of Maryland’s Program on International Policy Attitudes (PIPA), measured a wide variety of beliefs and attitudes about Iraq (N=3,163; see Kull et al. 2003-04). [[3]](#footnote-3)

Merging the September 2001 and February 2003 datasets identified 4,369 unique adult panelists who responded to at least one of these surveys (i.e., the “union” of the datasets).[[4]](#footnote-4) The two studies were close enough in time that panel attrition and rotation had not transformed the panel’s composition, and thus reached an overlapping group of respondents. As can be seen in Table 1, 177 completed both the September and February surveys, 114 of these respondents also completed the November survey. These intersections between samples (sometimes referred to as “bridge data”) provides valuable information on associations between variables measured in only one survey or the other. Imputing the extensive missing unit-level data for rest of the union the will heavily reflect the associations in the bridge data, adjusted for factors in the imputation model that predict missingness. Although unmeasured factors affecting participation in multiple surveys probably biases the population estimates, it is unclear that they would do so in a direction systematically favorable to the hypotheses being tested here.[[5]](#footnote-5) Moreover, whatever the limitations of this data, it is likely to be far more representative than a convenience sample. That said, given the extensive reliance on imputed data, I do not make strong claims that the results accurately estimate population parameters.

[TABLE 1 ABOUT HERE]

I multiply imputed the unit- and item-nonresponses together for the combined dataset, using the Markov Chain Monte Carlo algorithm to generate 100 complete datasets.[[6]](#footnote-6) The imputation model included all the analysis variables described below, plus additional auxiliary variables, including demographics collected from all respondents upon recruitment into the panel, and items on war support and the Iraq–al-Qaeda connection measured in three other PIPA surveys.[[7]](#footnote-7) It also included six interaction terms, three multiplying belief in the Iraq–al-Qaeda connection with anger, revenge, and threat perceptions, and three multiplying political knowledge measure with party identification, anger, and revenge.

## Anger and Revenge Predict War Support

Estimating the relationships between feelings of anger and revenge measured in Fall 2001 and war support measured 17–19 months later offers a fairly conservative test of the effects of anger on war support. Individuals’ information and appraisals about the attacks and Iraq are likely to have changed as time passed, varying emotion regulation processes transpired, and strong memories receded. These or other intervening influences on war attitudes—such as the Bush Administration’s public campaign for war in fall 2002—would have eroded the attitudinal residues of immediate post-9/11 revenge and anger.

*Revenge* was measured using dichotomous September 2001 items on feeling “a need to punish those responsible for the recent terrorist attacks,” a “need to wipe out those responsible for these attacks,” “a desire to hurt the people who did this,” and that “war is the only possible response to a terrorist attack like this.” *Anger* was measured using November 2001 items on how “angry,” “enraged,” “mad,” etc. people felt when reflecting on the attacks. A confirmatory factor analysis (CFA) of these and other fall 2001 multi-item variables found distinct anger and revenge factors with a correlation of r=0.45.[[8]](#footnote-8) I thus created two additive scales from these items for *Anger* and *Revenge,* and recoded each (along with all the other multi-item measures in the study) from 0–1 to aid interpretation of results.[[9]](#footnote-9) I analyze each variable separately.

All measures of beliefs about Iraq and war come from the February PIPA survey. Support for the *Iraq War* combines PIPA items on whether the United States “should not invade,…should only invade Iraq with UN approval and the support of its allies, [or]…should invade Iraq even if we have to go it alone;” on whether war should be employed only “as a last resort after having tried in every way to make the inspection process work” or “it is necessary to invade Iraq and remove the Iraqi government;” and on invading Iraq despite UN opposition and high expected costs.

Table 2 provides an initial set of regressions of *Iraq War* on *Revenge*, and Table 3 provides parallel results for *Anger.* All models control for region, gender, race, income, education, foreign affairs knowledge, political ideology, party identification, and immediate post-9/11 fear. Because fear correlates strongly with anger but tends to have opposite effects on aggressiveness, omitting it generally suppresses estimated anger–aggressiveness associations. Most research on discrete emotions controls for non-focal emotions because they tend to inter-correlate positively, reflecting the strength of an individual’s overall emotional response, despite having different and often opposite effects on attitudes. *Fear* is an additive scale of November 2001 items, intermingled in the same series as the anger items, asking how “frightened,” “fearful,” etc., people felt when reflecting on the attacks.

[TABLE 2 ABOUT HERE]

As can be seen in Model 2.1 of Table 2, *Revenge* measured in September 2001 strongly predicts support for war in February 2003 in the multiply-imputed dataset. The results for are fairly similar when estimating the same model for just the respondents with relatively little missing data, i.e., those who completed both the September 2001 and February 2003 surveys, as shown in Model 2.2. Fear of terrorism in November 2001 was a negative predictor of February 2003 support for war against Iraq.

Model 2.3 adds additional controls to test whether the estimated effect of anger is a byproduct of perceptions of U.S. strength and judgments about the material costs of war. Confidence in the U.S. ability to defeat terrorism is measured by November 2001 items on the likelihood that the United States “will be successful in the war against terrorism,” “will be ready…if the terrorists retaliate,” and “will be able to predict future attacks” (*Confidence*). Single February 2003 questions assessed the number of expected U.S. casualties from war (*Casualties*), the U.S. ability to defeat Iraq and North Korea simultaneously (*Prowess*), and the likelihood of “a major terrorist attack against the US as a form of revenge” for invading Iraq (*Blowback*). Another February question, on whether the United States should attack North Korea if it tries to acquire WMDs (*NK War*), if necessary alone (*NK war alone*), reflects the same preventive war incentive for war that the Bush administration stressed in its arguments for invading Iraq. Although several of these variables are significant predictors of war support, they do not alter *Revenge’s* estimated effect on *Iraq War*.

Table 3 reports the results of the same set of models for *Anger,* which are very similar to those for *Revenge.* Taken together, these show that Fall 2001 desires for revenge and anger strongly predicted support for invading Iraq almost a year and a half later, and that these associations were not spurious byproducts of standard demographics, political ideology or partisanship, perceptions of national strength vis-à-vis terrorism and rogue states, including expected U.S. casualties and terrorist blowback from war.

[TABLE 3 ABOUT HERE]

We next add controls for the perceived threat posed by terrorists and by Iraq. The perceived *Terror Threat* scale combines November 2001 items on the likelihood that “another major terrorist attack on the United States is likely to occur within the next 12 months,” that “future terrorist attacks can happen anytime anywhere,” and “now that the United States has begun bombing [Afghanistan], the terrorists will retaliate in ways that we cannot predict.”

As explained above, perceived Iraqi involvement with al-Qaeda and 9/11 logically ought to have elevated the perceived threat posed by Iraq to U.S. security, as well as blame and desires for revenge for the terror attacks. Our measure of this perception is provided by a February 2003 question asking respondents to “select what you think is the best description of the relationship between the Iraqi government and the terrorist group al-Qaeda,” with the response options of “Iraq was directly involved in carrying out the September 11th attacks” (selected by 20%), “Iraq has given substantial support to al-Qaeda, but was not involved in the September 11th attacks” (36%), “A few al-Qaeda individuals have visited Iraq or had contact with Iraqi officials” (29%), or “No connection at all” (6%).[[10]](#footnote-10)

This question offers multiple alternative descriptions of Iraq’s complicity among the response options, and thus arguably provides a more accurate measure of public beliefs than the more frequent questions asking only about the likelihood of Saddam Hussein’s involvement in the attacks (Althaus & Largio 2004). Those who selected the “directly involved” response (*Involved 9/11*) would have seen Iraq as the gravest threat, as well as most clearly blamed Iraq for the attacks. The “substantial support to al-Qaeda” option (*Support AQ*) explicitly rules out Iraqi involvement in the attacks, although reckless aid to the perpetrators would have provided moral as well as security reasons for destroying the Iraqi regime. Those who selected “no connection” or just “visited Iraq or had contact” must have doubted Iraqi complicity, removing grounds for mistaken revenge as well as diminishing security reasons for war. We combine the relatively small number of “no connection” responses with just “visited Iraq or had contact” into the reference category, to enhance statistical power.

As can be seen in Models 4.1 and 5.1, *Support AQ* and *Involved 9/11,* but not *Terror Threat,* are significant predictors of *Iraq War* when added to the model. This suggests that the correlations between war support and anger and revenge were not merely byproducts of threats perceived from either terrorists or Iraq.

[TABLES 4 AND 5 ABOUT HERE]

Two other variables help probe these questions further. One February 2003 question asked whether invading Iraq would “help” the “war on terrorism” (*Help WOT*), would have “no effect” on it (*No impact WOT*), or would “hurt” it (reference category). Responses should tap security motivations for war, although they might also reflect retributive motives among those who saw the “war on terrorism” as revenge for 9/11. The other variable is from a question on whether Iraq possessed WMDs on the eve of the war (*WMD*), which was posed to a small subset of the sample that also participated in separate June and July 2003 PIPA surveys. Post-hoc justification might contaminate both of these variables. Asking whether a policy will have positive or negative effects is likely to elicit people’s positions on the policy held for other reasons (e.g., partisanship, revenge, etc.), particularly if they don’t hold strong beliefs about the policy’s consequences. Unlike the “war on terrorism” question, the WMD one did not specifically ask about the consequences of war. But the likelihood of responses being endogenous to *Iraq War* is increased by the prominence of weapons of mass destruction argument in the administration’s case for war and the measurement of *WMD* after the war had begun.

When added as control variables, the “help the war on terrorism” indicators and *WMD* are all significant predictors of *Iraq War*, as can be seen in Models 4.2 and 5.2. They also diminish the coefficients of many other model covariates, including the Iraq–AQ connection indicators, party identification, foreign affairs knowledge, and age, suggesting over-correction due to endogeneity. Even so, the estimates effects of *Revenge* and *Anger* are undiminished.

If mistaken revenge fuelled U.S. public support for attacking Iraq, then anger and desires for revenge at the perpetrators should predict support for war more strongly among those who said Iraq had been “directly involved” in 9/11 than those who said there was no more than contact between Iraq and al-Qaeda. Although the “substantial support to al-Qaeda” option explicitly rules out involvement in the attacks, people still might have wanted to take revenge on Iraq for its having recklessly aided the actual perpetrators. To test these hypotheses, I added cross-product interactions *Support AQ X Revenge* and *Involved 9/11 X Revenge* in Model 4.3, and added *Support AQ X Anger* and *Involved 9/11 X Anger* in Model 5.3.[[11]](#footnote-11)

The results are more consistent with an indiscriminate anger–revenge spillover effect than with mistaken retribution. Neither *Anger* nor *Revenge* predict war support any more strongly among those who blamed Iraq for 9/11 than among those who did not. Moreover, *Anger* and *Revenge* remain just as strong predictors of *Iraq War* among those who said that Iraq had either “no connection” or just “contact” with al–Qaeda.

The final models in Tables 4 and 5 test whether those who believed that Iraq had been involved in 9/11, or was otherwise supporting AQ, amplified the effect of Fall 2001 perceptions of the terror threat. Models 4.1 and 5.1 showed that *Terror Threat* was not a significant predictor of *Iraq War* in general; the insignificant (and negative) interaction terms in Models 4.4 and 5.4 show that its effect was no stronger among those who genuinely believed that Iraq was in league with al-Qaeda.

The links between anger, revenge, and war support do not appear to be artifacts of citizens’ simply repeating messages from trusted political elites. All the results presented thus far control for foreign affairs knowledge, measured by questions asking respondents whether the US has troops in South Korea and can veto Security Council decisions, the identity of the lead UN weapons inspector in Iraq (from four options presented), the permanent members of the UN Security Council (from a list of 10), and whether the respondent had watched or heard any part of Colin Powell’s recent speech to the UN. The measure should provide a good proxy for general political awareness, which is highly correlated with foreign affairs knowledge (Carpini & Keeter 1996: 142ff). Thus, controlling for *FA Knowledge* should reduce spurious associations stemming from aware citizens’ simply echoing anger, revenge, and war support heard from a concordant elite (i.e., a mainstream cue-taking effect).

Interactions between *FA Knowledge* and political orientation would capture any greater polarization among the politically aware, arising from cue taking from contending opinion leaders (i.e., a polarizing cue-taking effect). I use an additional measure of approval of several different U.S. foreign policies, not including on Iraq, to control further for individuals’ proclivity to echo Bush Administration officials’ expressions of anger, justice-seeking, and war support. Controlling for *Approve FP* only slightly diminishes the coefficients for *Revenge* (compare Models 6.1 to 2.1) or *Anger* (compare Models 6.3 to 3.1), although it is certainly a strong predictor of *Iraq War.* Adding an *FA Knowledge* X *Republican* interaction, in Models 6.2 and 6.4, does not even have that much effect. Thus *Iraq War*’s associations with *Anger* and *Revenge* do not appear attributable to partisan cue taking.

[TABLE 6 ABOUT HERE]

The same measure of political knowledge can be used to test the hypotheses that anger attenuated information processing about the Iraq crisis. It can also be used to test Miller’s (2011) argument that political sophisticates’ greater emotional engagement with politics results in stronger links between emotions about political issues and issue positions. Greater exposure to media coverage of the injustice and humiliation experienced on 9/11 and the continuing failure to capture and punish bin Laden, as well as more frequent rumination about these, might have resulted in sophisticates experiencing more prolonged anger over 9/11, and it having a more enduring impact on their attitudes toward Iraq.

However, neither of these predictions is borne out in the data. As shown in Table 7, both *FA Knowledge* X *Revenge* (Model 7.1) and *FA Knowledge* X *Anger* (Model 7.2) are insignificant when added to the baseline model. These results are inconsistent with the hypothesis that anger and revenge attenuated citizens’ information processing in forming opinions on the war, and provides no support to the hypothesis that emotions are more closely connected to political attitudes among political sophisticates than nonsophisticates.

[TABLE 7 ABOUT HERE]

Might a general tendency to express anger not captured by the above variables account for the belligerence of angry and vengeful citizens, rather than feelings more specifically reacting to 9/11? Although lacking pre-9/11 measures of trait anger needed to confidently distinguish between situational and dispositional sources of anger, this question can be at least partially explored using a November 2001 measure created from three questions that asked how often respondents feel they have “a fiery temper,” are “quick tempered,” and “get angry” when they are “slowed down by others’ mistakes” (Forgays et al. 1997). The location of these questions at the very beginning of the November 2001 survey, before the appearance of any questions about 9/11, as well as their focus on personal tendencies and frustrations, clearly differentiate *Trait Anger* from people’s anger over 9/11, though the latter may have affected the former somewhat (Carnagey & Anderson 2007). Although, *Trait Anger* does predict war support independently of *Revenge* and *Anger*, it does not alter the coefficients of either (compare Model 7.3 to Model 2.1, and Model 7.4 to Model 3.1).

# Discussion

This study provides new evidence on the role of anger and desires to avenge 9/11 in U.S. public support for war against Iraq. Previous work has already shown that anger predicted war support at specific points in time (Huddy et al. 2007; Skitka et al. 2006). The retrospectively integrated data analyzed here, however, reveals that that anger and explicit desires for revenge experienced in Fall 2001 predicted support for war over a year later. More importantly, these associations were not derivative of mistaken blaming of Iraq for the attacks, threat perceptions, beliefs about the costs of war or efficacy of force, approval of Bush’s foreign policies, or cue taking from elite discourse.

The data contradicts hypotheses that anger increased support for war against Iraq by diminishing perceived costs and risks of war and processing of information about the Iraq crisis (Huddy et al. 2007), or that correlations between anger and support for force were reducible to individuals’ optimism about U.S. military capabilities or self-confident personalities, even if these may have contributed to these emotions arousal (Carver 2004). Both anger and revenge over 9/11 were unrelated (or related in the wrong direction) to a variety of perceptions about the difficulty or costs of invading Iraq. In addition, the main results control for people’s confidence in U.S. counter-terrorism and the utility of invading Iraq in the war on terror. And the information-processing hypothesis is undermined by evidence that political awareness had no greater impact on war support among angrier citizens.[[12]](#footnote-12)

Contrary to the conventional wisdom, which attributes the post-9/11 jump in support for war against Iraq to the public’s new concerns about the threat of terrorism to the United States, perceptions of the terror threat in Fall 2001 scarcely correlate with support for war in February 2003. The perceived terrorist threat might have generated anger-fuelled belligerence earlier in time. But that still wouldn’t explain why Americans who were particularly angry and vengeful after 9/11 remained especially supportive of war against Iraq over a year later, despite the administration vociferously charging Iraq with being a terrorist ally in the last six months of that period.

The link between emotional reactions to the terror attacks in fall 2001 and later war attitudes appears to have occurred despite the partisan polarization on war that developed over 2002-2003, especially among politically aware citizens, rather than because of it. To be sure, media reporting on 9/11 would have helped sustain anger and desires for revenge over this extended period. The extensive memorializing that occurred surrounding the first anniversary of the attacks would have particularly strengthened the conditions for displaced aggression, at the same time that the Bush administration began accusing Iraq of a variety of transgressions. Although this campaign primarily emphasized Iraqi WMD, Bush’s descriptions of Saddam Hussein’s domestic atrocities and evil nature may have been particularly potent with citizens still feeling a compelling need for justice.

The most plausible interpretation of our findings, then, is that U.S. public anger and desires for revenge resulted in a form of public displaced aggression against Iraq. To be sure, individual dispositions–such as retributive values, proclivity to ruminate, trait anger, and attributional tendencies–probably magnified cross-sectional differences in these reactions to 9/11. But given that 9/11 generated substantial national anger and desires for revenge, it seems likely that at least some of the belligerence associated with individual differences in these feelings would have elevated aggregate war support over pre-9/11 levels.

Because anger over 9/11 faded somewhat over time, so would have support for lashing out against other targets.[[13]](#footnote-13) Thus, the anger effect may have been even stronger in fall 2002, when Bush asked Congress to authorize force against Iraq, than in the February 2003 data analyzed here. Arguably, in the absence of this effect, elites would have been more critical of the Bush administration’s case for war, Congress would have been less enthusiastic about authorizing the use of force, and Bush would have been more reluctant to press ahead with his plans to invade Iraq (Blinder 2007; Western 2005). Thus, spillover effects of anger and revenge appear to have helped to loosen the political constraints on the Bush’s ability to bring the nation to war against a country having nothing to do with 9/11. At the same time, the administration’s recognition of waning public belligerence heightened its incentives to accelerate the war’s timetable, limiting preparations for post-Saddam reconstruction, as well as to oversell the war, ultimately damaging U.S. credibility.

The horrific, incomprehensible, and humiliating nature of the 9/11 attacks, along with American awareness of their nation’s global military supremacy, may have provided particularly fertile conditions for anger spillover to shape public support for war in this case. But it is not inconceivable that terrorists might again inflict serious harm on a powerful state and again elude quick and devastating punishment. If so, such effects could once again help political leaders pursue an unrelated war agenda.

This study has additional, broader implications for the role of symbolic/justice motivations and emotion in public opinion. Though anger spillover illustrates how incidental emotions affect unrelated judgment tasks, it represents a broader class of automatic, non-self-aware, and potentially counter-productive effects of emotions and motivations on decision-making. Our study thus contributes support to more general theories holding that symbolic motivations, justice concerns, and emotion result in departures from mainstream theories of foreign policy opinion, which emphasize national security threats, limited-information rationality, and cue taking from elite discourse (e.g., Jentleson & Britton 1998; Berinsky 2009; Gelpi et al. 2009).

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Table 1. Adult Knowledge Networks Panelists Completing the

Lerner September and November 2001 Surveys and the PIPA February 2003 Survey

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sep-01 | Nov-01 | Feb-03 | N | % of Union |
| X | X | X | 114 | 2.6% |
| X |  | X | 63 | 1.4% |
| X |  |  | 503 | 11.5% |
| X | X |  | 702 | 16.1% |
|  |  | X | 2987 | 68.4% |
|  |  |  | 4369 | 100.0% |

Table 2. September 2001 Desires for Revenge and February 2003 Iraq War Support

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Model 2.1 | | Model 2.2 | | Model 2.3 | |
|  | b | (SE) | b | (SE) | b | (SE) |
| Metro area | -0.05 | (0.02)\* | 0.03 | (0.09) | -0.04 | (0.02)† |
| Northeast | 0.02 | (0.03) | -0.04 | (0.08) | 0.01 | (0.03) |
| South | 0.06 | (0.02)\*\* | -0.00 | (0.08) | 0.05 | (0.02)\* |
| West | 0.06 | (0.02)\*\* | -0.01 | (0.10) | 0.05 | (0.02)\* |
| CA,FL,IL,NY,TX | -0.04 | (0.02)† | -0.04 | (0.07) | -0.05 | (0.02)\* |
| Female | 0.03 | (0.02) | 0.09 | (0.06) | 0.03 | (0.02)† |
| Black | -0.04 | (0.03) | -0.18 | (0.14) | -0.03 | (0.03) |
| Age | -0.21 | (0.06)\*\*\* | -0.38 | (0.16)\* | -0.16 | (0.06)\*\* |
| Income | -0.00 | (0.00) | -0.01 | (0.01)† | -0.00 | (0.00) |
| Education | -0.07 | (0.04) | -0.16 | (0.16) | 0.02 | (0.05) |
| FA Knowledge | 0.20 | (0.05)\*\*\* | 0.17 | (0.11) | 0.17 | (0.04)\*\*\* |
| Republican | 0.19 | (0.03)\*\*\* | 0.15 | (0.08)† | 0.13 | (0.04)\*\* |
| Conservative | 0.36 | (0.12)\*\* | 0.37 | (0.15)\* | 0.34 | (0.14)\* |
| Fear | -0.16 | (0.08)\* | -0.20 | (0.12)† | -0.13 | (0.09) |
| Confidence |  |  |  |  | -0.04 | (0.15) |
| Blowback |  |  |  |  | -0.02 | (0.05) |
| Casualties |  |  |  |  | -0.24 | (0.08)\*\* |
| Prowess |  |  |  |  | 0.09 | (0.03)\*\*\* |
| NK War |  |  |  |  | 0.07 | (0.02)\*\*\* |
| **Revenge** | **0.56** | **(0.07)\*\*\*** | **0.49** | **(0.13)\*\*\*** | **0.55** | **(0.09)\*\*\*** |
| Constant | -0.09 | (0.10) | 0.22 | (0.20) | -0.05 | (0.11) |
| Adj. R-Square | 0.39 |  | 0.27 |  | 0.49 |  |
| Observations | 4369 |  | 177 |  | 4369 |  |

Note: Table entries are multiply imputed unstandardized regression coefficients, with two-tailed significance levels indicated by: † *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001. All variables range from 0–1.

Table 3. November 2001 Anger and February 2003 Iraq War Support

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Model 3.1 | | Model 3.2 | | Model 3.3 | |
|  | b | (SE) | b | (SE) | b | (SE) |
| Metro area | -0.03 | (0.02) | 0.04 | (0.09) | -0.01 | (0.02) |
| Northeast | 0.02 | (0.02) | -0.05 | (0.09) | 0.02 | (0.03) |
| South | 0.06 | (0.02)\*\* | -0.02 | (0.08) | 0.05 | (0.02)\* |
| West | 0.06 | (0.03)\* | -0.04 | (0.10) | 0.06 | (0.03)\* |
| CA,FL,IL,NY,TX | -0.03 | (0.02)† | -0.03 | (0.07) | -0.05 | (0.02)\* |
| Female | 0.03 | (0.02) | 0.10 | (0.06)† | 0.04 | (0.02)† |
| Black | -0.10 | (0.03)\*\* | -0.42 | (0.12)\*\*\* | -0.08 | (0.03)\* |
| Age | -0.23 | (0.06)\*\*\* | -0.43 | (0.17)\* | -0.17 | (0.06)\*\* |
| Income | -0.00 | (0.00) | -0.02 | (0.01)† | -0.00 | (0.00) |
| Education | -0.03 | (0.05) | -0.20 | (0.16) | 0.09 | (0.05)† |
| FA Knowledge | 0.19 | (0.04)\*\*\* | 0.13 | (0.12) | 0.14 | (0.04)\*\* |
| Republican | 0.19 | (0.03)\*\*\* | 0.15 | (0.09)† | 0.11 | (0.04)\* |
| Conservative | 0.44 | (0.11)\*\*\* | 0.48 | (0.15)\*\* | 0.46 | (0.14)\*\* |
| Fear | -0.31 | (0.10)\*\* | -0.40 | (0.14)\*\* | -0.35 | (0.10)\*\* |
| Confidence |  |  |  |  | -0.06 | (0.13) |
| Blowback |  |  |  |  | 0.11 | (0.05)\* |
| Casualties |  |  |  |  | -0.32 | (0.08)\*\*\* |
| Prowess |  |  |  |  | 0.10 | (0.03)\*\*\* |
| NK War |  |  |  |  | 0.08 | (0.01)\*\*\* |
| **Anger** | **0.45** | **(0.08)\*\*\*** | **0.39** | **(0.13)\*\*** | **0.55** | **(0.09)\*\*\*** |
| Constant | 0.08 | (0.09) | 0.48 | (0.18)\* | 0.02 | (0.12) |
| Adj. R-Square | 0.32 |  | 0.25 |  | 0.46 |  |
| Observations | 4369 |  | 177 |  | 4369 |  |

Note: Table entries are multiply imputed unstandardized regression coefficients, with two-tailed significance

levels indicated by: † *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001. All variables range from 0–1.

Table 4. Revenge, Threat, Iraqi Involvement in 9/11, and Iraq War Support

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Model 4.1 | | Model 4.2 | | Model 4.3 | | Model 4.4 | |
|  | b | (SE) | b | (SE) | b | (SE) | b | (SE) |
| Metro area | -0.04 | (0.02)† | -0.05 | (0.03) | -0.04 | (0.02)† | -0.04 | (0.02)† |
| Northeast | 0.02 | (0.02) | 0.01 | (0.03) | 0.02 | (0.02) | 0.02 | (0.02) |
| South | 0.06 | (0.02)\* | 0.03 | (0.02) | 0.06 | (0.02)\* | 0.06 | (0.02)\* |
| West | 0.06 | (0.02)\* | 0.06 | (0.02)\* | 0.06 | (0.02)\* | 0.06 | (0.02)\* |
| CA,FL,IL,NY,TX | -0.04 | (0.02)† | -0.04 | (0.02)\* | -0.04 | (0.02)† | -0.04 | (0.02)† |
| Female | 0.02 | (0.02) | 0.01 | (0.02) | 0.02 | (0.02) | 0.02 | (0.02) |
| Black | -0.04 | (0.03) | -0.06 | (0.03)† | -0.04 | (0.03) | -0.04 | (0.03) |
| Age | -0.22 | (0.06)\*\*\* | -0.11 | (0.09) | -0.22 | (0.06)\*\*\* | -0.22 | (0.06)\*\*\* |
| Income | -0.00 | (0.00) | 0.00 | (0.00) | -0.00 | (0.00) | -0.00 | (0.00) |
| Education | -0.05 | (0.04) | 0.01 | (0.06) | -0.05 | (0.04) | -0.05 | (0.04) |
| FA Knowledge | 0.22 | (0.04)\*\*\* | 0.15 | (0.06)\* | 0.22 | (0.04)\*\*\* | 0.22 | (0.04)\*\*\* |
| Republican | 0.17 | (0.04)\*\*\* | -0.00 | (0.04) | 0.17 | (0.04)\*\*\* | 0.17 | (0.04)\*\*\* |
| Conservative | 0.36 | (0.13)\*\* | 0.33 | (0.15)\* | 0.36 | (0.13)\*\* | 0.36 | (0.13)\*\* |
| Fear | -0.19 | (0.08)\* | -0.07 | (0.08) | -0.19 | (0.08)\* | -0.19 | (0.08)\* |
| Threat | 0.13 | (0.13) | 0.22 | (0.14) | 0.13 | (0.13) | 0.17 | (0.13) |
| No Impact WOT |  |  | 0.05 | (0.02)\* |  |  |  |  |
| Help WOT |  |  | 0.11 | (0.04)\*\* |  |  |  |  |
| WMD |  |  | 0.60 | (0.08)\*\*\* |  |  |  |  |
| Support AQ | 0.07 | (0.02)\*\*\* | -0.02 | (0.02) | 0.06 | (0.04) | 0.11 | (0.05)\* |
| Involved 9/11 | 0.13 | (0.03)\*\*\* | -0.03 | (0.04) | 0.18 | (0.06)\*\* | 0.19 | (0.07)\* |
| Support AQ X Threat |  |  |  |  |  |  | -0.05 | (0.08) |
| Involved 9/11 X Threat |  |  |  |  |  |  | -0.08 | (0.09) |
| **Revenge** | **0.53** | **(0.07)\*\*\*** | **0.59** | **(0.08)\*\*\*** | **0.53** | **(0.07)\*\*\*** | **0.53** | **(0.07)\*\*\*** |
| **Support AQ X Revenge** |  |  |  |  | **0.01** | **(0.05)** |  |  |
| **Involved 9/11 X Revenge** |  |  |  |  | **-0.06** | **(0.06)** |  |  |
| Constant | -0.20 | (0.11)† | -0.69 | (0.15)\*\*\* | -0.21 | (0.11)† | -0.23 | (0.12)\* |
| Adj. R-Square | 0.42 |  | 0.64 |  | 0.42 |  | 0.42 |  |
| Observations | 4369 |  | 4369 |  | 4369 |  | 4369 |  |

Note: Table entries are multiply imputed unstandardized regression coefficients, with two-tailed significance levels indicated by: † *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001. All variables range from 0–1.

Table 5. Anger, Threat, Iraqi Involvement in 9/11, and Iraq War Support

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Model 5.1 | | Model 5.2 | | Model 5.3 | | Model 5.4 | |
|  | b | (SE) | b | (SE) | b | (SE) | b | (SE) |
| Metro area | -0.01 | (0.02) | -0.02 | (0.03) | -0.01 | (0.02) | -0.01 | (0.02) |
| Northeast | 0.02 | (0.02) | 0.01 | (0.03) | 0.02 | (0.02) | 0.02 | (0.02) |
| South | 0.05 | (0.02)\* | 0.02 | (0.02) | 0.05 | (0.02)\* | 0.05 | (0.02)\* |
| West | 0.06 | (0.03)\* | 0.06 | (0.02)\* | 0.06 | (0.03)\* | 0.06 | (0.03)\* |
| CA,FL,IL,NY,TX | -0.03 | (0.02)† | -0.04 | (0.02)\* | -0.03 | (0.02)† | -0.03 | (0.02)† |
| Female | 0.02 | (0.02) | 0.02 | (0.02) | 0.02 | (0.02) | 0.02 | (0.02) |
| Black | -0.09 | (0.03)\*\* | -0.10 | (0.03)\*\* | -0.09 | (0.03)\*\* | -0.09 | (0.03)\*\* |
| Age | -0.25 | (0.07)\*\*\* | -0.14 | (0.08)† | -0.25 | (0.07)\*\*\* | -0.25 | (0.07)\*\*\* |
| Income | -0.00 | (0.00) | -0.00 | (0.00) | -0.00 | (0.00) | -0.00 | (0.00) |
| Education | -0.00 | (0.05) | 0.08 | (0.06) | 0.00 | (0.05) | -0.00 | (0.05) |
| FA Knowledge | 0.21 | (0.04)\*\*\* | 0.14 | (0.06)\* | 0.21 | (0.04)\*\*\* | 0.21 | (0.04)\*\*\* |
| Republican | 0.16 | (0.04)\*\*\* | -0.02 | (0.04) | 0.16 | (0.04)\*\*\* | 0.16 | (0.04)\*\*\* |
| Conservative | 0.43 | (0.12)\*\*\* | 0.39 | (0.14)\*\* | 0.43 | (0.12)\*\*\* | 0.43 | (0.12)\*\*\* |
| Fear | -0.35 | (0.10)\*\* | -0.25 | (0.10)\* | -0.35 | (0.10)\*\* | -0.35 | (0.10)\*\* |
| Threat | 0.11 | (0.13) | 0.14 | (0.13) | 0.11 | (0.13) | 0.16 | (0.14) |
| No Impact WOT |  |  | 0.12 | (0.02)\*\*\* |  |  |  |  |
| Help WOT |  |  | 0.25 | (0.04)\*\*\* |  |  |  |  |
| WMD |  |  | 0.48 | (0.08)\*\*\* |  |  |  |  |
| Support AQ | 0.11 | (0.02)\*\*\* | 0.02 | (0.02) | 0.13 | (0.04)\*\*\* | 0.16 | (0.05)\*\* |
| Involved 9/11 | 0.20 | (0.03)\*\*\* | 0.04 | (0.04) | 0.25 | (0.05)\*\*\* | 0.25 | (0.07)\*\*\* |
| Support AQ X Threat |  |  |  |  |  |  | -0.07 | (0.08) |
| Involved 9/11 X Threat |  |  |  |  |  |  | -0.08 | (0.09) |
| **Anger** | **0.45** | **(0.08)\*\*\*** | **0.53** | **(0.09)\*\*\*** | **0.48** | **(0.08)\*\*\*** | **0.45** | **(0.08)\*\*\*** |
| **Support AQ X Anger** |  |  |  |  | **-0.04** | **(0.05)** |  |  |
| **Involved 9/11 X Anger** |  |  |  |  | **-0.07** | **(0.06)** |  |  |
| Constant | -0.06 | (0.11) | -0.50 | (0.12)\*\*\* | -0.08 | (0.11) | -0.09 | (0.12) |
| Adj. R-Square | 0.37 |  | 0.61 |  | 0.37 |  | 0.37 |  |
| Observations | 4369 |  | 4369 |  | 4369 |  | 4369 |  |

Note: Table entries are multiply imputed unstandardized regression coefficients, with two-tailed significance levels indicated by: † *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001. All variables range from 0–1.

Table 6. Revenge, Anger, Cue-Taking, and Iraq War Support

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Model 6.1 | | Model 6.2 | | Model 6.3 | | Model 6.4 | |
|  | b | (SE) | b | (SE) | b | (SE) | b | (SE) |
| Metro area | -0.04 | (0.02)† | -0.04 | (0.02)\* | -0.02 | (0.02) | -0.02 | (0.02) |
| Northeast | 0.02 | (0.02) | 0.02 | (0.02) | 0.02 | (0.02) | 0.02 | (0.02) |
| South | 0.05 | (0.02)\*\* | 0.05 | (0.02)\*\* | 0.05 | (0.02)\*\* | 0.05 | (0.02)\*\* |
| West | 0.05 | (0.02)\* | 0.05 | (0.02)\* | 0.05 | (0.02)\* | 0.05 | (0.02)\* |
| CA,FL,IL,NY,TX | -0.04 | (0.02)\* | -0.04 | (0.02)\* | -0.04 | (0.02)\* | -0.04 | (0.02)\* |
| Female | 0.02 | (0.02) | 0.02 | (0.02) | 0.02 | (0.02) | 0.02 | (0.02) |
| Black | -0.04 | (0.03) | -0.05 | (0.03) | -0.09 | (0.03)\*\* | -0.10 | (0.03)\*\* |
| Age | -0.21 | (0.05)\*\*\* | -0.21 | (0.05)\*\*\* | -0.23 | (0.06)\*\*\* | -0.23 | (0.06)\*\*\* |
| Income | -0.00 | (0.00) | -0.00 | (0.00) | -0.00 | (0.00) | -0.00 | (0.00) |
| Education | -0.04 | (0.04) | -0.04 | (0.04) | -0.00 | (0.04) | -0.00 | (0.04) |
| FA Knowledge | 0.17 | (0.04)\*\*\* | 0.08 | (0.06) | 0.16 | (0.04)\*\*\* | 0.07 | (0.05) |
| Republican | 0.11 | (0.03)\*\* | -0.03 | (0.06) | 0.10 | (0.03)\*\* | -0.04 | (0.05) |
| Conservative | 0.28 | (0.12)\* | 0.28 | (0.12)\* | 0.35 | (0.12)\*\* | 0.34 | (0.12)\*\* |
| Approve FP | 0.47 | (0.05)\*\*\* | 0.46 | (0.05)\*\*\* | 0.53 | (0.05)\*\*\* | 0.53 | (0.05)\*\*\* |
| FA Knowledge X Republican |  |  | 0.20 | (0.07)\*\* |  |  | 0.19 | (0.06)\*\* |
| Fear | -0.15 | (0.08)\* | -0.15 | (0.08)\* | -0.28 | (0.10)\*\* | -0.28 | (0.10)\*\* |
| **Revenge** | **0.50** | **(0.07)\*\*\*** | **0.50** | **(0.07)\*\*\*** |  |  |  |  |
| **Anger** |  |  |  |  | **0.40** | **(0.08)\*\*\*** | **0.40** | **(0.08)\*\*\*** |
| Constant | -0.21 | (0.09)\* | -0.14 | (0.10) | -0.08 | (0.08) | -0.01 | (0.09) |
| Adj. R-Square | 0.45 |  | 0.45 |  | 0.40 |  | 0.40 |  |
| Observations | 4369 |  | 4369 |  | 4369 |  | 4369 |  |

Note: Table entries are multiply imputed unstandardized regression coefficients, with two-tailed significance levels indicated by: † *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001. All variables range from 0–1.

Table 7. Knowledge, Trait Anger, Anger and Revenge over 9/11, and Iraq War Support

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Model 7.1 | | Model 7.2 | | Model 7.3 | | Model 7.4 | |
|  | b | (SE) | b | (SE) | b | (SE) | b | (SE) |
| Metro area | -0.05 | (0.02)\* | -0.03 | (0.02) | -0.04 | (0.03) | -0.02 | (0.03) |
| Northeast | 0.02 | (0.03) | 0.02 | (0.02) | 0.02 | (0.03) | 0.03 | (0.03) |
| South | 0.06 | (0.02)\*\* | 0.06 | (0.02)\*\* | 0.06 | (0.02)\*\* | 0.06 | (0.02)\*\* |
| West | 0.06 | (0.02)\*\* | 0.06 | (0.03)\* | 0.08 | (0.02)\*\* | 0.07 | (0.03)\*\* |
| CA,FL,IL,NY,TX | -0.04 | (0.02)† | -0.03 | (0.02)† | -0.05 | (0.02)\* | -0.04 | (0.02)\* |
| Female | 0.03 | (0.02) | 0.03 | (0.02) | 0.04 | (0.02)\* | 0.04 | (0.02)† |
| Black | -0.04 | (0.03) | -0.10 | (0.03)\*\* | -0.04 | (0.03) | -0.09 | (0.03)\*\* |
| Age | -0.21 | (0.06)\*\*\* | -0.23 | (0.06)\*\*\* | -0.13 | (0.07)† | -0.15 | (0.07)\* |
| Income | -0.00 | (0.00) | -0.00 | (0.00) | -0.00 | (0.00) | -0.00 | (0.00) |
| Education | -0.06 | (0.04) | -0.03 | (0.05) | -0.04 | (0.05) | -0.02 | (0.05) |
| FA Knowledge | 0.16 | (0.07) \* | 0.16 | (0.07) \* | 0.19 | (0.05)\*\*\* | 0.18 | (0.04)\*\*\* |
| Republican | 0.19 | (0.03)\*\*\* | 0.19 | (0.04)\*\*\* | 0.19 | (0.03)\*\*\* | 0.19 | (0.03)\*\*\* |
| Conservative | 0.36 | (0.12)\*\* | 0.44 | (0.11)\*\*\* | 0.37 | (0.12)\*\* | 0.45 | (0.11)\*\*\* |
| Fear | -0.16 | (0.08)\* | -0.31 | (0.10)\*\* | -0.18 | (0.08)\* | -0.31 | (0.10)\*\* |
| **Revenge** | **0.48** | **(0.09)\*\*\*** |  |  | **0.53** | **(0.07)\*\*\*** |  |  |
| **FA Knowledge X Revenge** | **0.12** | **(0.08)** |  |  |  |  |  |  |
| **Anger** |  |  | **0.42** | **(0.10)\*\*\*** |  |  | **0.40** | **(0.09)\*\*\*** |
| **FA Knowledge X Anger** |  |  | **0.04** | **(0.08)** |  |  |  |  |
| Trait Anger |  |  |  |  | 0.39 | (0.12)\*\* | 0.38 | (0.12)\*\* |
| Constant | -0.03 | (0.11) | 0.10 | (0.09) | -0.21 | (0.10)\* | -0.04 | (0.09) |
| Adj. R-Square | 0.39 |  | 0.32 |  | 0.43 |  | 0.36 |  |
| Observations | 4369 |  | 4369 |  | 4369 |  | 4369 |  |

Note: Table entries are multiply imputed unstandardized regression coefficients, with two-tailed significance levels indicated by: † *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001. All variables range from 0–1.

**Appendix §1. Measures**

2001 Measures

* *Revenge.* Additive scale of September 2001 items described in Appendix §3. The tiny percentage of respondents answering no to all four items are combined with the next highest score.
* *Stress.* Additive scales of September 2001 items described in Appendix §3.
* *Anger, Fear, Terror Threat,* *Confidence, Trait Anger.* Additive scales of November 2001 items described in Appendix §3.

2003 Measures

* *Support* *AQ* and *Involved in 9/11.*  Based on the following PIPA 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 those who said those who said “no connection” or “visited Iraq or had contact.”
* *Iraq War*. 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?
* *No Impact WOT* and *Help WOT* is an ordinal measure from a 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 [44%], Hurt the war on terrorism [25%]; or Have no significant effect either way [25%];” “hurt” serves as the reference category.
* *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.”
* *FA Knowledge.* An additive scale of five equally weighted February 2003 PIPA variables:
  + 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.
* *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?
* *Prowess*. February 2003 PIPA item asking “Do you think the US could or could not successfully fight a war against Iraq and North Korea at the same time?” (“Could” coded=1; “could not”=0).
* *Blowback*. Pooled responses to two February 2003 PIPA split-sample items with slightly different wording: “If the UN [approves invading Iraq and the US does so together with a number of allies/does not approve and the US and a few allies invade Iraq], what do you think are the chances that there will be a major terrorist attack against the US as a form of revenge? Please answer on a scale of one to one hundred, with 0 meaning no likelihood, 100 meaning that such an attack is certain, and 50 meaning that there is a 50 percent chance of this happening.” Recoded into deciles and rescaled 0-1.
* *Casualties*. February 2003 PIPA open-ended item asking “About how many American soldiers do you imagine would die in a war with Iraq?” The highly skewed responses were recoded into deciles before being scaled 0-1; logging the raw data yielded very similar results.
* *CA, FL, IL, NY, TX*. Resident of California, Florida, Illinois, New York, or Texas, oversampled states in the February 2003 PIPA survey.

KN Profile and Cross-Survey Measures

*Republican*. Constructed from PIPA and KN political profile data. For the PIPA question, “In politics today, do you think of yourself as strong Democrat, leaning toward Democrat, leaning toward Republican, strong Republican, independent, or other,” independents are coded as a middle category and “other” is dropped. The KN’s political profile item, available for 80% of the 2001 respondents, has additional “not strong” Democrat and Republican options, which are combined into the “strong” partisan categories. The responses are pooled across surveys, using the earliest available data for repeat respondents.

* *Conservative*. KN political profile item, available for 80% of the 2001 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*. 7-level measure of highest degree received, from KN profile data, ranging from less than high school to post-baccalaureate degree.
* *Black*. Coded =1 if household ethnicity identified as non-Hispanic black, and otherwise 0.
* *Age*. Age/100.

**Appendix §2. Confirmatory Factor Analysis of September-November 2001 Items**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Scale Items | *Revenge* | *Stress* | *Anger* | *Fear* | *Threat* | *Conf.* | *Trait Anger* |
| After the events of September 11th, which of the following did you feel? a |  |  |  |  |  |  |  |
| I felt a desire to hurt the people who did this. | 0.99 |  |  |  |  |  |  |
| I felt a need to punish those responsible for the recent terrorist attacks. | 0.88 |  |  |  |  |  |  |
| We need to wipe out those responsible for these attacks. | 0.85 |  |  |  |  |  |  |
| War is the only possible response to a terrorist attack like this. | 0.70 |  |  |  |  |  |  |
| After the events of September 11th, which of the following did you experience… b |  |  |  |  |  |  |  |
| I felt restless. |  | 0.92 |  |  |  |  |  |
| I had difficulty falling or staying asleep |  | 0.84 |  |  |  |  |  |
| I felt hypervigilant or "on edge" |  | 0.84 |  |  |  |  |  |
| I had difficulty concentrating |  | 0.77 |  |  |  |  |  |
| Use the scale below to describe how you felt when you saw the image, heard the audio, and wrote about your feelings.c |  |  |  |  |  |  |  |
| Enraged |  |  | 0.89 |  |  |  |  |
| Furious |  |  | 0.90 |  |  |  |  |
| Angry |  |  | 0.89 |  |  |  |  |
| Mad |  |  | 0.89 |  |  |  |  |
| Wrathful |  |  | 0.79 |  |  |  |  |
| Frightened |  |  |  | 0.90 |  |  |  |
| Fearful |  |  |  | 0.90 |  |  |  |
| Nervous |  |  |  | 0.88 |  |  |  |
| Terrified |  |  |  | 0.84 |  |  |  |
| Worried |  |  |  | 0.80 |  |  |  |
| What is the likelihood of the following events occurring in the future: d |  |  |  |  |  |  |  |
| I feel that now that the United States has begun bombing, the terrorists will retaliate in ways that we cannot predict. |  |  |  |  | 0.66 |  |  |
| I feel that another major terrorist attack on the United States is likely to occur within the next 12 months. |  |  |  |  | 0.66 |  |  |
| I feel that future terrorist attacks can happen anytime anywhere and there is no way of predicting when or where. |  |  |  |  | 0.59 |  |  |
| I feel that the United States will be successful in the war against terrorism. |  |  |  |  |  | 0.81 |  |
| I feel that if the terrorists retaliate to the United States actions against terrorism, the United States will be ready. |  |  |  |  |  | 0.66 |  |
| I feel that United States intelligence efforts will be able to predict future attacks. |  |  |  |  |  | 0.59 |  |
| How often do you feel the following: e |  |  |  |  |  |  |  |
| I have a fiery temper. |  |  |  |  |  |  | 0.93 |
| I am quick tempered. |  |  |  |  |  |  | 0.91 |
| I get angry when I am slowed down by others’ mistakes. |  |  |  |  |  |  | 0.61 |
| I am frustrated by people around me. |  |  |  |  |  |  | 0.49 |

Notes: Response options indicated by superscripted notes: a) disagree, agree; b) did not experience, experienced; c) Numeric scale ranging from 0 (did not feel the emotion the slightest bit) to 8 (felt the emotion even more strongly than ever before); d) Likert-scale response options ranged from 0 (extremely unlikely) to 7 (extremely likely); e) almost never, sometimes, often, almost always. All factor loadings significant at p<0.001. Model statistics: N=830; Chi-square 463.48 (df=329), p<0.001; RMSEA= 0.022; CFI= 0.965; TLI= 0.960; WRMR= 0.862. Estimated using Mplus 7.1’s WLSMV estimator (to handle the categorical *Revenge, Stress,* and *Trait Anger* items), and sampling weights adjusting for variable number of telephone lines per household, oversampling of certain geographic areas, nonresponse adjustment, and census demographic benchmarks.

Inter-Factor Correlations

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Revenge | Stress | Anger | Fear | Terror  Threat | Confidence |
| Revenge | –––– |  |  |  |  |  |
| Stress | 0.11† | –––– |  |  |  |  |
| Anger | 0.45\*\*\* | 0.16\*\* | –––– |  |  |  |
| Fear | 0.10† | 0.29\*\*\* | 0.47\*\*\* | –––– |  |  |
| Terror Threat | -0.02 | 0.12\* | 0.09† | 0.33\*\*\* | –––– |  |
| Confidence | 0.24\*\*\* | -0.05 | 0.23\*\*\* | -0.02 | -0.34\*\*\* | –––– |
| Trait Anger | 0.25\*\*\* | 0.10† | 0.26\*\*\* | 0.06 | 0.16\*\* | -0.11\* |

Two-tailed significance levels indicated by: †p<.10, \* p<.05, \*\* p<.01, \*\*\*p<.001.

1. On the other hand, the number of Americans who saw Iraq as the “greatest military threat” to the United States actually declined after 9/11 (9%, down from 24-23%; Everts & Isernia 2005: 278). [↑](#footnote-ref-1)
2. KN/GfK’s use of random-digit dialing and address-based sampling for recruitment into the panel makes it highly representative of the US population, and its within-panel sampling designs employ selection weights to correct for demographic under- and over-representation on the panel (Dennis 2009; Yeager et al. 2011). [↑](#footnote-ref-2)
3. The February survey included an oversample of five large states, whose regional diversity minimized the impact on our results. KN reported a panel recruitment rate of 49%, a profile completion rate of 66%, and a study completion rate of 58%, yielding a cumulative response rate of 19% (Callegaro & DiSogra 2008).  Missingness on several variables is increased by item nonresponse and, especially, to some questions having been given only to subsets of the original samples. For additional details, see (##appendix to be added##). [↑](#footnote-ref-3)
4. This includes seven respondents who had been included as teenagers in the Lerner et al.’s 2001 study (and were found identical to adults in their analyses) but who had reached the age of 18 when they participated in the February 2003 survey. [↑](#footnote-ref-4)
5. Measureable differences between the original survey samples and the US population by controlling for these attributes in our regression analyses. Although nearly identical in partisanship, gender, income, and region to the US population, the combined, unweighted dataset has disproportionate representation from five oversampled states and is somewhat whiter, older, and more educated. See (##appendix to be added##). [↑](#footnote-ref-5)
6. Mplus 7.1’s default (“PX1”) MCMC algorithm, based on the Gibbs sampler, was used to generate the partial correlation blocks in the variance covariance matrices (Asparouhov & Muthén 2010; Gelman et al. 2014). A large number of MI datasets is recommended to maintain statistical power in cases with extensive missing data (Graham et al. 2007). [↑](#footnote-ref-6)
7. The summer PIPA surveys were fielded in June 18–25 (N=1,051), July 11–20 (N=1,060), and August 26–September 3 (N=1,217). Additional details on the imputation model and diagnostic plots showing the plausibility of the imputed values can be found in (##appendix to be added##). [↑](#footnote-ref-7)
8. See Appendices §1-§2 for the full CFA results, complete details on question wordings, operationalization, and descriptive statistics for all the variables analyzed in this paper. [↑](#footnote-ref-8)
9. The second-wave survey included an embedded experiment with three randomly assigned, emotion-induction conditions. I combined the three groups because the manipulation did not affect 2003 war support or its correlations with anger, although it did affect the target emotions and risk appraisal measures (Lerner et al. 2003). [↑](#footnote-ref-9)
10. Eight percent did not respond; proportions from weighted original PIPA data. [↑](#footnote-ref-10)
11. The models omit the “help the war on terrorism” and *WMD* variables, so that their potential contamination by war support does not obscure the effects of beliefs about Iraqi involvement. Adding these variables makes no difference to the findings. [↑](#footnote-ref-11)
12. These divergences with Huddy et al. (2007) could be due to differences in the measurement of anger and timing. Huddy et al.’s (2007) measure of anger was collected in fall 2002 and included anger at Saddam Hussein as well as at “the terrorists,” making it more likely to have been shaped by the perceived war risks and Bush’s campaign for war. At that time, information might have more strongly predicted opposition from those less angry at Iraq than those angry at the terrorists. In addition, a measure of anger that included feelings about Saddam Hussein in Fall 2002 would have been more strongly shaped by cue taking from Bush’s campaign for war.

    Motivated reasoning, which came to have a major impact on Iraq war attitudes (Gaines et al. 2007; Jacobson 2010; Prasad et al. 2009), also could explain why those angry at Saddam Hussein in Fall 2002 might have seen the war risks as relatively low. [↑](#footnote-ref-12)
13. The number of Americans who said they were “very angry” at the perpetrators had fallen by 11% on the first anniversary of the attacks compared to the period immediately after the attacks (ABC News 2002). [↑](#footnote-ref-13)