Vicarious Retribution in U.S. Public Support for War Against Iraq

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ABSTRACT

U.S. public anger and desires to avenge the 11 September 2001 terror attacks were redirected toward Iraq partly because of its identity as an Arab and Muslim state. Online panel survey data reveal that citizens who were relatively angry about the terror attacks were more belligerent toward Iraq, and that this effect was strongest among those who perceived Arabs and Muslims in monolithic terms. Angry desires to avenge 9/11 were more persistent for those who saw Arabs and Muslims in that light, and their effects on war support were partially mediated by worsened feelings about Arabs and Muslims in general. These findings help explain why public belligerence toward Iraq shot up right after 9/11, before President George W. Bush began alleging that Iraq was pursuing weapons of mass destruction and had ties to al Qaeda.

Anger and desires to avenge the 11 September 2001 terror attacks on New York and Washington apparently heightened U.S. public support for war against Iraq, but it remains unclear why. War support surged right after 9/11, in the absence of any evidence linking Iraq to the 9/11 attacks or al Qaeda, months before President George W. Bush accused that country of being part of an "Axis of Evil," and almost a year before he began vigorously campaigning for war.[1] Relatively angry and punitive citizens also tended to be more hawkish on Iraq, and many said that war would help satisfy a desire to avenge 9/11.[2] Americans who mistakenly believed that Iraq had been involved in the attacks would have favored retaliation to neutralize the Iraqi threat, to promote general deterrence, or to obtain justice.[3] But mistaken revenge does not tell the whole story. Many citizens who said Iraq had *not* been involved in 9/11 nonetheless also acknowledged feeling that war would satisfy their desires for revenge.[4]

We argue here that many Americans wanted to lash out at Iraq because they saw it as part of an "Arab–Muslim world" to which the actual terrorist culprits also belonged. Similar effects have been observed in conflicts among rival gangs, clans, ethnic groups, and belligerents in ideological civil wars, in which members of an externally injured group support "vicarious

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[1] Peter Liberman and Linda J. Skitka, "Revenge in US Public Support for War against Iraq," *Public Opinion Quarterly* 81, no. 3 (Fall 2017): 636–37. On the administration's campaign to sell the war, see Jon Western, "The War over Iraq: Selling War to the American Public," *Security Studies* 14, no. 1 (2005): 106–139.

[2] Peter Liberman, "An Eye for an Eye: Public Support for War against Evildoers," *International Organization* 60, no. 3 (July 2006): 687–722; Linda J. Skitka, Christopher W. Bauman, Nicholas P. Aramovich, and G. Scott Morgan, "Confrontational and Preventative Policy Responses to Terrorism: Anger Wants a Fight and Fear Wants 'Them' to Go Away," *Basic and Applied Social Psychology* 28, no. 4 (2006): 375–384; Leonie Huddy, Stanley Feldman, and Erin Cassese, "On the Distinct Political Effects of Anxiety and Anger," in *The Affect Effect: Dynamics of Emotion in Political Thinking and Behavior*, ed. W. Russell Neuman, et al. (Chicago: University of Chicago Press, 2007); Liberman and Skitka, "Revenge in US Public Support for War."

[3] On the prevalence of such beliefs, and their connection to war support, see Steven Kull, Clay Ramsay, and Evan Lewis, "Misperceptions, the Media, and the Iraq War," *Political Science Quarterly* 118, no. 4 (Winter 2003–04): 569–598; Scott L. Althaus and Devon M. Largio, "When Osama Became Saddam: Origins and Consequences of the Change in America's Public Enemy #1," *PS: Political Science & Politics* 37, no. 4 (October 2004): 795–799; Liberman and Skitka, "Revenge in US Public Support for War."

[4] Ibid.

retribution" against uninvolved members of the perpetrator's group.[5] The same underlying

psychological mechanisms are likely to enflame antagonisms across international borders as well

as within them. Yet, although there are large literatures on intergroup perceptions, emotions, and

aggression, research remains quite limited on vicarious retribution, particularly in the

international context. We thus explain when and how the vicarious retribution model should be

extended to foreign policy opinion, and test several hypotheses using survey data from 2001–

2002 on U.S. public reactions to 9/11 and support for war against Iraq. Our analysis extends the

literature on public support for war against Iraq, which up until now has included some studies

on the role of anger and punitiveness and others on the role of prejudice, but none focusing on

their interaction.[6]

Vicarious retribution merits attention from international security scholars and

policymakers because public opinion affects democracies' ability to wage war. Although leaders

can manipulate or ignore public opinion to a degree, they generally need to mobilize popular

support to bring a democracy to war.[7] Understanding the psychological mechanisms affecting

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[5] Social psychology research on vicarious retribution includes Brian Lickel, Norman Miller, Douglas M. Stenstrom, Thomas F. Denson, and Toni Schmader, "Vicarious Retribution: The Role of Collective Blame in Intergroup Aggression," *Personality and Social Psychology Review* 10, no. 4 (2006): 372–390; Douglas M. Stenstrom, Brian Lickel, Thomas F. Denson, and Norman Miller, "The Roles of Ingroup Identification and Outgroup Entitativity in Intergroup Retribution," *Personality and Social Psychology Bulletin* 34, no. 11 (2008): 1570–1582; Eduardo A. Vasquez, Lisa Wenborne, Madeline Peers, Emma Alleyne, and Kirsty Ellis, "Any of Them Will Do: In-Group Identification, Out-Group Entitativity, and Gang Membership as Predictors of Group-Based Retribution," *Aggressive Behavior* 41, no. 3 (January 2015): 242–252. For studies of similar effects in civil wars, though termed "generalized retribution," "ethnic hatred," or "blood revenge," see Roger D. Petersen, *Understanding Ethnic Violence: Fear, Hatred, and Resentment in Twentieth Century Eastern Europe* (Cambridge: Cambridge University Press, 2002); Anne Speckhard and Khapta Ahkmedova, "The Making of a Martyr: Chechen Suicide Terrorism," *Studies in Conflict & Terrorism* 29, no. 5 (2006): 429–492;Emil Aslan Souleimanov and Huseyn Aliyev, "Blood Revenge and Violent Mobilization: Evidence from the Chechen Wars," *International Security* 40, no. 2 (Fall 2015): 158–180; Laia Balcells, *Rivalry and Revenge: The Politics of Violence During Civil War* (New York: Cambridge University Press, 2017).

[6] The former are cited in fn. 2 above; the latter include Donald R. Kinder and Cindy D. Kam, *Us Against Them: Ethnocentric Foundations of American Opinion* (Chicago: University of Chicago Press, 2010); John Sides and Kimberly Gross, "Stereotypes of Muslims and Support for the War on Terror," *Journal of Politics* 75, no. 3 (2013): 583–598.

[7] Matthew A. Baum and Philip B. K. Potter, *War and Democratic Constraint: How the Public Influences Foreign Policy* (Princeton: Princeton University Press, 2015).

popular bellicosity thus illuminates the political constraints on democratic war-making. If vicarious retribution following 9/11 affected U.S. public support for war against Iraq, then a future terrorist attack or national injury also might create opportunities for leaders to pursue strategically unrelated war agendas. Vicarious retribution also could affect war decisions more directly, if—as a growing literature contends—retribution and anger sometimes influence leaders' own thinking.[8]   Even if such effects are rare, they potentially could cause costly wars, counter-retaliation, and further cycles of violence.

The next section discusses the causes of vicarious retribution and its consequences for foreign policy opinion, explains why vicarious retribution was likely to have affected post-9/11 U.S. opinion, and reviews previously available evidence on this hypothesis. The following section provides new evidence for the vicarious retribution account, and the article concludes by discussing implications for the roles of emotion, values, and identity in foreign policy opinion and international conflict.

Vicarious retribution and support for war

Whereas ordinary retribution punishes those who committed a crime, vicarious retribution targets a particular class of non-perpetrators—those who share a common identity or group membership with the actual culprits.[9] Vicarious retribution research builds on extensive social psychology findings that people who identify strongly with a group react with outrage and

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[8] Oded Löwenheim and Gadi Heimann, "Revenge in International Politics," *Security Studies* 17, no. 4 (2008): 685–724; Richard Ned Lebow, *Why Nations Fight: Past and Future Motives for War* (New York: Cambridge University Press, 2010); Alexander Lanoszka and Michael A. Hunzeker, "Rage of Honor: Entente Indignation and the Lost Chance for Peace in the First World War," *Security Studies* 24, no. 4 (October-December 2015): 662–695; Todd H. Hall, "On Provocation: Outrage, International Relations, and the Franco–Prussian War," *Security Studies* 26, no. 1 (2017): 1–29.

[9] Lickel et al., "Vicarious Retribution"; Stenstrom et al., "Ingroup Identification and Outgroup Entitativity"; Vasquez et al., "Any of Them Will Do."

desires for revenge following a serious crime against fellow group members.[10] Rather than examining the causes of intergroup anger, however, this research has focused on how perceived group categorization affects aggressiveness toward uninvolved targets. Although this literature has addressed neither the rationality of vicarious retribution nor its international manifestations, there are good reasons to expect that under certain conditions it can generate non-prudential public support for military force.

Psychological mechanisms

One of the main findings of prior vicarious retribution research is that animosity and punishment toward the offenders' entire group is heightened by perceptions of that group as homogenous, cohesive, or both. Because an outgroup's perceived homogeneity and cohesiveness have been found to have convergent consequences for intergroup emotions and attitudes, social psychologists use the single term "entitativity" to describe both attributes.[11]

One can imagine entitativity perceptions, if accurate, providing some strategically useful information. The perceived similarity of group members, for example, might extend to their propensity for aggressive behavior. In addition, the more cohesive the outgroup, the more likely its members endorse or support each other's actions, and the more likely that aggressive members can be deterred by threats against their uninvolved brethren. Indeed, there is some

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[10] Reviewed by Diane M. Mackie and Eliot R. Smith, "Intergroup Emotions," in *APA Handbook of Personality and Social Psychology, Volume 2: Group Processes*, ed. Mario Mikulincer, et al. (Washington, D.C.: American Psychological Association, 2015).

[11] Donald T. Campbell, "Common Fate, Similarity, and Other Indices of the Status of Aggregates of Persons as Social Entities," *Behavioral Science* 3, no. 1 (1958): 14–25; David L. Hamilton, Steven J. Sherman, Sara A. Crump, and Julie Spencer-Rodgers, "The Role of Entitativity in Stereotyping," in *Handbook of Prejudice, Stereotyping, and Discrimination*, ed. Todd D. Nelson (New York: Taylor & Francis, 2009).

evidence from small group research that vicarious retribution is intended to send a "don't mess with us" signal to the perpetrator or other potential antagonists.[12]

However, people often overestimate outgroup entitativity. Cognitive biases promote oversimplified perceptions of group boundaries and diversity.[13] Anger, even if generally helpful to rational decision-making, tends to distort judgment and behavior in ways that result in excessive and misdirected punishment.[14] For example, feelings of anger aroused following a serious crime against one's group heighten stereotypical perceptions of social groups and prejudice, even when the anger is unrelated to a judgment task at hand (i.e., "incidental anger").[15] In addition, people who have been personally insulted or offended, when they cannot take revenge against the perpetrator, sometimes lash out in displaced aggression against uninvolved bystanders.[16] Even just learning about serious, unpunished crimes against others arouses a

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[12] Arne Sjöström, Zoe Magraw-Mickelson, and Mario Gollwitzer, "What Makes Displaced Revenge Taste Sweet: Retributing Displaced Responsibility or Sending a Message to the Original Perpetrator?" *European Journal of Social Psychology* 48, no. 4 (June 2018): 490–506.

[13] For reviews of the large literature supporting this finding, see Craig McGarty, Vincent Y. Yzerbyt, and Russell Spears, *Stereotypes as Explanations: The Formation of Meaningful Beliefs About Social Groups* (Cambridge: Cambridge University Press, 2002); Carey K. Morewedge and Daniel Kahneman, "Associative Processes in Intuitive Judgment," *Trends in Cognitive Sciences* 14, no. 10 (2010): 435–440. Even policymakers often exaggerate the entitativity of foreign actors; Robert Jervis, *Perception and Misperception in International Politics* (Princeton: Princeton University Press, 1976), chap. 8.

[14] Jennifer S. Lerner and Larissa Z. Tiedens, "Portrait of the Angry Decision Maker: How Appraisal Tendencies Shape Anger's Influence on Cognition," *Journal of Behavioral Decision Making* 19, no. 2 (2006): 115–137; Paul M. Litvak, Jennifer S. Lerner, Larissa Z. Tiedens, and Katherine Shonk, "Fuel in the Fire: How Anger Impacts Judgment and Decision-Making," in *International Handbook of Anger: Constituent and Concomitant Biological, Psychological, and Social Processes*, ed. Michael Potegal, Gerhard Stemmler, and Charles Spielberger (New York: Springer, 2010).

[15] Galen V. Bodenhausen, Lori A. Sheppard, and Geoffrey P. Kramer, "Negative Affect and Social Judgment: The Differential Impact of Anger and Sadness," *European Journal of Social Psychology* 24, no. 1 (1994): 45–62; David DeSteno, Nilanjana Dasgupta, Monica Y. Bartlett, and Aida Cajdric, "Prejudice from Thin Air: The Effect of Emotion on Automatic Intergroup Attitudes," *Psychological Science* 15, no. 5 (2004): 319–324; Nilanjana Dasgupta, David DeSteno, Lisa A. Williams, and Matthew Hunsinger, "Fanning the Flames of Prejudice: The Influence of Specific Incidental Emotions on Implicit Prejudice," *Emotion* 9, no. 4 (2009): 585–591; Antoine J Banks, *Anger and Racial Politics: The Emotional Foundation of Racial Attitudes in America* (New York: Cambridge University Press, 2014); Jonathan Renshon, Jooa Julia Lee, and Dustin Tingley, "Physiological Arousal and Political Beliefs," *Political Psychology* 36, no. 5 (October 2015): 569–585.

[16] Amy Marcus-Newhall, William C. Pedersen, Mike Carlson, and Norman Miller, "Displaced Aggression Is Alive and Well: A Meta-Analytic Review," *Journal of Personality and Social Psychology* 78, no. 4 (2000): 670–689; Norman Miller, William C. Pedersen, Mitchell Earleywine, and Vicki E. Pollock, "A Theoretical Model of Triggered Displaced Aggression," *Personality and Social Psychology Review* 7, no. 1 (2003): 75–97; Brad J.

"prosecutorial mindset" that leads to harsher judgments and greater punitiveness toward completely unrelated suspects and offenders.[17] Vivid and emotionally arousing crime-scene details providing no incriminating evidence also increase the likelihood of a guilty verdicts.[18]

These effects have been experimentally demonstrated in mainly interpersonal and intragroup social contexts. But they likely occur in intergroup contexts as well, because intergroup emotions parallel ordinary social emotions for those who identify strongly with the affected group.[19] Just as imminent personal threats elicit fear for one's own safety, imminent threats to fellow group members elicit genuine fear for the group's safety, even when one is not personally endangered. Similarly, offenses against one's ingroup, regardless of whether one is personally affected, arouse anger and aggressiveness toward the offending outgroup, which are attenuated by successful intergroup retribution.[20] Beyond identification with the ingroup, factors

Bushman, Angelica M. Bonacci, William C. Pedersen, Eduardo A. Vasquez, and Norman Miller, "Chewing on It Can Chew You Up: Effects of Rumination on Triggered Displaced Aggression," *Journal of Personality and Social Psychology* 88 no. 6 (2005): 969–983; Arne Sjöström and Mario Gollwitzer, "Displaced Revenge: Can Revenge Taste 'Sweet' If It Aims at a Different Target?," *Journal of Experimental Social Psychology* 56 (2015): 191–202.

[17] Jennifer S. Lerner, Jennifer H. Goldberg, and Philip E. Tetlock, "Sober Second Thought: The Effects of Accountability, Anger, and Authoritarianism on Attributions of Responsibility," *Personality and Social Psychology Bulletin* 24, no. 6 (1998): 563–574; Julie H. Goldberg, Jennifer S. Lerner, and Philip E. Tetlock, "Rage and Reason: The Psychology of the Intuitive Prosecutor," *European Journal of Social Psychology* 29, no. 5–6 (1999): 781–795; Derek D. Rucker, Mark Polifroni, Philip E. Tetlock, and Amanda L. Scott, "On the Assignment of Punishment: The Impact of General-Societal Threat and the Moderating Role of Severity," *Personality and Social Psychology Bulletin* 30, no. 6 (2004): 273–284; Philip E. Tetlock, Penny S. Visser, Ramadhar Singh, Mark Polifroni, Amanda Scott, Beth Elson, Philip Mazzocco, and Phillip Rescober, "People as Intuitive Prosecutors: The Impact of Social-Control Goals on Attributions of Responsibility," *Journal of Experimental Social Psychology* 43, no. 2 (2007): 195–209.

[18] E.g., James R. P. Ogloff and Neil Vidmar, "The Impact of Pretrial Publicity on Jurors," *Law and Human Behavior* 18, no. 5 (1994): 507–526; Kevin S. Douglas, David R. Lyon, and James R. P. Ogloff, "The Impact of Graphic Photographic Evidence on Mock Jurors' Decisions in a Murder Trial: Probative or Prejudicial?," *Law and Human Behavior* 21, no. 5 (1997): 485–501.

[19] Eliot R. Smith, Charles R. Seger, and Diane M. Mackie, "Can Emotions Be Truly Group Level? Evidence Regarding Four Conceptual Criteria," *Journal of Personality and Social Psychology* 93, no. 3 (2007): 431–446.

[20] Diane M. Mackie, Thierry Devos, and Eliot R. Smith, "Intergroup Emotions: Explaining Offensive Action Tendencies in an Intergroup Context," *Journal of Personality and Social Psychology* 79, no. 4 (2000): 602–616; Ernestine H. Gordijn, Vincent Yzerbyt, Daniel Wigboldus, and Muriel Dumont, "Emotional Reactions to Harmful Intergroup Behavior," *European Journal of Social Psychology* 36 (2006): 15–30; Angela T. Maitner, Diane M. Mackie, and Eliot R. Smith, "Evidence for the Regulatory Function of Intergroup Emotion: Emotional Consequences of Implemented or Impeded Intergroup Action Tendencies," *Journal of Experimental Social Psychology* 42, no. 6 (2006): 720–728.

affecting anger in interpersonal and social contexts—e.g., the degree and intent of harm done and the victim's strength relative to that of the offender—typically have analogous effects on intergroup anger as well.[21]

There exists little experimental evidence bearing on whether anger at particular outgroup offenders causes specifically counter-productive aggressiveness toward the offenders' kin. But incidental intergroup emotions have "spillover" effects affecting judgments and decisions that are unrelated to the triggering stimuli, similar to those occurring in intragroup contexts.[22] It is also suggestive that displaced aggression is more likely against bystanders who resemble the perpetrator of an unpunished offense, in experiments that minimize reputational incentives to show toughness.[23] This effect's similarity to vicarious retribution suggests common underlying psychological mechanisms.

The potentially counter-productive nature of vicarious retribution gains further plausibility from ordinary people's frequently non-instrumental motives for punishing or supporting the punishment of actual transgressors. Research on criminal punishment judgments and cooperation games shows that people often favor punishing offenders for the sake of "justice" or "just deserts" rather than for security or material gain. Sometimes they even will pay to punish, whether to assuage the victim's self-esteem, to satisfy the principle of "an eye for an

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[21] Mackie, Devos, and Smith, "Intergroup Emotions"; Martijn van Zomeren, Tom Postmes, and Russell Spears, "Toward an Integrative Social Identity Model of Collective Action: A Quantitative Research Synthesis of Three Socio-Psychological Perspectives," *Psychological Bulletin* 134, no. 4 (2008): 504–535; Roger Giner-Sorolla and Angela T. Maitner, "Angry at the Unjust, Scared of the Powerful: Emotional Responses to Terrorist Threat," *Personality and Social Psychology Bulletin* 39, no. 8 (2013): 1069–1082.

[22] Jennifer S. Lerner, Roxana M. Gonzalez, Deborah A. Small, and Baruch Fischhoff, "Effects of Fear and Anger on Perceived Risks of Terrorism," *Psychological Science* 14, no. 2 (2003): 144–150; Randy J. Rydell, Diane M. Mackie, Angela T. Maitner, Heather M. Claypool, Melissa J. Ryan, and Eliot R. Smith, "Arousal, Processing, and Risk Taking: Consequences of Intergroup Anger," *Personality and Social Psychology Bulletin* 34, no. 8 (2008): 1141–1152.

[23] Marcus-Newhall et al., "Displaced Aggression"; Sjöström and Gollwitzer, "Displaced Revenge."

eye," or simply to satisfy a felt need to aggress following a humiliating injury.[24] Cost-benefit

calculations are also often curtailed in ordinary people's thinking about intergroup conflicts over

"sacred values," including avenging a humiliating injury.[25]

Implications for foreign policy opinion

Nationalism provides a powerful source of ingroup identification, generating strong

emotional reactions on behalf of one's nation.[26] This makes it at least plausible that external

crimes against one's nation would sometimes boost support for the use of force against

uninvolved foreign states. Such a hawkish reaction would be consistent with limited-information

pragmatism theories of foreign policy opinion if it is intended to send a deterrent message to

would-be enemies, but not if it is driven by the conflation of foreign actors, a displaced wish for

justice, or some other anger spillover effect.[27]

Vicarious retribution provides a compelling explanation for non-instrumental public

support for attacking innocent civilian citizens within an offending state. Following Japan's

defeat in 1945, for example, 13% of Americans wanted to "kill all Japanese" and 23% wished

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[24] Kevin M. Carlsmith and John M. Darley, "Psychological Aspects of Retributive Justice," *Advances in Experimental Social Psychology* 41 (2008): 193–236; Thomas Nadelhoffer, Saeideh Heshmati, Deanna Kaplan, and Shaun Nichols, "Folk Retributivism and the Communication Confound," *Economics and Philosophy* 29, no. 2 (July 2013): 235–261.

[25] Jeremy Ginges, Scott Atran, Douglas Medin, and Khalil Shikaki, "Sacred Bounds on Rational Resolution of Violent Political Conflict," *Proceedings of the National Academy of Sciences* 104, no. 18 (2007): 7357-7360; Jeremy Ginges and Scott Atran, "War as a Moral Imperative (Not Just Practical Politics by Other Means)," *Proceedings of the Royal Society Biological Sciences* 278, no. 1720 (2011): 2930–2938; Alan Page Fiske and Tage Shakti Rai, *Virtuous Violence: Hurting and Killing to Create, Sustain, End, and Honor Social Relationships* (New York: Cambridge University Press, 2014).

[26] Richard K. Herrmann, Pierangelo Isernia, and Paolo Segatti, "Attachment to the Nation and International Relations: Dimensions of Identity and Their Relationship to War and Peace," *Political Psychology* 30, no. 5 (2009): 721–754; Jonathan Mercer, "Feeling Like a State: Social Emotion and Identity," *International Theory* 6, no. 3 (2014): 515–535; Todd H. Hall and Andrew A. G. Ross, "Affective Politics after 9/11," *International Organization* 69, no.4 (Fall 2015): 1–33; Richard K. Herrmann, "How Attachments to the Nation Shape Beliefs About the World: A Theory of Motivated Reasoning," *International Organization* 71, no. S1 (April 2017): S61–S84.

[27] Research on the prudential nature of foreign policy includes Christopher Gelpi, Peter D. Feaver, and Jason Reifler, *Paying the Human Costs of War: American Public Opinion and Casualties in Military Conflicts* (Princeton: Princeton University Press, 2009).

that Truman had dropped "many more" atomic bombs "before Japan had a chance to surrender."[28] More recently, over 40% of U.S. citizens preferred a nuclear attack killing 100,000 Iranian civilians to a near-unconditional Iranian surrender, following an Iranian attack on U.S. forces in a hypothetical conflict in the Persian Gulf.[29]

Vicarious retribution might have a weaker impact on support for attacking an uninvolved state than enemy civilians. States that share a common ethnicity, religion, or ideology frequently experience internecine rivalry and conflict, and thus might be perceived as less entitative than the citizens and leaders within a single state.[30] In addition, embarking on a new inter-state war is usually more costly than attacking defenseless civilians when the enemy state cannot reciprocate, as in the situations just mentioned. That said, ordinary citizens are often uninformed about the differences and conflicts among foreign states and actors, including those sharing religious, ethnic, or ideological traits. Limited foreign affairs knowledge also often leaves citizens uncertain about the costs of war.[31] Thus ordinary citizens might support vicarious retribution against uninvolved states, at least when the net costs are not obviously prohibitive.

An international analogue of vicarious retribution differs from other ascriptive theories of international conflict. Unlike Huntington's "clash of civilizations" or other theories tracing international conflict to incompatible ideas, vicarious retribution is generated by mere group categorization, regardless of ideational content.[32] That categorization can be based on ethnicity,

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[28] John Dower, *War Without Mercy* (New York: Pantheon, 1986), 54–55.

[29] Scott D. Sagan and Benjamin A. Valentino, "Revisiting Hiroshima in Iran: What Americans Really Think About Using Nuclear Weapons and Killing Noncombatants," *International Security* 42, no. 1 (Summer 2017): 41–79.

[30] Erik Gartzke and Kristian Skrede Gleditsch, "Identity and Conflict: Ties That Bind and Differences That Divide," *European Journal of International Relations* 12, no. 1 (2006): 53–87.

[31] Michael Delli Carpini and Scott Keeter, *What Americans Know About Politics and Why It Matters* (New Haven: Yale University Press, 1996).

[32] Samuel P. Huntington, *The Clash of Civilizations and the Remaking of World Order* (New York: Simon and Schuster, 1996); Mark L. Haas, *Ideological Origins of Great Power Politics, 1789–1989* (Ithaca, NY: Cornell University Press, 2005); John M. Owen, *The Clash of Ideas in World Politics: Transnational Networks, States, and Regime Change, 1510–2010* (Princeton: Princeton University Press, 2010).

not just religion or ideology. In addition, recent intergroup injuries play a catalytic role in vicarious retribution but not in purely ideational theories.

Vicarious retribution should shape public opinion in several ways. Individual differences in perceptions of the outgroup as entitative should affect aggressiveness toward uninvolved members of the perpetrator's broader identity group. In other words, the effect of anger and revenge on support for force against uninvolved outgroup members should be magnified by the perceived entitativity of the outgroup (i.e., the *perceived entitativity hypothesis*).[33] Attributions of blame to the perpetrators' group due to its perceived entitativity also should sustain anger over the original offense even after punishing the actual perpetrators (i.e., the *anger persistence hypothesis*).

Given some degree of perceived outgroup entitativity, those who feel greater anger and desires for revenge toward the perpetrator will generally express greater hostility toward the perpetrator's outgroup (i.e., the *anger–outgroup hostility hypothesis*) and greater support for using military force against uninvolved members of the perpetrator's group (i.e., the *anger–vicarious retribution hypothesis*). Feelings of anger are likely to further bias perceptions of entitativity, due to heightened categorical thinking and motivated reasoning.[34] In theory, that could have recursive feedback effects, with anger at the perpetrators broadening the attribution of blame to the perpetrators' kin.[35] Thus, hostility toward the outgroup, once aroused, will itself heighten support for war against its uninvolved members. This would be manifested in an

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[33] Throughout this article we equate revenge and retribution, and lump them together with anger, because we lack theoretical and empirical reasons to differentiate them here.

[34] Lerner and Tiedens, "Portrait of the Angry Decision Maker"; Litvak et al., "Fuel in the Fire."

[35] Brian M. Quigley and James T. Tedeschi, "Mediating Effects of Blame Attributions on Feelings of Anger," *Personality and Social Psychology Bulletin* 22, no. 12 (1996): 1280–1288. For possible intergroup evidence of this, see Eran Halperin and James J. Gross, "Intergroup Anger in Intractable Conflict: Long-Term Sentiments Predict Anger Responses During the Gaza War," *Group Processes & Intergroup Relations* 14, no. 4 (2010): 477–488.

indirect effect of anger and desires for revenge against the actual perpetrator on war support, via hostility to the outgroup (i.e., the *hostility diffusion hypothesis*).

Although not specifically tested here, additional hypotheses spring from the mechanisms assumed to cause vicarious retribution. For example, individual differences affecting anger toward the perpetrators, such as exposure to information about offenses (especially the harm caused and intent) and predispositions to react angrily to provocation, should also affect vicarious retribution. In addition, an offense against a country will increase its public's hostility and aggressiveness toward uninvolved foreign states, leaders, and peoples sharing at least superficially similar traits with the perpetrator (these might be described as *national injury hypotheses*).

Prior evidence for vicarious retribution in U.S. public support for war against Iraq

The hypothesized sources of vicarious retribution were present in spades in post-9/11 America. The attacks' horrific lethality and destruction of national symbols, al Qaeda's top ringleaders having escaped punishment, a national mantra of "never forget," and extensive media coverage combined to generate intense and prolonged public outrage. Although this anger ebbed somewhat over time, on the first anniversary of 9/11 two thirds of the public reported still feeling "very angry at the people who did this."[36] Even several years later, President Barack Obama prioritized hunting down bin Laden not just to take "a monstrous leader off the battlefield," but also because of the importance of "righting an unspeakable wrong" and "healing a nearly unbearable wound in America's heart."[37]

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[36] ABC News, "September 11th Adult Poll, September 2002," archived at the Inter-university Consortium for Political and Social Research, University of Michigan, Study 3553.

[37] Joseph Biden, "Speech to the Democratic National Convention (Prepared Remarks)," *Washington Post*, September 6 2012.

Although data is lacking on this point, it seems probable that more U.S. citizens knew that Osama bin Laden and Saddam Hussein were Arab and Muslim than that they held radically opposing religious and political beliefs and despised each other. Public dislike of Saddam Hussein ever since his 1990 invasion of Kuwait made Iraq a prominent potential lightning rod. Many citizens were probably uncertain whether the costs of toppling the Iraqi regime outweighed the potential benefits of stopping its alleged pursuit of WMDs. Such propitious conditions make this episode a useful initial probe of vicarious retribution's impact on public support for war.

Although falling well short of a compelling case, previously available evidence is largely consistent with a vicarious retribution account. The post-9/11 surge in public belligerence toward Iraq, followed by a gradual decline, is consistent with the national injury hypothesis.[38] Thermometer scale ratings of Saudi Arabia, Pakistan, Yassir Arafat, and Saddam Hussein all declined to a significant degree between 1998 and 2002, while the average ratings for non-Arab and non-Muslim states and leaders held steady over the same time period.[39] Moreover, the correlations observed between war support and anger over 9/11, as well as that between between war support and punitive dispositions, are consistent with the anger–vicarious retribution hypothesis.[40]

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[38] Liberman and Skitka, "Revenge in US Public Support for War," 636–37. Earlier observations of this "9/11 effect" include Douglas C. Foyle, "Leading the Public to War? The Influence of American Public Opinion on the Bush Administration's Decision to Go to War in Iraq," *International Journal of Public Opinion Research* 16, no. 3 (September 2004): 269–294 and Philip Everts and Pierangelo Isernia, "The Polls–Trends: The War in Iraq," *Public Opinion Quarterly* 69, no. 2 (Summer 2005): 264–323.

[39] Authors' analysis of Chicago Council on Foreign Relations surveys conducted October 15–November 10, 1998 and in June 1–30, 2002, archived at the Inter-university Consortium for Political and Social Research, University of Michigan, Study 33673.

[40] Liberman, "Eye for an Eye"; Skitka et al., "Confrontational and Preventative Policy Responses"; Huddy, Feldman, and Cassese, "Distinct Political Effects."

In addition, after 9/11 over two thirds of the U.S. public agreed that "the Muslim world considers itself at war with the U.S." and 25–39% said they had an "unfavorable opinion of Islam." Between a seventh and a quarter of the public said their feelings about Arab Americans had worsened due to the attack, a third said that Arab Americans were relatively sympathetic to terrorists, and 40% agreed that "the attacks on America represent the true teachings of Islam."[41] Hate crimes and economic discrimination against American Arabs and Muslims spiked nationwide after 9/11.[42] Although we have not found repeated measures of prejudice toward Arab Americans before and after 9/11, data from other countries reveal increased prejudice toward Arabs following major terror attacks.[43]

Two additional findings are consistent with a vicarious retribution account. First, nearly a decade after 9/11, Americans expressed higher levels of support for force against an unidentified Muslim nuclear proliferator than an otherwise-identical Christian one.[44] Second, feelings that the Iraq War would avenge 9/11, measured around the time that the war began, correlated with prejudice against Muslims measured eight years later.[45] Because it is difficult to imagine a mechanism by which retributive satisfaction from invading Iraq would have shaped prejudice against Muslims, it seems more likely that both had been affected by citizens blaming the "Muslim world" for 9/11.

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[41] Costas Panagopoulos, "The Polls–Trends: Arab and Muslim Americans and Islam in the Aftermath of 9/11," *Public Opinion Quarterly* 70, no. 4 (Winter 2006): 608–624.

[42] G. Scott Morgan, Daniel C. Wisneski, and Linda J. Skitka, "The Expulsion from Disneyland: The Social Psychological Impact of 9/11," *American Psychologist* 66, no. 6 (September 2011): 447–454.

[43] Daniel Bar-Tal and Daniela Labin, "The Effect of a Major Event on Stereotyping: Terrorist Attacks in Israel and Israeli Adolescents' Perceptions of Palestinians, Jordanians, and Arabs," *European Journal of Social Psychology* 31, no. 3 (2001): 265–280; Agustin Echebarria-Echabe and Emilia Fernandez-Guede, "Effects of Terrorism on Attitudes and Ideological Orientation," *European Journal of Social Psychology* 36, no. 2 (March/April 2006): 259–265.

[44] Robert Johns and Graeme A. M. Davies, "Democratic Peace or Clash of Civilizations? Target States and Support for War in Britain and the United States," *Journal of Politics* 74, no. 4 (October 2012): 1038–1052. However, this finding could have been due to a longstanding antipathy to Islam or to implicitly evoked attitudes about Iran, rather than to vicarious retribution.

[45] Liberman and Skitka, "Revenge in US Public Support for War," 648.

However, there remain significant gaps and open questions concerning the impact of vicarious retribution. Thermometer ratings of Muslim Americans did not significantly worsen after the attacks, and did not predict retrospective support for the Iraq War in 2004.[46] Worsened views of *foreign* Muslims might have caused vicarious retribution. But thermometer ratings did not drop for all Muslim states—those for Iran and Turkey did not worsen as they did for Saudi Arabia, Pakistan, Yassir Arafat, and Saddam Hussein.[47]

Moreover, other factors might have been responsible for many of the findings consistent with the vicarious retribution account. For example, mistaken beliefs that Iraq was involved in 9/11 could have heightened belligerence toward Iraq as well as its correlation with anger at the terrorists.[48] Alternatively, anger at the terrorists could have shaped support for the Iraq War by making citizens more aggressive and risk acceptant, rather than by arousing vicarious retribution. 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.[49] Indeed, Huddy and colleagues found that angry citizens expressed greater optimism about the risks of war with Iraq.[50] Yet another possibility is that confidence in U.S. strength made some citizens

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[46] On feelings about Muslim Americans, see Kerem Ozan Kalkan, Geoffrey C. Layman, and Eric M. Uslaner, "'Bands of Others?' Attitudes toward Muslims in Contemporary American Society," *Journal of Politics* 71, no. 3 (July 2009): 847–862. Feelings about Muslims did worsen in the Netherlands after 9/11, however; Jolanda Van der Noll, "The Aftermath of 9/11: Tolerance toward Muslims, Islamophobia and Value Orientations," in *Islamophobia in the West: Measuring and Explaining Individual Attitudes*, ed. Marc Helbling (New York: Routledge, 2012). On Islamophobia and Iraq War attitudes in 2004, see Sides and Gross, "Stereotypes of Muslims."

[47] Authors' analysis of data from the 1998 and 2002 Chicago Council on Foreign Relations surveys described in n. 39.

[48] On the prevalence and potential consequences of these beliefs, see Kull, Ramsay, and Lewis, "Misperceptions, the Media, and the Iraq War" and Althaus and Largio, "When Osama Became Saddam." For evidence that these misperceptions were less important than might be expected had they represented firm beliefs, see Liberman and Skitka, "Revenge in US Public Support for War."

[49] This study manipulated anger and fear through a reflection exercise but did not measure attitudes about Iraq; Lerner et al., "Effects of Fear and Anger."

[50] Huddy, Feldman, and Cassese, "Distinct Political Effects."

both angrier and more bellicose, resulting in a spurious correlation between these reactions.[51]

Heightened post-9/11 perceptions of the Iraqi threat or halo effects from the perceived terrorist

threat also might have accounted for some of these longitudinal and cross-sectional findings.

Past research has frequently found associations between threat perceptions, anger, prejudice, and

belligerence, including in post-9/11 public opinion.[52]

Individual differences in ethnocentrism—i.e., perceptions that one's ingroup is superior

to all other outgroups—might have been responsible for observed correlations between feelings

about Arabs or Muslims and support for war against states identified as Arab or Muslim.

Ethnocentrism predicted support for war against Iraq in Fall 2002 and was a strong predictor of

feelings about Muslims both before and after 9/11.[53] This ethnocentric aggressiveness would be

similar to vicarious retribution if it was activated by angry desires to avenge 9/11 and focused on

Muslim and Arab states, but it would represent a competing explanation if activated by

insecurity, patriotism, or ethnocentric elite discourse, or if directed against all foreign states.

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[51] On this effect after 9/11, see Charles S. Carver, "Negative Affects Deriving from the Behavioral Approach System," *Emotion* 4, no. 1 (2004): 3–22. More generally, see also Mackie, Devos, and Smith, "Intergroup Emotions."; Aaron Sell, John Tooby, and Leda Cosmides, "Formidability and the Logic of Human Anger," *Proceedings of the National Academy of Sciences* 106, no. 35 (2009): 15073–15078. For evidence differentiating effects of injustice and power in responses to terror attacks, see Giner-Sorolla and Maitner, "Angry at the Unjust."

[52] Arguing that post-9/11 threat perceptions heightened public aggressiveness, see Leonie Huddy, Stanley Feldman, Charles Taber, and Gallya Lahav, "Threat, Anxiety, and Support of Antiterrorism Policies," *American Journal of Political Science* 49, no. 3 (2005): 593–608; Tom Pyszczynski, Abdolhossein Abdollahi, Sheldon Solomon, Jeff Greenberg, Florette Cohen, and David Weise, "Mortality Salience, Martyrdom, and Military Might: The Great Satan Versus the Axis of Evil," *Personality and Social Psychology Bulletin* 32, no. 4 (2006): 525–537. For social psychological research on intergroup threat, emotions, and prejudice, see Mackie, Devos, and Smith, "Intergroup Emotions"; Catherine A. Cottrell and Steven L. Neuberg, "Different Emotional Reactions to Different Groups: A Sociofunctional Threat-Based Approach to 'Prejudice'," *Journal of Personality and Social Psychology* 88, no. 5 (2005): 770–789; Catherine A. Cottrell, David A. R. Richards, and Austin Lee Nichols, "Predicting Policy Attitudes from General Prejudice Versus Specific Intergroup Emotions," *Journal of Experimental Social Psychology* 46, no. 2 (2010): 247–254. On threat perceptions and hawkish foreign policy attitudes, see, e.g., Richard K. Herrmann, Philip E. Tetlock, and Penny S. Visser, "Mass Public Decisions to Go to War: A Cognitive-Interactionist Framework," *American Political Science Review* 93, no. 3 (1999): 553–573.

[53] For the first finding, see Cindy D. Kam and Donald R. Kinder, "Terror and Ethnocentrism: Foundations of American Support for the War on Terrorism," *Journal of Politics* 69, no. 2 (May 2007): 320–338; Kinder and Kam, *Us Against Them*, chap. 4. The second finding is reported by Kalkan, Layman, and Uslaner, "Bands of Others."

A final alternative factor to consider is heuristic cue-taking, i.e., citizens echoing messages received from trusted political elites, a pervasive influence on public opinion.[54] In addition to explaining the public's substantial levels of pre-9/11 support for toppling Saddam Hussein, cue taking or differences in news consumption patterns can also account for Democrats' diminishing enthusiasm for war in Fall 2002.[55]

However, cue taking has more difficulty explaining the immediate post-9/11 surge in support for war against Iraq, which occurred months before President Bush first publicly linked Iraq and al-Qaeda, in his January 29th "Axis of Evil" speech. For the first few months following 9/11, Administration officials had identified al Qaeda and Osama bin Laden as the central culprits and primary threat to the United States. These messages predominated in media coverage. From September 2001 through January 2002, the Administration mentioned Osama bin Laden 50–200 times per month and ABC News did so 150–450 times per month, but neither mentioned Saddam Hussein more than twenty times per month.[56] The Associated Press mentioned Saddam Hussein about as often in first few months after 9/11 as immediately before.[57] Although a few members of Congress and some experts suggested right after 9/11 that Saddam Hussein might have been involved or should be overthrown as part of the "war on terrorism," these signals were probably too weak to have caused the immediate uptick in public support for invading Iraq.

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[54] John R. Zaller, *The Nature and Origins of Mass Opinion* (Cambridge: Cambridge University Press, 1992).

[55] Gary C. Jacobson, "The Public, the President, and the War in Iraq," in *The Polarized Presidency of George W. Bush*, ed. George C. Edwards, III and Desmond S. King (New York: Oxford University Press, 2007); Adam J. Berinsky, *In Time of War: Understanding American Public Opinion from World War II to Iraq* (Chicago: University of Chicago Press, 2009). On the effect of news sources on Democrats' Iraq attitudes, see Stanley Feldman, Leonie Huddy, and George E Marcus, *Going to War in Iraq: When Citizens and the Press Matter* (Chicago: University of Chicago Press, 2015). See also Brigitte L. Nacos, Yaeli Bloch-Elkon, and Robert Y. Shapiro, *Selling Fear: Counterterrorism, the Media, and Public Opinion* (Chicago: University of Chicago Press, 2011), chap 4.

[56] Nacos, Bloch-Elkon, and Shapiro, *Selling Fear*, 110. See also Althaus and Largio, "When Osama Became Saddam."

[57] Ibid., 796.

Elite messages nonetheless might have indirectly affected public belligerence toward Iraq in this period by fanning concerns about the terrorist threat, anger at the terrorists, and antipathy toward Arabs and Muslims. The news media conveyed and amplified Administration warnings about the terror threat.[58] In addition, Bush's rhetoric often seemed tailored to stoking outrage and desire for justice against the "evildoers."[59] The Administration avoided condemning the Muslim and Arab world, and media criticism of ordinary Muslims actually diminished after 9/11. That said, ubiquitous media discussions of "Muslim rage," "Islamic extremism," and "Arab terrorists" nevertheless could have promoted perceptions of Muslims and Arabs as monolithic, dangerous, and evil.[60] Some influential voices even openly blamed "Islam" for the 9/11 attacks, such as the evangelical leader who proclaimed in November 2001 that "Islam has attacked us…I believe it is a very evil and wicked religion."[61] Thus we cannot rule out, a priori, the possibility that public cue taking resulted in spurious correlations between anger over 9/11, antipathy toward Arabs and Muslims, and support for going to war against Iraq.

In sum, there already exists ample evidence consistent with vicarious retribution having shaped U.S. public support for going to war against Iraq, but the evidence is mostly indirect and potentially attributable to other factors and processes. Further investigation is clearly needed.

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[58] Nacos, Bloch-Elkon, and Shapiro, *Selling Fear*, chap. 2.

[59] Ronald R. Krebs and Jennifer K. Lobasz, "Fixing the Meaning of 9/11: Hegemony, Coercion, and the Road to War in Iraq," *Security Studies* 16, no. 3 (July-September 2007): 409–451; Donileen R. Loseke, "Examining Emotion as Discourse: Emotion Codes and Presidential Speeches Justifying War," *Sociological Quarterly* 50, no. 3 (Summer 2009): 497–524.

[60] Dina Ibrahim, "The Framing of Islam on Network News Following the September 11th Attacks," *International Communication Gazette* 72, no. 1 (2010): 111–125.

[61] Ervand Abrahamian, "The US Media, Huntington and September 11," *Third World Quarterly* 24, no. 3 (June 2003): 529–544. See also Melina Trevino, Ali M. Kanso, and Richard Alan Nelson, "Islam through Editorial Lenses: How American Elite Newspapers Portrayed Muslims before and after September 11, 2001," *Journal of Arab & Muslim Media Research* 3, no. 1 (November 2010): 3–17.

Data analysis

A panel survey of U.S. adult citizens conducted in 2001-2002 by Knowledge Networks (now GfK) provides valuable data for this purpose.[62] Originally conducted to study how emotional reactions to 9/11 and feelings about Arabs and Muslims affected political tolerance, the survey also included an item on going to war against Iraq. It allows testing whether anger and desires for revenge against the 9/11 terrorists more strongly predicted support for attacking Iraq among citizens who saw Arabs and Muslims as entitative, as well as whether those who were relatively angry and vengeful after 9/11 favored war in part because they were disproportionately hostile toward Arabs and Muslims.

The two-wave panel design and the timing of the waves are also helpful. The first wave was fielded right after the attacks, during September 14–October 2, 2001 (N=685), and was nearly four fifths complete before President Bush declared a "war on terrorism" in his signal, September 20, 2001 address to Congress. Thus the "September 2001" data, which provides our main measure of anger over 9/11, was relatively independent of the Administration's discourse on 9/11. Measuring war support and feelings about Arabs and Muslims in a second questionnaire, fielded December 28, 2001–January 14, 2002 (N=605, representing an 88% within-panel cooperation rate), minimizes the possibility that these responses contaminated the measure of anger collected four months earlier. In addition, because this "January 2002" data was collected before President Bush's "Axis of Evil" speech, at a time when the media was providing little reporting on Iraq, elite discourse was relatively unlikely to have shaped how

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[62] The survey was administered to a random sample of KN's online panel, which has been found to provide population estimates at least as accurate as traditional random-digit-dialing methods; David S. Yeager, Jon A. Krosnick, Linchiat Chang, Harold S. Javitz, Matthew S. Levendusky, Alberto Simpser, and Rui Wang, "Comparing the Accuracy of RDD Telephone Surveys and Internet Surveys Conducted with Probability and Non-Probability Samples," *Public Opinion Quarterly* 75, no. 4 (November 2011): 1–39.

attitudes about Iraq related to anger over 9/11 and anti-Arab–Muslim feeling, except through

vicarious retribution processes.

Anger at the Terrorists and Arab–Muslim Entitativity

Testing whether the perceived entitativity of the outgroup magnified the effect of anger

and revenge on support for force against uninvolved outgroup members requires measures of

anger or revenge over 9/11, support for war against Iraq, and perceptions of Arab–Muslim

entitativity. For the first of these variables we use September 2001 questions asking how

strongly respondents felt "angry," "outrage," "hatred," and a "desire to fight back" during "the

first few hours after learning the news about the terrorist attacks." As can be seen in Figure 1,

Americans felt extremely angry in the immediate aftermath of the attacks and continued to report

high levels of anger in response to similar questions posed in January 2002.[63] Although the four

items within each wave were presented to respondents within a larger, randomly sequenced

series on varied emotional reactions to the attacks, they loaded strongly on single first-wave and

second-wave dimensions in a confirmatory factor analysis (CFA) model.[64] The limited number

of items and their strong inter-correlations preclude distinguishing between anger, hatred, and

desires for retribution in our data analysis, and anyway we expect these reactions to have very

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[63] The January 2002 items were the same except for a change in the wording of the stem to "How do you feel, right now, about the events of September 11?" The two measures were distinct but strongly correlated (r=0.72); see Online Appendix [## provide URL here ##] Tables A1 and A2.

[64] Wording and CFA details for all the multi-item measures are provided in the Online Appendix, Tables A1–A2. As an indication of the internal reliability of all the multi-item measures in our analysis, additive scales from the same items have a Cronbach's Alpha of 0.79 or higher. Compared to raw score scales, using factor scores measures the underlying factor more accurately by weighting each item according to how strongly it reflects that factor.

similar effects on vicarious retribution.[65] We thus measure September 2001 anger at the

perpetrators using the factor scores from the CFA model and label this scale *Anger9/01*.[66]

[Figure 1 goes about here]

The war support measure consists of a single January 2002 question on whether "the war

on terrorism should be expanded to Iraq and any other country suspected of harboring or

encouraging terrorists."[67] Mentioning other "suspected" countries complicates interpretation of

affirmative responses as pure support for attacking Iraq. But the 70% responding "agree" or

"strongly agree" was close to the results of other contemporaneous poll questions on military

action against Iraq, whereas questions from that time on military action against Afghanistan or

other states described as aiding or sheltering terrorists were garnering around 90% support.[68]

More importantly, even if the measure captured support for attacking other states, war on the

mere *suspicion* of supporting terrorists represents an indiscriminate belligerence akin to vicarious

retribution.

For an indirect measure of perceived Arab–Muslim entitativity, we use January 2002

items asking if, and how much, respondents' feelings had improved or worsened since

September 11th about "Palestinians," "people who live in Islamic or Middle Eastern countries,"

and "Arab Americans."[69] Although this measure is also likely to reflect negative feelings like

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[65] On the close psychological relationship between anger and aggressive motivations, see Marcel Zeelenberg, Rob M. A. Nelissen, Seger M. Breugelmans, and Rik Pieters, "On Emotion Specificity in Decision Making: Why Feeling Is for Doing," *Judgment and Decision Making* 3, no. 1 (January 2008): 18–27.

[66] Although the January 2002 measure of anger correlated more strongly with war support and negative feelings about Arabs and Muslims, which were also measured in that wave, using independent variables measured prior to dependent ones lends support to inferring causal direction from observed correlations.

[67] The random error entailed by reliance on a single-item measure makes our tests more conservative than comparable tests using multi-item scales.

[68] Leonie Huddy, Nadia Khatib, and Theresa Capelos, "The Polls–Trends: Reactions to the Terrorist Attacks of September 11, 2001," *Public Opinion Quarterly* 66, no. 3 (2002): 418–450; Everts and Isernia, "Polls–Trends," 291–295.

[69] Interspersing these among items on a variety of other groups limited artificial consistency due to question-order effects.

anger, fear, and disgust, such feelings would have been worsened mainly by perceived affinities or similarities with the actual perpetrators. Moreover, there is no obvious reason why feelings about Arabs and Muslims—apart from the entitativity perceptions underlying them—would have magnified the effects of angry reactions to 9/11 on war support. On the contrary, to the extent that emotions are represented in the measure they would tend to obscure rather than simulate the hypothesized effect of perceived Arab–Muslim entitativity.

Although a majority of the public reported unchanged feelings about the three groups, 28% said they felt "more negative" or "much more negative" about Arab Americans, and 35%–37% said so about Palestinians and about Islamic or Middle Eastern peoples. Moreover, respondents who reported worsened views of one group were very likely to do so about the other two as well. Of those who said they felt worse about "Islamic or Middle Eastern" peoples, for example, 77% said this about Palestinians and 65% did so about Arab Americans. In contrast, among those who reported their feelings about Islamic or Middle Eastern peoples had *not* worsened, just 17% expressed more negative feelings about Palestinians and only 7% did so about Arab Americans. All three items load highly on a common factor in the CFA model, and the factor scores from that model provide our proxy measure of perceived Arab–Muslim entitativity, which we call *Anti-Arab* for short.[70]

To differentiate retributive from protective motivations linked to anger, our analysis controls for perceived threat and fear of terrorism, as well as their own interactions with *Anti-Arab*. We measure the perceived terror threat using January 2002 questions about how "worried" respondents were about "future terrorist attacks," "getting infected with anthrax," and

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[70] The only other item about foreigners in this series, one on "Israelis," loads weakly (0.48) on this factor when added to the CFA model, indicating that the factor measures anti-Arab–Muslim feelings rather than just xenophobia or ethnocentrism.

"other kinds of bioterrorism." Questions that ask about "worry" and personal vulnerability (salient in the anthrax item) tend to elicit more anxiety than do those asking about "concern over" or the "likelihood of" terror attacks on the nation.[71] However, also controlling for a clean measure of fear, based on January 2002 items asking how "frightened" and "vulnerable" people felt when thinking about 9/11, should foreground the effects of objective threat perception in *Terror Worry*'s estimated effects on war support.[72] The perceived terrorist threat—controlling for fear—ought to have heightened aggressiveness toward Iraq and fear—controlling for threat—ought to have diminished it. As expected for anger, both effects should have been stronger among those who regarded the Arab–Muslim world as monolithic.

Figure 2 plots each reaction's estimated impact on the probability of strong support for war, among those who said that 9/11 substantially worsened their views of Arab and Muslim groups (those in the 90th percentile of *Anti-Arab)*, and among those who said their views of Arabs and Muslims had not worsened at all (those in the 10th percentile). The three graphs are based on an ordered probit regression of *Iraq War* simultaneously interacting *Anti-Arab* with *Anger9/01*, *Terror Worry*, and *Fear*. As can be seen in the top left panel, *Anger9/01* predicts war support more strongly among those high in *Anti-Arab*.[73] This finding is consistent with anger at the terrorists being redirected against Iraq by perceptions of a monolithic Arab–Muslim world.

[Figure 2 goes about here]

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[71] Huddy et al., "Threat, Anxiety."

[72] The anxiety in *Terror Worry* is evident by its high correlation with *Fear* (r=0.77), which exceeds the correlation of r=0.60 between anxiety and a more objective measure of national threat reported in Ibid. Despite this correlation and the three interaction terms, multicollinearity is not a problem in the regression model (mean VIF=2.69; maximum VIF=4.00).

[73] The interaction is significant at p<0.05 two tailed; for full results see Model 1 of Online Appendix Table A3.

The total effect of *Anger9/01* on war support, moreover, may have been larger than that indicated by Figure 2, which holds *Anti-Arab* constant. If, as we argue below, anger increased *Anti-Arab* in addition to being channeled by it, and *Anti-Arab* itself heightened support for war, then anger also had an additional indirect effect on war support.

The other panels in Figure 2 show that *Anti-Arab* also moderated the effects of threat perceptions and fear. *Terror Worry* and *Fear* had no effect on belligerence toward Iraq among those low in *Anti-Arab,* i.e., for those who regarded Arabs and Muslims as diverse and fragmented. In contrast, among those high in *Anti-Arab*, who presumably perceived a more monolithic Arab–Muslim world, *Terror Worry* predicts greater hawkishness toward Iraq, and *Fear* predicts the opposite (interactions both significant at p<0.01). These results support the validity of *Anti-Arab* as an indirect measure of perceived Arab–Muslim entitativity, and thus further justify interpreting the *Anger9/01 X Anti-Arab* interaction as evidence for vicarious retribution.

Additional evidence for an entitativity effect can be seen in a test of the anger persistence hypothesis. Even though Osama bin Laden and other al Qaeda leaders remained at large in early 2002, the November 2001 U.S. attack on al Qaeda and the Taliban regime would have done more to satiate anger among those who saw the Arab–Muslim world as diverse and fragmented than among those who regarded it as more monolithic. Consistent with this, anger levels declined more between September 2001 and January 2002 among those who scored lower in *Anti-Arab*.[74]

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[74] The effect on the decline in anger, which was measured by subtracting from *Anger9/01* the factor scores of the corresponding January 2002 items, is significant at p<0.001. In addition, *Anger9/01* is a significantly stronger predictor of the January 2002 measure of anger among those higher in *Anti-Arab*. For results, see Models 5 and 6 in Online Appendix Table A4.

Anti-Arab's interactions with anger, fear, and threat do not appear to be spurious byproducts of ingroup identification, which sometimes correlates with prejudice.[75] Ingroup identification should affect the emotions that people feel in response to their group's successes and difficulties, rather than moderating the attitudinal effects of these emotions, the key result here. Moreover, a January 2002 measure of ingroup pride in the data is only weakly correlated with *Anti-Arab* (r=0.13) and does not interact significantly with *Anger9/01*, *Terror Worry*, or *Fear* when substituted for *Anti-Arab* in the model used for Figure 2.[76]

The *Anger9/01 X Anti-Arab* interaction is also unlikely to reflect mistaken retribution. The survey did not ask about Iraqi involvement in the terror attacks. But misperceptions of Iraqi involvement in 9/11 would not have worsened views of *all* Arabs and Muslims, including Arab Americans, above and beyond the damage done by the widespread knowledge that 9/11 had been perpetrated by Arab and Muslim terrorists. And if misperceptions of Iraqi complicity were inflated by an anger spillover effect, that would be broadly consistent with a vicarious retribution account.

Anger at the Terrorists and Animosity toward the Arab–Muslim World

We now turn to the question of whether public anger at the 9/11 perpetrators affected broader perceptions and feelings about Arabs and Muslims, which in turn aggravated support for war against Iraq. As explained earlier, anger itself is likely to heighten perceptions of entitativity, resulting in greater blame and hostility toward the perpetrator's outgroup and potential feedback effects. Although unable to test these specific processes, we can test the

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[75] See Rui J. P. Jr. de Figueiredo and Zachary Elkins, "Are Patriots Bigots? An Inquiry into the Vices of in-Group Pride," *American Journal of Political Science* 47, no. 1 (January 2003): 171–188; Herrmann, Isernia, and Segatti, "Attachment to the Nation"; Kinder and Kam, *Us Against Them*.

[76] The measure is built from post-9/11 feelings about "Americans as a whole," "American political leaders," "police," and "fire fighters," from the same series of items as *Anti-Arab*.

overall anger–outgroup hostility hypothesis by exploiting the fact that *Anti-Arab* measures

worsened feelings about Arabs and Muslims as well as their perceived entitativity. *Anti-Arab*

correlates more strongly with anger than with fear, and thus appears to measure anger at Arabs

and Muslims much more than fear of them.[77] Whereas perceived entitativity should moderate

the effects of *Anger9/01* on *Iraq War,* anger at Arabs and Muslims would have at least partially

mediated it. Even unidimensional variables can function as both mediator and moderator in

some circumstances.[78] In this case, moreover, the variable reflects two constructs, one of which

is largely a moderator and the other is largely a mediator.

We begin by examining the relationship between *Anger9/01* and *Anti-Arab.* Figure 3

plots coefficients and 95% confidence intervals from a regression of *Anti-Arab* on *Anger9/01,*

controlling for *Terror Worry,* fear, ingroup pride, political ideology, right-wing authoritarianism

(*RWA*), gender, race, income, and education.[79] *Anger9/01* strongly predicts *Anti-Arab*, with a

10th-to-90th percentile increase in anger felt by otherwise-average citizens corresponding to

feelings worsening about Arabs and Muslims from the median to the 65th percentile. This effect

does not appear to have been due to anger's common association with perceptions of strength

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[77] The correlations with the January 2002 emotion variables are r=0.43 vs. r=0.14 respectively, and there is a similar gap between *Anti-Arab*'s correlations with the September 2001 emotions; see Online Appendix Table A2.

[78] As Andrew Hayes observes, "there are many real-life processes in which things caused by X also influence the size of the effect of X on Y measured well after X. But M would have to be causally prior to Y in order for this to be possible, implying that M could also be construed as a mediator if M is caused in part by X but also influences Y in some fashion;" *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach* (New York: Guilford Press, 2013), 399. For an example in political science research, see Lilach Nir and James N. Druckman, "Campaign Mixed-Message Flows and Timing of Vote Decision," *International Journal of Public Opinion Research* 20, no. 3 (July 2008): 326–346.

[79] *RWA* is included because it often correlates with prejudice, intergroup anger, and support for war; Bob Altemeyer, "The Other 'Authoritarian Personality'," *Advances in Experimental Social Psychology* 30 (1998): 47–92; Shana Levin, Felicia Pratto, Miriam Matthews, Jim Sidanius, and Nour Kteily, "A Dual Process Approach to Understanding Prejudice toward Americans in Lebanon: An Extension to Intergroup Threat Perceptions and Emotions," *Group Processes & Intergroup Relations* 16, no. 2 (2012): 139–158. Political ideology is measured with a seven-point liberal-conservative self-identification scale. Although the survey did not measure partisanship, data collected at other times from a sizable subgroup (N=127) revealed it to be uncorrelated with *Anger 9/01* and *Anti-Arab,* consistent with findings reported by Huddy, Feldman, and Cassese, "Distinct Political Effects"; Kalkan, Layman, and Uslaner, "Bands of Others."

and risk. Responses to a January 2002 item on how "strong" people felt regarding "the events of September 11," when added to the model as another control variable, neither predicts *Anti-Arab* nor alters the estimated effect of *Anger9/01*.[80]

[Figure 3 goes about here]

Anti-Arab in turn strongly predicts war support, including the same controls. Figure 4 plots the coefficients from two ordered probit models of *Iraq War*, a baseline model and another adding *Anti-Arab* as a predictor. According the latter model, a 10th-to-90th percentile increase in *Anti-Arab* for otherwise average citizens increases the estimated probability of expressing "very much" support for war from 0.33 to 0.57.

[Figure 4 goes about here]

The data are also consistent with *Anti-Arab* partially mediating *Anger9/01*'s effect on *Iraq War*. Controlling for *Anti-Arab* attenuates the estimated effect of *Anger9/01*, as can be seen from comparing the *Anger9/01* coefficients across the two models. For a more precise indirect-effect estimate, we fit a path model with *Iraq War* and *Anti-Arab* assumed to be endogenous to *Anger9/01* and the other control variables, and *Iraq War* also specified to be endogenous to *Anti-Arab*. The estimated indirect effect of *Anger9/01* on *Iraq War* via *Anti-Arab* is equal to 34% of *Anger9/01*'s total effect.[81]

These results are consistent with anger at the 9/11 perpetrators having increased support for war against Iraq in part by arousing a broad hostility toward Arabs and Muslims, including

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[80] See Model 2 of Online Appendix Table A4.
[81] This estimate is significant at p<0.0001 based on bootstrapped standard errors; see Online Appendix A5 for detailed results.

Arab Americans and others obviously uninvolved in 9/11. Mediation tests do not establish causal direction among observed variables, but the fact that *Anger9/01* was measured four months before *Anti-Arab* and *Iraq War* makes its estimated effect more likely to reflect an exogenous one. In addition, the control variables included in the models minimize omitted variable bias to the extent possible with the available data.

Might longstanding prejudices, rather than animosity aroused by the terror attacks, account for *Anti-Arab*'s correlations with *Anger9/01* and *Iraq War*? Although we lack a pre-9/11 measure of anti-Arab/Muslim attitudes or any data on ethnocentrism to bring to bear on this question, there are three reasons for skepticism. First, it seems unlikely that only ethnocentrists and those who already disliked Arabs and Muslims felt indignant over such a uniquely heinous and dramatic crime as the 9/11 attacks. Second, if longstanding anti-Arab/Muslim prejudice accounted for *Anti-Arab*'s correlation with anger at the terrorists, then *Anti-Arab* should correlate just as strongly with anger measured at different points in time. But *Anti-Arab* correlated more strongly with the January 2002 measure.[82] Third, the questions used to measure *Anti-Arab* asked about specifically how feelings had changed due to 9/11. Although it is possible that prejudiced individuals exaggerated such changes, it seems unlikely that *Anti-Arab* reflects only prior prejudice.

The time frame of the data examined here, before the Bush Administration began selling war against Iraq, should limit the impact on our findings of heuristic cue taking from elite discourse. But one can probe this possibility further by examining whether more educated citizens, who are generally more aware of political discourse, expressed feelings and attitudes

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[82] The correlations with *Anger9/01* and January 2002 anger are r=0.29 and r=0.43 respectively; for additional bivariate correlations, see Online Appendix Table A2.

consistent with mainstream or polarized cue taking.[83] If elites expressed anger, anti-Arab–

Muslim feeling, and war support, then these also would have been more widely echoed by

politically aware citizens, whereas a divided elite would have generated ideological or partisan

polarization among the politically aware.

If elites did in fact provide one-sided messages of anger at the terrorists, hostility against

Arabs and Muslims, and support for attacking Iraq, these were not reflected in *Anger9/01, Anti-*

Arab, or *Iraq War*.   As Figure 5 shows, education did not increase any of these key variables in

the population at large. In addition, more educated conservatives were not angrier, more hostile

to Arabs and Muslims, or more belligerent toward Iraq than less educated ones, results that are

problematic for a two-message, elite polarization effect. Conservatives did express greater war

support and more negative feelings about Arabs and Muslims than did liberals, but these gaps

were no greater among more educated citizens. The only result consistent with two-sided

heuristic cue taking is the lower level of anger over 9/11 expressed by educated liberals.

[Figure 5 goes about here]

Admittedly, the sensitivity of these tests is limited by using education as a proxy for

political awareness and by the unusual intensity of post-9/11 media coverage and public

attentiveness, which might have overcome the ordinary difference in political awareness

associated with education. But given the limited administration and media discourse on Iraq

prior to the time when the second wave of the survey was fielded, it seems unlikely that the

evidence for vicarious retribution revealed here resulted from public cue taking.

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[83] As does, for example, John R. Zaller, "Elite Leadership of Mass Opinion: New Evidence from the Gulf War,"
in *Taken by Storm: The Media, Public Opinion, and U.S. Foreign Policy in the Gulf War*, ed. W. Lance Bennett and
David L. Paletz (Chicago: University of Chicago Press, 1994).

Additional evidence of the independence of *Anger9/01* from Administration discourse

can be seen from how little this variable changed in surveys completed before and after President

Bush's address to Congress on September 20th. Bush identified the al Qaeda culprits and

declared a "war on terrorism" for the first time in that widely watched speech, and he employed

rhetoric that was tailor-made to arouse outrage.[84] But as can be seen in Figure 6, public anger

was not affected by the speech, and if anything was ebbing gradually over time.[85] In theory,

popular anger and desires for revenge already may have been shaped by Bush's brief promise to

bring the "evildoers" to "justice" on the evening of September 11. But a study analyzing text

messages sent over the course of that day found that public anger shot up dramatically in the

daytime, before Bush gave his first brief remarks that evening.[86]

[Figure 6 goes about here]

Discussion

The findings presented here lend new support to the idea that shared Arab–Muslim

identities channeled U.S. public outrage at the 9/11 perpetrators toward the Iraq regime. Citizens

who were relatively angry immediately following the terror attacks were relatively belligerent

toward Iraq four months later, especially if they also viewed Arabs and Muslims as monolithic.

This effect was compounded by worsened feelings about Arabs and Muslims in general.

These results control for worry about the terror threat, partisanship, ideology, and

demographics. Although it would have been better to control for a more emotion-neutral

measure of threat perception, controlling for worry about a threat is arguably better for isolating

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[84] Loseke, "Examining Emotion as Discourse."

[85] A pre/post t-test reveals a decrease significant at p=0.07.

[86] Mitja D. Back, Albrecht C. P. Küfner, and Boris Egloff, "The Emotional Timeline of September 11, 2001," *Psychological Science* 21, no. 10 (October 2010): 1417–1419.

the effects of anger than is controlling only for fear or anxiety, as previous studies have done.[87] We lack data on perceptions of Iraqi complicity and dangerousness, and the costs and benefits of war, but none of these factors provide a satisfying explanation of our main findings. Cleaner measures of perceived Arab–Muslim entitativity, pre-9/11 measures of outgroup derogation and support for force, and data on beliefs Iraq's connection to al Qaeda would have been useful for our analysis. Nevertheless, the weight of evidence suggests that many U.S. citizens blamed Arabs and Muslims writ-large for 9/11 and favored attacking Iraq as a form of vicarious retribution.

This helps to fill gaps in our understanding of how stereotyping and anger affected popular support for war against Iraq. First, it appears that vicarious retribution accounts for at least some of the previously observed correlations between punitive predispositions, outrage over the terror attacks, and belligerence toward Iraq.[88] Second, it helps explain the prior finding that many citizens who thought that Iraq had *not* been involved in 9/11 also said that attacking Iraq would help satisfy their desire to avenge 9/11.[89] In principle, some citizens may have wanted to crush other "rogue states" besides Afghanistan to demonstrate U.S. toughness and bolster deterrence of other states contemplating support for anti-U.S. terrorism.[90] But the role of feelings about Arabs and Muslims in war support, and the controls on worry about the terror threat, suggests that many Americans wanted to punish "the Arab–Muslim world" apart from seeking to bolster U.S. security.

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[87] Huddy, Feldman, and Cassese, "Distinct Political Effects"; Skitka et al., "Confrontational and Preventative Policy Responses."

[88] Liberman, "Eye for an Eye"; Skitka et al., "Confrontational and Preventative Policy Responses"; Huddy, Feldman, and Cassese, "Distinct Political Effects."

[89] Liberman and Skitka, "Revenge in US Public Support for War."

[90] Administration officials made this argument for war, but only behind closed doors, suggesting they did not believe it would be persuasive to the public; Ron Suskind, *The One Percent Doctrine: Deep inside America's Pursuit of Its Enemies* (New York: Simon & Schuster, 2006), 123–214; Barton Gellman, *Angler: The Cheney Vice Presidency* (New York: Penguin, 2008), 215–259.

Third, although we do not specifically examine ethnocentrism, our findings may help explain why, as Kinder and Kam put it, "the train of events that began on September 11 served to activate ethnocentrism among the American public."[91] Individuals who already saw identity groups in categorical terms would have been particularly likely to blame Arabs and Muslims writ-large for the actions of a small group of Arab and Muslim terrorists.

Future research should try to provide more precise and discriminating tests of vicarious international retribution, to probe its underlying psychological mechanisms, and to investigate its moderators and boundary conditions. Regarding mechanisms, it remains unclear whether angry citizens support vicarious retribution to send a "don't mess with me" message, a more strategic motive, or because they blamed the entire group for the crimes of individual members. The latter mechanism would be an intergroup analogue of the "prosecutorial mindset," in which unrequited desires for revenge against elusive perpetrators result in blaming of others who are more easily punished.[92] Given the potency of motivated reasoning in political attitudes, perhaps anger and a desire to lash out at symbolic stand-ins for the elusive Osama bin Laden accounts for some of the suspicions that Americans expressed about Iraqi complicity in 9/11.[93]

Culture and the expected costs of war likely condition whether an injury to the nation arouses vicarious retribution. Democracies possessing retributive cultures appear to be more war-prone because their leaders can whip up support for force more easily, by highlighting or

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[91] Kinder and Kam, *Us Against Them*, 99. Our findings are harder to reconcile with a prior finding that anti-Muslim feelings did not predict support for war against Iraq in Fall 2004; Sides and Gross, "Stereotypes of Muslims." The difference might be due to the different time periods studied, or the impact of feelings about Arabs and *foreign* Muslims, groups mentioned in our measure of outgroup hostility (*Anti-Arab*) but not in the measure used by Sides and Gross.

[92] E.g., Tetlock et al., "People as Intuitive Prosecutors."

[93] Research on motivated reasoning in Iraq War attitudes, including on the question of Iraqi guilt, focused on the effects of partisanship rather than desires to avenge 9/11; see Brian J. Gaines, James H. Kuklinski, Paul J. Quirk, Buddy Peyton, and Jay Verkuilen, "Same Facts, Different Interpretations: Partisan Motivation and Opinion on Iraq," *Journal of Politics* 69, no. 4 (November 2007): 957–974; Monica Prasad, Andrew J. Perrin, Kieran Bezila, Steve G. Hoffman, Kate Kindleberger, Kim Manturuk, and Ashleigh Smith Powers, "'There Must Be a Reason:' Osama, Saddam, and Inferred Justification," *Sociological Inquiry* 79, no. 2 (2009): 142–162.

exaggerating a target state's aggressive or wrongful behavior.[94] In addition, given popular

sensitivity to U.S. casualties and the expected security benefits of force, vicarious retribution is

likely to affect support for war most when its costs are expected to be low, ambiguous, or

balanced by potential gains. Vicarious retribution may have been unusually potent after 9/11,

due not only to intense public anger, but also to U.S. military superiority over Iraq and public

uncertainty about the consequences of regime change. This combination of factors may have

created a rare "perfect storm" of vicarious retribution.

That said, it is easy to imagine terrorists once again managing to inflict a horrific attack

on a powerful country, and again proving difficult to locate and punish. In such circumstances,

political leaders might be able to exploit popular vicarious retribution in order to win public

consent for war against uninvolved targets. In the case of post-9/11 United States, public

belligerence toward Iraq diminished the political constraints on President Bush's path to war. If

vicarious retribution continued to boost this belligerence in fall 2002, it would have added to the

pressure on Congress to approve President Bush's request, just before mid-term elections, to

authorize war.[95] Bush arguably would have been more reluctant to invade Iraq without that

public and Congressional acquiescence.

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[94] Wolfgang Wagner and Michal Onderco, "Accommodation or Confrontation? Explaining Differences in Policies toward Iran," *International Studies Quarterly* 58, no. 4 (December 2014): 717–728; Rachel M. Stein, "War and Revenge: Explaining Conflict Initiation by Democracies," *American Political Science Review* 109, no. 3 (August 2015): 556–573.

[95] Scott B. Blinder, "Going Public, Going to Baghdad: Presidential Agenda Setting and the Electoral Connection in Congress," in *The Polarized Presidency of George W. Bush*, ed. George C. Edwards, III and Desmond S. King (New York: Oxford University Press, 2007). For evidence that anger at the terrorists continued to correlate with support for war against Iraq in Fall 2002, see Huddy, Feldman, and Cassese, "Distinct Political Effects."

Figure 1. U.S. Public Feelings About 9/11, September 2001 and January 2002
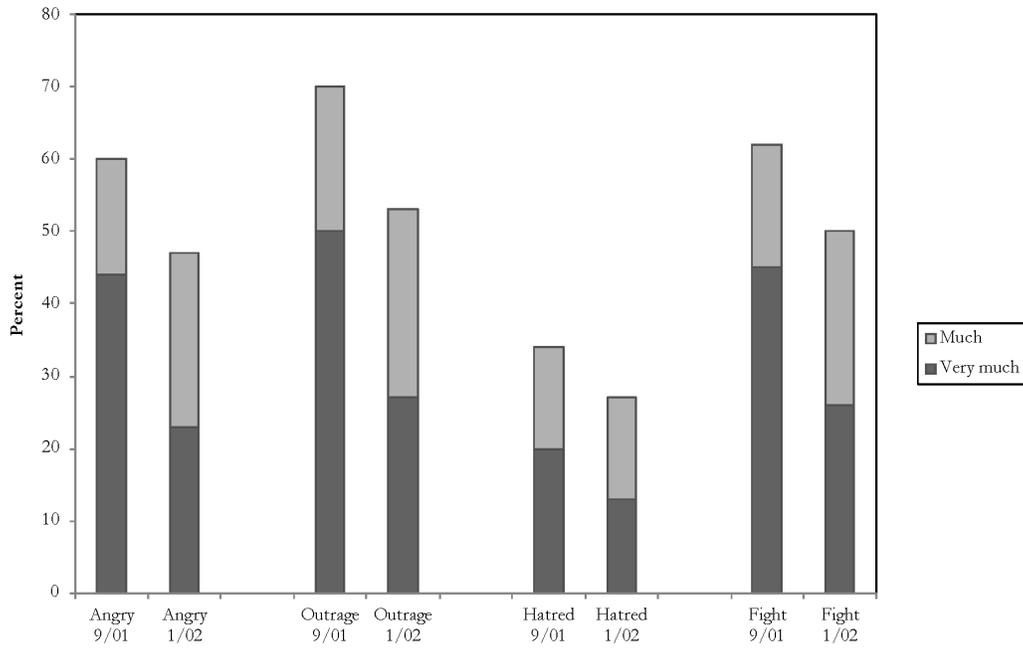
Figure 1 Note: Margins of error are <= +/-5%.

Figure 2 Title: Probability of Strong Support for War Against Iraq
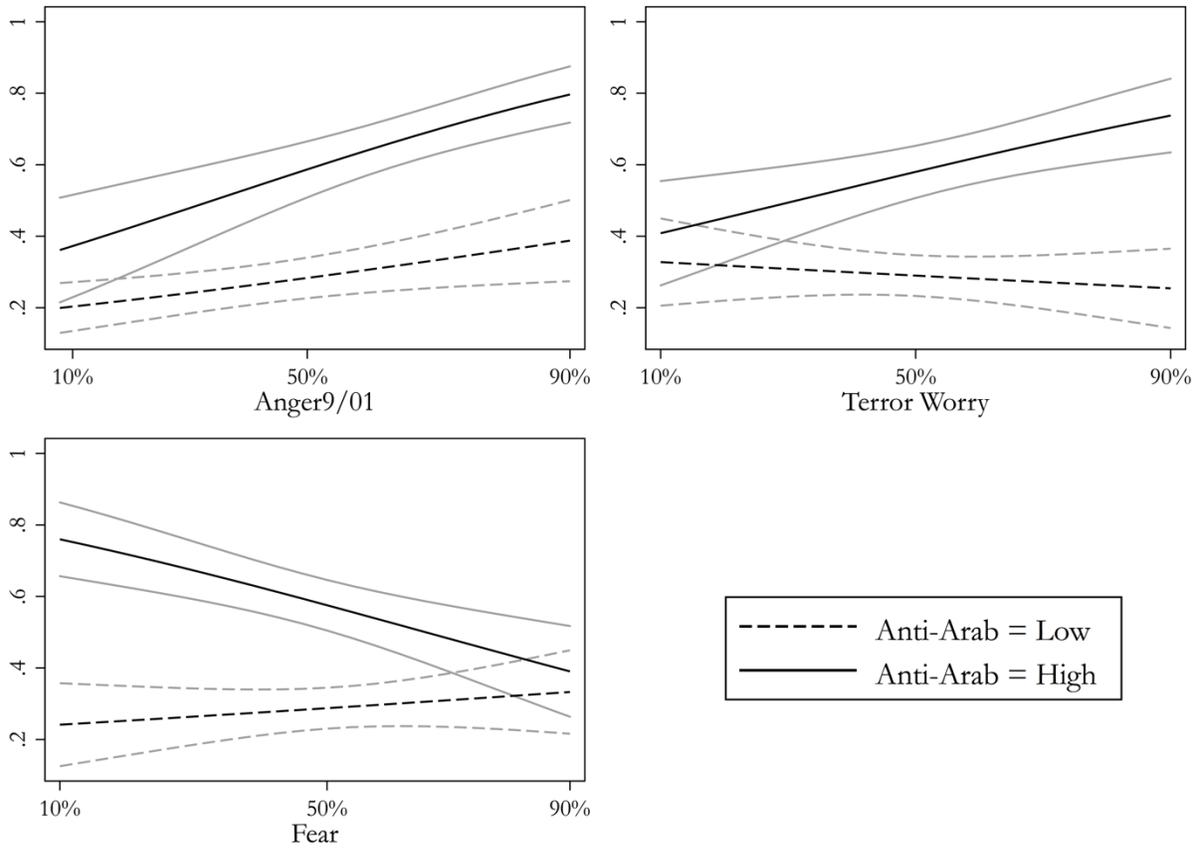
Figure 2 Note: Graphs show the predicted probability of strong agreement with "expanding the war on terror to Iraq" for citizens at the 10th and 90th percentiles of *Anti-Arab*. Grey lines represent 95% confidence intervals, and X-axis labels mark 10th, 50th, and 90th percentiles of *Anger9/01, Terror Worry, and Fear*. Based on Model 1, Online Appendix Table A3.

Figure 3 Title: Predictors of Worsened Feelings About Arabs and Muslims
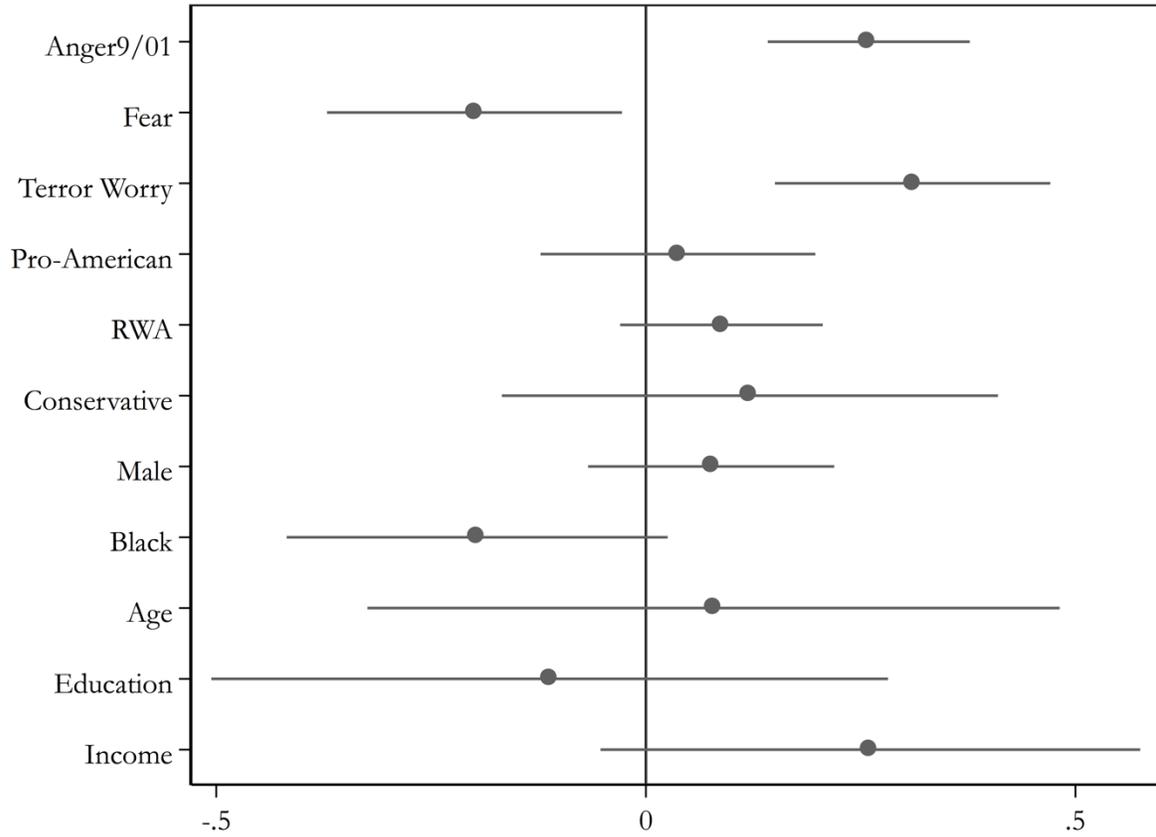
Figure 3 Note: Point estimates and 95% confidence intervals for the unstandardized coefficients in a linear regression model of *Anti-Arab*; from Model 1, Online Appendix Table A4.

Figure 4 Title: Predictors of Support for Expanding War on Terror to Iraq
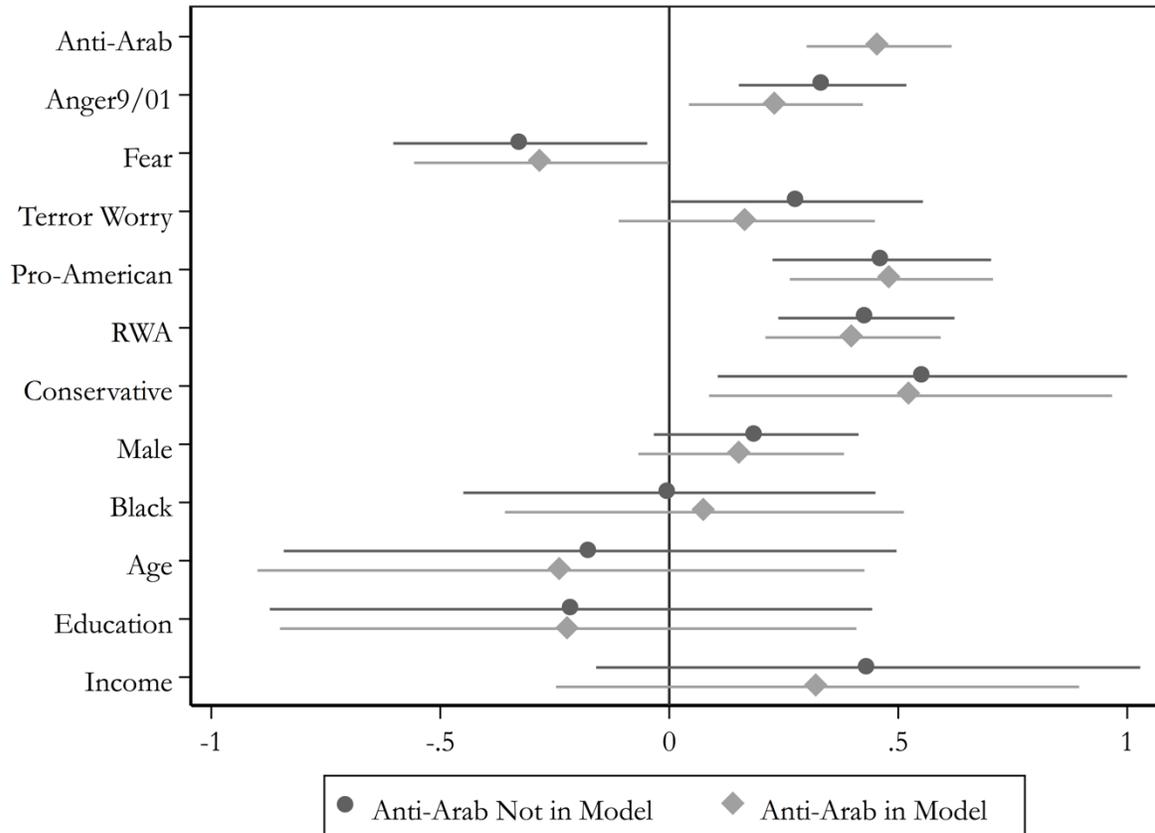
Figure 4 Note: Point estimates and 95% confidence intervals for the unstandardized coefficients from ordered probit regression models of *Iraq War*; based on Models 2–3 in Table A3 of the Online Appendix.

Figure 5 Title: Effects of Education on Anger, Worsened Feelings About Arabs and Muslims, and Support for the Iraq War, among Liberals and Conservatives
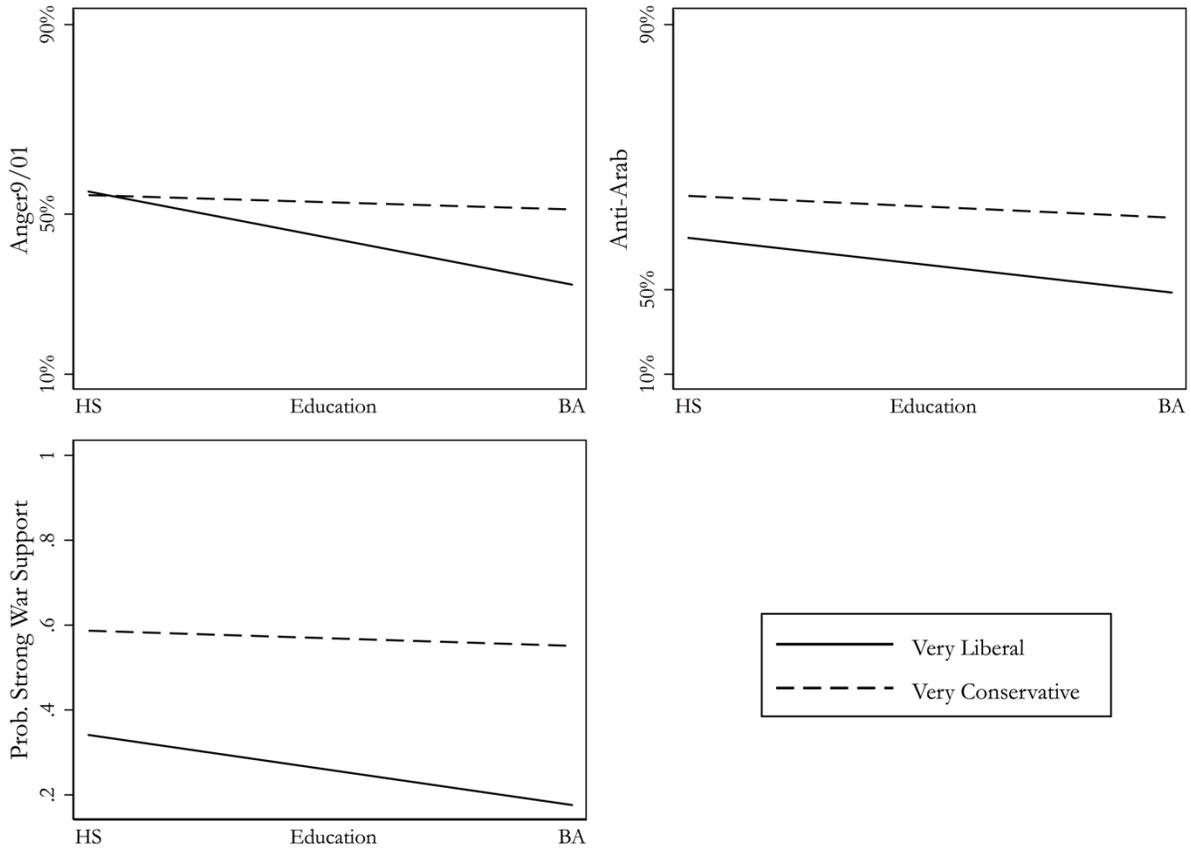
Figure 5 Note: HS = high school degree, BA = bachelor's degree. Based on Model 4 of Table A3 and Models 3 and 4 of Table A4 in the Online Appendix.

Figure 6 Title: Anger Reported over Time, 14 September–2 October, 2001
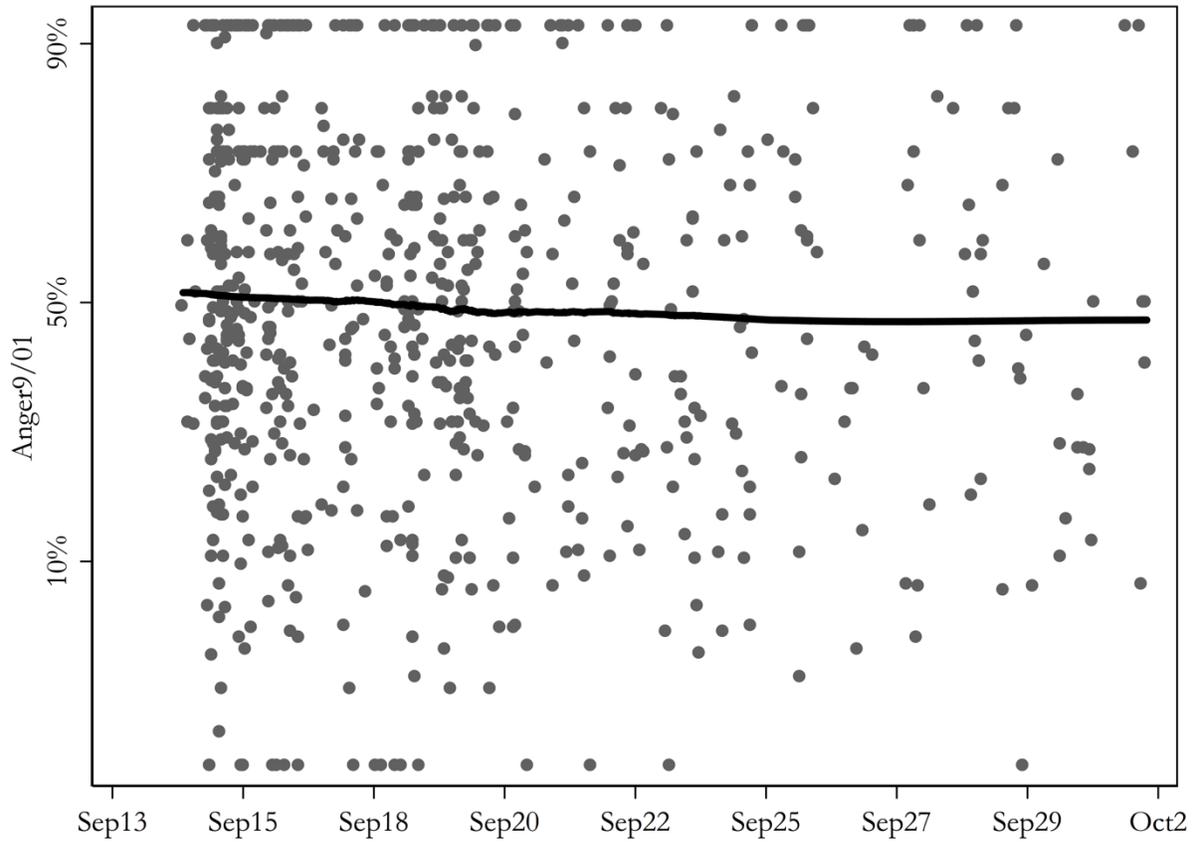
Figure 6 Note: Scatterplot of *Anger9/01* (with y-axis labels marking the 10th, 50th, and 90th percentiles of that variable) over survey–completion date, and locally smoothed mean.

Vicarious Retribution in U.S. Public Support for War Against Iraq

Appendix for Online Publication

Table A1. Confirmatory Factor Analysis of Multi-item Measures

Survey Question	Factor	Loading
How did you feel during the first few hours after learning the news about the terrorist attacks:[a] Angry		.85
Desire to fight back	Anger9/01	.88
Hatred		.81
Outrage		.83
Vulnerable	Fear9/01	.90
Frightened		.78
How much have your feelings about the following groups changed since September 11:[b] People who live in Islamic or Middle Eastern countries	Anti-Arab	.91
Palestinians		.89
Arab-American U.S. citizens		.84
Fire fighters		.80
American political leaders	Pro-American	.78
Americans as a whole		.72
Police		.73
How do you feel, right now, about the events of September 11:[a] Angry		.87
Desire to fight back		.83
Hatred	Anger1/02	.79
Outrage		.81
Frightened	Fear1/02	.89
Vulnerable		.86
How worried are you about:[c] Future terrorist attacks?	Terror Worry	.87
Getting infected with anthrax?		.79
Other kinds of bioterrorism?		.86
Please indicate your level of agreement or disagreement with the following statements:[d]		
The way our country can get through future crises is to get back to our traditional values, put tough leaders in power, and silence trouble makers spreading bad ideas.		.90
Our country will be great if we honor the way of our forefathers, do what authorities tell us, and get rid of the 'rotten apples' who are ruining everything.	RWA	.87
Our country will be destroyed someday if we do not smash the perversions eating away at our moral fiber and traditional beliefs.		.88
Our country desperately needs a mighty leader who will do what has to be done to destroy the radical new ways and sinfulness that are ruining us.		.80

Superscripted notes indicate response options: a) not at all, slightly, moderately, much, very much; b) much more positive, more positive, no change, more negative, much more negative (reversed for the *Pro-American* items); c) not at all, slightly, moderately, a lot, very much; d) strongly disagree, disagree, neutral, agree, strongly agree. Apart from the *Terror Worry* items, all items randomized beneath each question stem, and intermixed with additional items not shown here (except for *RWA*). Estimated by the Mplus 7.1 program's weighted-least-squared means- and variance-adjusted estimator, to minimize bias from categorical and non-normal data (Byrne, 2012; Muthén & Muthén, 2012). Factor loading figures are standardized ordered probit coefficients, all significant at $p<0.001$. There are no cross-factor loadings in the model (i.e., all are constrained to zero). Model statistics: N=595; Chi-square 518.35 (df=266), $p<.000$; RMSEA=0.04; CFI=0.98; TLI=0.98; WRMR=0.936; all indicating a good fit with the data, except for Chi-square, which tends to be inflated by large samples and non-normal data. The recommended threshholds are <=0.05 for Root Mean Square Error of Approximation (RMSEA), >0.95 for Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI), and <0.95 for Weighted Root Mean Square Residual (WRMR).

Table A2. Zero-Order Correlations, Multi-Item Measures

	Anger 9/01	Fear 9/01	Anti-Arab	Pro-American	Anger 1/02	Fear 1/02	Terror Worry
Fear9/01	.26	—					
Anti-Arab	.29	.06^{ns}	—				
Pro-American	.25	.23	.13**	—			
Anger1/02	.72	.25	.43	.40	—		
Fear1/02	.25	.68	.14**	.27	.51	—	
Terror Worry	.26	.51	.22	.19**	.45	.77	—
RWA	.27	.03^{ns}	.18	.35	.34	.21	.22

Figures are the correlations among latent variables, estimated from the CFA model detailed in Table A2. All correlations significant at p<0.001 except as noted: ns p>0.10; † p<0.1; ** p<0.01.

Table A3. Predictors of support for expanding "the war on terrorism…to Iraq and any other country suspected of harboring or encouraging terrorists."

	(1) Iraq War	(2) Iraq War	(3) Iraq War	(4) Iraq War
Anti-Arab	0.53***		0.46***	
	(0.09)		(0.08)	
Anger9/01	0.41***	0.33***	0.23*	
	(0.10)	(0.09)	(0.10)	
Anger9/01 X Anti-Arab	0.22*			
	(0.11)			
Fear	-0.14	-0.33*	-0.28*	
	(0.13)	(0.14)	(0.14)	
Fear X Anti-Arab	-0.46**			
	(0.15)			
Terror Worry	0.13	0.28*	0.17	
	(0.13)	(0.14)	(0.14)	
Terror Worry X Anti-Arab	0.40**			
	(0.15)			
Pro-American		0.46***	0.49***	
		(0.12)	(0.11)	
Conservative		0.55*	0.53*	0.34
		(0.23)	(0.22)	(0.52)
RWA		0.43***	0.40***	
		(0.10)	(0.10)	
Male		0.19†	0.16	
		(0.11)	(0.11)	
Black[a]		0.00	0.08	
		(0.23)	(0.22)	
Age		-0.17	-0.24	
		(0.34)	(0.34)	
Education		-0.21	-0.22	-1.39*
		(0.34)	(0.32)	(0.65)
Income		0.43	0.32	
		(0.30)	(0.29)	
Conservative X Education				1.15
				(1.04)
Constant 1	-1.55***	-1.23***	-1.42***	-1.57***
	(0.10)	(0.33)	(0.31)	(0.34)
Constant 2	-0.58***	-0.19	-0.32	-0.67*
	(0.07)	(0.32)	(0.30)	(0.32)
Constant 3	0.25***	0.66*	0.58†	0.06
	(0.07)	(0.31)	(0.30)	(0.32)
Log likelihood	-675.60	-650.07	-627.68	-722.90
Chi2 (df)	93.78 (7)	112.51 (11)	165.72 (12)	25.56 (3)
Pseud. R2	0.10	0.12	0.15	0.03
Observations	600	594	594	595

Two-tailed significance levels indicated by: † $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed)

The "strongly disagree" and "disagree" categories of the dependent variable were combined to satisfy the parallel regression assumption. Figures are unstandardized ordered probit coefficients with robust standard errors in parentheses; estimates employ sampling weights and listwise deletion of missing data. [a]In preliminary models, Hispanics and "other" were not significantly different from "White, non-Hispanic," and so these categories were collapsed in the rest of our analyses.

Table A4. Predictors of Anti-Arab, Anger9/01, and Anger1/02

	(1) Anti-Arab	(2) Anti-Arab	(3) Anti-Arab	(4) Anger9/01	(5) Anger9/01-Anger1/02	(6) Anger1/02
Anti-Arab					-0.12***	0.17***
					(0.03)	(0.03)
Anger9/01	0.26***	0.24***				0.66***
	(0.06)	(0.06)				(0.03)
Anger9/01 X Anti-Arab						0.07*
						(0.03)
Fear	-0.20*	-0.19*				0.50***
	(0.09)	(0.09)				(0.05)
Fear X Anti-Arab						-0.09†
						(0.05)
Terror Worry	0.31***	0.30***				-0.10*
	(0.08)	(0.08)				(0.05)
Terror Worry X Anti-Arab						0.03
						(0.05)
Pro-American	0.04	0.03				
	(0.08)	(0.08)				
Conservative	0.12	0.10	0.09	-0.30		
	(0.15)	(0.15)	(0.34)	(0.30)		
RWA	0.09	0.09				
	(0.06)	(0.06)				
Male	0.08	0.06				
	(0.07)	(0.07)				
Black[a]	-0.20†	-0.21†				
	(0.11)	(0.12)				
Age	0.08	0.07				
	(0.21)	(0.21)				
Education	-0.11	-0.11	-0.64	-1.35***		
	(0.20)	(0.20)	(0.46)	(0.37)		
Income	0.26	0.28†				
	(0.16)	(0.16)				
Strong		0.05				
		(0.04)				
Conservative X Educ.			0.38	1.14†		
			(0.76)	(0.60)		
Constant	-0.18	-0.34†	0.16	0.43*	-0.00	-0.02
	(0.18)	(0.20)	(0.20)	(0.19)	(0.03)	(0.02)
Adjusted R^2	0.163	0.165	0.017	0.052	0.035	0.794
Observations	597	593	598	598	595	595

Two-tailed significance levels indicated by: † $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Figures are unstandardized linear regression coefficients with robust standard errors in parentheses; estimates employ sampling weights and listwise deletion of missing data.

[a]In preliminary models, Hispanics and "other" were not significantly different from "White, non-Hispanic," and so these categories were collapsed.

Table A5. Path Model Testing Indirect Effect of September 2001 Anger on War Support, Mediated by Anti-Arab/Muslim Affect

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Excerpted Mplus 7.11 output

SUMMARY OF ANALYSIS

Number of groups                                                    1
Number of observations                                           597

Number of dependent variables                                     2
Number of independent variables                                  11
Number of continuous latent variables                             0

Estimator                                                     WLSMV
Maximum number of iterations                                   1000
Convergence criterion                                     0.500D-04
Maximum number of steepest descent iterations                    20
Maximum number of iterations for H1                            2000
Convergence criterion for H1                              0.100D-03
Number of bootstrap draws
     Requested                                                  500
     Completed                                                  500
Parameterization                                              DELTA

MODEL FIT INFORMATION

Number of Free Parameters                        28

WRMR (Weighted Root Mean Square Residual)

        Value                               0.002


MODEL RESULTS
                                              Two-Tailed
                  Estimate     S.E.   Est./S.E.   P-Value

  IRAQ_WAR ON
     MALE           0.157     0.104    1.505      0.132
     BLACK          0.086     0.169    0.508      0.611
     AGE           -0.206     0.282   -0.731      0.465
     EDUC          -0.167     0.259   -0.644      0.520
     INCOME         0.321     0.238    1.350      0.177
     CONSERV        0.500     0.185    2.705      0.007
     RWA            0.392     0.080    4.877      0.000
     TER_WORRY      0.144     0.117    1.234      0.217
     PROAMERCN      0.448     0.092    4.842      0.000
     FEAR          -0.239     0.125   -1.905      0.057
     ANGER9/01      0.222     0.075    2.966      0.003
     ANTI_ARAB      0.434     0.063    6.863      0.000

  ANTI_ARABON
     MALE           0.076     0.061    1.237      0.216
```

BLACK	−0.196	0.094	−2.091	0.037
AGE	0.078	0.171	0.458	0.647
EDUC	−0.112	0.166	−0.677	0.498
INCOME	0.262	0.136	1.925	0.054
CONSERV	0.121	0.131	0.923	0.356
RWA	0.088	0.051	1.727	0.084
TER_WORRY	0.310	0.072	4.322	0.000
PROAMERCN	0.037	0.060	0.624	0.533
FEAR	−0.200	0.077	−2.591	0.010
ANGER9/01	0.259	0.048	5.423	0.000

Intercepts
ANTI_ARAB	−0.181	0.139	−1.296	0.195

Thresholds
IRAQ_WAR$1	−1.313	0.232	−5.648	0.000
IRAQ_WAR$2	−0.269	0.238	−1.134	0.257
IRAQ_WAR$3	0.584	0.235	2.488	0.013

Residual Variances
ANTI_ARAB	0.505	0.034	15.026	0.000

STANDARDIZED MODEL RESULTS

	StdYX Estimate	Std Estimate
IRAQ_WAR ON		
MALE	0.064	0.157
BLACK	0.022	0.086
AGE	−0.028	−0.206
EDUC	−0.028	−0.167
INCOME	0.059	0.321
CONSERV	0.110	0.500
RWA	0.240	0.392
TER_WORRY	0.097	0.144
PROAMERCN	0.234	0.448
FEAR	−0.157	−0.239
ANGER9/01	0.136	0.222
ANTI_ARAB	0.279	0.434
ANTI_ARABON		
MALE	0.048	0.076
BLACK	−0.078	−0.196
AGE	0.016	0.078
EDUC	−0.029	−0.112
INCOME	0.075	0.262
CONSERV	0.042	0.121
RWA	0.084	0.088
TER_WORRY	0.326	0.310
PROAMERCN	0.030	0.037
FEAR	−0.205	−0.200
ANGER9/01	0.247	0.259

```
 Intercepts
   ANTI_ARAB            -0.230       -0.181

 Thresholds
   IRAQ_WAR$1           -1.075       -1.313
   IRAQ_WAR$2           -0.221       -0.269
   IRAQ_WAR$3            0.478        0.584

 Residual Variances
   ANTI_ARAB             0.822        0.505


R-SQUARE

   Observed                        Residual
   Variable        Estimate       Variance

   IRAQ_WAR          0.393          0.905
   ANTI_ARAB         0.178


TOTAL, TOTAL INDIRECT, SPECIFIC INDIRECT, AND DIRECT EFFECTS


                                              Two-Tailed
                    Estimate       S.E.   Est./S.E.   P-Value

Effects from T1ANGER_ to IRAQ_WAR

  Total              0.335        0.073      4.609      0.000
  Total indirect     0.113        0.025      4.429      0.000

  Specific indirect

    IRAQ_WAR
    ARAB_3
    T1ANGER_         0.113        0.025      4.429      0.000

  Direct
    IRAQ_WAR
    T1ANGER_         0.222        0.075      2.966      0.003


STANDARDIZED TOTAL, TOTAL INDIRECT, SPECIFIC INDIRECT, AND DIRECT EFFECTS


STDYX Standardization

                                              Two-Tailed
                    Estimate       S.E.   Est./S.E.   P-Value

Effects from T1ANGER_ to IRAQ_WAR

  Total              0.205        0.042      4.827      0.000
  Total indirect     0.069        0.016      4.376      0.000
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```
       Specific indirect

          IRAQ_WAR
          ARAB_3
          T1ANGER_            0.069         0.016         4.376         0.000


       Direct
          IRAQ_WAR
          T1ANGER_            0.136         0.044         3.089         0.002




CONFIDENCE INTERVALS OF TOTAL, TOTAL INDIRECT, SPECIFIC INDIRECT, AND DIRECT EFFECTS


                   Lower .5%  Lower 2.5%   Lower 5%   Estimate   Upper 5%  Upper 2.5%   Upper .5%

Effects from T1ANGER_ to IRAQ_WAR

    Total          0.147       0.202       0.225      0.335      0.462      0.484      0.534
    Total indirect 0.050       0.066       0.073      0.113      0.156      0.165      0.178

    Specific indirect

      IRAQ_WAR
      ARAB_3
      T1ANGER_     0.050       0.066       0.073      0.113      0.156      0.165      0.178

    Direct
      IRAQ_WAR
      T1ANGER_     0.032       0.078       0.098      0.222      0.341      0.378      0.423


CONFIDENCE INTERVALS OF STANDARDIZED TOTAL, TOTAL INDIRECT, SPECIFIC INDIRECT,
AND DIRECT EFFECTS


STDYX Standardization

                   Lower .5%  Lower 2.5%   Lower 5%   Estimate   Upper 5%  Upper 2.5%   Upper .5%

Effects from T1ANGER_ to IRAQ_WAR

    Total          0.096       0.122       0.135      0.205      0.275      0.288      0.314
    Total indirect 0.028       0.038       0.043      0.069      0.095      0.100      0.110

    Specific indirect

      IRAQ_WAR
      ARAB_3
      T1ANGER_     0.028       0.038       0.043      0.069      0.095      0.100      0.110

    Direct
      IRAQ_WAR
      T1ANGER_     0.023       0.050       0.064      0.136      0.208      0.222      0.249
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