

Echoes of Vietnam?

CASUALTY FRAMING AND PUBLIC PERCEPTIONS OF SUCCESS AND FAILURE IN IRAQ

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In the early stages of the counterinsurgency campaign in Iraq, military leaders resisted the release of body count and “casualty ratio” data. However, in the spring of 2004, the U.S. military (and American media) began to focus on the “limited” American casualties in specific operations versus the “significant” number of insurgents killed. This article examines the extent to which body count/casualty ratio “frames” and individual casualty tolerance influence public perceptions about the war and the success or failure of U.S. military operations. Two experiments were conducted pitting alternative casualty frames against one another to measure their relative impact. The results demonstrate the influence of framing effects on public perceptions and clarify understanding of the determinants and impact of casualty tolerance.

Keywords: casualties; framing; Iraq War; body counts; public opinion

The spring of 2004 was a difficult time for U.S. military forces and civilian contractors in Iraq. At the end of March, four U.S. contractors were killed in Fallujah, and their burned and dismembered corpses were dragged through the streets and hung from a bridge over the Euphrates River (evoking memories of the failed American intervention in Somalia over a decade earlier). By early April, U.S. military operations were under way in Fallujah, Najaf, Kufa, and Sadr City (in Baghdad), and U.S. casualties reached a postwar monthly record (135¹). As sporadic U.S. casualties con-

1. The only month to eclipse this total was November 2004, with 137 deaths.

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tinued through early May, in-theater media briefings (by military officers and civilians in the Coalition Provisional Authority [CPA]) began to include references to specific estimates of “insurgents killed” in particular U.S. operations (Berenson and Tavernise 2004; Fisher 2004; Fisher and Wong 2004; Shanker 2004; Wong 2004a, 2004b; for later examples, see Knickmeyer 2005a; Spinner 2005; Wong 2005). This focus on “body counts” and “casualty ratio” reports challenged a post-Vietnam Pentagon practice that sought to avoid the “five-o’clock follies” briefings that tended to significantly overestimate enemy casualties and overstate the relationship between enemy body counts and mission success (see Dao 2004; Gartner and Myers 1995; Graham 2005; Knickmeyer 2005b).²

How did military public affairs officers and civilian press briefers in the CPA come to alter Pentagon practice? More important, do reports of “insurgent deaths” ameliorate the impact of American casualties or alter perceptions of success/failure for specific military operations and/or the overall counterinsurgency campaign in Iraq? In this article, we examine the impact of body count and casualty ratio frames on public support for the ongoing U.S. military intervention in Iraq. Building on recent research into American casualty sensitivity, we argue that a number of contextual factors mitigate or exaggerate the effects of casualty reports. Elite framing, hypothetical estimates of acceptable/unacceptable casualties, understanding of the objectives of the war, perceptions of success/failure, partisan and ideological differences, and demographic factors all appear to affect the public response to this information. To test the direct impact of a subset of these variables on public attitudes regarding the war in Iraq, we conducted two experiments. Our results demonstrate the influence of casualty frames on public perceptions and clarify our understanding of the determinants and impact of individual casualty tolerance.

THE METRICS OF WAR

There are two standard reasons for the provision of enemy body count and casualty ratio data (Gartner and Myers 1995). The first explanation focuses on the difficulty of developing measures of success in wars that are “unconventional.” Traditional wars that are focused on geographic objectives offer clear operational indicators of success—how many kilometers did the army advance on a given day, what towns were taken, and which river was crossed? Wars such as Vietnam and Korea (from spring 1951 on; see Gartner and Myers 1995) and postwar occupations such as Iraq do not focus exclusively on geographic objectives. “Winning their hearts and minds” is difficult to quantify, and the number of patrols completed without incident tends not to make the front page back home. Thus, despite the historical reasons for not reporting enemy body counts and casualty ratio data, this type of information

2. In October 2003, Secretary Rumsfeld had bemoaned the lack of “metrics to know if we are winning or losing the global war on terror. Are we capturing, killing or deterring and dissuading more terrorists every day than the madrassas and the radical clerics are recruiting, training and deploying against us?” (the complete memorandum is available at <http://www.foxnews.com/story/0,2933,100917,00.html>). Publicly, in November 2003, Rumsfeld stated, “We don’t do body counts on other people” (quoted in Graham 2005).

is quantifiable and commonly viewed by the public as a reasonable indicator of success (or, more likely, failure; see Burk 1999, 56; for an alternative view, see Gelpi, Feaver, and Reifler 2005-2006³).

The second explanation focuses on the need to contextualize U.S. casualties, in the hopes that high ratios of Iraqi deaths to U.S. deaths will reduce the negative impact of American losses. When provided with a single piece of body count data (i.e., “five Americans were killed”), judgments about the significance of that information can only be based on the absolute magnitude and whatever contextual data the observer might possess. Five deaths may seem like a lot if compared to average daily deaths during the occupation of Iraq (approximately 2.07 at the time of writing) or may seem relatively insignificant if measured against a cumulative total for the war (2,538 at the time of writing). The provision of a comparative enemy body count could act as a yardstick—measuring both the success of the battle and the relative significance of U.S. casualties. The public may be more willing to view American casualties as “acceptable” if they are compared to (reasonably) large numbers of enemy dead. By providing a ready yardstick in a casualty ratio frame, the military or civilian briefer may be able to fix the context and avoid more invidious comparisons.

It appears that both of these motivations played a role in the process that led to the appearance of body count and casualty ratio data in media reports in 2004 and 2005. In an October 2005 article in the *Washington Post* (titled “Enemy Body Counts Revived: U.S. Is Citing Tolls to Show Success in Iraq”), Brigadier General C. Donald Alston (then director of communications for the U.S. military command in Baghdad) was quoted as stating that “specific numbers are used to periodically provide context and help frame particular engagements” but added that these numbers were not used to “score progress” (Graham 2005). Later in the article, a Marine lieutenant colonel (David A. Lapan) serving as public affairs officer (PAO) for Multi-National Force–West provided justification for the decision to disclose body count and casualty ratio data on a “case-by-case basis” (Graham 2005).

The authors met Colonel⁴ Lapan during the 2006 Triangle Institute for Security Studies “Casualties & Warfare” Conference at Duke University. Col. Lapan discussed his experience in Iraq with us and later provided unclassified e-mails from his exchanges with General Alston and Bradley Graham. Lapan argued that the “push at the operational and tactical level to release EKIA (Enemy Killed in Action) figures on a situational basis was noticed by our higher headquarters—it was not directed by them” (e-mail correspondence with authors). Lapan included an e-mail from Alston (from May 2005), noting that Central Command had called and “the body counts have been noticed.” Alston further wrote that “folks support effective context . . .

3. Gelpi, Feaver, and Reifler (2005-2006, 44) find that the “American public does not measure success in terms of whether U.S. soldiers are being killed or wounded nor whether the terrorists or insurgents are being killed or wounded.” To determine the criteria the public uses to measure success in Iraq, they asked respondents to choose from a list of “possible answers that were prominent in public discussions” at the time (February to November 2004, p. 41). We have major concerns about this measurement strategy. First, we would prefer spontaneously generated responses (otherwise, the salience of the political debate during an election year may have an exaggerated impact). Second, we would like to know if the “plausible factors” were randomized to avoid order effects. Third, the frame of the question would seem to bias the response. American casualties are not a measure of success but rather a measure of failure.

4. Lapan had been promoted since his days in Iraq.

context is key, as you say," but also that "if you can find a way to provide context apart from body counts, that would be ideal."⁵ In response, Lapan sent out a comprehensive e-mail justifying the use of casualty ratio data. He acknowledged the past reluctance to provide this information to the media but went on to argue that "in the current environment we should be able to speak of enemy deaths in order to provide perspective on kinetic operations here in Iraq." Lapan bemoaned the media's focus on American casualties⁶ (while safely "ensconced in Baghdad") and argued that (in reference to EKIA data on the first day of Operation Matador) "without the enemy number, the public would have little understanding of whether our operation was successful or not." In a later e-mail to Graham, Lapan also noted that EKIA data "counters false claims made by enemy forces and it gives confidence to our folks that their plans and forces work effectively" (see also Graham 2005).

While we remain skeptical regarding the accuracy of the body count and casualty ratio data produced by the military⁷ and are concerned by the media's willingness to report these numbers, we have found no evidence to dispute Colonel Lapan's account of the process that led to the release of this information in 2004 and 2005. Indeed, we found Lapan's knowledge of the academic literature on casualty sensitivity/tolerance to be quite comprehensive and can now easily imagine a cadre of well-trained mid-level officers and civilian officials putting into practice lessons learned from recent research. We maintain our belief that frustration regarding the media focus on American casualties and sagging public support for the war drove the release of body count and casualty ratio data, but we now view these specific releases as the product of a "bottom-up" rather than a "top-down" reevaluation of existing practices. The remainder of this article examines the extent to which Lapan and his colleagues were correct in their belief that casualty context matters.

CASUALTY SENSITIVITY

The conventional wisdom regarding the casualty sensitivity of the U.S. public emerged in the 1970s following two relatively unpopular wars (at least by their

5. According to Lapan, there is no official Pentagon policy regarding the release of enemy killed in action (EKIA) data.

6. For systematic empirical analysis of media coverage of the war in Iraq, see Aday (2004); Aday, Livingston, and Hebert (2005); and Thrall (2005). For more general research on the media and casualty coverage, see Bennett and Paletz (1994), Entman (2004), Freudenburg et al. (1996), Gartner (2004), Kull (2003), and Lizza (1999).

7. The degree to which enemy body counts (or civilian body counts) are accurate cannot be fully addressed in this article. In our personal correspondence with Colonel Lapan, he maintained that advances in technology and restrictive rules of engagement enhanced the military's capability to discriminate between insurgents and civilians and to accurately count those insurgents killed in a particular operation. He noted, "If there are 20 positively identified enemy fighters in a cave and we destroy the cave, the enemy has lost 20 fighters." While we acknowledge that technology may lead to more accurate body counts in limited circumstances, we fear that the widespread reporting of enemy body count data would lead to inaccurate reports. Clearly, modern weaponry often has such a devastating effect on the human body that occasionally there are "parts counts" with no intact bodies to be found. Also, surveillance technology does not always indicate the presence of noncombatants in a hardened structure.

ends)—Korea and Vietnam. John Mueller's (1973) classic book—*War, Presidents and Public Opinion*—empirically demonstrated the relationship between increasing casualties and declining public support for these wars. After listing a series of caveats, Mueller concluded that “support for the wars followed to a remarkable degree the same trend pattern and was a function of the logarithm of the number of American casualties” (p. 266). By focusing on the logarithm of cumulative casualties, Mueller was able to capture not only the monotonic decline in public support over the course of the wars but also the fact that support declined more quickly at the beginning of each conflict (see Mueller 2005 and Gelpi and Mueller 2006 for Mueller's analysis of public opinion data regarding the latest Iraq War, as well as Mueller 1994 for an analysis of the Gulf War). This viewpoint solidified over the next twenty years as actual or expected casualties seemed to produce rapid declines in public support and quick withdrawals of U.S. troops from Lebanon and Somalia; significantly alter military strategy in the first Iraq War, Haiti, and Kosovo; or restrict intervention altogether in Bosnia (initially) and Rwanda. By the mid-nineties, Edward Luttwak (1994) argued that the great powers were so casualty phobic that they no longer fulfilled their roles as system managers.

The significant civilian and military casualties experienced on September 11, 2001, were believed to have changed everything. As a foreign threat produced significant casualties in America's cities for the first time since 1812, the expectation of some commentators shifted from one of risk aversion to risk acceptance (see Kaplan 2003). And yet, the initial stages of the campaigns in Afghanistan and Iraq failed (fortunately) to produce enough casualties to adequately test this new hypothesis. Indeed, as American postwar casualties mounted in Iraq, other commentators (and several Democratic presidential candidates) questioned whether the public's threshold of casualty acceptance had really changed (Dao 2004; Davey and Torok 2004).

CASUALTY INSENSITIVITY?

Despite the prevalence of the conventional wisdom regarding casualty sensitivity, particularly among elites (see Feaver and Gelpi 2004), a number of skeptics have questioned both Mueller's (1973) analysis of the public opinion data for Korea and Vietnam and Luttwak's (1994) sociological observations (see Berinsky 2005; Boettcher 2004; Burk 1999; Feaver and Gelpi 2004; Gartner 2004; Gartner and Myers 1995; Gartner and Segura 1998, 2000; Gartner, Segura, and Barratt 2003; Gelpi, Feaver, and Reifler 2005-2006; Gelpi, Reifler, and Feaver 2005; Johnson and Tierney forthcoming; Kaplan 2003; Larson 1996). These authors have generally focused on reinterpreting and reanalyzing existing public opinion data or expanding the actual (i.e., more recent) or proposed military interventions under consideration.⁸

A number of authors have engaged in careful statistical analyses to identify the extent and determinants of casualty sensitivity at the mass and elite levels. Some of

8. A nice summary of the various factors now thought to affect public opinion regarding casualties can be found in Klarevas (2002).

the best (and earliest) research in this area was undertaken by Scott Gartner (and his colleagues) and Eric Larson. Larson (1996) conducted a vast study of the role of casualties in domestic support of six U.S. military interventions—World War II, Korea, Vietnam, the first Iraq War, Panama, and Somalia. After reviewing public opinion data from a wealth of sources for each of these conflicts, Larson identified four variables in a basic general model—“the perceived benefits, the prospects for success (or progress), the costs, and consensus support (or its absence) from political leaders” (p. xviii)—three of which tempered the impact of casualties on public support. By moving beyond the Korea and Vietnam cases, Larson was able to include two cases—World War II and Panama—where public support remained consistently high despite an increase in cumulative casualties.

While Larson’s (1996) work did not directly refute Mueller’s (1973) results for the Korea and Vietnam cases, Gartner and Segura (1998) responded to that challenge. They argued that Mueller’s analysis was flawed “for three reasons: (a) it cannot help but be correlated with time, (b) it homogenizes conflicts with very different patterns of casualty accumulation, and (c) it underestimates the importance of fuming points, decisive events, and exogenous shocks to opinion” (p. 281; see also Voeten and Brewer 2006 [this issue]). By using unlogged marginal casualties, Gartner and Segura come closer to measuring the “information environment in which opinion is formed” (p. 284). This allows them to more closely measure the direct impact of casualty reports, account for both increases and decreases in public support, and capture the impact of specific highly salient events. The use of unlogged marginal casualties is both intuitively attractive and supported by framing research in psychology and political science (Druckman 2004; Kahneman and Tversky 1979). Unfortunately, Gartner and Segura control for war duration and change in presidential administration but fail to comprehensively survey other variables that may mediate the impact of casualty reports on public support.

The Triangle Institute for Security Studies (TISS) project reported in Feaver and Gelpi (2004) provides the most comprehensive analysis to date of both the impact of casualty sensitivity on opinions regarding *hypothetical* U.S. military intervention and the determinants of casualty sensitivity in the U.S. public. Unlike previous research efforts, Feaver and Gelpi were able to collect *individual-level* data on casualty tolerance, rather than rely on *aggregate-level* data on cumulative or marginal casualties and presidential approval. Based on a new survey of elite and mass opinion regarding hypothetical intervention scenarios, Feaver and Gelpi were able to test specific hypotheses related to the respondent’s military status, demographic variables, attitudes toward the use of force, political and social attitudes, and connection to those at risk (p. 170). They found the public to be much less sensitive to casualties than previously thought but that elites retained a phobia regarding U.S. casualties.⁹

9. Feaver and Gelpi (2004, 131) somewhat overstate casualty insensitivity by treating all-zero responses to their hypothetical casualty tolerance scenarios as spoiled ballots. They argue that these responses suggest “that the respondents are objecting to our phrasing of American deaths as ‘acceptable’ rather than offering a judgment of their actual willingness to suffer the human costs of war.” Of course, another interpretation might suggest that these individuals are simply consistent in their casualty sensitivity and worth including in the analysis.

During the lead-up to the Iraq War, Kaplan (2003) critiqued the casualty-sensitivity assumptions of the U.S. military and political elite by pointing to the work of Feaver and Gelpi (2004) and Larson (1996). Kaplan noted that a majority of Americans were willing to tolerate “substantial” casualties and a long-term intervention in Iraq and that the *mean response* to an “acceptable casualty” question regarding Iraq was 29,853. While Kaplan does go on to discuss the more sophisticated explanations that Feaver and Gelpi (2004) and Larson (1996) offer for their observations, his reporting of prospective means is a bit disingenuous. First, psychological research has clearly shown that prospective cumulative utilities seldom predict contemporaneous utility judgments that are often based on changes in state (i.e., gains or losses) rather than overall asset levels (see Boettcher 2004; Jervis 1992; Kahneman and Tversky 1979; Levy 1992). Second, the mean response to acceptable-casualties questions is inflated by outliers—the use of median or modal responses is much more appropriate¹⁰ (see Feaver and Gelpi 2004; Boettcher 2004). Third, as Kaplan subsequently acknowledges, estimates of acceptable casualties are closely tied to the goal(s) of the military operation, and most of the casualty tolerance questions regarding Iraq offered the goal of preventing Iraq from acquiring weapons of mass destruction. This goal clearly was called into question when U.S. forces failed to locate these weapons.

While the research on casualty tolerance has advanced a great deal in the past decade, several flaws remain apparent. Feaver and Gelpi (2004) rely on prospective cumulative casualty estimates and hypothetical intervention scenarios. Thus, they have very good measures of their independent variables, but the external validity of their variables is open to question. Larson (1996) and Gartner and Segura (1998) have more externally valid dependent variables (although they may not be entirely reliable or comparable) but are able to focus on only a subset of interesting independent variables. Each set of researchers lacked the ability to (or interest in) develop(ing) controlled experiments embedded within their survey instruments.

THE WAR IN IRAQ

The U.S. invasion of Iraq in March 2003, as well as the continuing counterinsurgency campaign there, has (as of the writing of this article) resulted in the deaths of 2,538 American servicemen and servicewomen (with 18,356 Americans “wounded in action”). These are the largest and most sustained casualties that the U.S. public has experienced since the Vietnam War. This unfortunate natural laboratory has produced a wave of new research on casualty sensitivity. Some scholars focused on casualty tolerance, support for the war, and vote choice in the 2004 presidential election (Gelpi, Reifler, and Feaver 2005; Karol and Miguel 2005); explored the role of elites in shaping opinion about the war (Berinsky 2005); examined the elements behind public judgments of success/failure regarding war outcomes (Johnson and

10. Feaver and Gelpi (2004, 116) clearly state that “the summary statistics are misleading” and transform their casualty tolerance data into a six-point ordinal scale.

Tierney forthcoming); or examined the traditional relationship between casualties and the perception of short-term and/or long-term success (Eichenberg 2005; Gelpi, Feaver, and Reifler 2005-2006; Voeten and Brewer 2006). Each of these efforts benefited from advances in survey design and implementation and the statistical analysis of survey data.¹¹

The latest research on casualty sensitivity in U.S. public opinion can be divided into two camps: rationalist and elite driven. The rationalist tradition is rooted in work by Jentleson (1992) and Larson (1996) and is now championed by Gelpi, Feaver, and Reifler (2005-2006). At a very basic level, these authors argue that the real world matters. Actual or "objective" information regarding the costs and benefits of war is carefully weighed by an individual before he or she forms attitudes regarding the legitimacy of the war, the long-term prospects for success, the worthiness of the goals of the intervention, and/or the performance of the president. These authors tend to assume that information regarding the costs and benefits of the war is widely disseminated and mostly accurate (or at least shared, in the event that it is inaccurate). The latest (and perhaps most controversial¹²) study by Gelpi, Feaver, and Reifler finds that casualty tolerance is largely a product of expectations of success and judgments about the "rightness" of the decision to go to war (though they also acknowledge the influence of other factors; see Table 5, p. 37).¹³ Although this research serves as a strong refutation of the rather simplistic conventional wisdom regarding casualty phobia that emerged in the 1990s, we find their conclusions to be fairly intuitive, have concerns regarding the measurement of key variables, and suspect that their model suffers from endogeneity.

The elite-driven tradition is based on the work of public opinion researchers such as Zaller (1992) and Delli Carpini and Keeter (1996) and finds its most recent expression in the work of Berinsky (2005). For these scholars, the real world matters but "not in the straightforward manner posited by most scholars of public opinion and war" (Berinsky 2005, 1). Little actual or "objective" information is disseminated to or

11. Surveys tracking the change over time in American public opinion regarding the war in Iraq can be found in Kull (2003, 2004, 2006) and Yankelovich (2005, 2006).

12. Their observation that support for the war hinges on "how people feel about the prospect of winning" (Baker and Balz 2005; Ricks 2003) currently serves as the cornerstone of the Bush information strategy. Instead of trying to distract the public from mounting casualties, President Bush has stoically focused on the goals of the mission, the likelihood of success, and the fact that the potential benefits outweigh the human cost (however tragic). Feaver joined the Bush National Security Council in 2005 as "special adviser for strategic planning and institutional reform" (Baker and Balz 2005). The prominence of Feaver's role in the administration has led to a lively debate over this research (see in particular Mueller 2005 and Gelpi's response in Gelpi and Mueller 2006).

13. For Gelpi, Feaver, and Reifler (2005-2006, 10), "Casualty sensitivity is, to put it crudely, one's price sensitivity to the human cost of war." While we laud their effort to focus on casualty sensitivity at the individual level, we have concerns about the way they measure their dependent variable (pp. 28-30). To elicit a participant's casualty sensitivity, they begin with a benchmark number and then ask successive questions, ratcheting up the hypothetical number of acceptable casualties until they reach the maximum of 50,000 U.S. deaths. While empirically cleaner than asking for a single hypothetical number, we fear that this process could lead to an incremental "in for a penny, in for a pound" bias (see footnote 54, p. 30 for a discussion of possible sunk cost thinking). We also fear that individuals whose tolerance levels fall just beyond a lower level may round up, thus exaggerating casualty insensitivity (the opposite of what the authors claim; see p. 30).

processed by the mass public; instead, elites shape opinion by spinning or framing the facts and interpreting events. When it comes to casualties, members of this tradition point out that few Americans can accurately state the current cumulative casualty total (see Berinsky 2005, 10), and only slightly more land within 20 percent of the actual number. Thus, it is partisan cues, not a complicated rational cost-benefit calculus, that produce “inter-individual differences in support for war” (Berinsky 2005, 14).

A bridge between these two camps is found in the work of Johnson and Tierney (forthcoming; see also Thrall 2005). These authors explore the process through which the public constructs judgments regarding the success or failure of American military interventions. Following the rationalist tradition, they posit a process of “scorekeeping,” where individuals focus on “U.S. material gains and losses, and material aims achieved” (Johnson and Tierney forthcoming, 8). Indeed, they find that “aggregate American evaluations of the war on terror are *loosely* related to battlefield successes and failures” (p. 18, emphasis added), but they observe that the scorekeeping model provides only a partial explanation. Following the elite-driven tradition, they then offer a “match-fixing” explanation that focuses on three “sources of misperception”: mindset, salient events, and social pressure (p. 18). These misperceptions alter the choice of metrics used to judge success/failure and the information that is deemed diagnostic for the chosen metrics. They conclude that many Americans view Iraq through “heavily biased lenses” and that the loose relationship between aggregate poll data and battlefield results may depend on a “relatively small group of undecided Americans following the news from Iraq and switching their positions accordingly” (p. 36).

In this article, we follow Johnson and Tierney (forthcoming) and Thrall (2005) and examine elements of the rationalist and elite-driven explanations. Our interest in casualties clearly demonstrates our concern for the real human costs of battle and our belief that members of the mass public engage in at least some form of weak subjective rationality in developing attitudes about war. And yet our interest in framing (both elite and media) and partisanship/ideology reveals our desire to probe the origins of (mis)perceptions about the Iraq War among significant portions of the public. In the debate between the two camps, we hope to be agnostic—arguing that both paths are worthy of study and that each tradition provides portions of a complex and compelling explanation.

HYPOTHESES

The studies reported in this article are part of a larger (ongoing) project concerned with the impact of casualty sensitivity on public support for U.S. military interventions, the determinants of casualty sensitivity, and technical issues in the measurement of hypothetical and prospective casualty tolerance. In particular, these studies address the empirical puzzle offered at the beginning of the article: do reports of “insurgent deaths” ameliorate the impact of American casualties or alter perceptions of success/failure for specific military operations and/or the overall counterinsurgency campaign in Iraq? To clarify our use of the terms *body count* and *casualty*

ratio data, we offer the following definitions. *Body count* includes any reference to information regarding the U.S. or Iraqi combatant deaths that occur as a result of U.S. military operations. *Casualty ratio data* include any reference to information regarding comparative U.S. and Iraqi body counts that occur as a result of U.S. military operations. A news story that notes that “5 Marines were killed in the restive Anbar province of Iraq” includes a body count. A news story that notes that “according to a Marine spokesman, five Americans and twenty-five insurgents were killed during the operation” includes casualty ratio data.

A second original innovation is the creation of a new variable measuring individual casualty tolerance. Traditionally, individual casualty sensitivity is measured by asking participants about their willingness to accept future casualties (for alternative methods, see Feaver and Gelpi 2004; Gelpi, Feaver, and Reifler 2005-2006). Unfortunately, this strategy assumes that the subject has an awareness of the current level of casualties (a problematic assumption; see Berinsky 2005). Much is made of “tipping” or “breaking” points regarding public opinion about casualties (see Yankelovich 2005, 2006), but little effort is made to measure those points on an individual level. We believe this is the first study to collect both actual estimates of military deaths in Iraq and hypothetical estimates of acceptable deaths in a military intervention. This allows us to construct a variable (casualty tolerance) that captures whether a casualty tipping or breaking point has been reached at the individual level.

The above discussion yields a number of hypotheses that were tested in two surveys that included embedded experiments. The first hypothesis is that exposure to a casualty ratio frame will increase a participant’s perception of success for a specific military operation. Were Alston and Lapan correct in their belief that context matters? Without this crucial manipulation check, the remainder of our study is suspect.¹⁴ The second hypothesis is that participants exposed to a body count frame are likely to have a more negative view of the war than participants who do not receive information about American casualties. This hypothesis explores the impact of marginal casualty data on public opinion (assuming the participants in the control group already have some sense of cumulative casualties). The third hypothesis is that exposure to the casualty ratio frame will ameliorate the negative impact of data about American casualties. This extends the first hypothesis to broader opinions about the war. The fourth hypothesis is that a participant’s individual casualty tolerance will also affect his or her support for the war. An individual who has already reached his or her tipping or breaking point when it comes to casualties will be less likely to support an ongoing war that will inevitably result in additional casualties. Finally, our fifth hypothesis is that partisanship will mediate the impact of casualty frames and also affect casualty tolerance. Supporters of the president may view American casualties as a reason to continue the war so that U.S. troops did not “die in vain” (the

14. The perceptive reader will note that the survey exploring hypothesis 1 was conducted in August 2005, while the survey exploring the other hypotheses was conducted earlier in February 2005. This was due to an oversight on our part that was caught by a discussant during our first presentation of our data. The studies are presented out of chronological order to facilitate the flow of this article (as recommended by an anonymous reviewer).

classic sunk cost argument), while opponents of the president may view American casualties as an indicator of failure.

RESEARCH DESIGN: STUDY I

To test hypothesis 1, we developed an experiment embedded within a survey that explored participant reactions to a mock *New York Times* article about a hypothetical military operation in Iraq (see appendix). The survey also included a series of political knowledge questions and a standard battery of demographic questions. In this study, we randomly exposed participants to a body count frame (“twenty-five Americans were killed”) or a casualty ratio frame (“twenty-five Americans and one-hundred and twenty-five insurgents were killed”) and then asked to what degree the battle was a military success. (Essentially, this was a truncated version of study II.) Since this was a manipulation check, we used a smaller number of participants and therefore had to limit the number of conditions and chose not to include a control group.

The survey was conducted in August 2005. The 126 participants were drawn from the Political Science Research Subject Pool (PSRSP) at North Carolina State University (NCSU). The PSRSP serves as part of a research requirement for students in PS 201 (Introduction to American Government) at NCSU. Each semester, approximately 600 students participate in six to eight research studies. In this study, participants were randomly distributed across the two conditions. The smaller n (55) was in the “body count” condition, and the larger n (71) was in the “casualty ratio” condition due to differential rates of survey completion. As usual in studies at NCSU, men (55 percent) slightly outnumbered women (45 percent) in our sample. In terms of party ID, the sample was evenly balanced between Republicans (39 percent) and Democrats (38 percent) but also included a rather large number of self-identified Independents (22 percent). In terms of ideology, conservatives (32 percent) and liberals (31 percent) were slightly outweighed by moderates (35 percent). Forty-six percent of our participants indicated a vote preference for Bush in the 2004 election, while only 39 percent indicated a vote preference for Kerry (see appendix for question wording).

RESULTS: STUDY I

The results for study I are strongly supportive of hypothesis 1. A large majority (64.8 percent) of participants in the casualty ratio frame labeled the hypothetical battle “very much a success” or “somewhat a success,” compared to only 38 percent of participants in the body count frame. In the body count frame, 30 percent of participants labeled the hypothetical battle “very much a failure” or “somewhat a failure,” compared to just 17.5 percent in the casualty ratio frame. In a simple cross-tabulation of success by framing condition, the chi-square value was 11.204, and the p -value was .024. The results also held up in a regression model that included sex, partisanship, ideology, and 2004 vote choice (with sex and ideology also statistically significant).

RESEARCH DESIGN: STUDY II

To explore hypotheses 2 through 5, the second survey included a number of questions related to media exposure, retrospective and prospective attitudes regarding the Iraq War, participant-generated estimates of acceptable and actual casualties, and various demographic factors (see appendix). To test the influence of body count and casualty ratio frames, we created five mock *New York Times* articles about a military operation in Iraq. Each article was identical, except for a sentence describing American, insurgent, American and insurgent, or American and terrorist dead. A final control group was not exposed to the mock *New York Times* article but was presented with the rest of the survey. The five conditions were as follows: (1) "five Americans were killed," (2) "twenty-five Americans were killed," (3) "five Americans and twenty-five insurgents were killed," (4) "twenty-five Americans and one-hundred and twenty-five insurgents were killed," and (5) "twenty-five Americans and one-hundred and twenty-five terrorists were killed." Both the number of Americans and insurgents killed and the ratio of American to insurgent deaths (1:5) were based on data from the Iraq War. Our hope was to create plausible body counts and casualty ratios that would be externally valid.

The second survey was conducted from February 14 to 18, 2005. The 383 participants were also drawn from the PSRSP at NCSU. In this study, participants were randomly distributed across the six conditions. The smallest n (60) was in the "terrorist" condition, and the largest n (68) was in the "control" condition. Men (53 percent) slightly outnumbered women (47 percent) in our sample. In terms of party ID, the sample skewed a bit Republican (47 percent) but included a fair amount of Democrats (35 percent) and a few Independents (11 percent). In terms of ideology, conservatives (36 percent) formed a plurality, and liberals (29 percent) slightly outweighed moderates (26 percent). The sample was predominantly white (85 percent) but included African Americans (10 percent), Asian Americans (1.3 percent), and Hispanics (1.3 percent). Fully 56 percent of our participants indicated a vote preference for Bush in 2004, while only 39 percent indicated a vote preference for Kerry. Finally, 7 percent of our sample had some sort of past, current, or future (planned) service in the military.

RESULTS: STUDY II

Before we turn to our main findings regarding casualty sensitivity and framing, it may be useful to make some general observations regarding the responses of our participants. Our survey (see the appendix for complete question wording) included a basic approval question regarding Bush's handling of the situation in Iraq, a question about acceptable/unacceptable casualties given the goals and costs of the war, a question assessing the current success of postwar progress in Iraq, a question regarding the participant's willingness to accept more casualties or withdraw forces in the near term, a hypothetical question asking for a rough estimate of acceptable military deaths in a U.S. intervention, and a question asking for a best guess of U.S. military

deaths in postwar Iraq. The results for our student participants are closely in line with results from other polls during the same time period.

In February 2005, support for President Bush was clearly waning from earlier postwar highs but was still relatively strong in representative national polls as well as in our student sample. In terms of Bush's handling of the situation in Iraq, 47.5 percent of the participants selected "approve" or "strongly approve," while just 38 percent of the participants selected "disapprove" or "strongly disapprove." When judging the current success of postwar progress, a clear plurality (46.1 percent) of participants chose "somewhat successful" or "very successful," with the remainder splitting evenly between "evenly mixed" (27.1 percent) and "somewhat unsuccessful" or "very unsuccessful" (26.8 percent). Finally, a strong majority (61.1 percent) of participants agreed that the United States should "keep forces in Iraq to restore civil order, even if it means more casualties," while only 25.8 percent of participants indicated that the United States should "withdraw forces to avoid more casualties, even if civil order is not restored."

The results for our hypothetical and actual casualty estimate questions are also reflective of previous research (see Berinsky 2005; Feaver and Gelpi 2004; Gelpi, Feaver, and Reifler 2005-2006; Johnson and Tierney forthcoming). When asked for a "rough figure you would use as an acceptable number of U.S. military deaths" for an unnamed military intervention, the mean was 57,374 (due to a number of outliers), the median was 500, and the modal response was zero. Indeed, as Feaver and Gelpi (2004, 110) found in their study of hypothetical casualty sensitivity, participants appear uncomfortable with this request—24.5 percent refused to answer this question (twice the refusal rate for our actual-casualty estimate). When participants were asked to give their "best estimate of the total number of U.S. military deaths in postwar Iraq," the mean was 4,913, the median was 1,000, and the modal response was 1,000. As Berinsky argues (2005), survey participants are seldom accurate in their estimates of actual U.S. casualties. Only 15.2 percent of our participants came within 20 percent of *either side* of the actual number at the time (1,464).¹⁵ While others tend to interpret these numbers optimistically (see Johnson and Tierney forthcoming), we agree with Berinsky's claim that despite extensive and relatively accurate media coverage of U.S. military deaths in Iraq, survey participants are largely uninformed when it comes to the actual numbers.¹⁶ In response to our final question involving U.S. casualties, a majority of our participants (54.2 percent) indicated that there had been an "unacceptable number of U.S. casualties" given the goals of the intervention. Only 28 percent of participants indicated that casualties had been "acceptable." This is again consistent with other polls at the time that reflect frustration with the costs of war but do not observe this frustration turning into support for immediate troop withdrawal.

A final set of general results involves the determinants of hypothetical casualty sensitivity. Feaver and Gelpi (2004, 172) found "little consistent evidence of partisan differences over casualties." Of course, their study was based on TISS data collected from 1998 to 1999. Their hypothetical scenarios were truly hypothetical—the prospects of

15. Fifteen Americans died during the brief course of our study, so we would be willing to count any estimate between 1,450 and 1,501 as fully accurate (8 percent of responses).

16. We would expect accuracy to improve during certain milestone periods (1,000, 2,000, etc.).

intervention undoubtedly appeared remote in this pre–September 11, pre–Iraq War era. More recent research has exposed the extent to which partisanship and political ideology affect perceptions of Iraq policy (see Berinsky 2005; Gelpi, Feaver, and Reifler 2005–2006; Jacobson 2005; Johnson and Tierney forthcoming). Iraq has become President Bush’s war, and public debate about Iraq has become increasingly politicized. Thus, we would expect partisanship and ideology to heavily affect estimates of tolerable casualties. To explore this, we transformed our continuous hypothetical casualty estimate data into Feaver and Gelpi’s (2004) six-point coding.¹⁷ We then ran simple cross-tabulations that revealed that Republicans ($\chi^2 = 54.56, p < .001$) and conservatives ($\chi^2 = 48.4, p < .001$) were much more tolerant of casualties than Democrats or liberals. We also found that men ($\chi^2 = 20.48, p = .001$) were more tolerant of casualties than women. These variables remain significant when entered into a regression model with the other demographic variables measured in our survey.

Our main findings are largely in line with our hypotheses regarding framing and casualty sensitivity (as long as we control for the partisan nature of opinion about Iraq). Table 1 includes cross-tabulations for our casualty tolerance variable (here dichotomized as below or past a participant’s tipping point) and our dependent variables and splits the samples by vote choice in the 2004 presidential election.¹⁸ If casualty tolerance is a negative number, the estimate of acceptable casualties exceeds the estimate of actual casualties, and the participant is below his or her tipping or breaking point. If casualty tolerance is a positive number, the estimate of actual casualties exceeds acceptable casualties, and the participant has moved beyond his or her tipping or breaking point.¹⁹ Tables 2 through 5 report the regression results for our key dependent variables. We again split the sample by vote choice and then examined the impact of three independent variables: casualty tolerance, body count frames, and casualty ratio frames.²⁰ The body count frames and casualty ratio frames variables simply capture the impact of the two framing conditions. Each variable is coded 1 for that type of frame and 0 for all other conditions (including the control group).²¹ Table 6 reports the frame-induced change in predicted probabilities of reporting positive or negative opinions for our four dependent variables (again by participant’s vote choice). This table allows for a more meaningful comparison of the magnitude of change attributed to the framing conditions.

17. The six categories are 0, 1 to 99, 100 to 500, 501 to 5,000, 5,001 to 50,000, and 50,001 to infinity.

18. We find that self-identified partisanship and ideology are weaker variables when using student samples at North Carolina State University (NCSSU). The use of vote choice affects the strength but not the direction of our results.

19. We use the log of each estimate to limit the impact of extreme responses. Thus, this variable ranged from a maximum of 4 to a minimum of -3.70 . The mean was .426, the median was .000, and the mode was -3.30 . In the dichotomous coding, we dropped participants at their tipping point (all zeros) from the analysis.

20. Alternatively, we could have included interaction terms (between all experimental treatments and vote choice) in a single regression model but chose this path to retain parsimony given our small sample size.

21. We found few differences based on the number of American deaths (5 vs. 25) and insurgent deaths (25 vs. 125) or insurgent deaths versus “terrorist” deaths. This allowed us to collapse the five initial conditions into two—body count frames and casualty ratio frames—and a control group. Coding the framing variables in this dichotomous manner (frame (1) vs. alternative frame plus control (0)) enables us to include both of the framing variables in the same regression model.

TABLE 1
 The Effects of Tipping Points (Willingness to Accept
 Additional Casualties) on Respondents' Opinions about
 the War in Iraq, by 2004 Vote Choice (in Percentages)

<i>Dependent Variable</i>	<i>Opinion</i>	<i>Did Not Vote for Bush</i>	
		<i>Below Tipping Point</i>	<i>Past Tipping Point</i>
Bush approval**	Strongly disapprove	36	42
	Disapprove	32	49
	Neutral	26	6
	Approve	7	4
	Strongly approve	0	0
Postwar progress	Very unsuccessful	23	28
	Unsuccessful	29	31
	Mixed	32	30
	Successful	16	11
	Very successful	0	0
Casualties so far***	Unacceptable	62	99
Troops	Withdraw	50	49
<i>Dependent Variable</i>	<i>Opinion</i>	<i>Voted for Bush</i>	
		<i>Below Tipping Point</i>	<i>Past Tipping Point</i>
Bush approval***	Strongly disapprove	0	0
	Disapprove	0	12
	Neutral	10	29
	Approve	48	49
	Strongly approve	42	10
Postwar progress***	Very unsuccessful	0	2
	Unsuccessful	3	9
	Mixed	16	37
	Successful	51	40
Casualties so far***	Very successful	31	12
	Acceptable	79	6
Troops***	Stay in Iraq	92	73

** $p < .05$. *** $p < .01$. Two-sided Pearson chi-square tests.

Our most consistent results are found with the casualty tolerance variable (hypothesis 4). Table 1 reveals the strength of the dichotomous tipping point on all of the dependent variables for Bush voters. Bush voters who are past their tipping point are systematically more negative about the war. Indeed, only 6 percent of Bush voters who are past their tipping point state that casualties so far in Iraq have been acceptable (compared to 79 percent of Bush voters below their tipping point). The dichotomous tipping-point variable is also significant for the presidential approval and casualty acceptability variables for non-Bush voters. Fully 99 percent of non-Bush voters past their tipping point stated that casualties were unacceptable (compared to 62 percent of

TABLE 2
 Ordered Logit Equations for Approval of Bush's Handling
 of the Situation with Iraq, by Respondents' Vote Choice in 2004

	<i>Did Not Vote for Bush</i>		<i>Voted for Bush</i>	
	<i>Estimate</i>	<i>Z</i>	<i>Estimate</i>	<i>Z</i>
Casualty tolerance	-0.26**	-2.16	-0.72***	-4.90
Body count frame	-0.69	-1.37	-0.08	-0.15
Casualty ratio frame	0.38	0.41	0.16	0.34
<i>n</i>		122		137
Nagelkerke <i>R</i> ²		0.04		0.09

p* < .05. *p* < .01.

TABLE 3
 Ordered Logit Equations for Perceiving Successful Progress
 in Postwar Iraq, by Respondents' Vote Choice in 2004

	<i>Did Not Vote for Bush</i>		<i>Voted for Bush</i>	
	<i>Estimate</i>	<i>Z</i>	<i>Estimate</i>	<i>Z</i>
Casualty tolerance	-0.18*	-1.67	-0.43***	-3.17
Body count frame	-0.97**	-2.04	-0.10	-0.20
Casualty ratio frame	-0.05	-0.12	0.83*	1.87
<i>n</i>		122		142
Nagelkerke <i>R</i> ²		0.03		0.05

p* < .10. *p* < .05. ****p* < .01.

TABLE 4
 Binary Logistic Equations for Believing Casualties in Iraq
 Have Been Acceptable, by Respondents' Vote Choice in 2004

	<i>Did Not Vote for Bush</i>		<i>Voted for Bush</i>	
	<i>Beta</i>	<i>Z</i>	<i>Beta</i>	<i>Z</i>
Casualty tolerance	-1.45***	-3.13	-2.52***	-4.65
Body count frame	1.17	1.19	-0.81	-1.07
Casualty ratio frame	1.37	1.20	0.39	0.57
Constant	-2.88***	-2.76	-0.49	-0.40
<i>n</i>		119		118
Pseudo- <i>R</i> ²		0.29		0.42

****p* < .01.

TABLE 5
Binary Logistic Equations for Opposing Troop
Withdrawal, by Respondents' Vote Choice in 2004

	<i>Did Not Vote for Bush</i>		<i>Voted for Bush</i>	
	<i>Beta</i>	<i>Z</i>	<i>Beta</i>	<i>Z</i>
Casualty tolerance	-0.29*	-1.93	-0.35**	-1.92
Body count frame	-1.05*	-1.83	0.29	0.69
Casualty ratio frame	0.29	0.57	0.53	0.42
Constant	0.43	0.99	1.41***	2.51
<i>n</i>		105		133
Pseudo- <i>R</i> ²		0.08		0.04

* $p < .10$. ** $p < .05$. *** $p < .01$.

TABLE 6
Change in Probability of Reporting Positive or Negative Opinions
about the War in Iraq, by Respondents' Vote Choice in 2004

<i>Explanatory Variable</i>	<i>Change in Explanatory Variable</i>	<i>Change in Probability of</i>
<i>Respondent did not vote for Bush</i>		
Body count frame	Frame absent to present	+16 percent strongly disapprove
Casualty ratio frame	Frame absent to present	-9 percent strongly disapprove
Body count frame	Frame absent to present	+19 percent very unsuccessful progress**
Casualty ratio frame	Frame absent to present	+0 percent very unsuccessful progress
Body count frame	Frame absent to present	-2 percent casualties unacceptable
Casualty ratio frame	Frame absent to present	-3 percent casualties unacceptable
Body count frame	Frame absent to present	+25 percent withdraw troops*
Casualty ratio frame	Frame absent to present	-7 percent withdraw troops
<i>Respondent voted for Bush</i>		
Body count frame	Frame absent to present	-1 percent strongly approve
Casualty ratio frame	Frame absent to present	+3 percent strongly approve
Body count frame	Frame absent to present	-1 percent very successful progress
Casualty ratio frame	Frame absent to present	+14 percent very successful progress*
Body count frame	Frame absent to present	-20 percent casualties acceptable
Casualty ratio frame	Frame absent to present	+10 percent casualties acceptable
Body count frame	Frame absent to present	+4 percent keep troops in Iraq
Casualty ratio frame	Frame absent to present	+6 percent keep troops in Iraq

NOTE: Changes in probabilities were generated using ordered logit and binary logistic regression models in Stata V.9. Regression models included respondents' casualty tolerance, which was held constant at its mean.

* $p < .10$. ** $p < .05$.

non-Bush voters below their tipping point). The impact of this variable is also consistent across the dependent variables for Bush and non-Bush voters in our regression analyses. In each case, as individuals move from highly tolerant to highly intolerant of

casualties, support for the war declines. As noted above, however, the modest goodness-of-fit measures for the other dependent variables (see Tables 2, 3, 5) suggest that casualty tolerance operates at the margins for more general opinions about the war.

Our next strongest set of results involves body count frames and participants who did not vote for Bush (hypotheses 2 and 5). Tables 3 and 5 reveal the significant impact of information about American deaths on support for the war among non-Bush voters.²² In each case, news about American battle deaths causes the expected decline in support. Indeed, even Bush voters are somewhat shaken in their resolve (see Tables 2, 3, 4). Table 6 reveals the magnitude of the impact of the body count frame on perceptions of unsuccessful progress (+19 percent) and the need to withdraw troops (+25 percent) among non-Bush voters. Presumably, non-Bush voters see casualty data as confirmatory and run with it, while Bush voters see casualty data as disconfirmation and are more closely anchored to previous attitudes. Again, information about U.S. casualties in Iraq matters, but on the margins and mediated by partisanship.

Our final set of results involves the impact of casualty ratio frames. We expect the casualty ratio data to ameliorate the impact of American deaths in each of our news stories (hypothesis 3). Our results are once again in the expected direction. In Tables 2 through 5, casualty ratio frames appear to mitigate the impact of casualty data (compared to the body count frames) for Bush and non-Bush voters. Table 6 even shows a decrease in the predicted probability of negative opinions regarding the presidential handling, casualty acceptability, and troop withdrawal variables for non-Bush voters. Casualty ratio data have a positive impact on Bush voters for each dependent variable, with a statistically significant impact on perceptions of successful progress (see Table 3). Table 6 reveals the magnitude of positive change for Bush voters (+14 percent) in the predicted probability of perceiving “very successful” progress. It is likely that the “postwar progress in Iraq” dependent variable was the best case for observing the positive impact of casualty ratio data since “killing insurgents” is sometimes viewed as one of the subsidiary goals of the occupation (see Johnson and Tierney forthcoming; Gelpi, Feaver, and Reifler 2005-2006, Table 7). The news report of insurgent deaths, even with accompanying American casualties, may be seen as an indicator of progress.

DISCUSSION

The results presented above demonstrate the complex and subtle ways in which information about wartime casualties affects public support for an ongoing American military intervention. The results regarding the impact of body count and casualty ratio data clearly address the empirical puzzle that sparked our interest in this area of research. Military PAOs and CPA officials would turn to this information strategy in a time of crisis because it works. The provision of information about “insurgents killed”

22. Both framing conditions contribute (though not significantly) to supportive judgments that casualties are “acceptable” for non-Bush voters in Tables 4 and 6. Since 88 percent of non-Bush voters stated that casualties in Iraq have been unacceptable, this oddity is most likely the result of minor differences in the samples across the conditions.

in a particular battle not only changes public perceptions of the success of that specific incident but also alters perceptions of progress in the broader war (at least among Bush voters). At another level, casualty ratio data appear to soften (for everyone) the negative effect of information about American casualties by placing those casualties in a larger context. Reports of American casualties alone (body count frames) harden the attitudes of non-Bush voters, essentially providing ammunition to existing critics. This is exactly what we would expect given a wealth of psychological research on motivated biases and information processing. While body counts of enemy dead remain a discredited metric for expert assessments of success/failure, the public information value of casualty ratio data remains strong (if only occasionally deployed).

The results regarding the impact of casualty tolerance highlight the need to reconcile the rationalist and elite-driven approaches to the study of casualty sensitivity. Actual estimates by the mass public of U.S. casualties in Iraq are widely divergent and inaccurate and do not seem to be associated with attitudes about the war. Similarly, estimates of acceptable casualties in a hypothetical military intervention are widely divergent and largely driven by partisan/ideological divisions. Aggregate and individual-level explanations of public opposition based in awareness of cumulative casualties are thus highly suspect, as are claims that prospective tolerance of hypothetical casualties is indicative of support for some future intervention. And yet, our casualty tolerance variable, derived from these seemingly random guesses, had a universally significant impact on support for the Iraq War. This suggests that while objective reality may be almost irrelevant, the participants' subjective perceptions of reality are indeed important. Clearly, these perceptions may be influenced by political elites (information about casualties is often used by opposing elites as a rhetorical tool), but our observation of subjective (and divergent) individual rationality argues against a purely elite-driven perspective.

The results for our political and demographic variables reinforce our view that, while casualty sensitivity is an important factor in determining public support for U.S. military operations, it is not the only factor or indeed the dominant one in this case. We would argue (along with others) that the contextual features of the war largely drive the relevance of casualty data. In the current highly politicized context with relatively low casualties, an all-volunteer force, lack of elite dissensus, and little prospect of a military draft, we expect casualty data to have muted effects. The Vietnam War was characterized by high casualties, a conscript force, elite dissensus, and an ongoing draft; in that case, casualty data were highly salient and had strong effects. Our research (like other recent efforts) demonstrates that casualties matter, but not in the simple and robust manner that journalists, pundits, and portions of the public often believe.

FUTURE RESEARCH

While our research answers a number of questions regarding casualty frames and casualty tolerance, it leaves open a number of avenues for future research. First, how does the media decide when and whether to use body count or casualty ratio data?

In particular, we would expect that certain news outlets (Fox, Washington Times, etc.) would be more willing to uncritically report these data than others. Second, does repeated exposure to casualty ratio data reduce or amplify its impact? We would expect an eventual “numbing effect” as repeated reports of insurgent or terrorist casualties are not followed by improvements in other indicators of success. Third, if casualty ratio data affect perceptions at the level of marginal casualties, will they also affect perceptions of cumulative casualties? We would expect cumulative casualty ratio data to have a greater impact on the more general-opinion questions employed in our second study. Finally, what is the best method for measuring casualty tolerance at the individual level? Casualty sensitivity is often measured as a continuous estimate of prospective acceptable casualties but is seldom tied to individual estimates of actual casualties. More research is needed to penetrate the “black box” that produces the perception that a tipping or breaking point has been reached and that casualties are no longer acceptable.

CONCLUSION

The impact of casualty sensitivity on public support for U.S. military intervention/occupation is complex and subtle, as are the determinants of casualty tolerance. By moving away from univariate, aggregate-level, cumulative, and monotonic explanations, our research illuminates the role of framing, casualty tolerance, and partisanship in the formation of attitudes regarding casualties and the war in Iraq. Our general results replicate earlier studies that found that the American public is sensitive to, but not intolerant of, U.S. casualties. We build on this previous work by developing a new measure of casualty tolerance, revealing the differences between the impact of body count and casualty ratio frames, and focusing on marginal casualties in an embedded experimental survey. We expose the subjective rationality behind attitudes about the Iraq War but also demonstrate the marked disconnect between the objective reality of U.S. wartime casualties and how participants (mis)perceive that reality. Despite our focus on the Iraq War, we feel that the variables that are the focus of our studies would have a similar impact on public opinion in other conflicts. Of course, our focus on the importance of context and subjective perceptions would suggest that the strength of casualty frames and casualty tolerance would be dependent on a number of other characteristics of the conflict under study.

APPENDIX

Mock *New York Times* Article (Casualty Manipulation in Italics)

Marines Battle Insurgents in Iraq
By Edward Wong

Karbala, Iraq (February 10)—Marines from Regimental Combat Team 7 of the 1st Marine Division attacked an insurgent stronghold near Karbala, Iraq today.

The attack was intended to wipe out a group of insurgents that had launched a series of attacks against American and Iraqi forces within the region. The battle lasted for several hours as the Marines advanced through a series of connected villages, sometimes moving door to door as they came under fire from insurgent forces.

One of the Marines involved in the attack—Lance Corporal Todd Philips from Madison, Wisconsin—said, “They pushed us pretty hard and it was pretty dicey for a while, but we regrouped and moved forward.”

According to a Marine spokesman, *five Americans were killed during the operation.*
Karbala is in the restive Al Karbala province of Iraq.

SURVEY QUESTION WORDING

APPROVE: Overall, do you approve or disapprove of the way President George Bush is handling the situation with Iraq? (1-5)

- Strongly disapprove
- Disapprove
- Neutral
- Approve
- Strongly approve

COSTS: Thinking about the goals versus the costs of the war, so far in your opinion has there been an acceptable or unacceptable number of U.S. military casualties in Iraq? (0-1)

- Acceptable number of U.S. casualties
- Unacceptable number of U.S. casualties

ACCEPT: We would like to get some idea of what you think “too much loss of life” is for a U.S. military intervention. What would be the rough figure you would use as an acceptable number of U.S. military deaths?

Your answer: _____

PROGRESS: Some people believe that the U.S. has been successful in its postwar operations in Iraq while others believe we have not been so successful. How do you feel about the progress the U.S. has made in Iraq after the war ended? (1-5)

- Very unsuccessful
- Somewhat unsuccessful
- Evenly mixed
- Somewhat successful
- Very successful

TROOPS: Do you think the United States should keep its military forces in Iraq until civil order is restored there, even if that means continued U.S. military casualties, or do you think the United States should withdraw its military forces from Iraq in order to avoid further U.S. military casualties, even if that means civil order is not restored there? (0-1)

- Withdraw forces to avoid more casualties, even if civil order is not restored
- Keep forces in Iraq to restore civil order, even if it means more casualties

DEATHS: As you know, there have been American military deaths even after President Bush declared an end to the war with the former Iraqi regime led by Saddam Hussein. What is your best estimate of the total number of U.S. military deaths in postwar Iraq?

Your answer: _____

VOTE: If you voted in the 2004 election, or if you had a preference for a particular candidate, who did you vote for, or who would you have voted for?

- Bush
- Kerry
- Other _____

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