

Priming Patriots: How News Intensity and Evaluative Tone Affect Public Support for War

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Abstract

Research on public support for war rarely examines news coverage of war despite assuming that the standard explanatory factors—numbers of casualties, costs and benefits of the conflict, levels of elite dissensus and cues about the likelihood of victory—are conveyed to the mass public through news coverage. Our study is the first to test how news coverage affects public support for war across a range of major military conflicts. We find that increases in support for war tend to occur during periods with relatively intense news coverage about the war, and that support for war is affected more by the intensity than the evaluative tone of that news coverage.

News coverage long has been assumed to influence public support for war. If the vast literature on public support for war shares a common theoretical premise, it is that the mass public's current level of support reflects an updated assessment of such factors as the war's perceived costs, likely benefits, and chances of success. That is, public support for war is thought to change in response to news about war. Despite much scholarly disagreement over how a war's costs are perceived, and which benefits weigh more heavily in the public's mind, the view that public support for war is a sort of constantly-updated rational calculus has flourished in the 35 years since John Mueller (1973) first showed that aggregate support had an inverse relationship to casualty rates. It is a view that derives almost entirely from aggregate-level data analysis and common sense. It is also a view that is often contradicted at the level of individuals.

To take just one example, if casualty rates have a direct impact on perceptions of war, it follows that citizens must possess accurate information about the occurrence of casualties. But most citizens have grossly inaccurate perceptions about the number of casualties being incurred in ongoing wars (Berinsky 2007, 2009; Boettcher and Cobb 2006; Cobb 2007). Moreover, news coverage of casualties is both infrequent and easily overlooked (Aday 2005; Hallin 1984; Patterson 1984; Cobb 2007). These findings suggest a significant "black box" problem for the research literature on public support for war, which has emphasized correlations between aggregate inputs like casualty rates and aggregate outputs like poll results, without delving very far into questions of causality using individual-level theories or data.

Probably the biggest challenge to the conventional "rational calculus" view of public support for war is the uncomfortable fact that most citizens, most of the time, pay little attention to news coverage of any sort, let alone news coverage about ongoing wars (Althaus 2007; Price and Zaller 1993). Inattentive citizens might still be able to base their support for war upon cues supplied by political leaders (Berinsky 2009; Larson 1996, 2005; Zaller 1992) or information gleaned from "soft news" entertainment programming (Baum 2003), but granting these exceptions only underscores how the existing literature lacks a compelling theoretical rationale to explain support dynamics at the individual level. No study to

date has addressed whether and how news coverage might affect aggregate support for war when most citizens, most of the time, tend to avoid news altogether (although see Groeling and Baum 2008).

This paper addresses the gap in our understanding by testing two alternative theoretical linkages between news exposure and war support. Determining which of these linkages seems most prevalent in a population requires identifying those uncommon moments when large numbers of citizens are paying closer attention to war news, and seeing whether changes in war support take different forms in such instances than during periods when most people are likely to be tuning out. We argue that a foundational variable for understanding how news coverage might influence mass support for war is the likelihood, at any point in time, that war news is reaching a broad cross-section of the population—what John Zaller (1992) has termed “message intensity.”

We present two studies that together provide the first comprehensive attempt to analyze how the intensity and evaluative tone of war news affects public support for war. Our first study examines how the ebb and flow of war news on the front page of the *New York Times* is related to levels of domestic public support for every major American conflict in the post-World War Two era. This unique combination of comparable opinion and news intensity data spanning multiple wars permits an empirical analysis of the long-presumed but rarely-tested relationship between news coverage and support for war. To supplement this aggregate analysis of news intensity we present a second study of individual-level support for military involvement in the 1990-1 Persian Gulf Crisis. The findings from this case study confirm that news intensity is a significant predictor of war support and, ultimately, more important than the evaluative tone of news as an influence on war support.

News Coverage and Public Support for War

Several related factors are currently thought to influence public support for war. The occurrence of cumulative (e.g., Mueller 1973) and marginal casualties (e.g., Gartner and Segura 1998; Gartner, Segura, and Wilkening 1997) correlates with declining levels of support, but recent scholarship has confirmed that the impact of casualties on support is conditioned both by media framing (Boettcher and Cobb 2006) and, more generally, by the perceived benefits of the war. The ostensible goals of the conflict and its eventual

chances of success therefore seem to be important moderators of support for war (e.g., Burk 1999; Feaver and Gelpi 2004; Gelpi, Feaver, and Reifler 2005; Jentleson 1992; Jentleson and Britton 1998; Oneal, Lian, and Joyner 1996; Eichenberg 2005). Events that take place during a war are also thought to influence public support (Sigelman et al. 1993), particularly “rally ’round the flag” effects that take place at the onset of hostilities (e.g., Baum 2002; Brody 1991; Oneal and Bryan 1995; Parker 1995). Likewise, the relative degree of elite consensus about the wisdom of going to war is another important influence on public support for a conflict. When government officials are unified behind the president, public opinion usually follows suit; when elites divide, public support usually declines as a result (Baum and Groeling 2005; Berinsky 2009; Zaller 1992). Finally, various demographic characteristics can influence support for war, with partisanship, gender, and ethnicity sometimes playing important roles (e.g., Berinsky 2009; Zaller 1992; Conover and Sapiro 1993).

News coverage is often suspected of being a key influence on support for war. Yet scholarly research on support for war has tended to neglect the content of news coverage, and for good reason: until recently the methodological challenges to conducting a large-scale content analysis of news coverage were difficult to overcome. Partly as a consequence, previous research identified correlations between “real world” factors and levels of support as evidence of news impact, without directly examining either the intensity or tone of news coverage (for exceptions, see Larson 1996, 2005; Zaller 1992; Baum 2003; Iyengar and Simon 1994; Fan 1993; see also Groeling and Baum 2008) and without appreciating that only a fraction of the population attends to news of any sort, even during wartime (e.g., Althaus 2007). This indirect approach assumes much about the impact of news on mass opinion without usually exposing those assumptions to empirical scrutiny. The result is that aggregate-level analysis of war support has proceeded largely without substantive engagement with individual-level theories of attitude change.

Further progress in this important line of research therefore requires better theoretical connections between observed relationships at the aggregate level and underlying processes of attitude change. However, opinion data on war support tend to be collected for purposes other than academic research, and

as a result they typically lack the independent variables required for assessing individual-level psychological processes that might be giving rise to changes in aggregate support for war.

We suggest that new insights can be drawn out of existing opinion data by examining how changing levels of war support are related to the changing intensity of war news. Message intensity, which can be thought of as the “penetrating power” of a potentially persuasive message (Zaller 1992: 150-1), occupies a central theoretical role in Zaller’s work on information flows and mass opinion. Widespread updating of attitudes based on new information is unlikely to occur when message intensity is low, because the news audience in such situations is composed mainly of political sophisticates who already possess well-formed attitudes on most subjects. Mass opinion is likely to change in significant ways only when message intensity increases—as when news of war moves onto the front pages of newspapers and is prominently featured in news broadcasts—because high-intensity news reaches people who are persuadable but normally tuned out from news coverage. Since news-induced changes in public support should be largest in magnitude when the news is at relatively high levels of intensity, analyzing the relationships between observed levels of news intensity and observed changes in mass opinion can clarify how news coverage affects public support for war.

Because mass persuasion is most likely to occur when news intensity is high, studying the relationship between public support for war and news intensity should clarify which of several plausible individual-level processes might be underlying the dynamics of aggregate war support. Such an analysis can clarify whether exposure to war news acts primarily to change levels of support for war through information updating or to consistently increase support for war—regardless of the evaluative tone of war news—by activating the public’s latent sense of patriotism or national identity.¹

¹ Most models of opinion dynamics consider multiple outcomes of media exposure. For example, Zaller’s receive-accept-sample model (Zaller 1992), Petty and Cacioppo’s Elaboration Likelihood Model (Petty and Wegener 1999), and Chaiken and Eagly’s Heuristic Systematic Model (Chaiken and Eagly 1993) all have expectations about the conditions under which information updating is likely to dominate the persuasion process relative to other forces. Our approach synthesizes various models by considering whether information updating or group identity processes appear to play a dominant role in aggregate support dynamics when news intensity is high. High-intensity news coverage should provide optimal conditions for mass persuasion to occur, because new war-related information becomes more plentiful and more salient even to normally inattentive citizens. Determining

Information Updating

Scholarly and popular explanations of war support tend to suggest that changes in the mass public's attitudes about war reflect changing assessments about the costs and benefits of a military conflict. If so, we should find that changes in levels of war support are more likely to occur during periods with relatively high levels of news intensity and, in turn, less likely to occur during periods when war news disappears from front-page headlines. This expectation is supported by a large research literature, much of it rooted in Zaller's (1992) influential receive-accept-sample model. Zaller's work suggests that news coverage influences which considerations people will use to form their political preferences. New considerations are likely to be received and political preferences are likely to change during periods of intense news coverage, particularly among those who are normally inattentive to war news and therefore most likely to find the new information persuasive (Zaller 1993; see also Berinsky 2007). Alternatively, citizens might update their political judgments "on-line" as new information is encountered (Lodge, McGraw, and Stroh 1989; Lodge, Steenbergen, and Brau 1995). Either way, since new information would not only be more plentiful but also more likely to reach the most persuadable citizens in periods of elevated message intensity, aggregate support for war should be more likely to change during such times if intense news leads to widespread information updating. In sum, within this first theoretical framework greater message intensity should increase the probability of messages being received, especially among the less informed segments of society. The result is an increased opportunity for preferences to shift, with the direction of change a function of new information content and the tone of coverage, among other factors.

Priming Patriotism

A second account of news media influence on wartime support considers the ability of wartime news coverage to prime group attachments.² Group membership and perceptions of social groups have

whether aggregate war support tends to change or stabilize in such times can therefore reveal which type of process seems to be the more likely determinant of observed opinion dynamics.

² We use the terms "prime," "priming," and "patriotism" throughout this paper merely as lexical placeholders rather than as definite mechanisms or specific concepts, so that the reader may be spared the inelegant parsing of several

long been thought to influence political attitudes (e.g., Brady and Sniderman 1985; Converse 1964; Conover 1988; Lazarsfeld, Berelson, and Gaudet 1944). Citizens can be primed by media exposure in ways that make particular group identities salient (e.g., Conover 1984; Valentino 2001; Price 1989), and recent work has demonstrated the importance of group commitments as an ingredient of public support for war (Berinsky 2009; Kam and Kinder 2007; Kam and Ramos 2008). Group identity processes might also explain how news coverage shapes support for war. Positive affect towards one's country, typically called patriotism, is a central value that structures citizens' foreign policy attitudes (e.g., Hurwitz and Peffley 1987, 1990). Moreover, the United States is notable for a strong sense of common national identity that is widely shared across otherwise distinctive subgroups (Citrin, Wong, and Duff 2001). Wartime press coverage is likely to increase the salience of such group-based affect because regardless of whether the news is positive or negative toward a military crisis, news coverage of war invariably emphasizes conflict between "us" and "them" (Kam and Kinder 2007). As Kam and Ramos (2008) demonstrate, making group identities salient should tend to activate latent patriotism, which would encourage citizens to think of themselves first and foremost as members of the ingroup. Consequently, when asked to formulate opinions about the war, citizens may tend to offer support because they see support as consistent with the needs of the group. As media coverage fades, however, group identity becomes less salient, citizens begin to judge the war as individuals rather than as members of the ingroup, and support declines.

Although this perspective may be unfamiliar to many political scientists, it has a long history and rich theoretical pedigree in the disciplines of psychology, sociology, and anthropology. The expectations outlined above are suggested by the ingroup-outgroup hypothesis popularized by Coser (1956) and originally formulated in 1908 by Simmel (1955), which proposes that increasing the salience of an external conflict should promote internal cohesion in a population. The ingroup-outgroup hypothesis has

plausible underlying mechanisms and a range of possible definitions each time we refer to increasing the salience of group identity in ways that increase support for war. Unfortunately, data do not yet exist that would allow us to measure patriotism in conjunction with an over-time analysis of war support, nor to test which of several psychological mechanisms might underlie such a dynamic relationship.

received sustained attention from psychologists, sociologists, and anthropologists since the 1950s, generating an extensive empirical literature that consistently supports the basic premise that, under certain conditions, an external threat to an established group enhances the solidarity of the group's members (for reviews, see Hewstone, Rubin, and Willis 2002; Kelman 2006; Stein 1976; Levy 1989). Perhaps the most theoretically elaborated approach to this relationship is the psychological literature on social identity theory (for reviews, see Brown 2000; Ellemers, Spears, and Doosje 2002; Tajfel and Turner 1986; Huddy 2003). Despite widespread interest in this relationship across the social sciences, and despite the expectation that political cohesion "can be influenced by the political environment and manipulated by political rhetoric" (Huddy 2003: 542), political scientists have provided "relatively few empirical tests of the external conflict/internal cohesion proposition, and almost no application of it" (Stein 1976: 159). To our knowledge, only two recent studies by political scientists have directly tested the ingroup-outgroup hypothesis at the individual level (Kam and Kinder 2007; Kam and Ramos 2008). These studies found consistent support for the importance of primed in-group identities in structuring support for presidential approval and a wide range of national security policies in times of war.

The ingroup-outgroup hypothesis has been suggested as one explanation for the finding that higher levels of news coverage tend to produce larger rallies in support for the president during national security crises (e.g., Lai and Reiter 2005; Lian and Oneal 1993; Levy 1989). More generally, a wide range of studies has shown that news exposure (as measured by levels of political knowledge) was positively correlated with support for war during the Second World War (Berinsky 2009), the Korean War (Suchman, Goldsen, and Williams 1953; Belknap and Campbell 1951-1952: 615), the Vietnam War (Verba et al. 1967; Zaller 1992: 185-215), and the Persian Gulf War (Iyengar and Simon 1994; Zaller 1996). However, this consistent finding has received little comment in the literature, probably because the emphasis in most of these studies has been on showing patterns of divergence between hawks and doves at the higher end of the political awareness spectrum. For instance, no one to date has noted that the most-aware doves in Zaller's analysis of Vietnam support were consistently more supportive of the war than the least-aware doves in every year save 1970, the latest period of the war analyzed by Zaller. Indeed, the

most-aware doves were even more supportive of the war than the least-aware hawks in every year prior to 1970 (Zaller 1992: 202, 210). One study expressed surprise at the finding in 1972 that esteem for the military was highest among those most heavily exposed to television news of the Vietnam War, since television news at that late date of the war was so critical of the military's involvement in Southeast Asia (Hofstetter and Moore 1979). However, this seemingly incongruous finding is entirely consistent with the hypothesis that primed national identities should have a greater impact on war support than the flow of information about a war conveyed through the news.

A group-based approach to understanding the impact of war news suggests that as message intensity rises, support for war should grow. Likewise, as message intensity wanes, support for war should fall. Unlike information updating, this group-based explanation of war support suggests a consistent directional relationship: a positive net change in war support should follow from increasing the intensity of war coverage regardless of the tone or informational content of that coverage.

Study One: Aggregate-Level Change in Support for War

Our first study aims to provide as broad and comprehensive a test as possible using data on support trends in news coverage patterns for every major American war that has taken place in the era of the modern opinion survey. We focus only on wars that involved major commitments of military forces and actually used those forces in large-scale combat. Our cases therefore include American wars in Korea (1950-3), Vietnam (1965-73), the Persian Gulf (1990-1), Kosovo (1999), Afghanistan (2001-present), and Iraq (2003-present).

This first study builds on the individual-level research of Zaller (1992), Berinsky (2007, 2009), and others by considering whether the dynamic pattern suggested by information updating theories is consistent with the aggregate dynamics of public support for war. This study extends previous work by also looking for evidence that an additional individual-level mechanism—predicting a different outcome—might better match the dynamics of war support. To be clear, our analysis of aggregate-level dynamics is not presented as an alternative to existing models of individual-level war support. No study of aggregate war support is likely, in isolation, to provide compelling evidence about the workings of

individual-level processes. Rather, this part of our analysis begins with the observation that two plausible individual-level processes predict different dynamics in aggregate war support, and aims to see which dynamic is most consistently observed in aggregate-level trends. Evidence about individual-level processes is analyzed separately in study two, reported below.

Methods and Data

Hundreds of survey questions have been used to record different aspects of the public's responses to America's wars, and the rich amount of detail available for each war tends to obscure common patterns of support that might be present across wars. Our solution to this problem of overabundance is to focus only on one category of survey questions: those that ask respondents whether it was appropriate or inappropriate for the United States to have gotten involved in the first place. Mueller's path-breaking (1973) analysis of support trends in Korea and Vietnam did just this by examining parallel trends across two wars, using what are now known in the literature as the "mistake", "worth fighting", and "right thing" questions. Our study takes the same approach, but broadens the cases to include similar kinds of questions from all the major wars that have occurred since 1945. Using the iPoll database maintained by the Roper Center for Public Opinion Research, we identified support questions that were asked more than once in a given war and that took the basic form of the "mistake", "worth fighting", and "right thing" questions (n = 435). Only questions asked before the end of hostilities are considered here. These data points form 28 question trends across the six wars (four for Korea, two for Vietnam, three for the Persian Gulf War, two for Kosovo, six for Afghanistan, and 11 for Iraq). Descriptive information about these trends is available in the methods supplement to this paper.

Our use of trend data that can be compared across multiple wars naturally places important limits on our analytical strategy. One problem comes from the uneven time periods between measures of support in each war's opinion trends,³ which makes standard econometric approaches to analyzing trend dynamics

³ Six of the observed changes in support levels (1.5%) consist of data points spaced a year or more apart. Fifty-six cases (13.8%) capture change in support across a gap of between three and twelve months, and another 116 cases (28.5%) straddle a lag of between one and three months. That leaves more than half of our cases (56.3%) consisting of change that has occurred within four weeks of the previous support measure.

inappropriate for these data. A second problem comes from the tendency for poll questions to be asked more frequently today than in the past.⁴ Our analysis compensates for this imbalance by verifying that observed relationships still hold when the Iraq data are excluded from the analyses, but the fact remains that the available evidence from 20th century conflicts is relatively thin compared to 21st century wars.

Our attempt to recover the population of comparable trend data across these wars mirrors the analytical approach taken by Page and Shapiro in their extensive work on the dynamics of collective opinion trends (e.g., Page and Shapiro 1983, 1992). Following Page and Shapiro, we treat each instance of aggregate support change as an observation of an underlying process. The measures of *Support for war* in study one consist of instances of change in levels of support from a t_1 measure to a t_2 measure using identically-worded questions within each war (n=407 cases of change). We difference each support trend to generate two types of observations: the absolute size and the net direction of each change in support. The latter is obtained by subtracting the t_2 support measure from the t_1 support measure; the former is obtained by taking the absolute value of this difference. Unlike Page and Shapiro, we include all differenced support measures regardless of the size of the observed change: our data therefore consist of the entire population of support measures that can be compared meaningfully across these wars.

We also measure several independent variables that occur between the t_1 and t_2 measures of support in each instance of change. The most important of these is the prominence of war news published in the period between each pair of t_1 and t_2 support measures. To capture both within- and across-conflict variation in the intensity of news coverage about war, we analyzed the relative prominence of war-related coverage on the front page of the *New York Times*. This data source was available in electronically-searchable form for all six of the major wars under consideration, which made it a convenient news source to analyze. And because the news values of American journalism are highly professionalized and uniform across media (e.g., Weaver and Wilhoit 1996), there is typically a high degree of congruence in

⁴ As a consequence of the growth of the polling industry, 72.0% of observed changes in public support for war within identically-worded question trends (n=293) come from the Iraq War, 7.4% (n=30) are from the Persian Gulf War, 6.6% are from Korea (n=27), 6.4% come from Afghanistan (n=26), 5.9% come from Vietnam (n=24), and 1.7% come from Kosovo (n=7).

the topical agenda of national outlets (e.g., Danielian and Reese 1989; Golan 2006). For example, across the 30 weeks of the 1990-1 Persian Gulf Crisis, our data show that the percentage of front-page stories in the *New York Times* devoted to the crisis correlates at +.97 with the number of crisis-related stories appearing on the average nightly network news broadcast. We are therefore confident that the prominence of war news on the front page of the *New York Times* closely tracks the prominence of war coverage in other national news outlets during our period of analysis.

We collected weekly counts of the total number of front-page stories as well as the number of front-page stories that mentioned the area of the world in which a war was taking place. The *News intensity* of war coverage that occurred between each pair of t_1 and t_2 support measures is simply the proportion of front-page stories mentioning the war that appeared between the week of the first support measure and the end of the week containing the second support measure. Unlike cumulative casualties, which are positively correlated with the duration of war, our analysis of these news intensity trends finds no common relationship across the six wars between the weekly intensity of news coverage and the passage of time. (Details of this analysis are available in the methods supplement.) Because the news intensity of each war evolved differently from the rest, it is possible to disentangle the unique effects on support trends of news intensity, elapsed time, events, and casualties.

Our analysis includes separate controls for the passage of time, the occurrence of dramatic events, and casualties. We control for the impact of uneven time intervals between each pair of t_1 and t_2 support measures by including the number of elapsed *Weeks since the last poll*, expecting that larger changes are more likely to occur with longer gaps between measures. Elapsed time between measures also should be associated with declines in support given the tendency for support to start high and then wane over time. We include a time counter for *Week of conflict* to control for the possibility that changes in support should be larger in the earlier stages of a war, when war-related attitudes should be less fully developed and therefore less stable.

Study one also controls for rapid changes in support brought about by the occurrence of major events. The literature on public support for war has typically called these “rally events”, but the effects of

major events are not always to raise levels of support. For instance, China's entry into the Korean War brought about a large drop in support—26 percentage points in one measure and 27 points in another—in a period of weeks. We define the impact of a major event within each support trend as a 10-point or greater shift in support over a period of three weeks or less.⁵ Instances of opinion change that were large but occurred outside the three-week window, or that were large but could not be tied to a prominent event, were not counted as event-driven. Accordingly, in our analysis of the absolute size of changes in support we use a single *Major events* dummy variable to mark cases of large short-term shifts in support. In our analysis of the directional changes in support, we use separate dummy variables for *Positive events* and *Negative events*, coded according to the direction that an event moved a public support trend (details available in the methods supplement). These event variables are not of direct interest to our analysis: we use these dummy variables merely to control for outlier cases of support change that might otherwise exert disproportionate leverage on the regression models. Omitting the event variables from Table 1 below acts in every case to increase the apparent size and significance of the news intensity effect. However, omitting the event variables inappropriately assigns too much variance in war support to spikes in news intensity. Since shifts in news intensity are themselves often precipitated by major events, including the event-related dummies reduces the chance that any observed relationship between support and news intensity is merely an artifact of improperly-specified models.

Following Mueller (1973), most studies have controlled for the number of casualties incurred since the start of each war by taking the natural log of the cumulative number of Americans killed in action. This approach might be appropriate for longitudinal analysis over a large number of repeated measures, but its disadvantage is the high correlation between cumulative casualties and the passage of time. In our pooled data for all six wars taken together, the correlation between the number of elapsed weeks in a war and the log of the cumulative casualty count is a substantial $+ .67$ ($p < .001$). This confound between

⁵ Seven out of 407 observations of support change were found to be influenced by major events, three in a negative direction and four in a positive direction. Details on the construction of this variable are available in the methods supplement.

casualties and time has been a source of chronic uncertainty about the precise impact of casualties on support.

Although the log of cumulative casualties is correlated with the passage of time within each war (except for Kosovo, which had no American combat deaths), our study circumvents the traditional confound between time and casualty rates by taking advantage of the tendency for casualties to occur at different time periods and at different rates across wars when time is measured in elapsed weeks from the onset of each conflict. This approach allows us to model casualty rates as the marginal number of Americans killed during the period between each pair of t_1 and t_2 support measures (similar to the approach taken by Gartner and Segura 1998; Gartner, Segura, and Wilkening 1997; see also Gartner 2008), instead of using the more conventional measure of cumulative casualties. Because the correlation between elapsed weeks in each war and *Deaths since the last poll* is a nonsignificant $+0.07$ ($p = .15$) across the six wars pooled together, our use of marginal casualties occurring between pairs of support measures effectively controls for the typical covariance problem that has plagued earlier studies.

Findings

If intense news coverage leads to widespread information updating, larger changes in support for war should be most frequent during periods when war is the lead story of the day, but the direction of these changes in support should be unrelated to news intensity. In contrast, if intense news coverage primes ingroup-outgroup considerations, then support for war should tend to increase when news intensity is high and decrease when the war slips off the front pages of news outlets like the *New York Times*.⁶

The first column in Table 1 reports findings on the absolute size of changes in war support between each pair of support measures, controlling for casualties, the passage of time, and dramatic events.

Consistent with prior research (Gartner and Segura 1998; Gartner, Segura, and Wilkening 1997), higher

⁶ If intense news coverage primes group-related considerations, the effect of such a relationship on the absolute size of changes in war support could vary as a function of several factors. The ingroup-outgroup hypothesis would be inconsistent with a significant negative relationship between news intensity and the absolute size of changes in war support. However, the ingroup-outgroup hypothesis could produce either a positive relationship between news intensity and the size of changes in war support, or no significant relationship at all between these variables.

rates of marginal casualties produce larger absolute changes in support even after controlling for time. But after controlling for casualties, major events, and the passage of time, news intensity exerts no impact on the absolute magnitude of changes in support. However, the second column of Table 1 shows that the intensity of news coverage is closely related to *directional* changes in support for war. Where the dependent variable in the first column is the absolute difference between t_1 and t_2 measures of support, the dependent variable in the second column is the net difference between these measures: positive values in the net change variable occur when support increases over time, while negative values indicate drops in support. The second column shows that increases in the intensity of war news are significantly and positively associated with increases in support for the war, even after controlling for the impact of casualties, time, and events.⁷

INSERT TABLE 1 ABOUT HERE

This pattern of findings is consistent with the ingroup-outgroup hypothesis, and suggests that information updating is unlikely to be a dominant process responsible for observed changes in aggregate support for war. This pattern becomes even stronger when cases from the Iraq War are excluded from the analysis: the effect of news intensity on war support doubles in size for the earlier conflicts considered separately.⁸ This confirms that this effect of news intensity is no artifact of the abundance of Iraq cases. To the contrary, the preponderance of Iraq data seems to be suppressing the apparent impact of news intensity shown in Table 1. Taken together, the findings from columns one and two suggest a social identity process underlying the dynamics of directional change in support for war.

As intriguing as this finding may be, interpreting the positive relationship between the prominence of war news and levels of aggregate support for war is complicated by the uneven time periods with

⁷ An apparently strange finding in Table 1 suggests that the duration of a war is positively associated with net changes in support, while the lag between support measures is negatively related to changes in net support. This apparent anomaly is explained by the positive correlation between the “week of conflict” variable and the “weeks since last poll” variable ($r = +.25, p < .01, n = 407$). Support measures are less frequently asked in the later stages of wars than in the early stages, so the gap between measures becomes a proxy for the elapsed time in a conflict. The bivariate correlation between net change in support and the “week of conflict” variable is a nonsignificant $-.01$ ($p = .92$), while that between net change in support and the “weeks since last poll” variable is $-.32$ ($p < .01$).

⁸ Re-running the analysis in the second column of Table 1 using only cases from earlier wars ($n=114$) yields a news intensity coefficient of 13.7 ($p < .01$) with a beta weight of .25. Excluding Iraq also increases the adjusted r-squared to .52.

which changes in support are measured. Our models in Table 1 can control for the uneven time lags between support measures, but our method of calculating the intensity of front-page *New York Times* coverage is less comparable across long spans of time. We are not confident that 30% of front-page news stories spread over a 12-month period is the same as 30% spread over a four-week period, since the weekly distribution of that coverage can vary so much more over 12 months than it can over one.

For this reason, we re-estimated the models from the first two columns of Table 1 using only the subset of cases where support measures were repeated less than five weeks apart. This retains slightly more than half of our cases ($n=229$), and excludes the most causally ambiguous cases of opinion change that occurred over long periods of time. Analysis of this smaller set of more comparable cases confirms the patterns revealed in the earlier analyses. The final two columns of Table 1 show that the time variables and the number of U.S. deaths occurring between support measures become insignificant predictors of war support among this smaller set of short-term change cases. Events still exert substantial leverage on war support, and news intensity remains a strong and positive predictor of directional changes in support.⁹

The findings in Table 1 suggest that raising the intensity of war news seems to prime supportive social identities rather than updating attitudes with new information. Although the bluntness of aggregate analysis and limitations of the available data preclude a definitive assessment, a further test of this possibility can be provided by analyzing the effect of news intensity separately for earlier and later stages of wars. The salience of an ingroup-outgroup conflict should tend to become chronically accessible the longer the conflict continues (Ashmore, Jussim, and Wilder 2001; Price 1989). If the effect of intense war coverage is to prime supportive social identities by raising the salience of an ingroup-outgroup conflict, then the intensity of news coverage should have a stronger relationship with war support earlier in a conflict than later (cf Kam and Ramos 2008).

Using the smaller set of short-term change observations, we separated those that occurred during

⁹ Omitting the events dummies makes this relationship even stronger (analysis not shown). Doing so increases the news intensity coefficient to +10.1 ($p < .001$) with a beta weight of .29 that dwarfs the influence of any other variable, while battle deaths remain an insignificant predictor of directional change in support.

earlier stages of a conflict from those that occurred in later stages. For net changes in support that had taken place during the first six months of a war, the correlation between net support change and news intensity was $+0.60$ ($p < .001$, $n = 43$). This correlation dropped to $+0.45$ ($p < .001$, $n = 62$) for observations of support change that had taken place at any point during the first year of a war. Including all cases of change measured during the first two years of a war drops the correlation further to $+0.37$ ($p < .001$, $n = 113$). This relationship became weaker still in the remaining cases of support change that took place after the first two years of a war ($r = +0.16$, $p = .08$, $n = 116$).¹⁰ As predicted by the ingroup-outgroup literature, the relationship between intense war news and support for war becomes attenuated over time.

The pattern of findings from study one is most consistent with the possibility that a group identity process is influencing observed changes in levels of aggregate support for war. However, study one's findings could still be consistent with information updating processes if news intensity turns out to be positively correlated with the evaluative tone of war news or with cues about elite consensus. An analysis of the news intensity trends within each conflict (available in the methods supplement) suggests that this is an unlikely possibility: intense news tends to occur during periods of controversy rather than consensus. Moreover, a separate content analysis study directed by the first author found no consistent relationship between news intensity and news tone in *New York Times* war coverage. Randomly sampled days of *New York Times* war coverage from World War I, World War II, the Korean War, the Vietnam War, and the Iraq War yielded consistently small and nonsignificant correlations¹¹ between the daily number of war stories and the daily tone of moral evaluations about American involvement in these wars (these data are described in **CITATION DELETED**).

¹⁰ Our interpretation of this relationship is complicated by a confound in the data: within the subset of short-term changes in war support, 165 of the 167 available cases from after the first year of a conflict come from the Iraq War. As a result, any inference about these relationships after the first year of a conflict is necessarily an inference based on the Iraq case alone. The reason is that during the other "long" wars—Vietnam and Korea—polling was done less frequently than it is today.

¹¹ In this unrelated content analysis study, the correlation between the daily number of *New York Times* stories about a war and the daily average evaluative tone regarding the morality of American involvement was $-.05$ for World War I ($p = .90$, $n = 10$ sampled days), $-.31$ for World War II ($p = .19$, $n = 20$ days), $+.31$ for the Korean War ($p = .22$, $n = 18$ days), $-.01$ for the Vietnam War ($p = .92$, $n = 49$ days), and $+.09$ for the Iraq War ($p = .63$, $n = 29$ days). Roughly every 60th day was sampled from each of these wars. In the case of the world wars, only periods of American involvement were included in this analysis.

Despite this circumstantial evidence that the intensity of war coverage should not be highly correlated with the tone of that coverage, study one has no weekly measure of the tone of war coverage carried in the *New York Times* that can be compared to weekly news intensity levels. We cannot rule out a potential confound between tone and intensity as an alternative explanation for the findings in study one, however unlikely this possibility seems to be. In addition, our use of aggregate support data allow us to infer but not verify that exposure to intense news coverage is indeed the proximate cause of aggregate changes. We therefore embarked on a second study that pairs individual-level opinion data with detailed content measures of both the tone and intensity of war news to confirm whether the apparent effects are driven by news exposure or something else that happens to be correlated with the changing intensity of war news.

Study Two: Confirming the News Intensity Relationship with Individual-Level Data

Study two examines support dynamics for the Persian Gulf Crisis among individuals with different levels of news exposure. Pairing individual-level survey data with a detailed content analysis of over-time changes in both the tone and amount of war news coverage allows us to clarify whether the relationship found in study one between news intensity and war support seems more likely to result from an information-updating or group identity process. In addition, our ability to divide respondents by degree of news exposure allows us to clarify whether the observed relationship in study one between news intensity and support for war is caused by news exposure itself. However, lacking individual-level panel data, study two is unable to test for changes in support levels that were examined in study one. Study two instead focuses on the relationship between individual-level probabilities of supporting military involvement and individual-level exposure to war news that varies in both intensity and evaluative tone.

The Persian Gulf Crisis is a particularly appropriate case for analyzing the effects of news intensity. It is the first conflict in American history for which a wide range of survey data measuring support for war were regularly collected. It is also the last major war to occur before the proliferation of news outlets on cable and Internet. Because national news audiences were still relatively concentrated into the three

nightly television newscasts during late 1990 and early 1991,¹² it is possible to track the intensity of war news reaching broad segments of the population during this period. The same cannot be said for American wars in the post-9/11 era, as the tendency for audience fragmentation across a wide range of alternative news products makes it ever more challenging to trace the news content that reaches various groups in the American population.

The Persian Gulf Crisis also affords other advantages relative to wars previous or since. It is the first war in which news transcripts are available for all three television networks, and network news coverage provides a superior measure of news intensity because it is seen by a broader segment of the American population than the *Times* or any other news outlet (Althaus 2007). The Persian Gulf Crisis also provides a clear test of the relative importance of news intensity and news tone. News intensity varied considerably between the Iraqi invasion of Kuwait in early August 1990 and the start of the ground war in late February 1991, with peaks toward the beginning and end of the crisis period **CITATION DELETED**. In contrast, the evaluative tone of news about the crisis remained relatively positive until early January **CITATION DELETED**. After turning in a sharply negative direction, the tone of news discourse remained fairly balanced through the first several weeks of the air war before returning to relatively positive coverage by the start of the ground war. Because news intensity and news tone ran different courses, they were uncorrelated with one another over the 206 days of the crisis period ($r = -.03, p = .64$). Finally, like most modern wars the Gulf Crisis was marked by elite dissent among domestic leaders. A heated debate over the last two months of 1990 culminated in party-line congressional votes on January 12, 1991, that narrowly authorized the use of force.¹³ This combination of advantages—abundant survey data, concentrated news audiences, elite dissent, a superior measure of news intensity, and the clear separation of news tone and news intensity—make the Persian Gulf crisis a nearly ideal case for testing the pattern of relationships found in study one.

¹² The three nightly network newscasts were by far the most common source of news during the Persian Gulf Crisis, having a combined direct audience of between a quarter and a third of American households, according to Nielsen ratings data (Althaus 2007).

¹³ The vote was 52-47 in the Senate and 250-183 in the House. All but six of the nay votes came from Democrats.

Methods and Data

Opinion data for this study come from national surveys administered by the Gallup Organization between August 9, 1990 and February 10, 1991. Eighteen surveys containing the “mistake” question were in the field between the Iraqi invasion of Kuwait and the start of the ground war in late February.

Respondents expressing *Support* for the American troop deployment to the Persian Gulf were assigned a value of one, while all others were assigned a value of zero. Valid responses to the mistake question were pooled into a common data set (n=18,196) for analysis using logistic regression.

Self-reported *News attention* is measured by a question that asks, “How closely have you followed news about the situation involving the invasion of Kuwait by Iraq and the sending of U.S. troops to Saudi Arabia? Would you say you have followed it very closely, fairly closely, not too closely, or not at all closely?” Averaging across the 74 days of Gallup data, 45% of respondents reported paying “very close” attention to news coverage of the Gulf Crisis, 44% paid “fairly close” attention, and 11% reported paying little or no attention to war news.

All regression analyses using the Gallup data also control for *Party identification* (dummy variables for Republican and Democratic identifiers, leaving independents as the reference category), *Gender* (males = 1, females = 0), *Race* (nonwhites = 1, whites = 0), and *Age* (in years), variables known to influence war support. In addition, all analyses include a dummy variable marking the *Start of the air war* to control for the impact of this positive event on support levels (interview after January 15 = 1, else 0).

Measures of the tone and intensity of war news coverage come from every nightly news broadcast on each of the three major networks that aired during the period of interest. Compiled from full-text transcripts, the data set includes every news story relevant to the crisis with Iraq that appeared on ABC’s *World News Tonight*, CBS’s *Evening News*, and NBC’s *Nightly News* (N=3,854 stories) between the Iraqi invasion of Kuwait and the start of the ground war to drive Iraqi forces out. The coding protocol for these data captured not only the substance of the policy debate among government officials, journalists, and other sources appearing on the nightly news, but also the supporting arguments and frames of reference used by those sources to lend credibility to their policy positions (for additional details and a complete

listing of themes, see **CITATION DELETED**). Intercoder reliability tests performed on a sample of 101 randomly selected ABC *World News Tonight* stories produced intercoder agreement on the presence of specific themes in 88% of cases (Cohen's kappa=.875; Brennan and Prediger's kappa=.877). From these data we construct measures of news intensity, news tone, and an interaction term to capture any joint effects that news tone and news intensity might exert in combination.

News intensity was operationalized in study two as the average number of crisis-related stories per evening news broadcast, and calculated for each respondent based on the date of interview. A variety of cumulative exposure periods were constructed and tested, ranging from a short-term measure of news intensity that included only coverage from the same day as the interview, to a longer-term cumulative measure of news intensity covering the 28 days leading up to the date of interview. *News tone* was operationalized as the average percentage of positive war coverage per broadcast minus the average percentage of negative war coverage per broadcast (omitting neutral coverage), using the same range of cumulative exposure periods as the news intensity variable (for details on the trends in positive and negative coverage over this period, see **CITATION DELETED**). In this context, "positive" and "negative" are relative to the Bush administration's stated positions. Our measure of news tone is therefore sensitive to levels of elite dissensus over the course of the crisis. Although elite sources made up only a subset of critical voices appearing on television news coverage about the Persian Gulf Crisis **CITATION DELETED**, analysis of trends in news tone show that the measure tracks closely with levels of elite dissensus. For example, news tone becomes relatively more negative during periods of elite debate, reaching a low point shortly on the day of the January 12th congressional vote authorizing the use of force.

Because the news data end at the start of the ground war, the last Gallup survey in the pooled data set occurred at a time when few combat casualties had been sustained.¹⁴ Since levels of support rose dramatically and stabilized during the air war **CITATION DELETED**, this small number of casualties

¹⁴ According to official Department of Defense figures published in the *New York Times* during the conflict, no combat deaths occurred before the start of the air war, and a total of 32 combat deaths occurred between the start of the air war and the start of the ground war.

could not have had any obvious impact on aggregate support for the war during the air war period. For this reason, we did not include a separate control for the occurrence of casualties.

Findings

Regression analyses of individual-level variation in support for war and exposure to war news replicate the findings from study one. The regressions confirm that news intensity is a significant predictor of increased support even after controlling for news tone, and that the effect of news intensity is stronger among people more heavily exposed to war news. Three tables of logistic regression coefficients are included in the appendix for interested readers, specifying immediate and cumulative longer term effects of news tone and news intensity on respondents with different levels of attentiveness to war news (Tables A1 and A2) as well as the how these relationships change when the impact of war news is measured using different exposure durations (Table A3).

Since logit coefficients are difficult to interpret, one way to clarify the effects of news intensity is to examine the change in predicted probability of supporting the war when news intensity varies from low to high while holding the values of all other independent variables constant. To provide a common metric for effect sizes in the figures that follow, the test values of the key news variables are presented as standard deviations from their mean values.

Figure 1 shows the daily effects of news intensity on support for American involvement in the Gulf Crisis after controlling for the daily effects of news tone. The analysis in this figure considers only the numbers of war stories broadcast on the day each respondent was interviewed. Figure 1 shows an immediate and significant positive relationship between news intensity and support for war among respondents saying they follow war news very or fairly closely. As would be expected from a media effect, the immediate impact of news intensity is larger for respondents saying they pay very close attention to war news than for those who say they pay fairly close attention. Also as expected from a media effect, the apparently slight positive relationship between support and daily news intensity among respondents paying little attention to war news is statistically insignificant.

INSERT FIGURE 1 ABOUT HERE

Figure 2 shows the same relationships when longer-term patterns of news coverage are taken into account. The intensity of war news in the four weeks leading up to each survey interview has a significant positive relationship with support for war among the two most attentive groups, and the response patterns among these two groups of attentive respondents are nearly identical over the range of longer-term news intensity values. Moreover, the slope of the effect among inattentive respondents is both statistically insignificant and smaller than among attentive respondents, a difference that is consistent with the impact of a media effect rather than an unspecified variable that is merely correlated in time with the ebb and flow of news intensity.¹⁵ If the latter, we should see a strong positive relationship with news intensity, even among respondents paying little attention to the news.

INSERT FIGURE 2 ABOUT HERE

These patterns strongly suggest that the observed influence of news intensity from study one is an effect of exposure to war news rather than of some unspecified variable that is correlated in time with changing levels of news intensity. Moreover, these individual-level patterns mirror the direction and magnitude of the aggregate-level news intensity effect found in study one.

Our ability to control for the tone of war news also confirms that the patterns revealed in Figures 1 and 2 are unlikely to be an artifact of information-updating. Yet up to this point we have not considered whether the effects generated by the intensity of war news are as large or as important as those produced by the tone of war news. A popular assumption, often shared in the scholarly literature (and sometimes supported; see Zaller 1992), is that the evaluative tone of war news should have a direct bearing on support for war: as news about the war gets more positive, support levels should rise. Likewise, negative war news should lower support. Presumably, these tendencies should be even greater when news intensity is turned up.

Our analysis yields only partial support for this expectation. Whereas Figures 1 and 2 showed the predicted impact of news intensity when news tone was held constant, Figures 3 and 4 show how the

¹⁵ It is likely that the small and statistically insignificant effect of longer-term news intensity on inattentive respondents is a function of interpersonal communication prompted by news discourse about the war, the “two-step flow” that has been shown to occur in various other contexts (e.g., Katz and Lazarsfeld 1955; Mondak 1995).

effect of news intensity varies when the evaluative tone of news coverage is two standard deviations more positive and two standard deviations more negative than the mean tone of war news throughout the Persian Gulf Crisis. Figure 3 shows the interaction between news intensity and news tone when considering only coverage broadcast on the day of the survey interview, while Figure 4 considers the joint effects of news coverage during the four weeks leading up to each interview. Yet the patterns in these figures are nearly identical: both suggest that the news intensity effect is magnified when war news is especially positive and muted when the news is especially negative. However, only the pattern for positive news fits the conventional information-updating expectation (e.g., Zaller 1992) that the effects of evaluative tone should be magnified at higher levels of news intensity. When the news is relatively positive, predicted levels of war support rise steeply with increasing levels of news intensity. But when the news is relatively negative, the news intensity effect mostly disappears. Conventional information updating models would suggest, to the contrary, that increasing news intensity should diminish levels of war support when news coverage is relatively critical of the Bush administration's stance toward the Iraqi invasion of Kuwait. That it does not suggests that information updating makes only a limited contribution to the observed relationships between news intensity and war support.

INSERT FIGURES 3 AND 4 ABOUT HERE

The analysis thus far has clarified the ways that news tone and news intensity interact to affect levels of war support, but at the expense of showing the relative size of news intensity and news tone effects. To clarify the relative influence of news intensity and news tone on support for war, Figure 5 compares the effect sizes of each variable when all other variables in the regression are held constant at their mean or modal values (see Table A3 in the appendix for details on individual coefficients). To provide a uniform metric for comparing across multiple exposure periods, effect sizes are calculated as the change in predicted probability of supporting the war when the value of each news variable is shifted from one standard deviation below the mean to one standard deviation above the mean. This comparison reveals that the average effect of news intensity is fairly consistent across cumulative exposure periods but modest in size, raising the probability of supporting the war by anywhere from five to seven points.

However, the modest effect of news intensity controlling for news tone is between two and five times larger than the comparable effect of news tone controlling for news intensity at cumulative exposure periods of between one and 14 days. The direction of the news tone effect is consistent with expectations—more positive news leads to increases in predicted support, and vice versa—but the effect itself is usually so small (and sometimes statistically insignificant, see Table A3 in the appendix) that it is expected to change support probabilities by fewer than four points in five of the six models compared here. Only when the news variables are extended to represent the cumulative impact of four weeks of coverage does the size of the news tone effect become about as large as the news intensity effect.

INSERT FIGURE 5 ABOUT HERE

Differences in the relative size of these effects are also telling. The news intensity effect is already strong when considering only variation in the amount of war news aired on the same day as the survey interview, and grows only slightly in size when exposure periods encompass seven and 14 days of news coverage preceding the date of interview. In contrast, there is little discernable news tone effect from broadcasts aired on the day of interview. The effect of news tone grows stronger at seven and 14 days and only comes to match the size of the news intensity effect when consistently positive or negative news has been running for a full four weeks. Taken together, these distinctive patterns add further support to the conclusion that the news intensity effect comes from simply reminding people about a potential or ongoing state of war, rather than from the evaluative cues or factual information contained within the news flow. The news tone effect is almost certainly of this latter variety, and it comes to have a comparable impact on support levels only after 28 times the amount of cumulative exposure at which the first news intensity effect appears. The patterns in Figure 5 therefore support the view that news intensity stimulates what seems to be a priming effect on war support, with immediate consequences that remain relatively unchanged over longer periods of cumulative news exposure. In contrast, news tone produces a pattern more akin to information updating, where the size of the effect on war support becomes larger as cumulative exposure to consistently negative or positive news is increased.

Study two thus confirms the most plausible interpretation of findings from study one: the impact of news intensity on support for war is a media effect that influences evaluations of the war as a function of the prominence, more than the tone, of war-related news. War news seems to prime latent patriotism more readily than it changes attitudes through information updating.

Conclusion

If the main strands of literature on the dynamics of support for war are correct, then most of the variables thought to influence support for war should be communicated through news coverage. However, only a handful of studies have attempted to assess the relationship between news coverage and support for war, and none has examined this relationship systematically across multiple major conflicts. Our study is the first to do this, and the results are striking. The historical pattern across the six major wars fought by American forces over the past 60 years is for war support to go up during periods when war coverage is prominent on the front page of the *New York Times*, and to go down during periods when war coverage leaves the front page. This finding dovetails with a consistent but neglected research finding dating back to the 1950s of a positive correlation between exposure to war news and support for war. Our multi-war, multi-level research design clarifies for the first time that this positive correlation seems to be an effect of exposure to war news.

This finding stands in stark contrast to popular expectations that support for war should be influenced by the tone rather than the amount of news coverage. That presumed relationship had never before been tested systematically. In doing so, we arrived at quite a different conclusion: The tone of war news matters, but the loss of support for war seems not so much a function of the amount of critical coverage as whether the war is receiving any prominent coverage at all.

If an information updating process were at work, the largest shifts in support should have occurred during the most intensive periods of news coverage. Instead, study one found that after controlling for casualties and the passage of time, the largest increases in support happened when wars were prominently featured in the news, while the largest decreases in support happened when wars slipped out of the headlines. Study two found a similar pattern using individual-level data and a measure of news tone. That

study also found an interaction between news intensity and news tone: the tendency for intense news to increase war support was most pronounced when the tone of news was relatively positive, and least pronounced when the tone of news was relatively negative. In this way, the effects of news intensity seem to be moderated by the evaluative tone of news, but not in the way that conventional information-updating models would predict: relatively negative news did not produce greater declines in support when news intensity increased. Instead, the news intensity effect merely became attenuated and eventually disappeared as war news grew more critical of military involvement.

This pattern, we have argued, is consistent with the ingroup-outgroup hypothesis that has been studied extensively by psychologists, sociologists, and anthropologists, but rarely tested in the public opinion literature. Wartime news coverage appears to have the principal effect of priming patriots, although of course the available data allow for no clean test of the specific psychological mechanisms or attitude elements giving rise to this regularity. It seems that the more Americans are reminded that they are in conflict with another nation, the more they tend to support the use of military force (see also Kam and Kinder 2007; Kam and Ramos 2008). Such social-identity induced cohesion is likely a fundamental part of many citizens' interaction with the political world, and the present findings point to the value of further specifying the conditional influences and psychological mechanisms at work in these interactions. As Huddy (2003: 545) points out: “[R]esearch on many of these mediating factors is still quite rudimentary, and a multitude of questions remain unanswered, suggesting a fertile area for future research.”

Unfortunately, limitations in the available data make it difficult to offer a definitive test of the precise psychological mechanisms giving rise to these consistent patterns. One problem comes from the uneven time periods over which changes in support were measured. Many of the data points in study one are not comparable to one another because of large differences in the time span over which change in support was recorded. A second limitation comes from the uneven duration of major wars over the past 60 years, which range from 13 weeks in the case of Kosovo to nine or more years in the case of Vietnam. Opinion dynamics surely vary across these wars by more than a function of time, casualties, events and

news coverage, but available data allow us to model only these variables with confidence. A third limitation comes from the historical availability of survey data, which are rarer for more distant wars like Korea and Vietnam, but relatively common for the recent case of Iraq. This means that we can learn more about the dynamics underlying support for recent wars than for past wars, and that our conclusions are likely to overstate the general influence of factors that are prominent engines of change in support for post-Cold War conflicts. A fourth limitation is our inability to assess which of several psychological mechanisms might be contributing to the observed effects. The relationship between news intensity and support for war is consistent with the social identity and self-categorization literatures, but the available data contain no measures of patriotism or nationalism that could be used to test definitively whether primed social identities or something else might be responsible for the observed relationships.

Aside from data limitations, our conclusions about the relative effects of news intensity and news tone are unlikely to generalize beyond the context of support for major wars. To take just one obvious example, a long line of research on political campaign effects has demonstrated the importance of news coverage to reinforce attitudes (e.g., Lazarsfeld, Berelson, and Gaudet 1944) as well as to change them (e.g., Johnston, Hagen, and Jamieson 2004; Zaller 1992). Our findings may also be unlikely to replicate in countries other than the United States, since Americans have a strong national identity and long history of military involvement in global affairs that likely condition news intensity effects in wartime.

Our conclusion about the smallish effects of news tone relative to news intensity must also be presented with caveats. We are not suggesting that the content of war coverage is irrelevant, just that the tone and informational content of war news seems relatively less important for changing support than whether the war receives prominent coverage at all. Our modest but consistent findings about the tone of war news suggest potentially important roles for news content in changing levels of support for war. Cues about whether the United States is winning or losing a war might be an important component of support for war (e.g., Feaver and Gelpi 2004). Likewise, news coverage of the likely costs and benefits of a war might have a strong influence on levels of support, as several previous studies have suggested (e.g.,

Jentleson 1992; Larson 1996). Unfortunately, this initial effort at assessing the impact of news cannot yet speak to the roles that these other aspects of war coverage might play.

This analysis is but the first step in a longer project to assess the relationship between war coverage and popular support for war. Future studies would do well to look for ways to definitively test the psychological mechanisms that seem to be at work in wartime support, such as the social identity processes proposed and preliminarily tested herein. In addition, future research could usefully explore how the changing habits in public news consumption—most notably, the increasing use of the Internet among engaged citizens—might alter news flows and, ultimately, shape public support. Exploring these paths will help us better understand the complex public opinion dynamics that exist during wartime.

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Table A1: Predicting Support for U.S. Involvement in the Persian Gulf Crisis from the Intensity and Tone of War News Broadcast on the Day of Interview

	Follow War News . . .			
	All Cases	Not Too/At All Closely	Fairly Closely	Very Closely
News Intensity	.0391 (.0063)	.0195 (.0164)	.0266 (.0096)	.0490 (.0097)
News Tone	.0013 (.0006)	.0000 (.0018)	.0017 (.0010)	.0021 (.0010)
Intensity×Tone	.0006 (.0002)	.0002 (.0006)	.0009 (.0003)	.0007 (.0003)
Start of Air War	.249 (.060)	.343 (.199)	.160 (.097)	.166 (.085)
Male	.725 (.036)	.514 (.098)	.700 (.055)	.697 (.055)
Nonwhite	-.872 (.049)	-.650 (.120)	-.868 (.078)	-.890 (.077)
Age	-.015 (.001)	-.019 (.003)	-.014 (.002)	-.016 (.002)
Republican	.828 (.046)	.649 (.123)	.813 (.070)	.863 (.074)
Democrat	-.075 (.041)	.127 (.109)	-.051 (.062)	-.165 (.064)
Constant	1.231 (.059)	.758 (.140)	1.246 (.087)	1.517 (.101)
Model Chi-square	1648.6	147.3	623.4	797.5
Pseudo R ²	.078	.054	.068	.086
N=	18,196	2,003	7,923	8,270

Note: Bold coefficients significant at the $p < .05$ level. Cells contain logistic regression coefficients with standard errors in parentheses. News variables in this table are from the date of interview.

Table A2: Predicting Support for U.S. Involvement in the Persian Gulf Crisis from the Intensity and Tone of War News Broadcast over the Past Four Weeks

	Follow War News . . .			
	All Cases	Not Too/At All Closely	Fairly Closely	Very Closely
News Intensity	.0021 (.0003)	.0011 (.0009)	.0024 (.0005)	.0026 (.0005)
News Tone	.0144 (.0037)	.0008 (.0108)	.0145 (.0057)	.0213 (.0058)
Intensity×Tone	.0001 (.0000)	.0001 (.0001)	.0000 (.0000)	.0001 (.0000)
Start of Air War	.678 (.112)	.504 (.436)	.384 (.193)	.765 (.152)
Male	.731 (.036)	.513 (.098)	.703 (.055)	.707 (.056)
Nonwhite	-.883 (.049)	-.655 (.120)	-.881 (.078)	-.903 (.077)
Age	-.015 (.001)	-.019 (.003)	-.014 (.002)	-.016 (.002)
Republican	.826 (.046)	.650 (.124)	.812 (.070)	.853 (.074)
Democrat	-.077 (.041)	.132 (.109)	-.053 (.063)	-.173 (.064)
Constant	1.173 (.059)	.742 (.145)	1.211 (.088)	1.441 (.102)
Model Chi-square	1713.3	150.6	655.9	805.9
Pseudo R ²	.081	.055	.072	.091
N=	18,196	2,003	7,923	8,270

Note: Bold coefficients significant at the $p < .05$ level. Cells contain logistic regression coefficients with standard errors in parentheses. News variables in this table use 28-day cumulative exposure measures.

Table A3: Predicting Support for U.S. Involvement in the Persian Gulf Crisis from the Intensity and Tone of War News Broadcast over Various Exposure Periods

	Length of News Exposure Period					
	1 Day	2 Days	3 Days	7 Days	14 Days	28 Days
News Intensity	.0391 (.0063)	.0170 (.0033)	.0115 (.0022)	.0067 (.0010)	.0037 (.0006)	.0021 (.0003)
News Tone	.0013 (.0006)	.0013 (.0010)	.0022 (.0012)	.0052 (.0018)	.0067 (.0025)	.0144 (.0037)
Intensity×Tone	.0006 (.0002)	.0006 (.0002)	.0004 (.0001)	.0003 (.0001)	.0002 (.0001)	.0001 (.0000)
Model Chi-square	1648.6	1641.5	1641.1	1670.5	1706.0	1713.3
Pseudo R ²	.078	.078	.078	.079	.081	.081
N=	18,196	18,196	18,196	18,196	18,196	18,196

Note: Bold coefficients significant at the $p < .05$ level. Cells contain logistic regression coefficients with standard errors in parentheses. All models include constants and also control for start of the air war, male, nonwhite, age, and party identification (coefficients not shown).

Table 1: Predictors of Change in War Support from Time₁ to Time₂

	All Cases		Short-Term Change Cases Only	
	Absolute Change	Net Change	Absolute Change	Net Change
Deaths Since Last Poll (100s)	.04 (.02)	-.03 (.03)	-.13 (.13)	.20 (.19)
Week of Conflict	-.01 (.00)	.01 (.00)	-.00 (.00)	.00 (.00)
Weeks Since Last Poll	.09 (.01)	-.10 (.02)	.25 (.16)	-.20 (.24)
Major Events	12.70 (1.33)		10.63 (1.11)	
Positive Events		12.98 (2.36)		12.37 (1.90)
Negative Events		-19.61 (2.96)		-13.69 (3.65)
News Intensity	.36 (1.62)	6.35 (2.28)	.91 (1.39)	7.28 (2.13)
Constant	3.47 (.67)	-3.00 (.94)	2.43 (.71)	-2.62 (1.09)
Adj. R ²	.335	.291	.309	.266
N=	407	407	229	229

Note: Cells contain unstandardized OLS regression coefficients with standard errors in parentheses. Bold coefficients are significant at the $p < .05$ level.

Figure 1: Impact of News Intensity on the Day of Interview when Controlling for News Tone, by News Attention

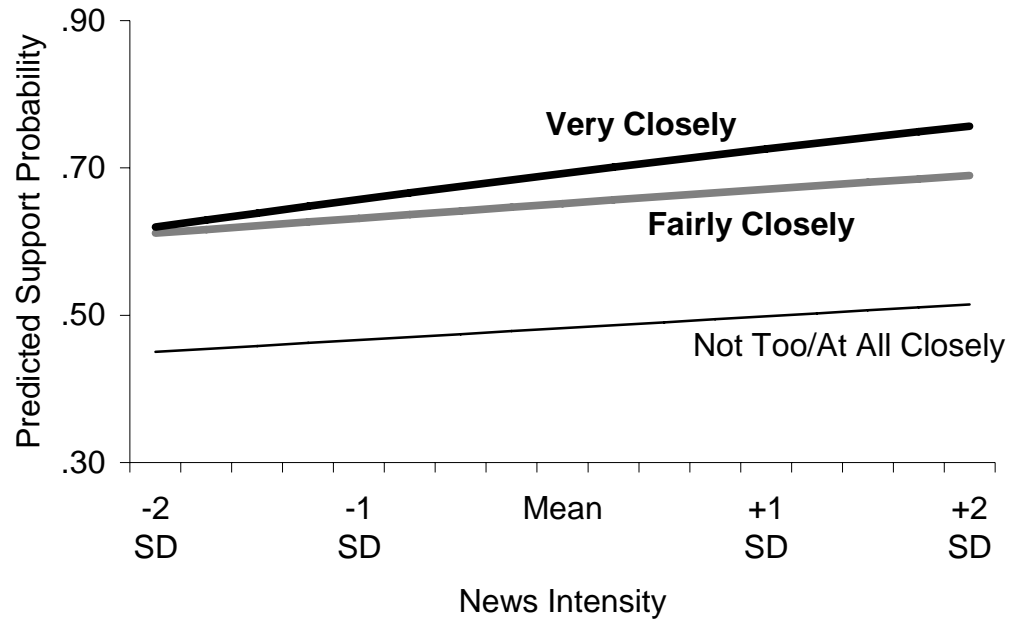


Figure 2: Impact of News Intensity over Past Four Weeks when Controlling for News Tone, by News Attention

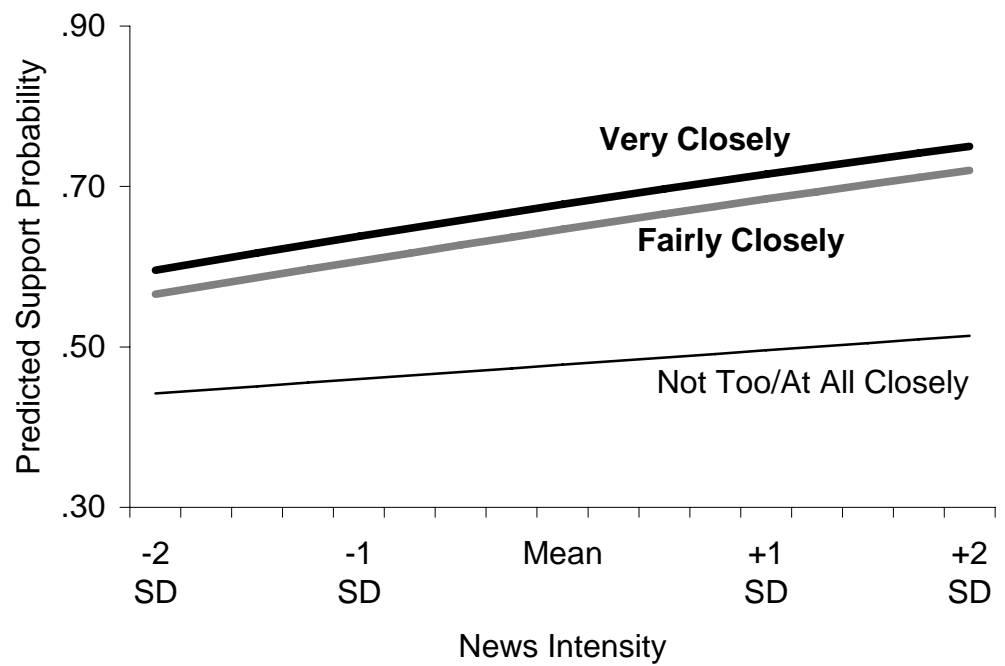


Figure 3: Joint Impact of News Intensity and News Tone on Day of Interview among Respondents Following "Very Closely"

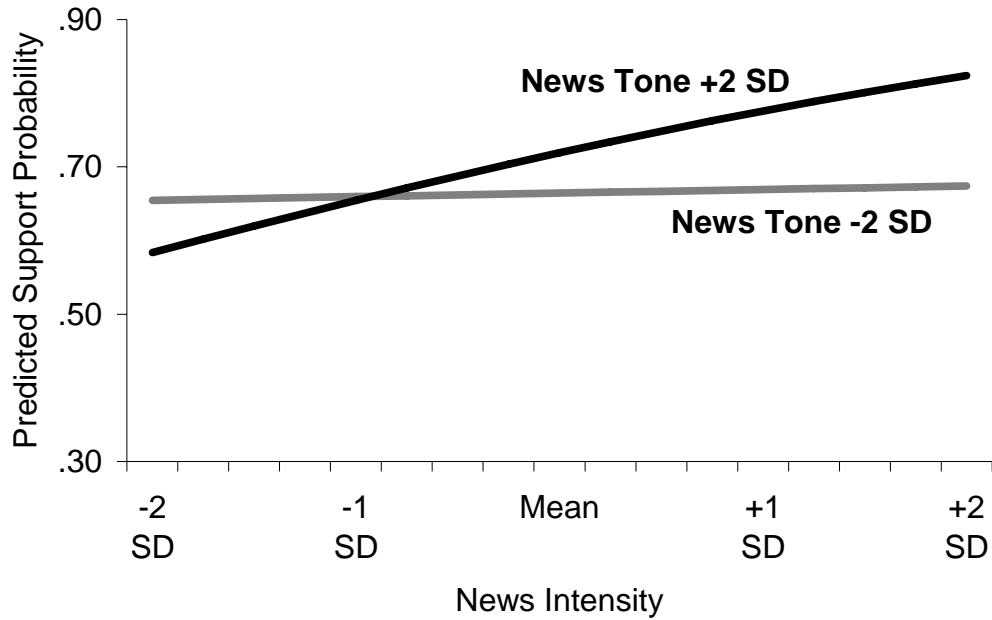


Figure 4: Joint Impact of News Intensity and News Tone over Past Four Weeks among Respondents Following "Very Closely"

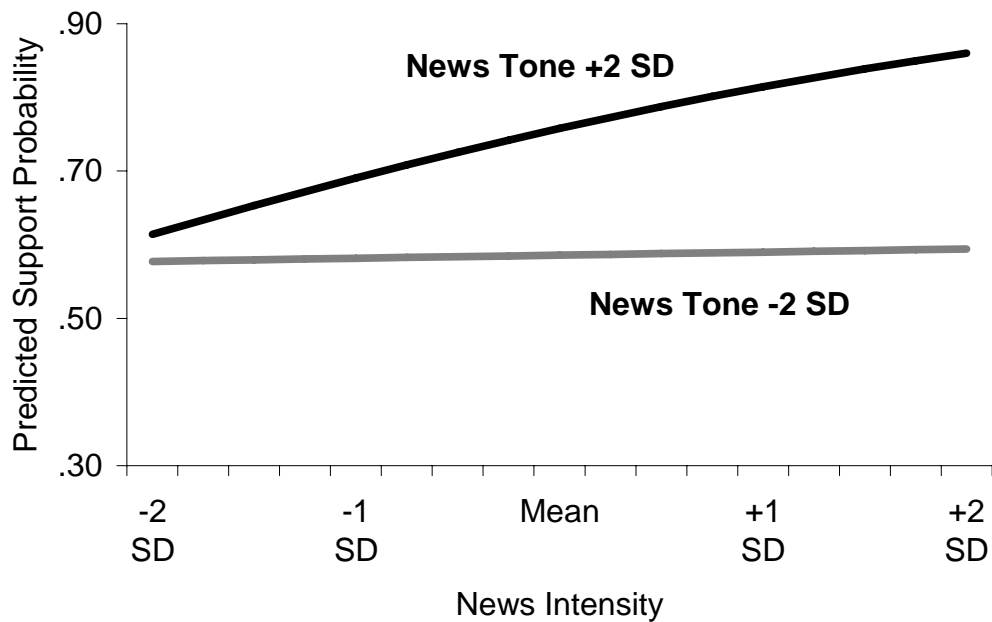
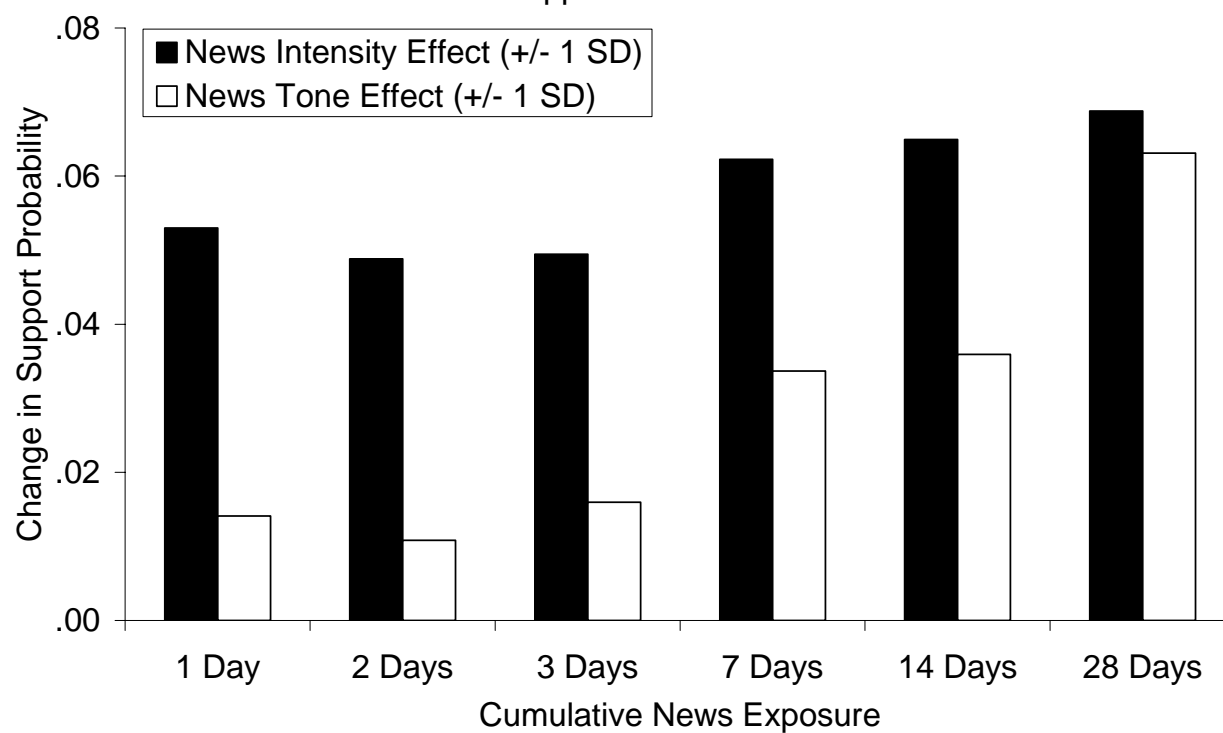


Figure 5: Comparison of News Intensity and News Tone Effects on Support for War



Note: This figure reports first differences for the indicated variable when that variable is shifted from minus one standard deviation to plus one standard deviation while holding all other variables constant at mean or modal values. The estimated effect of news intensity therefore controls for news tone (at the mean level), and the estimated effect for news tone controls for news intensity (at the mean level).