# Sunk Costs and Citizen Support for Military Operations Abroad

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In democratic states, the extent to which the public is tolerant of the human and material costs of a war effort plays a significant role in the state's ability to sustain foreign military operations. While democratic publics rally around the executive when military troops are deployed abroad, maintaining public support over the course of extended military engagements can be difficult. The accepted wisdom—among both scholars and policymakers—has been that public support for continued engagement in a war inevitably declines as the human and material costs of the war mount (Gartner and Segura 1998; Hibbs 1982; Larson 1996; Mueller 1973). The perception that the American public will not tolerate high casualties has encouraged a conviction among political and military decision-makers that U.S. military operations must be conducted so as to minimize the risk of casualties in order to sustain support (Feaver and Gelpi 2004; Record 2000). But recent research has provided evidence that the way citizens react to soldiers' deaths is considerably more nuanced than conventional wisdom supposes. These studies establish the importance of the context in which losses occur and show that the effects of casualties are conditional on beliefs about the objectives, moral justification, and likelihood of success in particular military operations. Some recent evidence from experiments has even suggested that combat casualties can increase the public's resolve to sustain foreign combat missions.

The American public does not like to hear that U.S. soldiers have been killed in action. But they do not necessarily react to these losses by demanding that the troops be brought home. We know that support for foreign military operations declines over time, but the rate of this decline varies considerably from one conflict to another and from one point in time to another within the same engagement. In this paper, I explore whether a well-established psychological bias, the "sunk cost trap", helps to explain variation in support for sustaining foreign military

operations across conflicts and over time. Employing individual-level public opinion data from 40 separate surveys conducted during 8 different U.S. military interventions, I consider how the "sunk costs" of a military engagement affect how individuals determine whether they favor withdrawing from or maintaining an ongoing war effort.

The results of this analysis suggest that high casualty rates decrease optimism about the eventual success of foreign engagements and increase the number of individuals that believe initiating a particular war effort was a mistake. But high casualty rates also *slow* the decline of support for sustaining a war effort over time. Moreover, as the number of American soldiers killed in action increases, the impact of beliefs about the wisdom of initiating the war, and confidence in the progress of the war effort, diminish. Individuals increasingly support maintaining a war effort *despite* pessimism about prospects for a beneficial outcome, and even convictions that using military force was a mistake, as the human toll of a war climbs. While individuals who are pessimistic about how a war is progressing favor withdrawal at higher rates on average, war outcome pessimists become more likely to favor staying in the fight as losses accumulate. And the commitment gap between those who believe going to war was the right thing to do, and those who believe it was a mistake, narrows as cumulative casualties increase.

#### **Previous Studies**

The literature on the determinants of public support for the use of military force is split between a "rational expectations" perspective (Gartner 2008; Gelpi, Feaver, & Reifler 2005-06) and theories that emphasize motivated reasoning, elite cues, and framing effects (Althaus & Coe 2011; Berinsky 2007; Boetcher & Cobb 2009; Myers & Hayes 2010). The first group of scholars has found considerable evidence that support for foreign military operations resembles a sensible cost/benefit analysis in which individuals consider the value of the issues at stake, the probability of success, and estimates of the human and material cost of the military effort (Eichenberg 2005; Feaver and Gelpi 2004; Gartner and Segura 1998; Gelpi, Feaver, and Reifler 2005/06; Jentleson 1992; Larson 1996; Larson and Savych 2005; Jentleson and Britton 1998). Not surprisingly, much of the research on public support for the use of military force abroad has focused on the human cost of war-fighting and, in particular, on the effect of casualties. Gartner, Segura, and Barratt (2003) note that soldiers' deaths are likely to be the most visible cost of war involvement for the public. The general consensus is that, under most conditions, aggregate support for foreign military operations declines as casualties rise (Eichenberg 2005; Gartner, Segura, and Barratt 2003; Gartner and Segura 1998; Larson and Savych 2005; Larson 1996).<sup>1</sup>

Other recent studies have encouraged a more nuanced view of the relationship between casualties and public attitudes, arguing that willingness to tolerate the human costs of war is context-dependent. Acceptance of casualties in combat is conditioned by an individual's perception of the importance of the issues at stake (Larson and Savych 2005), the likelihood of success (Gelpi, Feaver, and Reifler 2005; Reifler et al. 2013), elite consensus (Larson 1996), or framing effects (Boettcher and Cobb 2006; 2009). Feaver and Gelpi (2004) conclude that casualty tolerance is positively correlated with an individual's subjective belief in the importance of a particular military mission and confidence that the military effort will be successful. Larson and Savych (2005) report that belief in the salience of the issues at stake is the most significant predictor of individual support for recent U.S. military operations.

<sup>&</sup>lt;sup>1</sup> Most scholars have focused on the effect of cumulative casualties (Feaver and Gelpi 2004; Larson and Savych 2005; Larson 1996; Mueller 1973), but others have found that temporally and geographically proximate casualties have a stronger effect on individual attitudes about a war effort (Althaus et al. 2012; Gartner 2008; Gartner and Segura 1998; Gartner, Segura, and Wilkening 1997; Kriner & Shen 2012).

A few more recent studies move beyond the assumption that casualties inevitably decrease support for sustaining a war effort. Gelpi, Feaver, and Reifler (2009) argue that the American public is actually more "defeat phobic" than casualty phobic. Consistent with this argument, some studies have found evidence that casualties are more likely to lead to pressure for escalation of a war effort to victory than to demands for withdrawal (c.f., Kull and Destler 1999; Schwarz 1994). In an experiment, Boettcher and Cobb (2009) find that rhetoric encouraging individuals to adopt a "don't let them die in vain" attitude toward losses can increase support for a war, but only under fairly restrictive conditions. Schott et al. (2011) conduct a similar survey experiment and find more compelling evidence that activation of a loss aversion frame can interact with exposure to information on casualties to increase commitment to a war effort.

## Sunk Costs and Citizen Support for Sustaining the Fight

I contrast two perspectives on the effects of casualties on public support for sustaining an ongoing military operation. The first perspective suggests individuals weigh the costs and benefits of continuing to fight and support terminating a commitment when the perceived costs outweigh the expected benefits. Casualties, both cumulative and proximate, are the most salient cost for citizens and high casualty rates lead individuals to anticipate high future costs. Moreover, high casualty rates are likely to suggest to the public that a military engagement is not going well. All else equal, more and more individuals should flip from supporters of the war effort to proponents of bringing the troops home as cumulative casualties mount or marginal casualty rates rise.

An alternative perspective anticipates that, while individuals count casualties as costs to be weighed against the potential benefits of military action when faced with hypothetical or potential military commitments, soldiers who die in an ongoing war are also counted as losses that can only be redeemed if the war effort is prosecuted to victory (Boulding 1984; Mitchell 1981; Maoz 1990; Teger 1980). Rationalist approaches assume that individuals ignore unrecoverable (i.e., sunk) costs when weighing the costs and benefits of continued engagement in a foreign military intervention. But the literature in psychology is replete with evidence that commitment to a course of action often rises as the emotional or tangible sacrifices already made in following the course of action accumulate (Brehm and Cohen 1962; Brown 1965; Festinger 1957). Kriesberg (2003) summarizes a common observation in the conflict resolution literature: "Having sunk resources into a fight, sinking more and more resources seems justified in order to attain the goal of the struggle and so justify what has already been expended in money, honor, or blood. This ever-increasing commitment and allocation of resources may go much beyond the original value of the goal, but the combatants are trapped into continuing and even escalating the struggle" (161).

#### Hypotheses

Following the logic of a public that makes rational expected utility calculations in deciding whether or not to support a foreign military engagement, we would expect public willingness to sustain military operations to decline as the human and material costs of a military operation accumulate over time. I also expect a downward trend in the number of individuals who want to keep combat troops engaged abroad over time. As a war drags on, citizens are likely to become weary of financing wars on foreign soil and eager for family members, coworkers, and friends to return home. At the same time, wars tend to begin with high levels of optimism about the speed with which the war's aims will be attained. When a foreign intervention fails to meet these expectations, disillusionment and pessimism about the war effort set in.

Nevertheless, when people fall into a "sunk cost trap", they remain committed, or escalate their commitment, to a course of action, past the point at which the expected value of sustaining that commitment is exceeded by the anticipated costs (Boettcher and Cobb 2009; Kriesberg 2003; Moon 2001; Taliaferro 2004; Teger 1980). As casualty tolls climb, the desire to redeem those losses with a more favorable outcome is expected to increase (Iklé 1991; Pape 1996). If combat casualties trigger a desire to redeem losses, relatively high casualty rates may slow the erosion of support for a foreign engagement.

 $H_1$ : Support for sustaining a foreign military operation will decline as the duration of the intervention increases, but higher casualty rates will slow the erosion of support.

I anticipate that individuals will become less optimistic about the eventual success of a war effort and more inclined to believe initiating the war was a mistake over time. In contrast to hypothesis one, I expect that high rates of casualties will have the same effect as duration on convictions that initiating the war was the right thing to do and the prevalence of optimism in the population. As the costs of a war mount, fewer individuals will feel hopeful about the war's eventual outcome and more individuals will believe sending American troops into combat abroad was a mistake. However, if knowing that American soldiers were killed in combat activates an emotional aversion to losses, optimism about the ultimate gains of a military intervention can become a less important determinant of resolve than a desire to avoid the psychological pain of acknowledging that lives were lost in vain. At the same time, while "rational" individuals weigh only the expected costs and benefits of a sustaining a course of action when deciding whether to

maintain their commitment, higher sunk costs could cause some individuals to support maintaining a foreign military operations even if they have come to believe initiating the war was a mistake. When many soldiers have been killed in action, only victory can justify the sacrifices that have been made and the marginal costs of persevering can seem bearable relative to the losses that have already been endured (Kriesberg 2003; Brockner and Rubin 1985; Mitchell 1981).

All else equal, I expect individuals who are optimistic that a military engagement will be successful, and those who believe that engaging in the conflict was a good policy decision, to support sustaining a war effort at higher rates than pessimists and those who believe the military commitment was a mistake. But the probability that an individual will be averse to terminating a war *despite* pessimism about the war effort or a belief that initiating the war was a mistake should rise as the number of American soldiers who have lost their lives in the effort increases.

 $H_2$ : As cumulative casualties increase, the probability an individual will support sustaining the war effort despite pessimism about the nation's ability to attain the wars aims will increase.

 $H_3$ : As cumulative casualties increase, the probability an individual will support sustaining the war effort despite believing the war was a mistake will increase.

# **Research Design**

I test these hypotheses with individual-level public opinion polling data collected during eight foreign military interventions conducted by the United States between 1960 and 2012. Decisions about which American military operations to include were driven exclusively by the availability of sufficient polling data on support for sustaining versus withdrawing from the operation, optimism about the likelihood of success, and beliefs about the wisdom of initiating the war. Data collection is still in progress. Currently, I have data on individual attitudes regarding U.S. military operations in Vietnam from 1967 to 1969, Lebanon from September 1983 to February 1984, Panama between May 1989 and January 1990, the first Gulf War in January and February of 1991, Somalia from December 1992 to October 1993, Kosovo in March and April 1999, Operation Iraqi Freedom from 2003 to 2007, and Operation Enduring Freedom in Afghanistan from 2011 through 2012. By combining data from forty separate polls conducted during these eight operations, I was able to create a dataset with variation across military operations with different casualty rates, cumulative casualties, and duration, as well as across time within operations. The surveys were conducted by a wide variety of organizations, including news media like the New York Times and ABC News, as well as independent polling organizations like the Gallup and Roper Organizations. All of the polls surveyed a national, random sample of at least 500 American adults. The survey data and study documentation files were obtained from the Roper Center for Public Opinion Research, the Louis Harris Data Center at the Odum Institute, and the Interuniversity Consortium for Political and Social Research (ICPSR). The unit of analysis is the individual respondent and there are a total of 42,096 observations, excluding respondents who declined to answer questions about their attitudes toward the ongoing military operation in question (5.69% of all respondents).

*Dependent Variables.* The primary dependent variable is an indicator of whether or not the survey respondent supported sustaining the military operations in progress on the date the poll was conducted. There is a substantial body of literature on the factors that affect public attitudes toward the use of military force. Until recently, however, few studies have focused

explicitly on public support for sustaining ongoing military operations. Most studies of public support for the use of force do not distinguish between respondents' willingness to continue prosecuting a war and other public attitudes toward the war effort, such as the belief that a war has been "worth the cost" or that going to war was the "right thing to do." Many studies also use questions about support for the president's handling of the war effort or even overall executive approval rates as proxy measures of support for ongoing military operations. For some purposes, these are perfectly appropriate measures. Moreover, it could be that individuals' answers to all of these questions are so highly correlated that it makes little difference which questions are used to gauge support for a military operation. I argue, however, that a significant proportion of the public may believe that a foreign engagement has been a mistake, is going poorly, and has been too costly, but, nonetheless, desire to sustain military operations. If so, it is important to distinguish among responses to each question type, investigate how these attitudes are related to one another, and analyze the conditions under which individuals may hold various combinations of opinions.

In this study, I measure support for sustaining an ongoing military operations by selecting only questions that clearly indicated a respondent's attitudes about continuing to prosecute the military operation in question. Appropriate questions include, for example, "Do you think the U.S. should keep military troops in Iraq until the situation has stabilized?"; "How long do you think American troops should stay in Vietnam?"; and "Do you favor or oppose an immediate withdrawal of American troops from Lebanon?". Restricting the type of question-wording that was appropriate for measuring the dependent variable had the unfortunate effect of limiting the number of surveys that were useable, but it also allows me to extract a great deal more information from the data than would have been possible if a wider range of questions was used.

Although the wording of these questions varied depending on the polling organization, and even from one poll to another conducted by the same organization, a preliminary analysis indicates question wording is not systematically related to either cumulative casualties or the casualty rate as of the date of each poll. An average of 62% of survey respondents indicated support for sustaining the ongoing military commitment across all 40 polls and eight military interventions.

Because I am also interested in how the human costs of foreign military operations affect optimism about the eventual outcome of the war effort and beliefs about whether the war was a mistake, I create two additional dependent variables. The first variable, *mistake*, is a dichotomous indicator that the survey respondent believed the war was a mistake at the time the poll was conducted. I construct this variable using questions asking respondents whether they agreed that engaging in military action had been a mistake or thought initiating the war had been the wrong decision. The final dependent variable, *optimism*, indicates whether the respondent believes a military effort is going well, that the U.S. will achieve its goals, or that the U.S. can "win" the war. When more than one question in a survey asked about these beliefs, only respondents who consistently responded with confidence in a positive outcome were coded with a one, respondents who consistently expressed pessimism about the probability of success were coded with a zero, and respondents who indicated both some degree of optimism and some concern about progress or eventual success were coded with a .5. In the models reported below, I use a dichotomous variable indicating at least moderate optimism about the eventual outcome of a military effort.

*Statistical Methods*. The dependent and independent variables are measured at between three and eight points in time during the course of each intervention, corresponding to the dates for which surveys with appropriate questions about attitudes toward these military operations are

available. Data that vary across both time and space present a number of challenges for model specification and estimation. The difficulty of choosing the correct statistical method is compounded in this study because the individuals sampled change over time (making panel data assumptions inappropriate), the number of observations per case varies, and the time between observations is not constant. Because there may be no perfect method for dealing with such data, I estimate the models using random-effects logistic regression, but test the robustness of the results by estimating logit models with fixed effects at the intervention level and standard errors clustered by poll date, as well as hierarchical mixed effects logistic model specifications. Unlike the fixed effects model, employing a random effects model allows me to estimate the effects of variables that are constant within an intervention. The downside is a greater risk of omitted variable or simultaneity bias, but I attempt to mitigate this risk by including a measure of the initial level of aggregate support for a war effort at initiation for each conflict. Fortunately, the results are quite robust to changes in the estimation procedure, suggesting that the estimates are more than just artifacts of a particular statistical method.

#### Key Explanatory Variables

Casualty data are drawn from the Military Intervention by Powerful States (MIPS) dataset (Sullivan and Koch 2009) and, for Operations Iraqi Freedom and Enduring Freedom, iCasualties.com. *CASUALTIES TO DATE* is an estimate of the cumulative number of American troops that had been killed while deployed to the theater of operations as of the day before an individual was polled. This variable varies from zero to 46,096, with a mean 3223, but a median of only 29. The natural log of cumulative casualties is employed in the analyses because a one unit increase in the number of casualties is expected to have a diminishing effect on public support as the total number of casualties increases (Mueller 1973).

*CASUALTY RATE* records the average number of soldiers killed in action per day in the twoweek window immediately preceding the date on which support for an operation was measured. In addition to some awareness of cumulative casualties, individuals may be cognizant of the rate of casualties in a fairly short window of time right before they are asked whether or not they support sustaining the military intervention (Gartner and Segura1998). I do not assume respondents know how many soldiers are dying per day, only that they will have a rough sense of whether casualty rates are relatively high or low from media reports and public debate. Although it is difficult to anticipate how individuals use information about events on the ground to make judgments about the progress and likely outcome of a military intervention, there is some evidence that the public uses information about cumulative casualties or temporally proximate casualty rates as indicators of how well or how poorly a military operation is going (Boettcher and Cobb 2006; Feaver and Gelpi 2004; Voeten and Brewer 2006). An increase in the rate at which friendly troops are killed in action, or a sudden spike in casualties, may decrease public optimism about the progress and eventual outcome of a military engagement. The daily casualty rate varies from 0 to  $60.^2$  The median number of casualties per day across all observations is 2 and the average is 4.6.

*Optimism.* In addition to using individual perceptions of success as a dependent variable, this measure is used as an explanatory variable in the models that predict support for sustaining military operations. Gelpi, Feaver, and Reifler (2005/06) argue that the effect of casualties on individual support for a war is conditional on beliefs about how likely the war is to be successful. Using original data on individual attitudes toward six hypothetical scenarios, Feaver and Gelpi (2004) conclude that individuals who are optimistic about progress in a war are more tolerant of the costs of war than those who do not believe the military effort will be successful. Controlling for a respondent's beliefs about the probability of success enables me to test whether casualties have an effect on support for sustaining military operations beyond their effect on perceptions about how well the military effort is going.

*DURATION* is a count of the number of days that have elapsed from the initiation of the intervention to the date on which public opinion was surveyed (*poll date*). The public may use the length of a military engagement as a measure of the progress of a campaign (Voeten and Brewer 2006). All else equal, I expect the public to become less optimistic about the eventual success of a military intervention and less supportive of sustaining military operations as time goes on. Duration varies from one (when the dependent variable measures support the day after troops were deployed) to 4018 days. The natural log of duration is used because an additional day of combat is expected to have a larger effect on attitudes earlier in the war.

<sup>&</sup>lt;sup>2</sup> Vietnam in April 1968.

# **Control Variables**

*PRE-WAR SUPPORT* measures aggregate public support for the use of military force immediately prior to the initiation of each intervention. This variable is created by averaging the percentage of the public indicating support or approval for the use of military force from every survey question that asks about support for the military intervention within the 7 day period *before* troops are deployed. Data come from the Roper Center for Public Opinion Research's *iPoll* archive. Including a control for the initial level of public support for a proposed intervention allows me to minimize endogeneity concerns by controlling for the possibility that pre-war support both predicts subsequent levels of support and drives political decisions about the nature and magnitude of an intervention. At the same time, this variable directly tests whether there is a correlation between the initial level of support for a proposed military intervention and actual levels of support for sustaining a military operation once American troops have been deployed.

I include three variables previous studies have identified as correlates of individual support for sustaining military operations. There is robust evidence that, all else equal, men and members of the Republican party support foreign military operations at higher rates than women and individuals who do not identify as Republicans. In addition, those who share the President's partisan affiliation are more likely to support a war effort regardless of the attributes of the conflict (Kull, Ramsay, and Lewis 2003/04). Including these variables enables me to measure the effect of casualties on support for sustaining the war effort while holding constant attitudes and beliefs that may stem from ideological predispositions or trust in the most prominent elite proponent of the war effort, the U.S. president.

*GROUND COMBAT* is a dichotomous variable indicating whether or not the United States had ground troops engaged in combat against the target on the date of a poll. American soldiers were engaged in ground combat when public support was measured in approximately 74% of the observations. Including this variable helps to control for the possibility that casualties are endogenous to public support. The odds U.S. troops will be deployed for ground combat may increase with public support for the war effort. In addition, I include the variable to separate public reaction to casualties from the effects of a desire to support American troops deployed abroad. The "support the troops" effect is likely to be stronger when U.S. soldiers are engaged in ground combat, and casualty rates are inevitably higher when there are boots on the ground.

#### Results

I take a first look at relationships among my key variables in a series of straightforward, bivariate logistic regression models. I model individual support for sustaining an ongoing military intervention as  $y_i = 1$  if an individual expresses a preference for continuing military engagement and  $y_i = 0$  if the individual expresses a preference for ending the military intervention. Those who expressed no opinion are excluded. Table 1 reports the results. Not surprisingly, the likelihood an individual will report believing that initiating the war was a mistake increases, and the probability that an individual is optimistic about the eventual success of the war effort decreases, as the number of casualties in the war rises. Both effects are statistically significant at p<.001. In contrast, support for sustaining the war effort declines over time, but is *unrelated* to cumulative causalities and *negatively* correlated with the average daily casualty rate in the two weeks prior to a poll.

|                          | DV=<br>Sustain  | DV=<br>Mistake    | DV=<br>Success     | DV=<br>Sustain | DV=<br>Sustain |
|--------------------------|-----------------|-------------------|--------------------|----------------|----------------|
| Casualties to date (log) | -0.038<br>0.028 | 0.139***<br>0.045 | -0.087***<br>0.031 |                |                |
| Daily casualty rate      |                 |                   |                    | 0.014**        |                |
|                          |                 |                   |                    | 0.006          |                |
| Duration (log)           |                 |                   |                    |                | -0.090*        |
| -                        |                 |                   |                    |                | 0.046          |
| Constant                 | 0.828           | -1.001            | 0.377              | 0.666          | 1.121          |
|                          | 0.157           | 0.344             | 0.199              | 0.119          | 0.276          |
| Ν                        | 42096           | 27894             | 34980              | 39952          | 41552          |

**Table 1.** Logit models predicting individual level support for sustaining a military operation, belief that the war was a mistake, and optimism about the success of the mission.

Robust standard errors (clustered on date of poll) in parentheses. All variables measured at date of poll. \* p < .10 \*\* p < .05 \*\*\* p < .01

Having established that the unconditional, direct effects of casualties on opinions about a war effort are generally consistent with what would be expected if casualties trigger a loss aversion reaction, I turn to more sophisticated multivariate models to evaluate my hypotheses. To simultaneously test the individual-, conflict-, and time-variant implications of my theory, I model individual support for sustaining an ongoing combat mission using multilevel models containing components at each level of analysis. I present the results from the estimation of three random-effects logistic regression models (2a through 2c), and a fixed effects logistic regression specification (Model 2d), in Table 2.

In the first three models, individual support for continuing to prosecute a war effort is modeled as a function of the aggregate level support for each military intervention at initiation and ground combat at the conflict level. At the level of the individual poll, the models including measures of casualties (either cumulative to date or the casualty rate in the two weeks prior to the poll) and the natural log of the number days that have elapsed from the initiation of the intervention to the date on which the respondent's opinion was solicited. Finally, the model incorporates beliefs about the success of the war effort or the wisdom of initiating the war and

controls for gender and partisanship at the individual level. To account for the clustered nature of the data, the models include random intercepts at the military intervention level. Model 2d drops the initial aggregate support measure and estimates a separate, fixed intercept for each war and clusters standard errors at the level of the survey.

#### [Table 2 about here.]

Model 2a tests whether support for sustaining military operations abroad declines more slowly over time when the casualty rate is higher (*Hypothesis 1*). The results are consistent with this hypothesis. Figure 1 shows the predicted probability of support for sustaining a war effort over time under two hypothetical scenarios: an average casualty rate of one soldier killed in action per day, and a casualty rate of six soldiers killed in action each day.<sup>3</sup> While the desire to persist in the war effort declines over time in both scenarios, support for sustaining an operation is significantly higher when the casualty rate is greater. And support remains significantly higher, although the gap narrows, until the war has lasted for more than three and a half years.

<sup>&</sup>lt;sup>3</sup> All other variables are held constant at their means.



Figure 1. Predicted level of support over time by casualty rate with 95% CIs.

To test hypothesis 2, I estimate Model 2b with an interaction between cumulative casualties and optimism about a successful outcome of the war effort. The expectation is that individuals who are hopeful about a war's prospects will be significantly more likely to support sustaining military operations, but that confidence in the ability of the United States to prevail in the war will become less influencial as the losses mount. As the number of American soldiers who have lost their lives in the war effort increases, more individuals will express a desire to sustain military operations *despite* being pessimistic about the outcome. This hypothesis is also supported by the results. Holding duration constant, the probability an individual will support

sustaining at a higher rate than pessimists, but the difference diminishes with accumulating losses—falling from a gap of almost 30% when there are no casualties to less than 10% at the maximum number of casualties recorded in the dataset.

Figure 2 displays the estimated marginal effects of being optimistic about a war's eventual outcome on support for sustaining the war effort. While individuals who believe the U.S. will prevail in the war remain significantly more likely to support continuing military operations, the gap between pessimists and optimists narrows with accumulating casualties. As the number of American soldiers who have died in the war effort increases from the  $25^{th}$  percentile (approximately 15 casualties) to the  $75^{th}$  percentile (about 2000 casualties), the effect of optimism declines from +26% to just +16%.



Figure 2. Diminishing effects of optimism.

My final hypothesis anticipates that believing the war was a mistake will also have a declining influence on support for sustaining military operations as casualties mount. Model 2c tests this hypothesis with an interaction between holding the belief that the war was a mistake and cumulative casualties. The results here are similar to those attained in estimating Model 2b. Believing that initiating a military intervention was a mistake lowers the likelihood an individual will want to continue the war effort. But, the difference between those who believe that initiating the war was a good decision and those who believe the war was a mistake diminishes as casualties accrue. When many American soldiers have died in a war effort, an increasing proportion of respondents believe the commitment should be maintained even though they also believe initiating the war was a mistake.

I estimate a series of logit models with fixed effects at the intervention level and standard errors clustered by poll, as well as a multilevel mixed effects model with clustering at the conflict and poll levels, to test the robustness of the results. Model 2d in Table 2 displays the results of re-estimating Model 2a with the fixed effects alternative specification. As is the case for all of the models, the substantive results from the alternative specification are remarkably consistent with the original results.

I interpret the substantive effects of the control variables using Model 2b, which has the fewest missing observations. Holding all other variables constant at their mean values in the sample, the probability an individual will support sustaining a military operation is about 45 percentage points higher when ground troops are engaged in combat. Support for sustaining military operations is negatively correlated with aggregate levels of support at war-initiation in Model 2b, but the effect is not significant in any of the other models.

Men are 14% more likely and Republicans are almost 17% more likely to be in favor of maintaining a war effort, all else equal. The likelihood of support increases by an additional 15% among individuals who identify with the President's political party. The cumulative effect of these individual attributes is that male Republicans have a 53% greater likelihood of supporting continuation of a war effort than female Democrats when the President is Republican.

# **Discussion and Conclusion**

The media have focused considerable attention on the erosion of American public support for the recent wars in Iraq and Afghanistan. But a more puzzling phenomenon may be that a solid majority of the public remained committed to sustaining military operations in Iraq for almost three years despite the fact that the human and material costs of the intervention far

exceeded initial expectations and U.S. forces failed to find any evidence to corroborate the major justification for the war – an Iraqi WMD program (Daalder and Lindsay 2003; Kull, Ramsay, and Lewis 2003/04; Record and Terrill 2004). The American public certainly did not give much indication that it would tolerate a large, extended U.S. ground occupation of Iraq. In the months leading up to the U.S. intervention in Iraq, public support for the use of military force varied widely, but in predictable ways. Approximately 72% of the public expressed support for the use of special forces or commandos to remove Saddam Hussein's regime and between 66-68% of the public favored air strikes.<sup>4</sup> But public support for the use of ground troops was more equivocal. In January, just 51% of the public responded favorably to the prospect of a "large number of U.S. ground troops," in February only 40% supported military action if it resulted in "thousands of American casualties," and in March just 47% approved of intervening "without significant UN or international support". None of the major polling organizations even asked if the public would support invading Iraq if the regime was not developing weapons of mass destruction, but just 52% of those polled supported military action against Iraq if the UN did not concur with the Bush administration's assertion that Iraq had chemical, biological, or nuclear weapons.

The existing literature on public attitudes toward the use of force tends to assume that pre-war and intra-war support are determined by the same basic calculation. Public support for a proposed or hypothetical use of military force is consistently lower when survey questions

<sup>&</sup>lt;sup>4</sup> Aggregate public opinion data on Operation Iraqi Freedom come from surveys retrieved between September 25 and October 3, 2007 from the iPOLL Databank, The Roper Center for Public Opinion Research, University of Connecticut. <a href="http://www.ropercenter.uconn.edu/ipoll.html">http://www.ropercenter.uconn.edu/ipoll.html</a>. Surveys were conducted by the Associated Press, ABC News, CBS News, CNN, Fox News, Gallup, Newsweek, the New York Times, Pew Research Center, Time Magazine, USA Today, the Washington Post, and Zogby International.

mention large troop commitments, a risk of casualties, or the use of ground troops to carry out a particular mission (Kull and Destler 1999; Eichenberg, Stoll, and Lebo 2006; Jentleson and Britton 1998). And both politicians and military leaders appear to feel constrained by an accepted wisdom that the American public will not tolerate significant casualties (Eikenberry 1996; Everts 2002; Feaver and Gelpi 2004; Klarevas 2002; Kull and Destler 1999; Larson 1996; Larson and Savych 2005). In a 1996 essay in *Foreign Affairs*, Luttwak warns that the United States "is spending far too much on casualty-prone units in all the services, in an age when political opposition to casualties effectively makes these units unavailable for combat" (33).

But the assumption that support for sustaining a military intervention will inevitably be negatively impacted by casualties ignores the psychological impact of withdrawing from military interventions after a nation's soldiers have lost their lives in combat. As the case of Operation Iraqi Freedom illustrates, public willingness to *persist* in a war effort is based on considerations beyond the relative weight of anticipated benefits and cumulative costs.

This study confirms that high casualty rates decrease optimism about the eventual success of foreign engagements and increase the number of individuals that believe initiating a particular war effort was a mistake. However, for all but the longest military engagements, support for sustaining relatively high casualty commitments is higher than support for maintain military operations with lower casualty rates. Moreover, as the number of American soldiers killed in action increases, the impact of beliefs about the wisdom of initiating the war, and confidence in the progress of the war effort, diminish. Individuals increasingly support maintaining a war effort *despite* pessimism about prospects for a beneficial outcome, and even convictions that using military force was a mistake, as the human toll of a war climbs. While individuals who are pessimistic about how a war is progressing favor withdrawal at higher rates on average, war

outcome pessimists become more likely to favor staying in the fight as losses accumulate. And the commitment gap between those who believe going to war was the right thing to do, and those who believe it was a mistake, narrows as cumulative casualties increase.

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| Table 2. Wodels predicting suppo | rable 2. Models predicting support for sustaining an ongoing minitary operation. |                      |                      |                                   |  |  |  |
|----------------------------------|--|----------------------|----------------------|-----------------------------------|--|--|--|
|                                  | Model 2a<br>RE logit   | Model 2b<br>RE logit | Model 2c<br>RE logit | Model 2d <sup>a</sup><br>FE logit |  |  |  |
| Average daily KIA rate           | 0.746**  |                      |                      | 0.751**                           |  |  |  |
|                                  | 0.029  |                      |                      | 0.107                             |  |  |  |
| Duration at poll date (log)      | -0.183**   | -0.556**             | -0.630**             | -0.184                            |  |  |  |
|                                  | 0.021  | 0.031                | 0.040                | 0.125                             |  |  |  |
| KIA rate * duration              | -0.094**   |                      |                      | -0.095**                          |  |  |  |
|                                  | 0.004  |                      |                      | 0.014                             |  |  |  |
| Optimism                         | 1.066**  | 1.161**              |                      | 1.066**                           |  |  |  |
|                                  | 0.031  | 0.059                |                      | 0.133                             |  |  |  |
| Cumulative casualties (log)      |  | 0.207**              | -0.027               |                                   |  |  |  |
|                                  |  | 0.022                | 0.023                |                                   |  |  |  |
| Cumulative casualties * Optimism |  | -0.032**             |                      |                                   |  |  |  |
|                                  |  | 0.009                |                      |                                   |  |  |  |
| Mistake belief                   |  |                      | -1.931**             |                                   |  |  |  |
|                                  |  |                      | 0.063                |                                   |  |  |  |
| Cumulative casualties * Mistake  |  |                      | 0.069**              |                                   |  |  |  |
|                                  |  |                      | 0.010                |                                   |  |  |  |
| Male                             | 0.428**  | 0.412**              | 0.503**              | 0.428**                           |  |  |  |
|                                  | 0.029  | 0.027                | 0.029                | 0.062                             |  |  |  |
| Republican                       | 0.487**  | 0.531**              | 0.380**              | 0.488**                           |  |  |  |
|                                  | 0.036  | 0.033                | 0.042                | 0.071                             |  |  |  |
| Same Party as President          | 0.474**  | 0.462**              | 0.379**              | 0.472**                           |  |  |  |
|                                  | 0.035  | 0.032                | 0.041                | 0.078                             |  |  |  |
| Ground combat                    | 2.526**  | 2.494**              | 2.841**              | 1.884**                           |  |  |  |
|                                  | 0.471  | 0.301                | 0.141                | 0.563                             |  |  |  |
| Aggregate support at initiation  | -2.028   | -2.258**             | -0.549               |                                   |  |  |  |
|                                  | 1.395  | 0.745                | 2.827                |                                   |  |  |  |
| Constant                         | -0.589   | 1.097                | 2.056                | -0.982                            |  |  |  |
|                                  | 0.901  | 0.502                | 1.646                | 0.392                             |  |  |  |
| Conflict-level RE variance (log) | -1.195   | -2.108               | 0.251                |                                   |  |  |  |
|                                  | 0.542  | 0.510                | 0.510                |                                   |  |  |  |
| Ν                                | 26033  | 28041                | 27063                | 26033                             |  |  |  |

Table 2 Models predicting support for sustaining an ongoing military operation

Standard errors in parentheses. All time-varying variables are measured at date of poll. \* p<.05 \*\* p<.01 <sup>a</sup>Fixed effects at the intervention-level are estimated but not shown. Standard errors are clustered by poll. ate.