Casualties, Success Perceptions, and Public Support for Military Operations

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Research Note

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Abstract

Existing studies of casualty sensitivity tend to focus on the relationship between battle deaths and public support for a given war. Yet many military interventions are increasingly conducted outside the context of large-scale wars and instead primarily involve raids, patrols, or other small-scale operations. Do previous findings on the effect of casualties and perceptions of success on public opinion still hold for these types of operations? In this study, we first experimentally and independently manipulate casualties and success perceptions in order to isolate the causal effect of each on approval for a specific hypothetical small-scale military operation. We then investigate *why* casualties and/or success may impact approval. We find that the perception of success—more so than casualties—affects approval of military operations. Additionally, the effect of success is primarily mediated by beliefs about mission importance while any negative effect of casualties is concentrated among subjects low on vengefulness. We conclude by discussing the implications of these findings in the context of several recent high-profile operations.

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Introduction

In January 2017, five days after taking office, President Donald Trump authorized a raid by a team of Navy SEALs on a suspected Al-Qaeda compound near the Yemeni village of Yakla. The Yakla raid resulted in the death of SEAL Team Six member Chief Petty Officer William "Ryan" Owens as well as the capture of some intelligence material. In his first joint address to Congress, President Trump portrayed the raid as a mission with high importance for the United States' battle against terrorism and claimed that the operation had been a success despite the death of Owens. Said Trump: "I just spoke to our great General Mattis just now who reconfirmed that, and I quote, 'Ryan was a part of a highly successful raid that generated large amounts of vital intelligence that will lead to many more victories in the future against our enemy."'[1]

The Yakla raid represents a different type of warfare than conventional interstate war or long-term counterinsurgencies like the recent wars in Afghanistan and Iraq. Unlike a conventional war that unfolds over a sustained period of time in a single place, the Yakla raid is part of a body of short-term, more tactically-focused operations in the American "War on Terror" across the globe (Kavanagh et al., 2017; Byman and Merritt, 2018). Compared to large-scale wars, relatively little research has been conducted on how differing levels of casualties and success in these kinds of small-scale operations affect public opinion.[2]

In this paper, we employ a hypothetical scenario based on these types of small-scale operations to understand how and why the public might respond to them. Our survey

[1]Retrieved from: https://www.whitehouse.gov/briefings-statements/remarks-president-trump-joint-address-congress/ on 3/28/18

[2]For a partial exception, see Sullivan and Koch (2009) on the work of military interventions more generally by great powers that includes both long-term and short-term interventions, albeit only those of a fairly substantial (500 personnel minimum) size. Eichenberg (2005) also includes a number of historical operations below the level of a full-scale war such as the 1989-1990 invasion of Panama, but analyzes those alongside both larger wars and prospective uses of force.

experiment, utilizing a vignette about a hypothetical military operation and fielded on an online convenience sample, extends the existing literature in at least three ways. First, among the entire sample we find a positive main effect of perceived operational success on public approval. However, we only find weak support for the effect of casualties on approval. Second, by examining the dispositional traits of vengefulness and patriotism as potential moderators, we observe that the negative effect of casualties on approval often found by previous studies is concentrated primarily among those respondents who are low in vengefulness. Third, we find evidence that the main effect of success and the conditional effect of casualties are respectively mediated by beliefs about a mission's importance and the respondent's feelings of anger. These findings shed light on the mechanisms that explain *why* casualties and success perceptions influence foreign policy attitudes. We illustrate these results with a brief case study of the 1993 Somalia intervention and discuss applications to several recent examples.

Casualties and Success in Operations: Why and How They Matter

Prior studies generally identify two aspects of war that are particularly salient for understanding how wars affect public opinion: (1) the *rate* of casualties and reports from the battlefield; and (2) the probability that the conflict will conclude with a successful outcome (Mueller, 1973; Gartner and Segura, 1998; Gelpi et al., 2006). Small-scale operations differ from large-scale conventional warfare in at least two ways related to these aspects.[3] First, operations produce information more irregularly. Information about an operation or series of operations is likely to be delivered in staccato bursts between long periods of relative silence rather than through ongoing updates. Second, many of these operations

[3]We define a small-scale military operation as a distinct military action or sequence of actions involving the deployment of armed military forces to achieve a specific tactical objective.

are secretive. Only when American casualties are sustained is the broader public—and in some cases, even Congress—made aware that American troops are involved. It may then be more difficult for the public to evaluate the full context of these operations and their likelihood of achieving ultimate success.

Given these differences, small-scale military operations may diverge from the current scholarly understanding of the relationship between casualties and success in war on public opinion in several ways. First, a lack of repeated reminders about an operation might reduce the sense of casualty "fatigue" characteristic of longer wars, thus making it difficult for one-off operations to move public opinion (Gelpi et al., 2009; Koch, 2011). But the abruptness of new information from operations might limit one's ability to rationalize casualties as part of an investment or sacrifice to a greater cause (Boettcher and Cobb, 2009). Similarly, if casualties are viewed as severe in relation to a baseline level of zero between operations, then casualties sustained in short-term operations may have a greater effect than those sustained during a larger war. In terms of success, the relative brevity of small-scale operations may make it easier to achieve—or to claim—a clear-cut success as the outcome of one operation compared to "winning" a larger war. Yet given the smaller stakes of an operation, the effect of success might not be as large or perceived as large by the public. It is thus not theoretically clear how casualties or success as part of an operation might affect public approval.

Explaining *why* public opinion changes in response to casualties or success matters as well. To do this, we present information from the battlefield as brief news articles, closely approximating the way individuals in the real world might obtain such information. Our research design allows us to elicit retrospective evaluations toward conflicts under experimentally varying conditions. In addition, we identify potential moderators that may

[3]We suggest that this improves on prior studies, which most often present subjects with a strategic assessment of a proposed measure then measure a subject's *prospective* support. It is unclear why prospective support should be a parameter of interest, given that the mass public is rarely in a position to influence the *ex ante* decision to undertake a specific operation. Instead, the force of public opinion is made to bear after

condition the effect of casualties and success on public approval, as well as mediators that may shed light on the mechanisms explaining how and why casualties and success affect individual attitudes.

Moderators

We theorize that two individual-level dispositions may moderate the effect of casualties in particular. First, individuals with high levels of patriotism may be more willing to view casualties as sacrifices for a greater cause, and thus be more casualty tolerant. Low patriots, on the other hand, may be more sensitive to public opinion change as a result of casualties. In a similar vein, McFarland (2005) finds that higher levels of patriotism lead to increased support for attacking Iraq in 2003, albeit through a slightly different mechanism in which patriotism "blinds" people to even considering the human cost of war in response to a potential outside threat.[4]

In addition, a number of recent studies have sought to investigate the relationship between vengeance disposition and foreign policy attitudes. Liberman (2006) finds that retributiveness is a significant correlate with hawkish militarism at the individual level, while Stein (2015) argue that democracies with higher aggregate vengefulness are also more likely to initiate conflicts. Psychologically, vengeance disposition is a general orientation or desire towards enacting revenge, and has been found to be associated with a variety of aggression indicators (Stuckless and Goranson, 1992). In the context of casualty sensitivity, we theorize that high vengefulness may reduce the negative impact of casualties on approval. Because of highly vengeful individuals' propensity to punish others for perceived infractions, we predict that such individuals are more likely to place the blame for casualties or failure on enemy combatants, as opposed to the own-side political or

the outcome of a given operation is revealed–a dynamic that we attempt to capture in our design.

[4]Highly patriotic people may also be more susceptible to the investment frame suggested by Boettcher and Cobb (2009). By viewing casualties as an investment in fighting for a cause, the "sunk cost" effect is obviated and instead each existing casualty is seen as having been put to good use rather than wasted.

military leadership. Vengeful individuals may also avoid voicing disapproval following costly or failed missions in order to not affect the willingness of elites to pursue retaliatory action against the enemy in future operations.

Why focus on moderators, and these two specifically? Among the various individual-level dispositions that affect political behavior, we select two that have high *prima facie* likelihood of affecting public attitudes toward conflict. In addition, we note earlier that a burgeoning literature in international relations has sought to understand the role that vengeance and retributive disposition play in the formation of foreign policy attitudes. Thus, our research makes contributions not just to scholarly understanding of casualty sensitivity, but on the relation between public opinion and foreign policy more broadly. Furthermore, should these dispositions be found to importantly condition how information about battlefield outcomes affect public attitudes, one implication is that temporal and spatial variation in such dispositions within and across populations may provide nuanced understanding and prediction of when the relationship between public opinion and foreign policy changes.

Mediators

Previous studies of casualty sensitivity have only lightly touched on the emotional reaction of reading about the death of fellow citizens in combat,[5] with most following in the path of Gartner (2008) and ascribing a theory of rational expectations to explain the public response. However, cognition is a function of not only reason, but also affect and emotion (Kunda, 1990; Marcus et al., 2000; Lodge and Taber, 2005). Here, we specifically focus on anger. As a dynamic emotional response to stimuli, anger may result from exposure to direct violence or recall of violent episodes (Milburn et al., 2013; Small et al., 2006) or when individuals are treated to information incongruent with their prior

[5]But see Gartner (2011), which finds that emotionally charged images of sacrifice and loss can affect war approval to a small degree.

beliefs (Suhay and Erisen, 2018). Additionally, anger can lead to changes in political attitudes and policy preferences (Small and Lerner, 2008) and spur political participation (Smith et al., 2008; Valentino and Neuner, 2016). Crucially for the present study, anger responses lead to greater attention towards causal attribution (Small et al., 2006). Thus, we theorize that casualties may prime anger due to its description of violence enacted on an in-group. Casualties or mission failure can also anger by undermining a subject's prior beliefs about the capability of U.S. armed forces. Once induced, anger may decrease support not only because of carry-over effects from the emotion's negative valence (Small and Lerner, 2008), but also by priming casual attribution and attention to blameworthiness. Thus, retrospective approval of the mission can be adversely affected if blame for mission failure or resulting casualties is placed on political leaders.

In addition to anger, beliefs about a given mission's importance to the United States may mediate the effect of casualties and success. In Gartner (2008), mission importance is conceptualized as a moderator of Iraq War approval. Gartner finds that those who viewed the War in Iraq as a matter of greater importance for U.S. national security were more tolerant of casualties. But the public is often ill-informed about the specifics of foreign affairs—it is unlikely that many respondents would have detailed knowledge about the current level of U.S. involvement in Yemen for instance—and as such are hardly in a position to evaluate the actual degree to which a given mission is vital to American interests.[6] Thus, we theorize that beliefs about mission importance may function as a system-justifying palliative for an individual's psyche upon the reception of negative disconfirming information (Jost et al., 2004). That is to say, individuals who are treated to high casualties or to mission failure make an *ex post* evaluation of the mission's importance in order to "save face" and preserve their mental belief in the capability of the U.S.

[6]Boettcher and Cobb (2006) show that even during the occupation of Iraq in the mid-2000s, relatively few Americans were able to accurately estimate the actual number of deaths the United States had suffered in Iraq, giving a mean of 4,913 deaths and a median of 1,000 compared to the actual number of 1,450-1,501 during the course of their experiments.

military. By discounting a failed mission as "not that important anyways," individuals minimize the mental discomfort experienced in interpreting and processing the negative information. We further expect that failure, coupled with a decrease in perceptions of mission importance, may motivate greater causal attribution and blame searching, thus leading to a decrease in approval for the mission.

By theorizing about mediators between battlefield outcomes and public approval, we push scholarly inquiry beyond simply asking whether casualties or success affects attitudes towards an understanding of how and why such battlefield outcomes come to have their effects.

Research Design

To test our hypotheses, we administer an online survey experiment with a 2x2 between-subjects design on 1000 US subjects recruited through Amazon's MTurk platform.[7] MTurk has quickly become a popular method across the social and behavioral sciences for recruiting large samples at relatively low cost. Requesters may submit simple tasks to an online labour market and Workers then agree to complete the tasks in exchange for a very small amount of remuneration (for an overview of using MTurk to conduct social science research, see Mason and Suri (2012)). It is necessary to note that MTurk users are not representative of the US population (Berinsky et al., 2012).[8] However, recruitment through MTurk is useful for assessing treatment effects even among a non-random sample. Furthermore, MTurk samples are generally more representative of a national population than either in-person convenience samples or student samples (Berinsky et al., 2012). Lastly, three factors—unique Worker IDs, the ability of Requesters to reject submission of individual Workers, and reputation requirements to complete certain tasks—combine to place strong incentives on Workers to complete tasks with honesty and accuracy (Suri

[7]Specifically, we limit our respondents to those with 95% or higher approval percentages for HITs.

[8]Appendix A displays sample characteristics and a comparison with representative US data.

et al., 2011).

The survey was fielded in March 2018.[9] After a battery of demographic questions and measures of our moderators, subjects are treated to a hypothetical news article briefly describing a militarized operation launched by U.S. forces and supported by local allies.[10] The first manipulated factor is that of U.S. casualties: subjects in the *High* condition are told that eight U.S. soldiers were killed, while the *Low* condition describes "several" U.S. soldiers being wounded as a result of the operation.[11] This number of soldiers killed is relatively high for a single operation, but it is equal to the number killed during the failed Operation Eagle Claw to rescue hostages during the Iranian Hostage Crisis in 1980, lower than the 25 expected deaths used in Walsh (2015)'s experiment of a similar mission, and much lower than the larger numbers of casualties found in other studies that used actual casualty numbers from the Iraq War (Leland and Oboroceanu, 2010).[12] The second manipulated factor is success perceptions: subjects in the *Success* condition are told that U.S. forces had gained control of a city previously held by the Islamic State following the operation, while those in the *Fail* condition are told that control of the city was not obtained.[13]

[9]During the time in which the survey was in the field from March 12th through just after midnight EST on March 15th there were no reports of American casualties in Iraq or the Philippines that we were able to find via a LexisNexis search, though later on March 15th after the survey ended an American helicopter in Iraq crashed and killed seven service members. There was only one American servicemember death in the month before the survey launched and that took place in Germany on March 7th.

[10]The use of retrospective approval as well as the use of a brief newspaper article vignette better approximates how individuals receive foreign policy information, compared to past studies that ask for prospective support of a proposed mission based on casualty and success estimates.

[11]Pre-testing as well as a manipulation check confirmed that this wording difference resulted in meaningfully different perceptions of casualties sustained.

[12]One concern may be that results are subject to compound treatment effects if subjects infer different levels of enemy casualties from the different reported levels of U.S. casualties. To address such concerns, all treatments report that approximately 12 enemy fighters were killed during the operation.

[13]A third factor—salience of terrorist group—is also manipulated, with subjects reading a story about either the Islamic State in Iraq or of Abu Sayyaf, a affiliate of the ISIS active in the Philippines. Although

Moderators: Moderators are measured following the initial demographics battery but prior to the administration of the treatment to avoid contamination. The first moderator of Patriotism is measured with two items taken from the ANES and the World Values Survey respectively: (1) "When you see the American flag, does it make you feel..." and (2) "How proud are you to be American?" The five response options for the first item range from "Extremely good" to "Not good at all," and the four response options for the second range from "Very proud" to "Not at all proud." The two items are combined to form an additive scale, which is the main measure of patriotism in subsequent analyses. The second moderator of Vengefulness is measured with four items [14][15] taken from the 20-item Vengeance Scale of Stuckless and Goranson (1992); these four items are similarly combined to form an additive scale (Cronbach's α = 0.72) that is used as the main measure of vengefulness. Both scales are standardized to have a mean of zero and standard deviation of one.

Mediators: Immediately after the administration of treatment and manipulation checks, subjects were measured on the two mediators of anger and perceptions of mission importance. For anger, subjects are asked "How angry did reading the news story make you feel?" with five response options ranging from "Very angry" to "Not at all angry." For mission importance, subjects are asked "In your view, how important was this operation for American national security?" with five response options ranging from "Very imppportant" to "Not at all important."

Dependent variable: Support for the operation was measured by the following question: "Do you approve or disapprove of the decision by the United States to use ground troops in this operation?" with responses measured on a 7-point Likert scale.

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the manipulation check confirmed that salience was much higher for the Islamic State (M = 2.79, SE = .05) than for Abu Sayyaf (M = 1.52, SE = .04, $p < 0.000$), salience did little to affect the substantive effects of the other treatments and thus is not presented in the main analyses. See Robustness Checks for more details.

[14]This abbreviation was necessary due to time and resource constraints.

[15]See Appendix C for item wording.

In addition, an attention check from Berinsky et al. (2014) is included; results reported are based on the 852 subjects that passed. Furthermore, subjects are fully debriefed about the hypothetical nature of the news articles at the conclusion of the survey.

Results

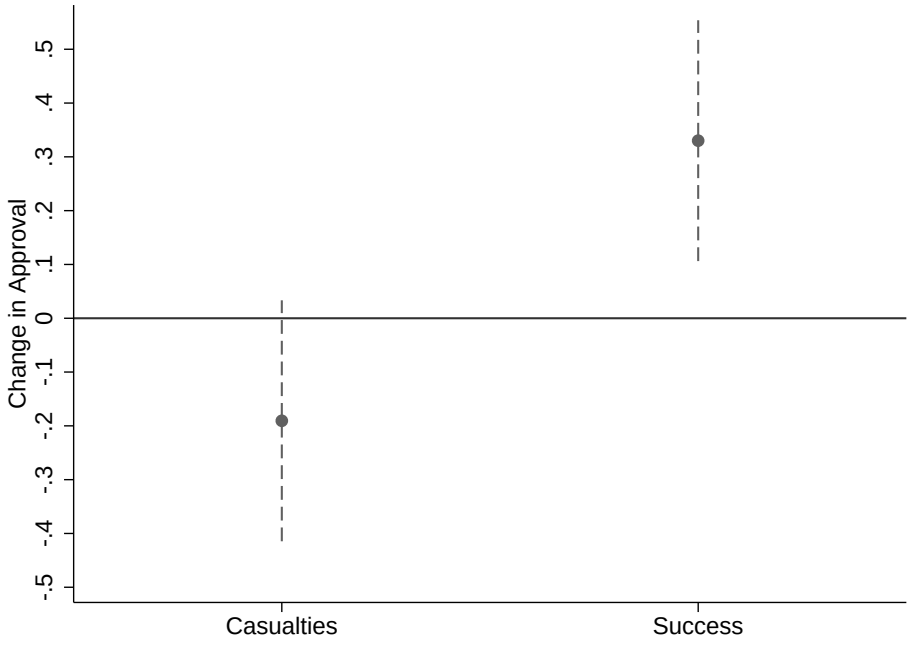
Manipulation checks confirmed that the treatments successfully manipulated subjects' perceptions of the mission's success as well as the level of U.S. casualties sustained. Those in the Success condition (M = 5.30, SE = 0.06) found the U.S. operation to be significantly more successful than those in the Fail condition (M = 3.19, SE = 0.07, $p < 0.000$), and those in the High Casualties condition found U.S. casualties sustained in the operation to be much more severe (M = 4.26, SE = 0.07) than those in the Low Casualties condition (M = 3.02, SE = 0.08, $p < 0.000$). Appendix D presents the results of the manipulation checks graphically.

A 2x2 analysis of variance (ANOVA) was conducted to test the competing effects of success and casualties on approval. We observe a main effect for success, with those in the Success condition reporting higher levels of approval (M = 3.75, SE = 0.08) than those in the Fail condition (M = 3.43, SE = 0.08), F(1,849) = 8.35, p = 0.004. However, the main effect of casualties is only weakly significant at conventional levels, F(1,849) = 2.79, p = 0.095. Furthermore, we observe a substantively small difference between the Low (M = 3.68, SE = 0.08) and High (M = 3.50, SE = 0.08) casualty conditions. No significant interaction between success and casualties was found. Figure 1 presents the main effects graphically.[16]

Conditional effect of casualties? Although these results bolster the argument that success perceptions, moreso than casualties, are critical in explaining public support for military operations, it is worth further unpacking the role of casualties given the robust literature

[16] Appendix E graphically presents the simple main effects.

Figure 1: Effect of High Casualty and Success Treatments on Approval



95 per cent confidence intervals

behind its importance. To that end, 2x2 analyses of covariance (ANCOVAs) were conducted to test whether the effect of casualties is conditional on either of the two posited moderators. The results suggest that both patriotism (F (1,849) = 105.94, p = 0.00) and vengefulness (F (1,849) = 12.46, p = 0.00) are strongly associated with subject's approval of the operation. Furthermore, we find a significant interaction between the casualties treatment and vengefulness (F (1,849) = 5.46, p = 0.02).[17] There is some evidence supporting an interaction between patriotism and the casualties treatment, although again it is weakly significant at conventional levels (F (1,849) = 2.88, p = 0.09). Figures 2 and 3 present these conditional treatment effects graphically.

Robustness Checks: We conduct three sets of checks to assess the robustness of the main treatment effects of casualties and success perceptions. First, we examine whether or not

[17]This suggests that the lack of a main effect of casualties on approval may be due in part to the differential effects of casualties on individuals across levels of vengefulness.

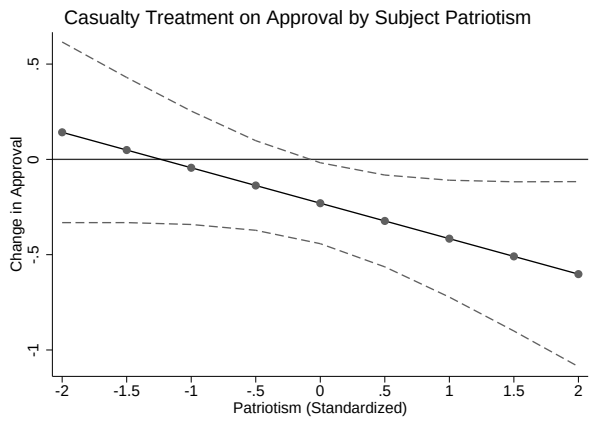


Figure 2

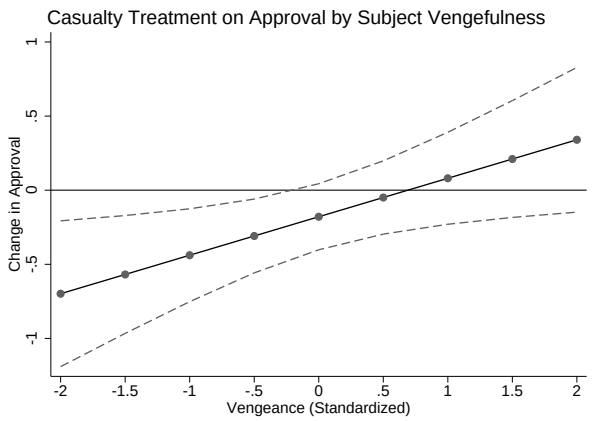


Figure 3

95 per cent confidence intervals

the treatment effects of casualties and success are conditional on other unposited moderators. We estimate two two-way ANOVAs to rule out the possibility that the effects of casualties and success are different for those who receive the Philippines/Abu Sayyaf condition as opposed to the ISIS condition[18]. We also estimate two-way ANCOVAs to rule out heterogeneity across partisanship, news consumption, and age. In the first two cases we find a significant main effect for success perceptions, and fail to find a significant main effect for casualties, consistent with our main results presented above. While our ANCOVA returns an imprecise estimate for success when age is included as the other factor, we confirm that this is primarily due to the lack of subjects in our sample at the high- and low-end of the age distribution. Furthermore, the point estimate for the treatment effect of success remains unchanged across the age range.

Our next set of checks focus on testing the robustness of the main effects to alternative dependent variables. We estimate the effect of the casualty and success treatments on an item capturing *prospective approval*, in which we ask subjects if they believe the U.S. intervention against this group will be successful in the long term. Additionally, our survey contains two items with binary responses capturing retrospective approval

[18]See footnote 19

or disapproval with slightly different wording. We create two additive indices— one with the three items capturing retrospective approval (the two binary items and the main dependent variable) and one with all four approval items [19] Across all three alternative specifications of the dependent variable, we find results consistent with our main analysis: significant positive effects of success perceptions, but no evidence for the effect of casualties or for any interaction between the two.

Lastly, we re-estimate our main ANOVA model among the full sample, including those that failed the attention check. We find stronger results overall, with both casualty and success treatments significant in the expected directions. However, we also confirm via the manipulation checks that the treatments are weaker when including those subjects that failed the attention check. This leads us to instead prefer the conservative estimates reported above from only subjects that passed the screener.

Mediation Analysis

Conventional wisdom supports the finding that both casualties and success perceptions can affect support for militarized operations. However, few studies have tried to understand *why* these effects obtain, or whether the effect of casualties and success perceptions are motivated by different causal logics.

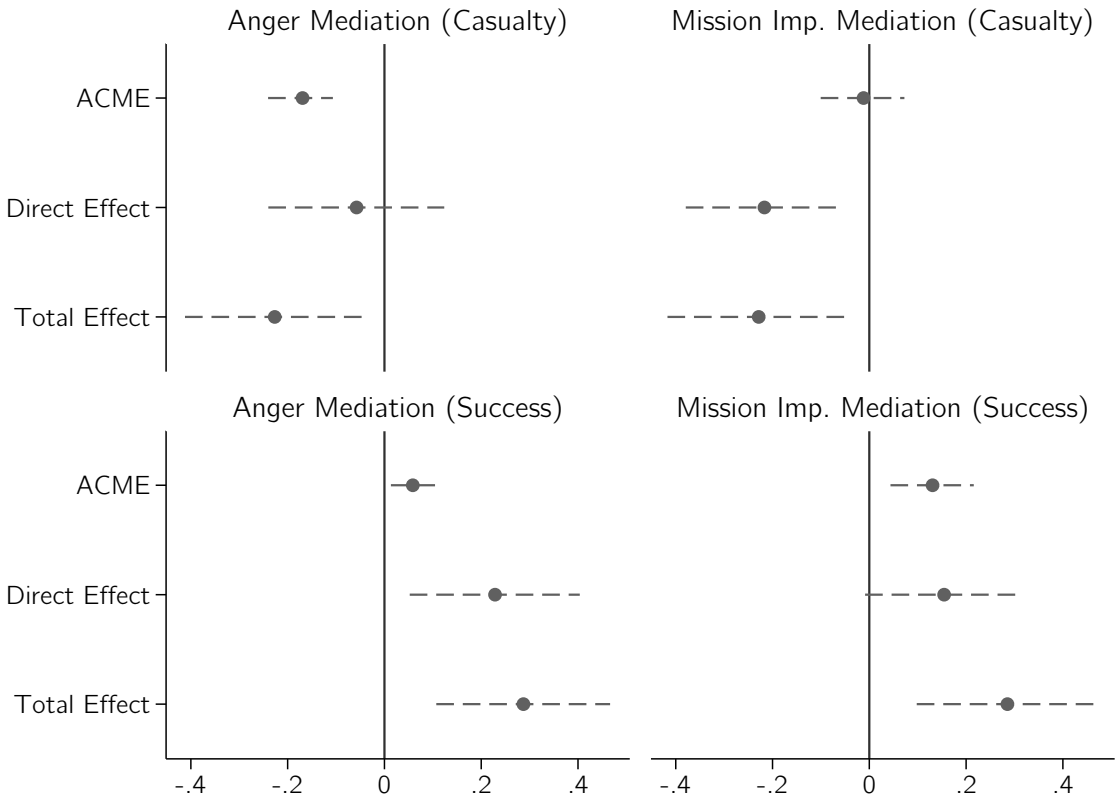
We conduct mediation analyses under the framework described by Imai et al. (2010) using the *mediation* package in Stata (Hicks and Tingley, 2011). In both equations for the mediator and outcome variables, we include a number of covariates that may explain individual variation in both mediators as well as approval. [20] The results of these analyses are presented in Figure 4.

The two figures in the top row displays three estimates of interest pertaining to the

[19] Cronbach's α = .70 and .75 respectively.

[20] Specifically, we control for age, education, sex, race, ideology, partisanship, news consumption, political interest, militarism, isolationism, national superiority beliefs, veteran status, and whether subject knows someone who served in the U.S. military.

Figure 4: Mediation Analyses



95 per cent confidence intervals

casualty treatment: the average causal mediation effect (ACME) of the two mediators; the direct effect, or the effect of the treatment independent of the mediator in a given model; and the total treatment effect. We estimate that the ACME of anger to be negative and statistically significant, suggesting that increases in anger sentiment is associated with decreases in approval of the military operation. We also fail to find evidence that the casualty treatment has a direct effect on approval, independent of anger. Combined with the estimated negative total treatment effect, our mediation results suggest that anger explains a majority of the effect of casualties on approval. This picture is reversed when it comes to the role of beliefs about the mission's importance. We fail to find any evidence that mission importance mediates the negative effect of casualties on approval.

For the success treatment, we estimate a surprising *positive* mediation effect of anger on approval, though it is substantively small—the majority of the causal effect of success perceptions is independent of anger. We similarly estimate a significant and positive ACME for mission importance beliefs. Furthermore, the estimated direct effect of the success treatment is statistically indistinguishable from zero in this model, while the total effect remains positive and significant. Taken together, these analyses suggest that beliefs about mission importance, more so than anger, is an important mechanism through which success perceptions can affect approval.

Per Imai et al.'s recommendation, we also conduct sensitivity analyses to investigate the robustness of our mediation analysis to violations of the sequential ignorability assumption. In general, though we find relatively less support for the robustness of anger's mediation effect, we find strong evidence for the mediating role of mission importance beliefs. Appendix F presents the sensitivity analyses in detail. [21]

To summarize: We conduct mediation analysis to test the possibility that anger and mission importance beliefs are important mechanisms by which casualties and success perceptions can affect approval of militarized operations. The results of these analysis suggest that anger may play a role in mediating the effect of casualties, while beliefs about a mission's importance may serve a critical function in explaining the impact of success perceptions. Our sensitivity analyses suggest that—at least for the mediation effect of anger and despite the inclusion of a number of demographics and foreign policy attitudes as controls—the estimates may be somewhat vulnerable to omitted variable bias; as a result, we caution against overinterpreting the specific point estimates. However, these results do point to the possibility that casualties and success perceptions affect approval through distinct and independent causal pathways, suggesting a potentially

[21] As an additional test of the robustness of our estimation to violations of sequential ignorability, we also re-run our mediation analyses where we include the omitted mediator as an additional covariate in order to attempt to isolate the partial mediation effect of one mediator, conditional on the other. We find that doing so does not substantively change the results of the mediation analysis.

fruitful avenue for future investigation.

Discussion

Contrary to how some studies characterize the relationship between casualties and success perceptions, we find no interactive effect between the two on mission approval. Instead, our results generally support those that emphasize the criticality of beliefs about whether or not a given intervention is successful.[22] In this, we highlight possible differences between public opinion towards small and large-scale operations. First, casualties by themselves might move approval only in large numbers—an admittedly sobering finding.[23] Furthermore, given a leader's information advantage vis-à-vis the public on matters of foreign policy, particularly in the early days of conflict (Baum and Groeling, 2009), it seems likely that perceptions of success and failure on the aftermath of a shorter operation may be more malleable, and thus more easily shaped by leaders. In combination with our attention on the ways in which affect and disposition shape an individual's decision-making progress, our paper is generally more pessimistic on the view of the public as rational arbiters engaged in a cost-benefit exercise (Gelpi et al., 2009), despite our agreement on the importance of success perceptions.

Additionally, we attempt to move beyond the success versus casualties debate by investigating the mechanism that leads either factor to affect public approval. In doing so, we highlight the possibility that success and casualties affect approval through different

[22]Our findings may differ from Walsh (2015)'s finding of the opposite (more of an effect from casualties than success) because our high-casualty condition was relatively low (8 deaths) compared to Walsh's (25 deaths). Our study also measured support after an operation had already taken place while Walsh asks about pre-operation support using expert estimations.

[23]Since these types of operations are relatively disconnected from each other, the effect of casualty trends that Gartner (2008) identifies might not apply as much to operations compared to a specific war. Note that the shift in approval, however, may not always translate into electoral support or opposition, especially once rhetoric and partisan cue-taking are taken into account.

causal pathways. Our analysis finds that casualties—at least among low vengefuls—cause decreases in approval mainly by eliciting anger from the subject. In contrast, an operation's failure negatively impacts support primarily by changing beliefs about the mission's importance. It is noteworthy that changes in importance perceptions are produced despite the fact that all considerations outside of the causal factors are held constant due to the research design. Given that a mission's objective importance to national security is *ex ante* determined and presumably independent of the mission's outcome, the fact that importance judgments are influenced by mission outcomes lends support to our theoretical expectations about the system-justifying function of such beliefs, at least among members of the mass public.

Although our ANCOVA results find the interaction between patriotism and the casualty treatment is only weakly significant at conventional levels, Figure 2 suggests that the negative effect of casualties is concentrated among those above the mean on patriotism, which is the reverse of our theoretical expectations. One possible explanation is the presence of floor effects among low patriots, although we view this unlikely due to a mean approval score of 3.1 out of five among low patriots across all conditions. Another possibility is that highly patriotic subjects in our sample were particularly outraged at the loss of military life in the high casualties condition. Given that this possibility is contrary to how patriotism has been treated in past studies of casualty sensitivity, future work may wish to further investigate the relationship between patriotic sentiment and casualty tolerance.

Our results do not appear to be unique to Iraq as a location or to Islamic State as a group either. In the conditions using the Philippines and Abu Sayyaf, we see a similar pattern to the main results from Iraq and Islamic State, although the effect size and precision of the effect estimates are slightly lower. This suggests that while the effects of an operation may be stronger when conducted against a more salient opponent, the effects are not uniquely driven by a certain group or place.

Finally, we find that the effect of casualties is concentrated among those with low vengeance, in line with our theoretical expectations. Insofar as we predict vengeful subjects to be more likely to blame failures on enemy combatants, our findings are consistent with the possibility that vengeance disposition also affects causal attribution beliefs. One question for future research is to see whether leaders may successfully "inoculate" themselves against the negative effect of casualties on public opinion by priming or dynamically activating vengefulness among the public. In line with the large body of research on foreign policy attitudes that emphasize the importance of individual characteristics, our findings also support further disaggregation of the public, both theoretically and empirically, in future examinations of casualties. The public is not monolithic, and do not respond to casualties in monolithic fashion.

A Historical Case: The 1993 Battle of Mogadishu

To illustrate how our results can help explain changes in public opinion regarding a specific military operation, we apply our argument to the Battle of Mogadishu (October 3 to 4, 1993). This battle—which we conceptualize as one specific operation within the larger long-term American intervention in Somalia that began in late 1992—resulted in the deaths of eighteen Americans and saw over seventy others wounded (Johnson and Tierney, 2006; ¸Center of Military History, 2003).

Before the battle, support among the American public for the American military intervention in Somalia was already declining from its apex at the start of the intervention in late 1992 under outgoing President George H. W. Bush (Johnson and Tierney, 2006; Delaney, 2004; Burk, 1999). In particular, the approval of President Bill Clinton's handling of the situation in Somalia had dropped from 51% in June 1993 to 41% by September 1993 (Gelpi et al., 2009, 40). Yet the operation overall was still popular among the American public due in part to the perceived success of the famine relief component that had been the original rationale for the intervention (Johnson and Tierney, 2006, 225). But during

the summer of 1993, the American military mission expanded from its earlier mandate of humanitarian relief to instead focus on resolving Somalia's civil war and political crisis. This led to a shift in public perception of what would count as success. By October, the specific tactical objective had morphed into capturing the warlord Mohamed Farrah Aidid according to both press reports and public perception (¸Center of Military History, 2003; Johnson and Tierney, 2006). Even though the raid that captured Aidid's associates that sparked the battle on October 3rd was considered a tactical success by the military, public perception was that the operation had been a failure since Aidid was still at large (Klarevas, 2000, 527).

The casualties incurred by the U.S. military during the Battle of Mogadishu were the highest in one incident since the 1983 Beirut barracks bombing in Lebanon. Though there had been previous incidents with as many as three American servicemembers dying in Somalia, the eighteen deaths were relatively quite high. Thus, the Battle of Mogadishu is a case of an operation with a perceived tactical failure and high casualties. By our theoretical expectations, the tactical failure should have helped drive a decrease in the perceived importance of the mission, which in turn should lead to a decline in approval of both President Clinton's handling of the situation and the overall American presence in Somalia. Furthermore, anger over the deaths of so many American servicemembers may have contributed to this decline in approval.

While no polling firm appears to have asked the same specific question before and after the battle regarding the perceived importance of the American operations in Somalia, there were similar questions relating to the importance of Somalia for U.S. foreign policy and national security. In September 1993, a Gallup/CNN/USA Today poll found that in terms of whether or not a peaceful solution to Somalia's situation was an important goal of American foreign policy, 28% of respondents said it was"very important" and 41% said "somewhat important."[24] Thus just before the battle, 71% of respondents

[24]Cable News Network, USA Today, Sep, 1993. Gallup Organization. USGALLUP.93SEP1.Q33C. Cornell

thought that the American mission in Somalia—in this case, one that specifically referred to peaceful resolution of the Somali civil war and not just humanitarian aid—was at least somewhat important to U.S. foreign policy. Just after the Battle of Mogadishu in October, however, an ABC News Poll found that only 21% agreed that Americas "vital interests" were at stake in Somalia with 69% saying they were not.[25] A Time/CNN/Yankelovich Poll found only 39% thought the US had a "great deal at stake" in Somalia.[26] Though the wording between these polling questions changes slightly, there is some evidence that the perceived importance of the mission to the United States' foreign policy fell considerably after the Battle of Mogadishu.

Anger is harder to measure given a lack of direct questions about anger in surveys. (Gelpi et al., 2009, 38) suggest that some degree of vengeance in the public may have led to a majority of support in public polls after October 4th to support an increase in military involvement solely to capture Aidid; polls did find that a majority of Americans supported continued efforts to capture Aidid even while supporting a plan to withdraw from Somalia as well. Other studies have suggested that the effect of Somalia on the American psyche was not simply the costs involved, but the embarrassment felt at visible signs of failure (Dauber, 2001; Johnson and Tierney, 2006). The images of the bodies of American soldiers being dragged through the streets seemed to leave an impact. A *New York Times* article on October 8th reported that "the families left behind speak of a deep well of anger at the taunting public displays of the dead" (Smothers, 1993) and President Clinton's speech to the country on October 7th also noted that "we all reacted with anger and horror" at the images of American bodies being desecrated (Clinton, 1993). In this case, anger seems to have come more from the way the dead were treated rather than just

University, Ithaca, NY: Roper Center for Public Opinion Research, iPOLL, accessed Jun-14-2018.

[25]ABC News. ABC News Poll, Oct 13th, 1993. USABC.101393.R15. ABC News. Cornell University, Ithaca, NY: Roper Center for Public Opinion Research, iPOLL, accessed Jun-14-2018.

[26]Time, Cable News Network. Time/CNN/Yankelovich Partners Poll, Oct 13th, 1993. USYANKP.101393.R08B. Yankelovich Partners. Cornell University, Ithaca, NY: Roper Center for Public Opinion Research, iPOLL, accessed Jun-14-2018.

the fact that American soldiers died.

The high level of casualties may have had more of an impact on the Clinton administration than on public opinion. The Clinton administration seemed shocked at the intensity of the casualties, with former Clinton administration member James Woods claiming that, "The death of the 18 American Rangers in Mogadishu... totally traumatized the Clinton administration on these types of foreign interventions" (Frontline, 1998). Rather than assuming that the decline in public support was solely based on the high number of fatalities, however, the decline in support may have stemmed more from the perceived tactical failure of the operation.

Recent Case Applications

Two recent operations illustrate some additional facets of the dynamics identified in our study. First, returning to the Yakla Raid mentioned in the introduction, members of the Trump administration noted that the raid had been a "success" and argued this vigorously against critics, including Senator John McCain, who questioned labeling the raid a success because of the death of Owens (Schmitt and Sanger, 2017). It seems likely that convincing the American public that the raid was a success was seen as crucial by the Trump administration to counteract any negative effect from Owens' death and that it was easier to accomplish that goal given the capture of some computer files in the raid.[27] In contrast, the death of four American servicemen in an ambush at Tongo Tongo, Niger in 2017 presents a far more challenging operation to frame in terms of success. Given that the American soldiers were ambushed and killed as part of a mission deemed so secret that members of Congress claimed they were unaware of it, the ability of the Trump administration to claim this operation as success would have been extremely difficult. It should not be surprising then that the Trump administration attempted to ignore the operation as much as possible (Tharoor, 2017). Interestingly, our results suggest that because

[27]No public survey to our knowledge specifically asked a question about approval for the Yakla raid.

the Tongo Tongo operation seems to have been a clear-cut case of failure, the very failure of the operation may have led to a lower level of perceived importance for the operation among the American public. Whether or not this means the public might deem the Trump administration's handling of the operation—and the cumulative effects of other similar operations taken together—of lower import when voting in 2018 is, however, a matter for additional research.

Conclusion

Our study makes three key interventions in the current literature on casualty sensitivity. First, we shift the focus from sustained full-scale wars that have formed the context for much of the recent literature and instead study the kind of short-term military operations that have characterized American interventions in the ongoing War on Terror. Second, we experimentally and independently manipulate both casualties and success in order to shed light on how these two factors work together to shape public opinion. Our results overall place greater emphasis on the importance of perceptions of success. Additionally, we find potential heterogeneity in the effect of casualties across different dispositional characteristics. Third, we move beyond the question of *whether* casualties/success affects public opinion in order to ask *why* these effects hold. In doing so, we find evidence that emotional responses such as anger as well as beliefs about mission importance may be important mechanisms explaining the effect of casualties and success on public attitudes.

Every time a political leader authorizes an operation, that leader is taking a risk that the operation could fail and that the troops involved with the operation could take considerable casualties. Our study suggests that the public is often willing to tolerate casualties, but only so long as the operation is successful. Given the relative paucity of information available to the public about the need for a specific operation, the public seems to judge the operation more on how successful it appears than the costs of the operation by itself.

Our study had several limitations due to what we chose to focus on that could be addressed in future research. We did not inquire into how "success" is defined. In some operations, such as capturing or killing a specific enemy leader, success is more obvious than others, such as successfully detecting an ambush. We also did not investigate the effect of different news sources, the differing credibility that might come with each source, and attempts to frame the story around coverage of an operation. Given the baseline results that we find, further research on the effectiveness of partisan cues and framing could shed more light on how and why certain incidents are more electorally potent than others.[28]

Future research may also want to continue to examine the role of various mediators and perhaps employ the framework suggested by Acharya et al. (2016) to untangle more of the conditional effects and relative importance of different mediators. Additional dependent variables could be added to also facilitate placebo checks as suggested by Dafoe et al. to ensure that the effects of casualties and success are not also impacting other potential confounding factors. More extensive work that looked at the cumulative effects of these disconnected sorts of operations, especially on foreign policy evaluation of a president over time, might be useful since these these types of operations are likely to continue in the future.

[28]These types of operations may be more electorally useful if framed in a partisan way during a campaign. Though not exactly the same type of operation, the use of the death of four Americans in Benghazi in 2012 in partisan rhetoric and attack ads may be an example of weaponizing this kind of operation for a campaign.

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Appendix A: Sample Characteristics and Comparison to U.S. Population

	MTurk Sample	US Population[29]
Median Age	34	38
Percentage Female	49.1	50.8
Percentage Non-Hispanic/Latino White	72.4	62.3
Percentage Bachelor's Degree or Higher	62.3	29.8
Conservatives	26.0	41.7[30]
Republicans	33.1	43.0

[30] Age, Female, Race/Ethnicity, and Education based on US Census Burea 2015 estimates; Ideology and Partisanship from ANES 2016

Appendix B: News Stories

American Ground Troops Launch Operation against [Islamic State/Abu Sayyaf]

BAGHDAD, Iraq (AP) – American troops launched an assault on the **[Islamic State/Abu Sayyaf]**-held city of **[Anah/Jolo]** in **[Iraq/the Philippines]**'s restive **[Anbar/Sulu]** province on Saturday morning local time. Sources with knowledge of the operation reported that **[eight American troops had been killed in the operation and several others wounded/several American troops had been wounded]**. By nightfall on Saturday, the American forces had **[gained/not gained]** control of the city.

According to a Pentagon spokesman, Saturday's operation in **[Anah/Jolo]** consisted of American military forces, supported by a mix of local allies and the **[Iraqi/Philippine]** Army. Aerial reconnaissance showed that approximately twelve **[Islamic State/Abu Sayyaf]** fighters were confirmed killed during the operation.

Appendix C: Questionnaire

Patriotism 1: "How proud are you to be American?" [Very proud / Quite proud / Not very proud / Not at all proud]

Patriotism 2: "When you see the American flag flying does it make you feel..." [Extremely good / Very good / Moderately good / Slightly good / Not good at all]

Vengeance: "To what extent do you agree with each of the following statements: [5-pt response options; items 2 and 4 reverse-coded in scale construction]

- "It is important for me to get back at people who have hurt me"
- "I find it easy to forgive those who have hurt me"
- "I believe in the motto, An eye for an eye, and a tooth for a tooth"
- "It is always better to turn the other cheek"

Manipulation Check (Group Salience): "How much have you heard about the terrorist group mentioned in the story?" [A lot / Some / Not much / Not at all]

Manipulation Check (Casualties): "On a scale of 1 through 7, how severe were the casualties suffered by the American troops during the operation?" [Very low / low / somewhat low / neither high nor low / somewhat high / high / very high]

Manipulation Check (Success Perceptions): "On a scale of 1 through 7, how successful was the operation launched by the American troops? [Very unsuccessful / unsuccessful / somewhat unsuccessful / neither successful nor unsuccessful / somewhat successful / successful / very successful]"

Anger: "How angry did reading the news story make you feel?" [Very angry / angry / somewhat angry / A little angry / Not at all angry]

Mission Importance: "In your view, how important was this operation for American national security?" [Very important / important / somewhat important / A little important / Not at all important]

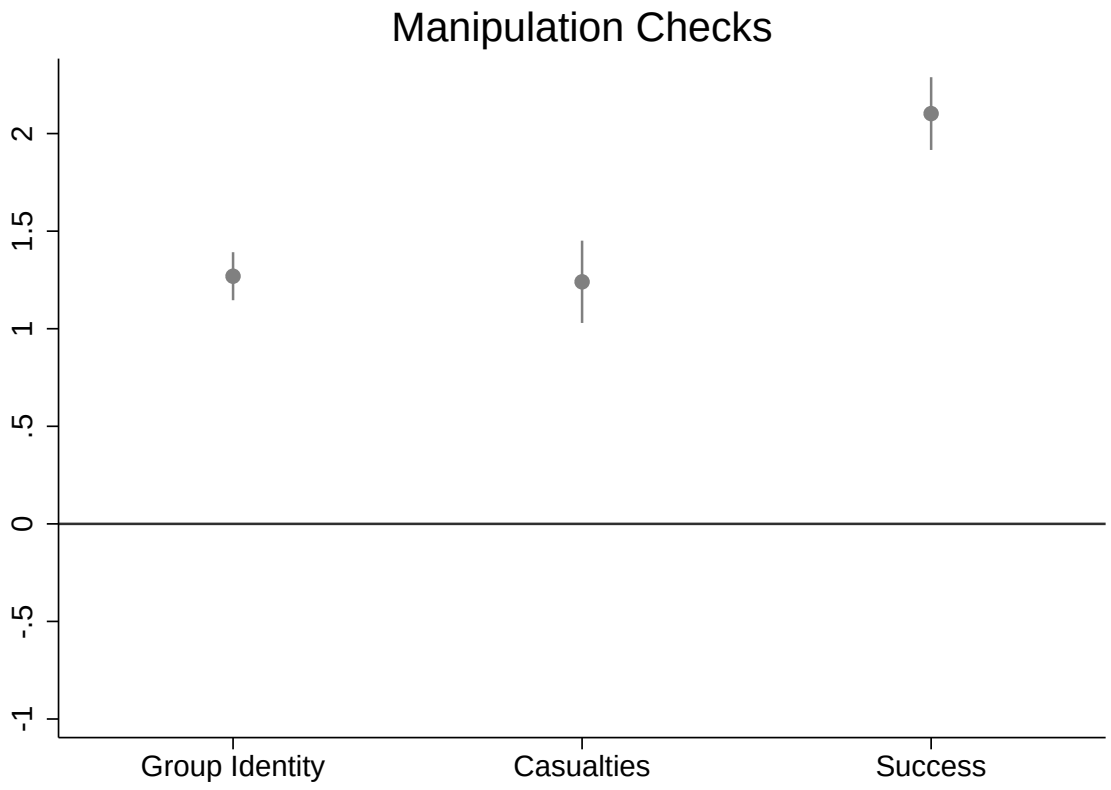
Approval: "Do you approve or disapprove of the decision by the United States to use ground troops in this operation?" [Strongly approve / Approve / Somewhat approve / neither approve nor disapprove / somewhat disapprove / disapprove / strongly disapprove]

Alt Approval 1: "Do you support the actions taken by the United States in the operation described?" [Yes / No]

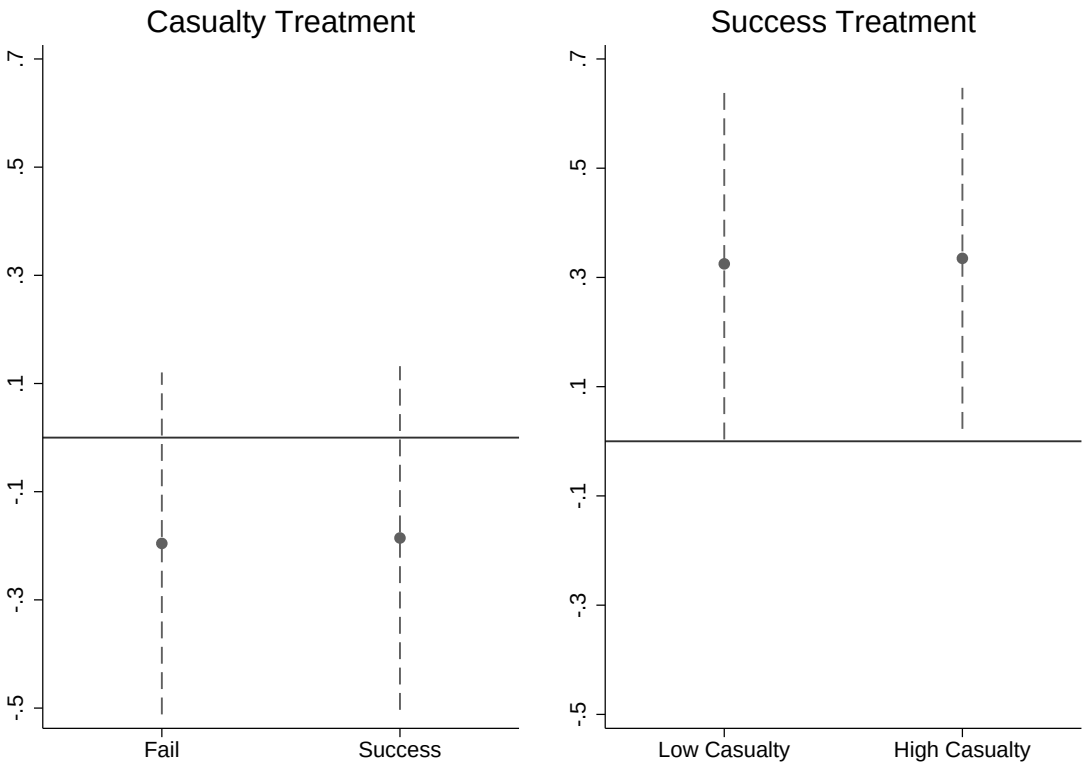
Alt Approval 2: "Based on the information in the article, do you approve of the decision to launch the American military operation?" [Yes / No]

Prospective Approval: "In light of the information in the article, how successful do you think the United States' intervention against this group will be in the long term?" [Not at all successful / A little successful / Somewhat Successful / Successful / Very successful]

Appendix D: Manipulation Checks



Appendix E: Simple Main Effects



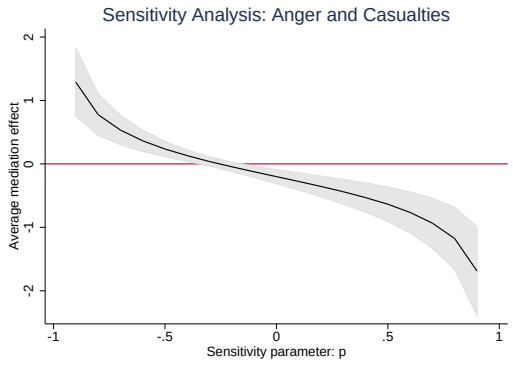
Appendix F: Sensitivity Analyses

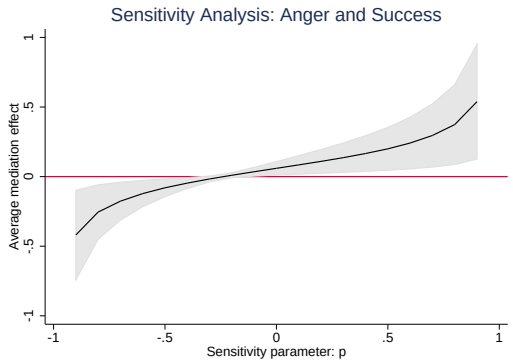
To examine the robustness of the estimated mediation effects of anger and mission importance beliefs to violations of the sequential ignorability assumption, we first examine values of ρ, a parameter which denotes correlations between the error terms of the mediator and outcome models. $\rho = 0$ captures the world in which the sequential ignorability assumption is perfectly satisfied. The logic of the sensitivity analysis is to see how large a value ρ would have to be—how much of a correlation between the two error terms would need to be generated by an unobserved confounder—in order to reduce the estimated average causal mediation effect of the mediator to be indistinguishable from zero.

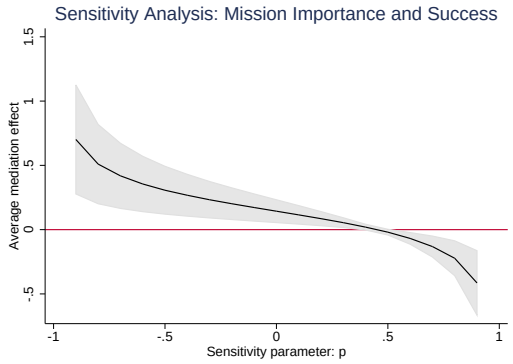
We find that the estimated mediation effect of anger for the casualty and success treatments becomes zero when ρ equals -.25 and -.23 respectively. In other words, to conclude that the mediation effect of anger is not significantly different from zero, we must assume the existence of an unobserved confounder that affects anger and approval in the same direction and makes the correlation between the two error terms greater than -.25 for the casualty treatment and -.23 for the success treatment. We also find that the mediation effect of beliefs about mission importance becomes zero when ρ equals .45, suggesting that the estimated mediation effect of mission importance is significantly more robust to violations of the sequential ignorability assumption than our estimates of the mediating role of anger.

As suggested by Imai et al., we can also compare these values of ρ to its values in other studies using mediation in order to interpret relative robustness. In Brader, Valentino and Suhay (2008), ρ is .43, while in Nelson, Crawley and Oxley (1997) ρ is .48. Thus, we suggest that the mediation effect of mission importance beliefs is relatively robust to violations of sequential ignorability, while our analysis of anger is not. The figures at the end of this section plot the estimated average casual mediation effects of our mediators against various values of ρ.

Because ρ is difficult to interpret, Imai et al. also suggest assessing the robustness of mediation analyses by examining how much remaining variance in the mediator and outcome models would need to be explained by an omitted variable for the average causal mediation effect to lose statistical significance. We estimate that an unobserved confounder would only need to explain 7 per cent of the variance in anger and approval for the casualties treatment and 6 per cent of the variance in anger and approval for the success condition, in order for the mediating effect of anger to lose significance. In contrast, the mediating effect of mission importance in the success condition is robust when an unobserved confounder explains less than 19 per cent of the variance in beliefs about mission importance and approval.


Sensitivity Analysis: Anger and Casualties
Average mediation effect
2
1
0
-1
-2
-1
-.5
0
.5
1
Sensitivity parameter: p


Sensitivity Analysis: Anger and Success
Average mediation effect
1
.5
0
-.5
-1
-1
-.5
0
.5
1
Sensitivity parameter: p


Sensitivity Analysis: Mission Importance and Success
Average mediation effect
1.5
1
.5
0
-.5
-1
-.5
0
.5
1
Sensitivity parameter: p