Fighting Words

How Presidents Go Public in War and Peace

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Abstract

How does war, and its effects on presidential power, shape presidential rhetoric and leadership? Theories of going public emphasize the limits of presidential persuasion, but focus on peacetime politics when presidents are weaker. In war, anticipating accommodation from elites and the public, I argue presidents eschew persuasion. They leverage the moral, emotional, and mobilizing rhetoric of war to push not only foreign, but also domestic, policy priorities across a range of issue areas. I collect all presidential statements delivered since 1933, code their topics, and use word embedding methods to measure the degree of moral-emotional (relative to analytical) language in 478,000 spoken paragraphs. I support my hypothesis treating the post-September 11th wars as a semi-natural experiment and with correlational evidence from major wars since World War II. This research expands our understanding of the two-presidencies thesis and going public. It raises normative concerns about how wartime presidents exacerbate informational asymmetries.

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"The direction of war, implies the direction of the common strength: and the power of directing and employing the common strength, forms an usual and essential part in the definition of the executive authority."

—Alexander Hamilton, *The Federalist*, No. 74

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Three days after the September 11th attacks, President Bush spoke to first responders at Ground Zero. In what an *Atlantic* columnist called "one of the most genuine displays of emotion you'll ever see from a president" (Fournier 2012), Bush told the crowd "I can hear you. The rest of the world hears you. And the people who knocked these buildings down will hear all of us soon." With the public unified behind him, Bush "led with raw emotion" (Fournier 2012) and moral clarity—promising "Whether we bring our enemies to justice or bring justice to our enemies, justice will be done" (Bush 2001, September 20), and that "We will not waver; we will not tire; we will not falter; and we will not fail" (Bush 2001, October 7). Yet, these evocative, mobilizing appeals extended beyond terrorism and war. In a 2003 *Brookings* op-ed, E. J. Dionne criticized the never-ending "politics of terror" whereby Bush exploited the war to push conservative domestic policies. Similarly, two senior Bush advisors have argued that "the rush of purpose and unity following 9/11 put 'a rocket booster' under [No Child Left Behind (NCLB)]," and "the attacks proved vastly more effective at pushing NCLB to the finish line than any messaging event could have" (quoted in Mahnken 2021). Anxieties about war and presidential power are as old as the republic itself. As Hamilton argued in *The Federalist*, "The direction of war, implies the direction of the common strength" (Hamilton, Jay and Madison 2001 [1788], 385), which redounds to the president's benefit. But how, rhetorically, do presidents direct the common strength? And where does this direction end? Abroad, or at home?

As Commander in Chief, foreign conflicts put the president center stage, mobilizing Americans and directing the war effort. This degree of power is rare for presidents who are otherwise institutionally weak. To pass policy, win reelection, and cement their legacies (Light 1999; Howell and Moe 2016), they must build and manage coalitions with

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divergent preferences (Edwards 2000). In these efforts, modern presidents "go public," rejecting inter-branch bargaining and appealing to Americans to put pressure on law-makers (Kernell 1997). Yet, these attempts routinely fail (Edwards 2003)—at least when it comes to domestic policy. In foreign affairs, the two-presidencies thesis holds that presidents can get more of what they want (Canes-Wrone 2006; Lewis 1997; Rottinghaus 2010) given weaker congressional (Dearborn 2021; Howell, Jackman and Rogowski 2013; Wildavsky 1969) and public constraints (Zaller 1992). While these theories are tailored toward *peacetime* politics, war is "capable of generating whole new political universes" (Mayhew 2005, 473). Wartime presidents are first movers who benefit from informational advantages (Canes-Wrone, Howell and Lewis 2008; Wildavsky 1969), and importantly, "Major wars rather consistently prompt citizens and politicians to express solidarity with the president, eschew partisan labels, and reaffirm their alligence to the nation" (Howell, Jackman and Rogowski 2013, 69). If presidents suddenly find themselves with more compliant coalitions in wartime, how does that affect the ways in which they go public? Understanding this dynamic can help refine theories of going public and presidential war powers—which is especially important as foreign conflicts threaten to entangle the U.S. and as great power conflict reemerges.

I argue that war and peace condition how presidents go public by affecting the size and compliance of their coalition. During peacetime, when Congress and the public are less deferential, presidents must build policy coalitions through the use of persuasive, in-formational appeals. In war, coallitionally-empowered presidents eschew informational persuasion and push foreign *and domestic* priorities using moral, emotional, and mobiliz-ing language. In short, presidents succeed by creating and activating coalitions through recruitment of new supporters or mobilization of their base, respectively (Galvin 2009, 2020; Kriner and Reeves 2015). How do presidents approach these two tasks? At least since Aristotle (2020 [350 BCE]), scholars have emphasized the role of rational argument (*logos*) and emotional appeals (*pathos*) in persuasive efforts. However, subsequent re-

search has shown that reason and emotion can yield different behavioral effects (e.g., Druckman 2022). Where facts persuade (Blumenau and Lauderdale 2022; Broockman and Kalla 2022), feelings mobilize (Hawley 2021; Jung 2020; Valentino et al. 2011). Here I bring together literature on going public, presidential coalition-building, and political psychology to argue that presidents focused on coalition recruitment use informational and analytical language (Ban, Park and You 2023; Krehbiel 1991) to convert potential opponents. Presidents who want to mobilize existing supporters—e.g., raising issue salience, encouraging costly action like contacting lawmakers or voting—rely on moral and emotional appeals (cf. Hawley 2021). Although many factors could influence presidents' choices to pursue one goal over the other, peace and war provide a theoretically motivated and stark test given the unusual degree of public and elite deference to the president during war (e.g. Canes-Wrone 2006; Howell, Jackman and Rogowski 2013; Rottinghaus 2010). Because presidents can be more confident about the size and compliance of their wartime coalition, I hypothesize that they use more moral-emotional (and less analytical) language during war (versus peace) to mobilize their larger base rather than recruit new supporters. This relationship should hold not just for foreign policy appeals (per the two-presidencies thesis), but for domestic policy as well. In effect, war does the hard work of coalition-building, and the moral and emotional rhetoric we associate with war spills over into how presidents appeal on their domestic priorities.

To test this theory, I collect all public statements made by presidents from 1933-2023. Using word embedding methods (Pennington, Socher and Manning 2014; Garten et al. 2018), I create a unidimensional measure of the relative use of analytical and moral-emotional language in each paragraph (see also Gennaro and Ash 2022; Kozlowski, Taddy and Evans 2019). I also use a supervised approach (Osnabrügge, Ash and Morelli 2021) to group speeches into one of eight topics (e.g., foreign affairs, the economy, and education). During war, presidential rhetoric becomes more moral-emotional and less analytical—in both foreign and domestic policy appeals, even when controlling for changes in the do-

mestic political agenda. I support this hypothesis in the context of the 2001 invasion of Afghanistan, where the impetus for war was plausibly exogenous, and more broadly with evidence from all major wars since 1933 (as in Howell and Rogowski 2013). Additionally, using four million speeches given by members of Congress from 1933-2016 (Gentzkow, Shapiro and Taddy 2018), I provide some evidence against the strongest alternative explanation: that *all* political rhetoric becomes more emotional in wartime.

These results contribute to an important gap in the literature on going public (Canes-Wrone 2006; Kernell 1997; Rottinghaus 2010; Tulis 1987) and the two-presidencies thesis (Canes-Wrone 2006; Howell, Jackman and Rogowski 2013; Wildavsky 1969). Although scholars have previously identified a presidential advantage in going public on foreign policy, this paper highlights the degree to which war, and its coalitional consequences, have spillover effects in how presidents appeal over a broad range of foreign and domestic issues. Presidents expend considerable effort trying to persuade the public, but my research suggests that in war, they do not think they have to. Methodologically, this paper answers the call to apply new text-as-data methods to the study of the presidency (Kaufman 2020), opening avenues for future research on *how* presidents go public—distinct from a recent focus on which policies presidents promote and their behavioral implications (Cavari 2017; Canes-Wrone 2006; Edwards 2003; Rottinghaus 2010). Finally, this paper raises normative concerns about how presidents take advantage of informational asymmetries in war. Although the two-presidencies thesis is microfounded in the executive's informational advantages, I show that in war, presidents share relatively (and absolutely) *less* policy-relevant information. Lawmakers and the public, far from demanding access to information, seemingly get swept up in the rhetoric of war.

The Coalitional Consequences of War

Recognizing that "War is in fact the true nurse of executive aggrandizement," James Madison believed that "In no part of the constitution is more wisdom to be found than in the clause which confides the question of war or peace to the legislature, and not to the executive department" (Hamilton and Madison 2007 [1793-1794], 87). On paper, Congress declares war, and the president, as Commander in Chief, uses the office's unity and energy to defend the interests of the country. In practice, though, the separation of powers has done little to limit the expansion of the executive's war-making powers. The ambiguity surrounding this role has enabled presidents to take actions in war that would be impermissible in peace: Lincoln's suspension of habeas corpus, Roosevelt's internment of Japanese-Americans, Bush's wiretapping of U.S. citizens. Even where lawmakers have sought to constrain the wartime executive, their efforts have backfired. For example, the 1973 War Powers Resolution had the perverse effect of codifying "a presidential right to initiate conflicts" (Dearborn 2021, 224). In war, presidents have both first mover and informational advantages, allowing them to commit the nation to courses of action lawmakers are loathe to question or reverse (Canes-Wrone 2006; Dearborn 2021; Howell, Jackman and Rogowski 2013; Wildavsky 1969).

Beyond these institutional advantages, presidents benefit from de facto delegations of power. Major wars often spark a "rally around the flag" effect. Americans temporarily set aside domestic differences; patriotism pushes them toward the president (Brody 1991; Mueller 1973). Similarly, congressional opponents temper their criticism (Bennett 1990; Brody and Shapiro 1989; Groeling and Baum 2008), and the media, indexing their coverage to the tenor of debate in Washington, follows suit (Bennett 1990; Zaller and Chiu 1996; but see Groeling and Baum 2008). Given that the public is particularly reliant on elite cues in foreign affairs, these effects reinforce the president's advantages (Groeling and Baum 2008; Rottinghaus 2010; Zaller 1992). Even as war wears on, lawmakers continue to prioritize national over local outcomes, leading them to vote in ways that better approximate

the president's ideological position—even in the realm of domestic politics (Howell, Jackman and Rogowski 2013; Schorpp and Finocchiaro 2017). Overall, "elites and the general public expect [presidents] to act," and presidents are happy to oblige (Wildavsky 1969, 25).

Where foreign conflicts empower presidents, everyday domestic politics constrain them. In the legislative arena, presidents have little authority to act alone, and the "necessity of congressional support forces the president to build coalitions..." (Edwards 2003, 9; see also Cohen 2006; Kriner and Reeves 2015; Miller 2023; Seligman and Covington 1989).[1] With the decentralization of Congress (Kernell 1997) and polarization of the presidency (Cameron 2002; see also Lee 2009; Noble 2023*b*), presidents are finding it increasingly difficult to achieve their domestic policymaking objectives. To make progress, presidents "go public" in efforts to build support among the public and pressure Congress to act (Kernell 1997). Re-election seeking lawmakers care about constituency opinion; by influencing the public, presidents may cultivate congressional support (Arnold 1990; Bond and Fleisher 1990; Canes-Wrone 2006; Sinclair 2006). However, this style of presidential leadership is contingent: dependent on the popularity of issues, limited to an attentive, co-partisan audience, and constrained by countervailing elite messages (Canes-Wrone 2006; Cavari 2017; Rottinghaus 2010).

This contrast—presidential strength in foreign policy and weakness in domestic affairs—led Wildavsky (1969, 23) to the two presidencies thesis, the idea that the "United States has one president, but it has two presidencies; one presidency is for domestic affairs, and the other is concerned with defense and foreign policy." Despite longstanding theoretical (Fenno 1973; Rossiter 1987 [1956]; Schlesinger 1986) and empirical (Canes-Wrone, Howell and Lewis 2008; Howell, Jackman and Rogowski 2013) backing for this dichotomy, theories of going public have primarily been applied to domestic, and especially *peacetime*

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[1]Presidents can achieve some policy goals unilaterally, but they are constrained by other institutional actors (Bolton and Thrower 2021; Christenson and Kriner 2017) and public opinion (Christenson and Kriner 2020; Howell and Wolton 2018; Noble 2023*a*; Reeves and Rogowski 2022).

politics. Yet these are conditions under which we would expect presidential influence to be weaker and the need for coalition-building to be greater. Although several studies do find support for greater presidential influence in foreign, over domestic, policy appeals, these differences are alleged to be marginal, different in form but not kind (Canes-Wrone 2006; Lewis 1997; Rottinghaus 2010). However, none of these studies consider how the incidence of war, a boon for presidential power and a cause for more compliant coalitions, might broadly affect the ways in which presidents go public. Rather than the two presidencies of peacetime, war might create one, empowered president. Understanding this transformation can provide insight into how coalition dynamics shapes the ways presidents go public (Cavari 2017), wartime informational asymmetries (Canes-Wrone, Howell and Lewis 2008; Howell, Jackman and Rogowski 2013), and normative conceptions of presidential power.

Going Public in War and Peace

To briefly summarize my theory: going public is a coalition-management strategy (Cohen 2006; Edwards 2000), and I argue how presidents perceive their coalitional strength conditions how they make public appeals. War can help us test this argument because there, presidents might believe their coalitional strength is at its apex given congressional and public deference (Brody 1991; Howell, Jackman and Rogowski 2013). As such, they have fewer opponents to convert and more supporters to draw on. Thus, presidents could exchange the relatively costly and weak "power to persuade" (Neustadt 1990, 11) for the stronger and less costly power to mobilize. An observable implication of this theory, I argue, is that presidents will use more moral-emotional language during war—across a host of foreign and domestic issues—relative to more analytical language during peace.

The presidency is a weak office (Neustadt 1990). Article II gives the executive limited legislative influence, and presidents are reliant on congressional allies to take up and

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pass their agendas. To spur congressional action, presidents seek support from the public through speechmaking (Canes-Wrone 2006; Edwards 2000; Kernell 1997). But how do presidents seek that support? Typically, this literature focuses on which issues presidents promote (Canes-Wrone 2006) and the behavioral effects of those appeals (e.g., Cavari 2017; Edwards 2003; Rottinghaus 2010). Yet this leaves open the possibility that presidents might vary their rhetorical approach—even within issues—given their coalition-building goals and strategies. In particular, an adjacent body of scholarship suggests that presidents' non-rhetorical coalition-building strategies take two forms: outreach and recruitment (i.e., engaging and converting non-supporters) and mobilization, that is, raising issue salience and spurring political participation like calling lawmakers, donating, or voting (Cohen 2006; Galvin 2009, 2020; Hawley 2021; Kriner and Reeves 2015; Seligman and Covington 1989). Bringing these two literatures together, I argue presidents go public to pursue outreach or mobilization conditional on their perceived coalitional strength—and further, that this choice will shape the language they use when they go public. Specifically, I argue that presidents who believe themselves to be coalitionally weak engage in outreach to expand their coalition; presidents who see strength instead mobilize their current base.

Testing this theory requires that I answer two key theoretical questions. First, when do presidents perceive strength or weakness? And second, how would we know if presidents are recruiting or mobilizing? I take each of these in turn. Although many political and institutional factors could shape presidents' perceptions of their coalitional strength, as illustrated in the previous section, major wars serve as one of the clearest and consistently unifying forces in American politics. During major wars, presidents can count on larger, more compliant coalitions. And this accommodation extends beyond foreign affairs (Howell, Jackman and Rogowski 2013; Schorpp and Finocchiaro 2017). In war, as compared to peace, presidents should be relatively more likely to mobilize than recruit. If we did not find support for the theory in this context, we might be suspicious about

finding evidence anywhere.[2]

Turning to the second piece of theory, how would we know whether presidents are recruiting or mobilizing? I argue that we should look to the specific language presidents use in their speeches. Here, I rely on Aristotle's (2020 [350 BCE]) classic theory that argument quality (*logos*) and the listener's emotional state (*pathos*) are integral to persuasion. Yet these two features of rhetoric can produce different behavioral responses (e.g., Druckman 2022). In particular, *logos* will be more useful for recruitment and outreach whereas *pathos* will be more effective at mobilization (cf. Hawley 2021). Given my expectation that peacetime presidents allocate more attention to recruitment, then we should observe more factual, analytical, and informational language in their speeches. Information is necessary for policy development (Ban, Park and You 2023; Krehbiel 1991) and these appeals can cause opinion change. For instance, Blumenau and Lauderdale (2022) find "references to expertise...and factual argument" are more persuasive "than statements that employ striking language but are thinner in terms of substantive policy relevant content." These results are mirrored in other studies highlighting the persuasive effects of specific information provision (Broockman and Kalla 2022) and claims about why we need particular policies (Coppock 2022). Even though presidents are polarizing (Nicholson 2012; Noble 2023*b*), these effects hold in the presence of partisan cues (Boudreau and MacKenzie 2014). Presidents trying to expand their coalition—whether by appealing to the public (Kernell 1997) or other elites (Eshbaugh-Soha 2006; Eshbaugh-Soha and Peake 2011)—should use factual and informational appeals. This type of rhetoric should be more prevalent in domestic policy appeals, and in peacetime, when presidents are coalitionally weaker.

However, politicians face costs and trade-offs when recruiting. Information is costly to acquire (Krehbiel 1991; Light 1999), and presidents must spend valuable time and re-

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[2]For example, one might reasonably theorize that increases in presidential approval could produce a similar effect—with higher (lower) approval prompting mobilization (recruitment). However, the implications are more complicated than they appear. For example, presidential approval might increase, but remain below 50%, motivating presidents to continue to recruit. Presidential approval might be above 50%, but be split by party, and presidents might still need to try to recruit out-partisans. As such, war provides a cleaner test of the theory.

sources educating the public (Neustadt 1990; Rottinghaus 2010). In the short-term, minimum winning coalitions are often sufficient, and presidents may not want to pay conversion costs after achieving a certain threshold of support. What's more, politicians face a second trade-off between converting opponents and mobilizing their existing supporters (Galvin 2009; Hawley 2021). Persuasion alone is insufficient to secure political outcomes because "human action depends on our motivational states, as well as our judgments" and thus, "an effective orator must also incorporate another objective in his speaking: that of motivation" (Hawley 2021, 934-5). Put differently, persuasion does nothing for those who already support the president's policies. Indeed "Nothing happens in Congress unless someone plans for it" (Arnold 1990, 88), and although presidents lack formal proposal power, they are chief agenda setters who can provide the necessary motivation to secure congressional action (Edwards and Wood 1999; Eshbaugh-Soha and Peake 2011; Rutledge and Larsen Price 2014). However, the language used to mobilize differs from that used to recruit. Emotional and moral rhetoric is more effective at producing political action (Groenendyk and Banks 2014; Hackenburg, Brady and Tsakiris 2023; Hawley 2021; Jung 2020; Miller 2007; Phoenix 2019; Valentino et al. 2011; Webster 2020) and is more readily circulated through in-group networks (Brady et al. 2017). This type of rhetoric should be more prevalent during wartime when presidents are coalitionally stronger.

Taken together, I hypothesize that in war, presidents eschew recruitment and mobilize the public and elites. Consistent with the two-presidencies thesis, this effect should impact foreign policy appeals. However, I expect that the coalitional consequences of war will induce a spillover effect. Presidential rhetoric about *domestic* policy will become more moral-emotional and less analytical as a consequence of presidents' newfound coalition strength.

> **Wartime Rhetoric Hypothesis:** During war, presidents' foreign and domestic policy rhetoric will become more moral-emotional and less analytical than in peacetime.

Measuring Analysis and Emotion in Presidential Rhetoric

To test my theory, I collect a corpus of all public statements delivered by presidents between January 20, 1933 (the start of Franklin Roosevelt's first term) and January 2, 2023 (the end of the 117th Congress). Using word embedding methods (Garten et al. 2018), I measure the the relative use of analytical and moral-emotional language in each speech-paragraph. Finally, I provide evidence that this measure substantively captures the core concepts of interest.

Collecting the Corpus

To create my corpus, I collect the text and associated metadata of all presidential "spoken addresses and remarks" hosted on the UC Santa Barbara American Presidency Project (APP) website (Woolley and Peters N.d.),[3] a total of 27,149 speeches.[4] These speeches range from major national addresses, like the State of the Union, to minor statements made at e.g., bill signings and rallies, to exchanges with the press. As speeches contain a mix of analytical and moral-emotional appeals, I split them into paragraphs. If a document contains multiple speakers (e.g., a joint appearance), I attempt to automatically remove all text (i) spoken by anyone other than the sitting president (ii) stage directions, and (iii) any text spoken after the president's (often prepared) introductory remarks. I pre-process each paragraph by converting text to lowercase, expanding contractions, and removing punctuation and stopwords (see Appendix A.1). Finally, some paragraphs are short and non-substantive. I drop all paragraphs with five or fewer non-stopwords—the

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[3]I conducted my data collection in three waves. In the first wave, the APP split speeches into "spoken addresses and remarks" and "miscellaneous remarks," both of which I collected. When I conducted the second and third waves, the APP had combined these categories.

[4]The APP data occasionally included speeches delivered by vice presidents or other administration officials, which I remove. I also remove presidential speeches given before the beginning of a president's first term, those given during the president's lame duck period (beginning on the date of the November election of their second term or the election in which they lose reelection) or after, and speeches tagged as eulogies. For presidents that die in office, I exclude all speeches given on their final day in office as the APP includes speeches prepared but not delivered.

bottom 10% decile. The resulting corpus contains a total of 478,364 individual paragraphs.

This corpus extends the literature's focus on a small number of major televised addresses. Although those speeches may be the most salient, and thus, the most likely to change public opinion in a one-shot context, presidents promote their policy agendas using a sustained strategy, repeatedly emphasizing their priorities and influencing the media's agenda (Eshbaugh-Soha and Peake 2011; Rottinghaus 2010). Only focusing on the most salient addresses can bias our understanding of the president's agenda (Russell and Eissler 2022).

Sourcing Keywords

To measure presidents' use of analytical and moral-emotional rhetoric, I construct dictionaries associated with these two concepts. For the analytical dictionary, I adopt 120 of the keywords from Ban, Park and You (2023), which uses a keyword-based method to measure the analytical content of congressional hearing witness testimony.[5] Representative keywords include: analysis, empirical, and reason. To construct the moral-emotional dictionary, I follow a similar procedure to Brady et al. (2017). I source a list of moral (i.e., virtue and vice) words from the Harvard-IV dictionary and highly emotional words from the AFINN dictionary. Their 72-word intersection compromises the moral-emotional dictionary. Representative keywords include: awful, heroic, and vile. The full dictionaries can be found in Appendix A.2.

Measuring Analysis and Emotion with Word Embeddings

Next, I measure the relative similarity of each paragraph in my corpus to these two keyword lists using word embeddings. In the broadest sense, the word embedding model,

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[5]The keywords in Ban, Park and You (2023) are stemmed, however, my word embedding matrix and corpus are unstemmed. I unstem each keyword using a mix of general word frequencies and substantive knowledge.

GloVe (Pennington, Socher and Manning 2014), learns about semantic similarity in a corpus by assessing how often words appear "near" each other. These co-occurrences are projected into a lower dimensional space, and the output is an embedding matrix where each row is a word and each column is a (non-interpretable) coefficient associating words along some dimension. Researchers can use cosine similarity to measure the similarity between any two words in the corpus. In my application, I follow recommendations in Rodriguez and Spirling (2022) and download a 300-dimensional, GloVe embedding matrix trained on the text of Wikipedia and Newswire. Every word in my dictionaries, and in each paragraph, is assigned its 300d vector representation (if it exists in the pre-trained model).

Although this method is useful in its own right (e.g., Bellodi 2023), researchers can exploit the arithmetic properties of the word vectors by adding, subtracting, and averaging multiple vectors together to create broader "conceptual representations" (Garten et al. 2018; Gennaro and Ash 2022). For example, the average of all 120 words in the analytical dictionary locates at a point in space that combines elements of all words in the dictionary. The result for the moral-emotional dictionary is similar. Then, I orthogonalize these dimensions by subtracting the moral-emotional vector from the analytical vector, creating a undimensional "axis" of analytical/moral-emotional language (Kozlowski, Taddy and Evans 2019). Each speech-paragraph can also be averaged in this way to produce a "paragraph representation." I measure the cosine similarity between each paragraph representation and the analytical/moral-emotional axis where higher (lower) values indicate a paragraph uses more analytical (moral-emotional) language. I standardize this scale to facilitate interpretation.

Validation

To demonstrate that my measure captures analytical and moral-emotional language, I conduct four validation exercises. First, I consider construct validity by creating word

Figure 1: Words Most Similar to the Analytical and Moral-Emotional Poles

Note: Words are weighted by the their cosine similarity to the respective pole.

clouds from the 25 terms in the pre-trained embedding matrix that are most similar to analytical (positive) and moral-emotional (negative) ends of the scale in Figure 1. On the left, words most similar to the analytical pole include increase, estimates, and indicated. On the right, words most similar to the moral-emotional pole include lovable, wicked, and charming. These word clusters are distinct, capturing terms that align with a general understanding of each concept.

Next, I consider convergent validity—the degree to which this measure correlates with others capturing similar concepts. First, I find that this measure is negatively correlated with text readability as measured using the Flesch Reading Ease Score. As paragraphs become more analytical and less moral-emotional, they become less readable. Second, I find that paragraphs spoken at political rallies are half a standard deviation more moral-emotional and less analytical than those spoken in the most salient presidential addresses. These two tests, which I discuss further in Appendix A.3, point in the expected direction and provide further support for the measure.

Finally, I assess face validity in Table 1. In the top (bottom) of Table 1, I present the five most analytical (moral-emotional) paragraphs spoken by George W. Bush during the 107th Congress that use the word "spending" and were machine-coded as being about the economy (see below). I use the word "spending" to illustrate how presidents might vary their rhetorical strategy even when discussing a concept that should feature more ana-

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Table 1: Most Analytical and Moral-Emotional Economic W. Bush Paragraphs Using the Word "Spending"

	More Analytical, Less Moral-Emotional
Pre-War	Ours is a budget that sets priorities. We've actually grown what they call the discretionary spending by 4 percent. That's greater than the rate of inflation...
Pre-War	Today I'm announcing that our proposed 2002 budget will add $5.7 billion in new spending on the people of our military. Our budget will include $1.4 billion for military pay increases—pay increases on top of the increases the Congress passed...
Pre-War	Secondly, the percentage increases in spending of the past few years cannot be sustained. In fiscal 2001, Congress appropriated 8 percent more in discretionary spending than it did in 2000...
Pre-War	...The result is a budget that keeps our national commitment to Social Security and Medicare, and increases the Federal budget by $100 billion from 2001 to 2002. A $100 billion increase in spending ought to be sufficient.
Pre-War	We've increased discretionary spending by 4 percent, greater than the rate of inflation. And after we fund important priorities in the ongoing operations of our Government, I believe we ought to pay down national debt...

	More Moral-Emotional, Less Analytical
Post-War	...One way I like to remind Congress about how to be fiscally responsible is to remind them whose money they're spending. It's not the Government's money they spend. It's your money. It's the people's money...
Post-War	I appreciate a man who understands there needs to be fiscal sanity when it comes to spending money, spending your money. And Rick saved the State $500 million as a result of some bold actions he took...
Post-War	...And I'm sad to report—and I'm sad to report that the United States Senate could not pass a budget. That's a pretty scary thought. See, if you don't have a budget, if you don't have constraints in Washington, you're liable to get a little overspending...
Pre-War	It's an ambitious agenda, and it doesn't come cheap. The total budget is 1.96 trillion in the year 2002. You know, when you hear all the litany of things we're spending money on, some people are beginning to wonder whatever happened to all the penny-pinching Republicans...
Post-War	And sometimes those somebodies who go hog wild forget whose money they're spending. Nussle and I understand this: When it comes to spending the money in Washington, it's not the Government's money we spend. It's your money. It's the people's money.

Note: Excerpts from five highest and lowest scoring paragraphs on the analytical/moral-emotional axis using the word "spending" that are machine-coded as economic speeches. These excerpts are more analytical pre-war and more moral-emotional post-war. Excerpts are presented in their original form for readability, but scores are computed on pre-processed text.

lytical language on average. Consistent with expectations, the analytical paragraphs use quantitative data, make comparisons, and engage in causal reasoning (Ban, Park and You 2023; Blumenau and Lauderdale 2022; Coppock 2022). The moral-emotional paragraphs are light on information, instead making moral appeals (e.g., "It's an ambitious agenda,", "bold actions") and evoking emotion (e.g., "That's a pretty scary thought," "I'm sad..."). In line with the Wartime Rhetoric Hypothesis, the analytical paragraphs were delivered before the beginning of the war in Afghanistan. Four of five moral-emotional paragraphs were delivered after.

These four validation exercises lend confidence to the validity of the measure. Words with analytical and moral-emotional valence cluster at opposite ends of the scale. Moral-emotional rhetoric is more readable and employed more at political rallies than in major national address. Finally, the most analytical paragraphs about spending use quantitative data and engage in causal reasoning whereas the most moral-emotional paragraphs use words associated with those concepts. The paragraphs in Table 1 also provide evidence that presidents use different types of rhetorical appeals even within a single issue, an insight most studies of going public have not identified given the focus on which issues presidents promote as opposed to *how* president promote specific issues across time.

Identifying Foreign and Domestic Topics

Determining whether presidents use more moral-emotional rhetoric when discussing domestic policies requires a measure of what presidents are talking about. Here, I adapt a cross-domain, supervised learning approach from Osnabrügge, Ash and Morelli (2021) to code the topic of each paragraph leveraging exiting human training data from a related corpus. I briefly summarize my approach, which is detailed fully in Appendix A.4.

To train my classifier, I use human-coded quasi-sentences (i.e., text between punctuation) from the Comparative Agendas Project (CAP) corpora of State of the Union Ad-

dresses (1946-2020), Democratic and Republican Party Platforms (1948-2020) and New York Times headlines (1996-2006). To facilitate model fitting, I collapse the 21 CAP topics into eight broader themes (as in Osnabrügge, Ash and Morelli 2021): economy, education, energy/environment, government, health, foreign affairs (which includes military and defense), social issues, and non-policy content. I choose eight topics to balance between classification accuracy on the one hand, and over-simplification on the other.[6]

I train an ensemble classifier on an 80-20 train-test split, which achieves an accuracy score of 0.71 on the test set. I hand code a small sample of paragraphs from my corpus and achieve an out-of-domain score of 0.69. These performance statistics are more accurate than a one-eighth random guess (0.125), selecting the most prevalent category (0.29), and comparable results from Osnabrügge, Ash and Morelli (2021), likely due to more similar training data. Although these performance statistics are reassuring, I acknowledge that error poses an inescapable threat to inference. In Appendix B.2, I detail two alternative tests to probe the threats posed by classification error, and they provide further confirmation of the main results. I briefly describe these at the end of the main empirical section.

Empirical Strategy

War is not exogenous or randomly assigned. Presidents may see war on the horizon, engage in a military build-up, or try to lead the nation into war—complicating efforts to make causal arguments about the effects of war and peace on presidential rhetoric. To ameliorate some of these concerns, I follow the research design in Howell and Rogowski (2013). I first look for changes in moral-emotional rhetoric before and after October 7, 2001, the beginning of the invasion of Afghanistan, where "The impetus for war

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[6]A binary foreign/domestic classification could pose a problem to inference if the domestic agenda becomes more moral-emotional during war as a consequence of a change in issues from e.g., the economy to social welfare.

was plausibly exogenous" (Howell and Rogowski 2013, 155). In this analysis, I examine speeches given during the 107th (2001-2002) Congress, fixing many non-conflict features of the coalitional environment. To test the more general effects of war, I use my full data from 1933–2023. I create a binary indicator for whether the nation is at war as defined in Howell and Rogowski (2013): December 7, 1941 to August 14, 1945 for World War II, June 27, 1950 to July 27, 1953 for the Korean War, and February 7, 1965 to January 27, 1973 for the Vietnam War. As the authors did not (and could not) provide an end-date for the war in Afghanistan, I test my hypotheses using two alternative end dates: the official end of the conflict on August 30, 2021 and a more informal end of the first phase of the war coinciding with Bush's "Mission Accomplished" speech on May 1, 2003. Although this speech was later seen as a massive public relations failure, it serves as a convenient cut-point to mark when these wars became less popular and the coalition dynamics advantaging the president may have shifted.

To formally test the Wartime Rhetoric Hypothesis, I use ordinary least squares to regress each paragraph's analytical/moral-emotional score on an indicator for whether a paragraph was delivered on or after October 7, 2001 (on days on which a major war was occurring) for the first (second) analysis. All models include indicators for whether the paragraph was delivered in Washington D.C., in one of the 50 states, or internationally, which could affect both topic selection and moral-emotional language use (Cohen 2009; Rottinghaus 2010). Additionally, I control for the number of non-stopwords in each paragraph, as length could be correlated with analytical content (Blumenau and Lauderdale 2022). Models also include speech-type fixed effects (i.e., addresses, remarks, exchanges, rallies, and other). To rule out the possibility that changes in moral-emotional rhetoric are driven by changes in the agenda, many models also include topic fixed effects. I cluster standard errors at the speech level.

In the larger regression analysis focusing on 90 years of presidential rhetoric, I include additional controls: whether it is a presidential honeymoon (an elected president's first

year in office), a presidential reelection year, a midterm election year, the president's term number, and the negative absolute distance between the president and majority party median in the House and Senate using DW-NOMINATE scores. In one specification, I also include presidential approval ratings using Gallup data from the American Presidency Project.[7] I also include month fixed effects to account for seasonality.

Primary Results: September 11th and Afghanistan

Before turning to full empirical results for the Wartime Rhetoric Hypothesis, I provide descriptive evidence in its favor in Figure 2. Beginning in the first column, I plot the raw distribution of paragraph language scores within each of the eight topics. On the *x*-axis, I plot the standardized analytical/moral-emotional score. The farther to the left the distribution shifts, the more moral-emotional its content; the farther to the right, the more analytical. Each distribution is associated with one of the eight topics as labeled on the *y*-axis. Each topic has two distributions—one in dark gray for paragraphs spoken during peace; one in light gray for those spoken during war. The solid vertical lines represent the median analytical-moral/emotional scores for all paragraphs within that topic pre- and post-war. The top row presents results for the 107th Congress, during which the U.S. invaded Afghanistan. The bottom row presents results for major wars occurring during the entire 90 year period. Two key patterns stand out in both panels of the figure. First, rhetoric about defense and foreign affairs is more moral-emotional during peace than all other issues, save the non-policy content topic. This result is consistent with the two-presidencies thesis: presidents have more coalitional strength in foreign versus domestic policy, and thus, use more moral emotional language. Second, for all topics, the median paragraph score within each topic becomes more moral-emotional in war. The

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[7]I assign each day the presidential approval rating from the most recent poll based on the dates surveys exit the field. However, Gallup approval ratings begin in 1941, just months before the U.S. entered World War II. This specification drops many pre-war Roosevelt observations, and while consistent, is not preferred.

Figure 2: Presidents Use More Moral-Emotional Rhetoric in War
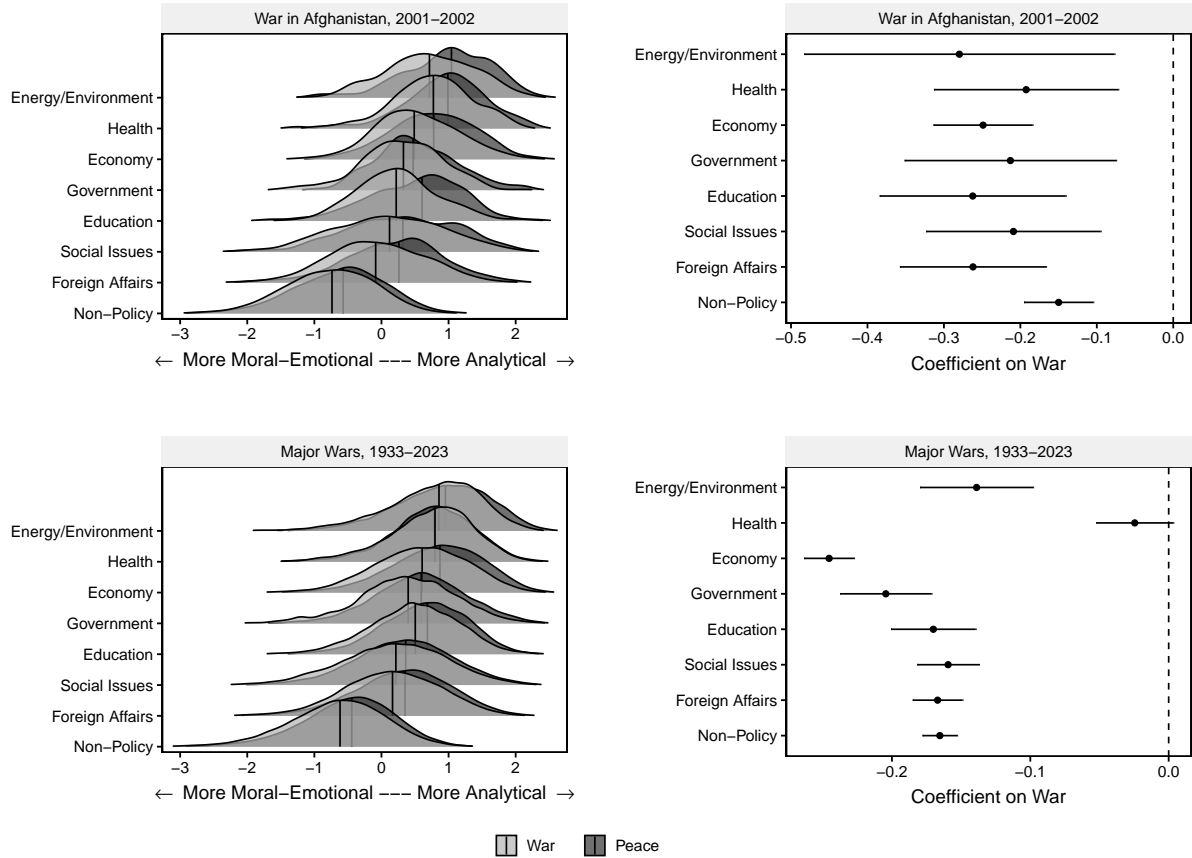
Note: Column 1 displays the paragraph-level distribution of the relative use of analytical and moral-emotional language in presidents' rhetoric during peace (dark gray) and war (light gray) across eight topics. More negative distributions are more moral-emotional. Column 2 displays regression coefficients for the analytical/moral-emotional score regressed on incidence of war separately for each topic. Negative coefficients are more moral-emotional In almost every case, presidents use more moral-emotional language within each topic during war.

only exception is the health topic in the larger corpus.

To further contextualize the size of the effects and the statistical significance, in the second column, I plot the coefficient estimates and standard errors (clustered at the document level) from an ordinary least squares model in which I regress the analytical/moral-emotional language score on an indicator for war within each topic separately. A negative, statistically significant coefficient indicates that presidents use relatively more moral-emotional language during war than peace. As with the distributional plots, across all topics, presidents become more moral-emotional during war, with the exception of health

in the major wars data. Even there, the coefficient is negative and $p < 0.1$. Taken together, these descriptive results provide suggestive support for the Wartime Rhetoric Hypothesis.

I test the hypothesis formally in Table 2, focusing on the war in Afghanistan. As the September 11th attacks were unexpected, the war can be seen as a semi-natural experiment (Howell and Rogowski 2013) where shifts in the presidents' rhetoric are plausibly exogenous to pre-September 11th trends. Recall, the analytical/moral-emotional scale is coded such that more moral-emotional language will be associated with negative coefficients. In column 1, I provide support for the Wartime Rhetoric Hypothesis focusing only on foreign affairs speeches. The coefficient on War is negative and statistically significant as expected. The beginning of the invasion of Afghanistan on October 7, 2001 is associated with about a fifth of a standard deviation decrease in analytical rhetoric and an increase in moral-emotional rhetoric—specifically on foreign issues. I present a similar result in Column 2, focusing here only on domestic policy speeches (by dropping all foreign policy and non-policy speeches from the model). Again, the result is about a fifth of a standard deviation shift toward more moral-emotional language in war on *domestic* issues, indicative of a grant of power beyond what is predicted by the standard two-presidencies thesis. Recall, I also control for potential changes in the agenda using a set of topic fixed effects, so these shifts are not a consequence of the president focusing on a different set of issues following the invasion.

To probe the robustness of these results, I consider an alternative specification in column 3. Here, I consider potential changes in the agenda as a consequence of Jim Jefford's switch out of the Republican party, handing control of the Senate to Democrats. By modeling these periods separately, I show that, compared to the baseline period between Jefford's switch and the September 11th attacks, President Bush's post-war rhetoric remains more moral-emotional after the invasion. In column 4, I run the original model on all paragraphs, including domestic, foreign, and non-policy topics. Again, the results

Table 2: Afghanistan War and Bush's Moral-Emotional (−) Rhetoric Relative to Analytical (+) Rhetoric (2001-2002)

	(1)	(2)	(3)	(4)
	Foreign Affairs Only	Domestic Only		All Speeches
War (vs Pre-10/7)	−0.205***	−0.194***		−0.179***
	(0.051)	(0.027)		(0.021)
War (vs Post-Jeffords and Pre-9/11)			−0.126**	
			(0.046)	
Pre-Jeffords Switch (Before 05/24)			0.109*	
			(0.049)	
Between Attack/War (9/11–10/06)			0.053	
			(0.111)	
Domestic Travel Speech	−0.272***	−0.242***	−0.240***	−0.194***
	(0.041)	(0.028)	(0.027)	(0.021)
International Travel Speech	0.051	0.060	0.069	0.040
	(0.071)	(0.090)	(0.087)	(0.064)
Non-Stopword Count	0.008***	0.006***	0.006***	0.007***
	(0.001)	(0.001)	(0.001)	(0.000)
Fixed Effects				
Topic		✓	✓	✓
Speech Types	✓	✓	✓	✓
Num. Obs.	4,469	8,137	8,137	18,953
R2 Adj.	0.090	0.197	0.198	0.423
R2 Within Adj.	0.070	0.063	0.065	0.050

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note: Coefficients are from ordinary least squares models. The dependent variable is a standardized relative measure of analytical language use (more positive coefficients) relative to moral-emotional language use (more negative coefficients). Column 1 reports results for foreign affairs paragraphs only. Columns 2-3 report results for domestic paragraphs only. Column 4 reports results for all paragraphs (including non-policy). Standard errors are clustered at the speech-level.

indicate that, broadly, President Bush used more moral-emotional rhetoric following the invasion of Afghanistan.

Secondary Results: Wartime Rhetoric, 1933-2023

The September 11th terror attacks were a pivotal moment in American political history. Although the cause for war was plausibly exogenous, it is possible that this event was unique in its coalitional consequences, given that it was a rare attack on U.S. soil and

President Bush's approval ratings jumped to over 80%. Alternatively, it could be the case that the September 11th attacks had little effect on rhetoric and these results represented a simple continuation of a trend. The results in Table 3 cut against these notions. I present results for the Wartime Rhetoric Hypothesis by investigating the effects of several major wars on presidents' use of moral-emotional language since World War II.

The results in Table 3 provide further support for the Wartime Rhetoric Hypothesis. In column 1, I provide evidence that during major wars, presidents use about 0.06 of a standard deviation more moral-emotional language during war when discussing foreign affairs only. Similarly, as can be seen in column 2, presidents use about 0.08 standard deviations more moral-emotional rhetoric during war when discussing domestic policy. Recall that both models include presidency fixed effects, and as such, these results can be interpreted as *within-presidency* changes, not comparisons across time or executives who never (or only) served during war. Given potential concerns about the appropriate end date for the post-September 11th wars, in column 3, I re-run the model in column 2 excluding all post-Nixon presidents. The association is substantively similar when only looking at World War II, the Korean War, and the Vietnam War. In columns 4 and 5, I look at all paragraphs, including foreign, domestic, and non-policy content. In column 4, I remove the presidential fixed effects, as their inclusion excludes variation from presidents who did not serve during major wars (e.g., Kennedy, Carter) or only served during wartime (e.g., Obama, Trump). The results are consistent with the other models, but the coefficient is much larger at 0.16—likely a consequence of presidents using more moral-emotional rhetoric over time. Finally, column 5 replicates column 4 but includes the president fixed effects. The results are more similar to those in columns 1 and 2, but again, support the Wartime Rhetoric Hypothesis. In total, the models in Table 3 provide evidence that presidents' rhetoric is more moral-emotional and less analytical during war.

Table 3: Major Wars and Presidents' Moral-Emotional (−) Rhetoric Relative to Analytical (+) Rhetoric, 1933-2023

	(1)	(2)	(3)	(4)	(5)
	Foreign Affairs Only	Domestic Only		All Speeches	
	1933-2023	1933-2023	1933-1974	1933-2023	
War	−0.057***	−0.079***	−0.108***	−0.161***	−0.064***
	(0.017)	(0.014)	(0.024)	(0.006)	(0.010)
Domestic Travel Speech	−0.126***	−0.142***	−0.130***	−0.118***	−0.109***
	(0.010)	(0.006)	(0.017)	(0.005)	(0.005)
International Travel Speech	−0.063***	0.004	−0.303***	−0.063***	−0.051***
	(0.014)	(0.018)	(0.057)	(0.011)	(0.011)
Pres. Reelection Year	−0.010	−0.033***	−0.074*	−0.019*	−0.028***
	(0.013)	(0.009)	(0.031)	(0.008)	(0.007)
Midterm Year	0.033**	0.001	0.058**	−0.012+	0.009
	(0.012)	(0.008)	(0.019)	(0.007)	(0.006)
Honeymoon	0.091***	0.048***	0.000	0.008	0.053***
	(0.018)	(0.012)	(0.035)	(0.010)	(0.009)
Pres. Ideology vs House Majority Median	−0.120***	−0.044*	−2.341*	0.089***	−0.056***
	(0.027)	(0.018)	(1.005)	(0.010)	(0.014)
Pres. Ideology vs Senate Majority Median	0.022	0.079***	2.498*	−0.050***	0.055***
	(0.023)	(0.015)	(1.144)	(0.010)	(0.012)
Term	0.002	−0.024**	−0.025	−0.007	−0.022***
	(0.012)	(0.009)	(0.022)	(0.006)	(0.006)
Non-Stopword Count	0.007***	0.007***	0.009***	0.006***	0.008***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Fixed Effects					
President	✓	✓	✓		✓
Topic		✓	✓	✓	✓
Month	✓	✓	✓	✓	✓
Speech Types	✓	✓	✓	✓	✓
Num. Obs.	109,718	207,814	38,059	468,261	468,261
R2 Adj.	0.075	0.170	0.141	0.384	0.401
R2 Within Adj.	0.030	0.041	0.043	0.044	0.038

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Note: Coefficients are from ordinary least squares models. The dependent variable is a standardized relative measure of analytical language use (more positive coefficients) relative to moral-emotional language use (more negative coefficients). Column 1 reports results for foreign affairs paragraphs only. Columns 2 report results for domestic paragraphs. Column 3 reports results for domestic paragraphs for all presidents before Ford. Column 4 reports results for all speeches (including non-policy) without president fixed effects. Column 5 is the same with president fixed effects. Standard errors are clustered at the speech-level.

Additional Considerations

Although my theory and measurement are focused on relative changes in analytical and moral-emotional language, perhaps they are not opposites, and forcing them onto a unidimensional scale is conceptually invalid. Alternatively, the relative measure allows

for the possibility that both analytical and moral-emotional language increase during war, and as such, the conclusion that presidents "use less analytical" language would be inaccurate. The results in Table B1 should assuage these concerns. There, I model analytical and moral-emotion language independently for both the 2001-2002 period and for all major wars. I find that war is associated with more moral-emotional language and less analytical language on absolute scales.

In Table B2, I consider three alternative specifications of model 2 in Table 3. First, I provide additional evidence that these effects persist when including presidential approval as a control, although given that Gallup polling does not start until the 1940s, this specification drops many pre-war Roosevelt observations. Further, presidential approval is plausibly post-treatment as major wars and consequent rallies should lead to higher presidential approval. Second, the relationship is similar when using an alternative end date of Bush's "Mission Accomplished" speech in March 2003 (rather than August 2023) for the post-September 11th wars. Third, the models in Table 3 make clear that longer paragraphs tend to be more analytical. Thus, if presidents speak less during war due to time spent managing the conflict, a need to get the point quicker, or emotional or cognitive burdens, the relationship could be spurious. To probe this possibility, I include an additional control for the number of non-stopwords in all domestic paragraphs at the speech level. Although the domestic policy content of presidents' speeches are about 19 non-stopwords shorter in war, the inclusion of this speech-level control does not diminish the size or significance of the war coefficient.

Are these results especially sensitive to error in the topic labeling? To probe this possibility, I conduct two robustness tests. First, I replicate the main analyses using a trichotomous coding of foreign, domestic, and non-policy speech. This measure is more accurate (0.77 cross-domain) at the cost of aggregation over domestic issues. Second, as Knox, Lucas and Cho (2022, 20.21) note, "in the supervised case, a simple and consistent estimator exists: fitting a model using only the labeled data." In this case, the training

data is human-labeled topics from all State of the Union Addresses from 1946 through 2020. Beyond the advantages of the human-coding, this dataset provides a useful test of the theory as the State of the Union Address is one of the most salient, annual, and non-discretionary speeches given consistently at the same time of year.[8] I re-fit the model in Table 3, column 2 using only this human-labeled data and find consistent (albeit not always statistically significant given the much smaller sample) effects of war on moral-emotional language use. I discuss these robustness tests in Appendix B.2.

In sum, both studies provide strong support for the idea that presidents' rhetoric on both foreign—and *domestic*—policy becomes more moral-emotional in war. The Afghanistan results provide semi-causal evidence of this effect, but generalizability is limited. However, this effect also appears in the correlational regression analysis; although these results lack a causal interpretation, they provide further support for the idea that, on average, war is associated with more moral-emotional presidential rhetoric on domestic issues.

Robustness: It's About Presidential Power, Not War Broadly

A potential objection to my results is that war is system-wide. Even if the president's rhetoric changes, that does not rule out the possibility that other political actors also adjust their rhetorical strategies in similar ways. Such a result would provide a novel finding about war and political rhetoric, but not about presidential power and going public per se. In an effort to rule out this alternative explanation, I move beyond my corpus of presidential rhetoric and examine floor speeches given by members of the House and Senate using the text of the Congressional Record from 1933-2016 (Gentzkow, Shapiro and Taddy 2018),[9] a total of nearly four million speeches.[10]

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[8]One key difference is that this data is at the quasi-sentence level rather than the paragraph level.

[9]Presidential speeches and congressional floor debate are not perfectly comparable. Presidential speeches are highly visible and ubiquitous (Scacco and Coe 2021), which is not necessarily true of floor speeches. However, floor speeches are constituency-targeted rhetoric (Hill and Hurley 2002; Noble 2023*b*).

[10]Following Noble (2023*b*), I exclude all speeches with 30 words or fewer, which the author describes as non-substantive. This total reflects the number of speeches with greater than 30 words. Also, to match the

I apply my methods to measure anlytical/moral-emotional rhetoric and topics[11] at the speech level. In the models below, I exclude all foreign affairs speeches as well as those coded as non-policy to focus on the effects of war on congressional domestic policy rhetoric. In all models, I add a covariate to account for the non-stopword count of speeches and include lawmaker and topic fixed effects. In the Major War models, I also account for whether a lawmaker is in the chamber majority party, whether the lawmaker is a presidential co-partisan, and I include Congress fixed effects. I cluster standard errors at the lawmaker level.

In Table 4, I present results mirroring those in the two presidential analyses above. In columns 1 and 4, I look for shifts in moral-emotional rhetoric about domestic policy among Senators and House members respectively using the October 7, 2001 cut-point in the 107th Congress only. Although the coefficients are negative, the results are not statistically significant in either chamber. In columns 2 and 5, I revisit this result by comparing the post-war period to the post-Jeffords switch period. Interestingly, the result is negative and statistically significant (more moral-emotional rhetoric) in the House, but not the Senate where the switch occurred. Finally, the results in columns 3 and 6 look at the entire 90 year period using the war dates as described above. The result in the Senate is surprisingly positive and significant at $p < 0.1$, suggesting that senators' domestic policy rhetoric becomes *more analytical* during war. The coefficient in the House is negative but not statistically significant.

Taken together, the results do not provide evidence that war systematically induces more moral-emotional domestic policy rhetoric among lawmakers. Rather, the results are more consistent with the idea that war has unique effects on presidential rhetoric.

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presidential speech data, lame duck periods are excluded.

[11]I use the same pre-processing steps on the congressional corpus as the presidential corpus. However, congressional speeches do not include paragraph separators. As such, the unit of analysis is the speech. Given that the CAP training data is less similar to congressional floor speeches, and due to the larger number of topics in whole speeches versus paragraphs, cross-domain model accuracy declines to 0.58 on a small sample of hand-labeled speeches. Even so, this model continues to perform much better than random guessing and has comparable performance to the cross-domain eight-topic model in Osnabrügge, Ash and Morelli (2021).

Table 4: War and Congressional Moral-Emotional (−) Rhetoric Relative to Analytical (+) Rhetoric in Domestic Policy Speeches

	Senate			House		
	(1) Afghanistan (2001-2002)	(2)	(3) Major Wars (1933-2023)	(4) Afghanistan (2001-2002)	(5)	(6) Major Wars (1933-2023)
War	−0.014 (0.027)		0.017+ (0.010)	−0.020 (0.014)		−0.010 (0.007)
War (vs Post-Jeffords and Pre-9/11)		−0.012 (0.023)			−0.046* (0.020)	
Pre-Jeffords Switch (Before 05/24)		−0.011 (0.036)			−0.057* (0.023)	
Between Attack/War (9/11–10/06)		0.095* (0.046)			−0.021 (0.036)	
Majority Party			0.169*** (0.011)			0.127*** (0.007)
Presidential Co-Partisan			−0.014+ (0.008)			−0.006 (0.005)
Non-Stopword Count	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.001*** (0.000)
Fixed Effects						
Lawmaker	✓	✓	✓	✓	✓	✓
Topic	✓	✓	✓	✓	✓	✓
Congress			✓			✓
Num.Obs.	25,112	25,112	1,379,706	22,073	22,073	1,250,558
R2 Adj.	0.142	0.143	0.122	0.174	0.174	0.175
R2 Within Adj.	0.005	0.005	0.019	0.010	0.011	0.037

$+ p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note: Coefficients are from ordinary least squares models. The dependent variable is a standardized relative measure of analytical language use (more positive coefficients) relative to moral-emotional language use (more negative coefficients). Models include fixed effects for lawmakers, months, and six domestic policy topics. Standard errors are clustered at the lawmaker-level.

Conclusion

Presidential power is famously "the power to persuade" (Neustadt 1990, 11), but during major wars, when coalitions expand, the Commander in Chief takes advantage of a different kind of power: the power to mobilize. In this context, presidents anticipate accommodation from elites and the public, and when they go public, they no longer use the analytical and informational rhetoric necessary for coalition-building. Instead, presidents use the moral, emotional, and mobilizing rhetoric of war to push their foreign and domestic priorities. I provide support for this argument by analyzing President Bush's rhetoric before and after the September 11th terror attacks and the invasion of Afghanistan. I replicate my results in a corpus of 90 years of presidential rhetoric in war and peace. To further support these results, I show that lawmakers do not respond in the same way,

suggesting something unique about the presidency rather than a general wartime effect on political speech.

These results leverage insights from the political psychology literature (e.g., Blumenau and Lauderdale 2022; Coppock 2022) to bridge the gap between going public (Canes-Wrone 2006; Kernell 1997) and of the two-presidencies thesis (Canes-Wrone, Howell and Lewis 2008; Wildavsky 1969). Although scholars have shown that presidents are more successful when going public on foreign policy (Canes-Wrone 2006; Rottinghaus 2010), this research focuses on outcomes—legislative success and public opinion—without considering potential differences in presidential strategy that could anticipate or shape these outcomes. Further, these studies consider foreign policy appeals in the context of peace–when presidents are weaker. Here, I show that the two-presidencies thesis has important spillover effects in wartime: presidents benefit from foreign and domestic grants of power, which shapes the ways in which they promote their policies. This article joins others in making the case that war cannot be considered a "dummy variable" to be included in models of presidential leadership (Howell, Jackman and Rogowski 2013; Mayhew 2005). War alters presidents' coalitions, and thus, shapes how they go public. Fortunately, major wars involving the U.S. are rare. However, foreign conflicts in Europe and the Middle East, as well as a growing rivalry between the U.S. and China, mean we must continue to refine our theories of presidential power in war. However, given heightened levels of partisan polarization among elites and the public, bipartisanship over foreign policy appears to be on the decline (Jeong and Quirk 2019). As such, it's possible the next war may not result in broad deference, and polarization may actually constrain the presidents' domestic policy prospects and promote more information sharing.

This research shows that presidents use more moral-emotional (and less analytical) language during major wars. Theoretically, this shift anticipates a more compliant Congress (Howell, Jackman and Rogowski 2013; Schorpp and Finocchiaro 2017), but scholars should try to bridge the gap between words and actions. Do emotional-moral appeals gener-

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ate legislative success, and does that depend on the incidence or war, or other factors conditioning presidents' coalitional strength? Relatedly, this paper treats war as a binary, homogeneous treatment effect. Of course, the effects of war on presidential coalition strength, and subsequently, rhetorical and policy influence might vary as casualties mount, as the rally effect wears off, as media coverage and salience decline, and as elites begin to criticize the president. Second, in this work, presidential speeches are treated as exogenous. This simplifying assumption allows for more focus on the language presidents use, but it elides the strategic nature of going public in the first place (Ragsdale 1984), as well as the choice of which policies presidents pursue during war. Third, this research opens the door for a more systematic study of *how* presidents go public. For example, Gooch (2018) shows that presidential candidates use of narrative can increase their favorability. Do the moral-emotional and analytical features of presidential rhetoric shape public opinion in ways that complicate our current understanding of presidential leadership? And moving beyond the fact-emotion axis, what other ways do presidents vary their rhetoric strategies to appeal to particular constituencies? The increasing sophistication and approachability of text analysis tools should allow scholars to continue down this path.

During war, presidents benefit from institutional and de facto grants of power. However, these advantages spill over into the domestic policy arena. Presidents use the moral, emotional, and mobilizing rhetoric of war to promote their domestic agendas—at the expense of more analytical, factual, and persuasive appeals they make during peacetime. These results raise normative concerns about presidential power and informational control. Indeed, major theories of presidential wartime powers are premised on the idea that lawmakers and the public defer to the president due to the president's informational advantages (Canes-Wrone, Howell and Lewis 2008; Howell, Jackman and Rogowski 2013; Wildavsky 1969). The results presented here do not contradict this general theory, however, they paint a worrying picture about how executives use infor-

mation. Rather than remedy these asymmetries by sharing their expertise, presidents do the opposite—shifting toward more moral-emotional, and less analytical, rhetoric in speeches. In war, if lawmakers are voting in line with the president (Howell, Jackman and Rogowski 2013) and if the public is more deferential (Brody 1991), these effects do not seem to follow from an increase in the public dissemination of that information.

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Supplementary Information

Fighting Words

Contents

Data Transparency Statement

Due to restrictions in the terms of service on the redistribution of the underlying text data, if accepted for publication, I will not be able to share the full text of speeches used in this manuscript. I will share the data and code necessary to reproduce the empirical results, which are based on quantitative summaries of, and metadata about, the text itself. I am happy to discuss the transparency and availability of the data further with the editorial team if/when necessary.

A Text Pre-Processing and Scale Creation

A.1 Stopwords

In my text pre-processing, I remove all unigram stopwords included in the `nltk` module in Python, all words with two characters or less, and a set of phrases and words that presidents say often but which add little substantive insight, including: thank you, bless you, god bless, god bless america, god bless the united states, god bless the united states of america, thank, thanks, bless, hello, and please.

A.2 Dictionaries

Analytical Dictionary: address, analysis, analytical, answer, approximately, assessment, association, author, average, award, benefits, better, calculate, case, cause, change, comments, compare, comparison, consequences, considered, content, contrast, contribute, correct, correlation, cost, criteria, data, decided, decision, decrease, degree, determine, deterministic, diagnosis, diagnostic, different, discussion, disproportionate, dollars, effects, empirical, equivalent, estimated, evidence, examination, explain, fact, factors, feasible, fund, higher, impact, implausible, impossible, improve, increase, indicate, influence, information, interest, investigation, less, letter, level, list, lower, mean, measures, necessarily, need, number, object, odds, percent, percentage, plan, plausible, point, policies, possible, predicted, probably, process, products, project, proposed, raised, rank, rate, reason, recommended, record, reduce, reference, related, report, required, response, results, review, rise, risk, solutions, solve, specific, standard, statement, statistics, studies, substantial, survey, technology, test, testified, understand, unit, worst, yield.

Moral-Emotional Dictionary: abuse, apathy, audacious, awful, bad, bankrupt, bribe, catastrophe, cheater, crisis, cruel, damage, damned, deceit, defect, destruction, dire, disastrous, dreadful, evil, guilty, horrible, hysteria, idiot, illegal, loss, lunatic, mad, obnoxious, ominous, ridiculous, rigorous, selfish, terrible, trauma, ugly, vile, violence, worst, adorable, beautiful, best, charm, excellent, faithful, fantastic, funny, gallant, good, gracious, grand, heavenly, heroic, impressive, lovely, loyal, luck, marvelous, miracle, nice, outstanding, perfect, pleasant, popular, splendid, super, terrific, vigilant, vitality, vivacious, wealth, wonderful.

Table A1: Convergent Validity of Analytical/Moral-Emotional Language

	Readability (+ More Readable)	Analytical (+) vs Moral-Emotional (−) Language
Analytical/Moral-Emotional Scale	−7.889***	
	(0.030)	
Rally (vs Address)		−0.502***
		(0.007)
Constant	58.512***	0.366***
	(0.027)	(0.004)
Num.Obs.	478,364	73,716
R2	0.128	0.059

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Note: Coeffients are from ordinary least squares regressions. In column 1, the dependent variable is the Flesch Reading Ease Score, which takes on higher values when texts are more readable. In column 2, the dependent variable is a standardized relative measure of analytical language use (more positive coefficients) relative to moral-emotional language use (more negative coefficients).

A.3 Convergent Validity

To demonstrate the convergent validity of my analytical/moral-emotional language scale, I conduct two tests presented in Table A1. In the first column, I consider the relationship between my measure and text readability using the Flesch Reading Ease Score. This measure, which is based on syllable and word counts within sentences, takes on higher values when texts are more readable. Although this measure and my own capture different substantive concepts and should not perfectly correlate, in theory, analytical texts, using quantitative and causal reasoning, should be less readable than texts evoking moral and emotional rhetoric. And indeed, that does appear to be the case. I regress the Flesh Reading Ease Score of each paragraph in my corpus on the standardized analytical/moral-emotional score and find that the coefficient is −7.89 and is statistically significant. Practically, the effect of a one standard deviation shift toward analytical language is associated with close to a one-step decrease in readability, consistent with my expectation.[1]

As a second test of convergent validity, in column 2, I focus on differences in moral-emotional language use in the most salient prepared presidential speeches (what the APP calls an "address") versus political rallies. As political rallies are partisan affairs

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[1]The raw Pearson correlation is −0.36, indicating that more analytical language is less readable, as expected, but that these two measures are not simply substitutes.

during which presidents aim to mobilize their base, a valid measure would point toward more moral-emotional language at rallies as compared to major national address in which presidents speak to a cross-party, national audience. A regression of the standardized analytical/moral-emotional score yields a statistically significant coefficient of -0.50. That is, a political rally is associated with half a standard deviation more moral-emotional language than a major address.

A.4 Topic Labeling

To code the topic of each paragraph in my corpus, I leverage a cross-domain, supervised machine learning approach similar to that of Osnabrügge, Ash and Morelli (2021). To train my model, I use existing, human-labeled data from the Comparative Agendas Project. Researchers associated with this project have labeled every quasi-sentence (i.e., words between punctuation) for State of the Union Addresses (Project 2015, 1946-2020), for both parties' platforms (Wolbrecht 2016, 1946-2016 for Republicans, 1946-2020 for Democrats), and titles of New York Times articles (Boydstun 2014, 1996-2006). Each quasi-sentence is labeled across one of 20 topics (e.g., macro-economy, civil rights, health, etc) as well as a "no policy content" category.[2] To improve model performance, I reduce the number of labels by grouping similar issues together. Specifically, **Economy** includes macroeconomics, labor, domestic commerce, technology, and foreign trade; **Education** includes education; **Energy/Environment** includes agriculture, environment, energy, and public lands; **Government** includes government operations; **Health** includes healthcare; **Foreign Affairs** includes defense and international affairs; **Social Issues** includes civil rights, immigration, transportation, law and crime, social welfare, and housing; **Non-Policy** includes the culture category as well as anything the coders said was "no policy content."

To train the model, I split the CAP-coded corpus into an 80% training set of 73,126 quasi-sentences and a 20% test set of 18,282 quasi-sentences. For each quasi-sentence, I convert text to rectangular format using a similar procedure to that detailed in the main manuscript to prepare text for scaling. The output is a matrix where each row is a document and columns are the 300-dimensional embedding vector for each quasi-sentence word average. I use an ensemble model that consists of random forest, XGBoost, Lasso, MLP Classifier, ADA Boost, and K-Nearest Neighbors with five neighbors. The out-of-sample statistics on the test set are given in Table A2.

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[2]Some of the datasets are coded for additional categories beyond the 20 listed in the main Comparative Agendas Codebook. These were re-coded as "no policy content."

Table A2: Performance Statistics for Topic Labeling

	Precision	Recall	F1-score	Support
Economy	0.67	0.71	0.69	3124
Education	0.81	0.69	0.74	763
Energy/Environment	0.79	0.67	0.73	1379
Government	0.68	0.59	0.63	1446
Health	0.79	0.72	0.75	1015
Foreign Affairs	0.79	0.83	0.81	5223
Social	0.65	0.64	0.65	3233
Non-Policy	0.58	0.62	0.60	2099
Accuracy			0.71	18282
Macro Average	0.72	0.68	0.70	18282
Weighted Average	0.71	0.71	0.71	18282

The overall accuracy on the test set is 71%, which is quite high given the task. Consider, with eight topics, a random guess would be accurate 12.5% of the time. Choosing the most represented category, Foreign Affairs, would be accurate 29% of the time. This metric also exceeds that of the eight topic model in Osnabrügge, Ash and Morelli (2021), likely due to more similar training data.

I use this model to predict labels for all speech-paragraphs in my presidential speech corpus. I manually code a small sample of 300 paragraphs (blind to the predicted labels) as a validation set. Accuracy on this out-of-domain validation set is 69%, similar to the accuracy within the original corpus using the test data.

B Robustness

B.1 Alternative Model Specifications

The dependent variable in the main text is a measure of the use of moral-emotional language in a speech *relative* to use of analytical language in the speech. While helpful for understanding the balance of these two types of language in presidential rhetoric, a relative increase in moral-emotional language does not necessarily provide insight into whether analytical language decreases, stays the same, or increases at a lesser rate. To better interpret absolute changes in the use of moral-emotional and analytical rhetoric, in Table B1, I re-run the preferred model specifications in Tables 2 and 3 using absolute scales of moral-emotional and analytical language. That is, the paragraph-level cosine similarity to the dictionary centroid for each of the two dictionaries on their own (i.e., not

Table B1: War Increases Moral-Emotional Rhetoric, Decreases Analytical Rhetoric

	(1)	(2)	(3)	(4)
	Afghanistan, 2001-2002		Major Wars, 1933-2023	
Dependent Variable	Moral-Emotional	Analytical	Moral-Emotional	Analytical
War	0.131***	−0.057***	0.032**	−0.033***
	(0.023)	(0.015)	(0.010)	(0.007)
Domestic Travel Speech	0.256***	0.033*	0.111***	−0.009*
	(0.024)	(0.015)	(0.005)	(0.004)
International Travel Speech	−0.084+	−0.033	−0.018+	−0.062***
	(0.050)	(0.039)	(0.010)	(0.008)
Pres. Reelection Year			0.013+	−0.015**
			(0.007)	(0.005)
Midterm Year			−0.008	0.001
			(0.006)	(0.005)
Honeymoon			−0.024**	0.029***
			(0.009)	(0.007)
Pres. Ideology vs House Majority Median			0.071***	0.007
			(0.014)	(0.011)
Pres. Ideology vs Senate Majority Median			−0.078***	−0.014
			(0.012)	(0.009)
Term			−0.011+	−0.030***
			(0.007)	(0.005)
Non-Stopword Count	0.008***	0.013***	0.007***	0.013***
	(0.000)	(0.000)	(0.000)	(0.000)
Fixed Effects				
President			✓	✓
Topic	✓	✓	✓	✓
Month			✓	✓
Speech Types	✓	✓	✓	✓
Num. Obs.	18,953	18,953	468,261	468,261
R2 Adj.	0.205	0.347	0.171	0.293
R2 Within Adj.	0.076	0.137	0.025	0.112

$+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001$

Note: Coefficients are from ordinary least squares models. The dependent variable in columns 1 and 3 is a standardized measure of the use of moral-emotional rhetoric in a paragraph. The dependent variable in columns 2 and 4 is a standardized measure of the use of analytical language in paragraph. All models include all eight topics. Standard errors are clustered at the speech-level.

relative to the other). Increases in each scale represent increases in that type of language, irrespective of what is happening with the other type of rhetoric.

The results in Table B1 support the idea that presidential rhetoric becomes *more* moral-emotional and *less* analytical during war. The coefficients on war in columns 1 and 3 are both positive and statistically significant, indicating that presidents use more moral-emotional rhetoric during the 2001-2002 Congress and during major wars. The negative coefficients in columns 2 and 4 provide evidence that presidents use less analytical lan-

guage in wartime. The results show that there are increases in moral-emotional language and decreases in analytical language rather than, say, a large increase in moral-emotional language and a small increase in analytical language during war. These results do not suggest that analytical language goes to zero during wartime, but the informational content of speeches does decrease both relatively and absolutely.

The models in Table B2 probe the sensitivity of the results from Table 3, Column 2 of the main text to various alternative specifications. In column 1, I include presidential approval as a control. Although the effect is substantively similar to the original model, including presidential approval introduces two potential problems for inference. First, presidential approval is plausibly colinear with the increase in coalition size, or post-treatment, resulting from the rally effect that theoretically expands the president's coalition. Second, the Gallup presidential approval poll begins in the 1940s, well into Roosevelt's presidency and after the onset of World War II (although before the U.S. enters the war). As such, we lose many observations that would allow us to more precisely isolate the effect of World War II on Roosevelt's rhetoric.

In column 2, I use the Mission Accomplished speech on May 1, 2003 as the end of the most acute phase of the post-September 11 wars. As such, this model considers all Bush speeches following May 1, 2003 as occurring outside of a major war (and the fixed effects would exclude variation from Obama, Trump, and Biden who would not serve during war). The coefficient is larger in magnitude, negative, and statistically significant, as expected.

Finally, in column 3, I consider the possibility that war could condition the president's ability to go public. Given the demands of serving as Commander in Chief, presidents may simply not have as much time to give domestic policy speeches, or they may not have the ability to give long speeches about domestic policy. Alternatively, presidents, and their staffs, might be experiencing emotional or cognitive burdens that limit their ability to speak as cogently about domestic policy. As indicated in Table 3, this could threaten inference as longer paragraphs tend to be more analytical. To account for this possibility, I include an additional control in my regression model—the number of domestic non-stopwords included in each speech. This variable should capture any differences in the analytical rhetoric due to the length of speeches that covaries with war and emotional rhetoric. A simple t-test across all presidents does indicate that presidents do speak less about domestic policy during wartime, about 19 non-stopwords less per speech. However, the model in column 3 indicates that even when controlling for this speech-level variable, the effect of war persists.

Table B2: Alternative Major War Models.

	(1) Presidential Approval	(2) Alt. Afghanistan End Date	(3) Speech Domestic Word Count
War	−0.084***	−0.138***	−0.080***
	(0.014)	(0.014)	(0.013)
Pres. Approval	−0.001***		
	(0.000)		
Domestic Travel Speech	−0.142***	−0.142***	−0.166***
	(0.006)	(0.006)	(0.006)
International Travel Speech	0.004	0.004	0.030+
	(0.018)	(0.018)	(0.017)
Pres. Reelection Year	−0.031**	−0.046***	−0.027**
	(0.009)	(0.009)	(0.009)
Midterm Year	0.005	0.011	0.009
	(0.008)	(0.008)	(0.008)
Honeymoon	0.062***	0.050***	0.055***
	(0.012)	(0.012)	(0.011)
Pres. Ideology vs House Majority Median	−0.038*	−0.020	−0.037*
	(0.018)	(0.018)	(0.018)
Pres. Ideology vs Senate Majority Median	0.058***	0.029+	0.052***
	(0.016)	(0.016)	(0.015)
Term	−0.026**	−0.037***	−0.021*
	(0.009)	(0.008)	(0.008)
Non-Stopword Count	0.007***	0.007***	0.007***
	(0.000)	(0.000)	(0.000)
Total Speech Domestic			0.000***
Non-Stopword Count			(0.000)
Fixed Effects			
President	✓	✓	✓
Topic	✓	✓	✓
Month	✓	✓	✓
Speech Types	✓	✓	✓
Num.Obs.	204,502	207,814	207,814
R2 Adj.	0.171	0.171	0.174
R2 Within Adj.	0.041	0.042	0.046

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note: Coefficients are from ordinary least squares models. The dependent variable is a standardized relative measure of analytical language use (more positive coefficients) relative to moral-emotional language use (more negative coefficients). All models include only domestic policy paragraphs. Column 1 reports results for a model that includes presidential approval from 1941 on. Columns 2 report results for a model where the post-September 11th wars "end" after the "Mission Accomplished" speech in May 2003. Column 3 reports results for a model that includes the total number of domestic paragraph non-stopwords in a speech. Standard errors are clustered at the speech-level.

Table B3: Performance Statistics for Topic Labeling

	Precision	Recall	F1-score	Support
Domestic	0.84	0.92	0.88	10960
Foreign Affairs	0.85	0.78	0.81	5223
Non-policy	0.67	0.48	0.56	2099
Accuracy			0.83	18282
Macro Average	0.79	0.73	0.75	18282
Weighted Average	0.83	0.83	0.82	18282

B.2   Alternative Topic Models

As with any machine learning task, the quantity of interest is measured with error. Given the argument—that domestic policy speeches become more moral-emotional during war—it is important to correctly identify and exclude foreign policy-speeches. Here, I present results from two alternative topic modeling strategies to provide further support for the Wartime Rhetoric Hypothesis.

First, I simplify the supervised learning task by reducing the number of estimated topics from eight to three. These three topics include: foreign affairs and non-policy as in the eight topic classification task. Then, all six domestic topics are grouped into a single domestic category. This re-classification simplifies the model's predictive task, and the within-domain accuracy increases to 0.83 (from 0.71 in the main model) and 0.77 cross-domain accuracy (from 0.69 in the main model). Although the performance statistics improve from the eight topic model (which makes sense given the smaller number of classes), it is no longer possible to control for changes in the domestic agenda with the three topic model.

In columns 1 and 2 of Table B4, I replicate the main tests of whether presidents' domestic policy speeches become more moral-emotional during war—during the invasion of Afghanistan in column 1 and across all major wars in column 2. The coefficients are negative (more moral-emotional language) and statistically significant as expected. The magnitude of the coefficients are also larger—suggesting that war induces more moral emotional language than in main text. However, these results could result from either (i) better accuracy or (ii) changes in the domestic agenda favoring more naturally moral-emotional topics (e.g., social rather than economic issues). In either case, the three topic model results continue to support the Wartime Rhetoric Hypothesis.

Then, as Knox, Lucas and Cho (2022, 20.21) note, "in the supervised case, a simple and consistent estimator exists: fitting a model using only the labeled data." That is, regress-

Table B4: Alternative Topic Classification using Only Domestic Policy Speeches.

	(1)	(2)	(3)	(4)
	3-Topic Models		SOTU Only	
	Afghanistan	Major Wars		
War	−0.259***	−0.093***	−0.012*	−0.010
	(0.033)	(0.016)	(0.006)	(0.007)
Domestic Travel Speech	−0.234***	−0.140***		
	(0.032)	(0.007)		
International Travel Speech	0.023	−0.009		
	(0.145)	(0.021)		
Pres. Reelection Year		−0.029**		−0.006
		(0.011)		(0.007)
Midterm Year		−0.002		0.001
		(0.010)		(0.006)
Honeymoon		0.044**		0.016+
		(0.014)		(0.009)
Pres. Ideology vs House Majority Median		−0.059**		−0.017
		(0.021)		(0.013)
Pres. Ideology vs Senate Majority Median		0.171***		0.014
		(0.018)		(0.012)
Term		−0.029**		−0.015*
		(0.010)		(0.007)
Non-Stopword Count	0.009***	0.010***	0.005***	0.005***
	(0.001)	(0.000)	(0.000)	(0.000)
Fixed Effects				
President		✓	✓	✓
Topic			✓	✓
Month		✓		
Speech Types	✓	✓		
Num.Obs.	11,346	280,187	8,982	8,982
R2 Adj.	0.111	0.111	0.200	0.206
R2 Within Adj.	0.068	0.055	0.064	0.070

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Note: Coefficients are from ordinary least squares models. The dependent variable is a relative measure of analytical language use (more positive coefficients) relative to moral-emotional language use (more negative coefficients). All models include only domestic policy paragraphs. Columns 1 and 2 report results for a three-topic model including domestic, foreign affairs, and non-policy topics. These models are more accurate but do not allow for within-domestic policy fixed effects. Columns 3-4 report results using only human-labeled State of the Union Address quasi-sentences from 1946-2020 (the training data). Standard errors are clustered at the speech-level.

ing the dependent variable on the training data with gold-standard, human-annotated labels can give us a sense of the model performance and representativeness of the training data. In this case, the training data is human-labeled topics from all State of the Union Addresses from 1946 through 2020. Although this data is at the quasi-sentence (rather than paragraph) level, it has one key advantage: it is the population of State of the Union Addresses, which are non-discretionary and occur annually at the beginning of the year. As in the main models, I drop all quasi-sentences with fewer than 5 non-stopwords. As in the original training model, I collapse the human-annotated labels into eight larger topics, which are then used as fixed effects. I drop the foreign affairs and non-policy topics from these models. Additionally, because this is a different population of speeches, the dependent variable in the State of the Union Address analysis has not been standardized, and therefore, the magnitude is not directly comparable to other models in this paper.

In column 3, I present results only controlling for non-stopword count and include both president and topic fixed effects. In column 4, I add the set of controls used in Table 3 of the main text. The results are consistent with those using the machine-labeled data. The coefficient is negative and statistically significant in column 3, providing further evidence in support of the Wartime Rhetoric Hypothesis. The coefficient is negative and of a similar size to that of column 3, but it is not statistically significant. However, this corpus is very small, with only a few speeches per president. Including so many controls and clustered standard errors places great demands on the data. Taken together, the results from these models should provide further confidence in the machine-labeled data and results from the main manuscript.

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