

Fighting Words

How Presidents Go Public in War and Peace

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Abstract

How does war, and its implications for presidential power, change presidential leadership? Theories of going public emphasize the limits of presidential persuasion—but they focus on peacetime politics. In war, presidents are endowed with larger, more compliant coalitions; a mechanism, I argue, that changes how presidents go public. Empowered, wartime presidents use more moral-emotional rhetoric to mobilize their broader base around both foreign *and domestic* policy. Weaker, peacetime presidents use more analytical language to build policy support. I collect all presidential statements delivered since 1933, code their topics, and use word embeddings to measure moral-emotional (relative to analytical) language in 478,000 spoken paragraphs. I support my argument with evidence from the exogenous onset of the 2001 Afghanistan War and with correlational evidence from four major wars. 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. Such expansive power is rare for presidents who are otherwise institutionally weak (Neustadt 1990). To pass policy, win reelection, and

cement their legacies (Light 1999; Howell and Moe 2016), they must build and manage coalitions with divergent preferences (Edwards 2000). In these efforts, modern presidents “go public,” rejecting inter-branch bargaining and appealing to Americans to put pressure on lawmakers (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 through the mechanism of coalition strength. Because presidents can be more confident in the size and compliance of their coalition during war (versus peace), they will use more moral-emotional (and less analytical) language to mobilize their larger, more compliant base (rather than recruit new supporters). To summarize my theory: presidents succeed by managing coalitions (Edwards 2000)—recruiting new supporters and mobilizing their base (Galvin 2009, 2020; Kriner and Reeves 2015). How do presidents rhetorically approach these two goals? At least since Aristotle (2020 [350 BCE]), scholars have emphasized the role of rational argument (*logos*) and emotional appeals (*pathos*) in persuasion. However, subsequent research

has shown that reason and emotion produce different behavioral outcomes (e.g., Druckman 2022). Where facts change minds (Blumenau and Lauderdale 2022; Broockman and Kalla 2022), feelings mobilize (Hawley 2021; Jung 2020; Valentino et al. 2011). Thus, presidents focused on recruiting new supporters will use informational language (Ban, Park and You 2023; Krehbiel 1991) while presidents who want to mobilize existing supporters use moral and emotional appeals (cf. Hawley 2021). Although various factors could influence a president’s balance of recruitment and mobilization efforts, war provides a stark test of this theory given the unusual degree of public and elite deference afforded to the president (e.g. Canes-Wrone 2006; Howell, Jackman and Rogowski 2013; Rottinghaus 2010). Thus, I hypothesize that presidents use more moral-emotional language (relative to informational language) during war (as compared to peace). 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 domestic political agenda. I support this hypothesis, and test the mechanism, in the context of the 2001 invasion of Afghanistan, where “the impetus for war was plausibly exogenous” (Howell and Rogowski 2013, 155). I also provide correlational evidence from all major wars since 1933. 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 elite 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 on domestic issues. Presidents expend considerable effort trying to build support for their agendas, 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 the behavioral implications of those appeals (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* 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

¹Presidents 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).

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

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.

Article II gives the executive limited legislative influence, and presidents are reliant on congressional allies to take up and 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 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

²For 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.

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 2023b), 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 resources 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 March 4, 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 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 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 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

³I 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.

⁴The 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.

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 comprises 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, 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 ma-

⁵The 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.

trix 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 unidimensional “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 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

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



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

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—consistent with theories of presidential travel (Cohen 2009; Heith 2013). 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 analytical language on average. Consistent with expectations, the analytical paragraphs more often 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 para-

Table 1: Most Analytical and Moral-Emotional W. Bush Paragraphs About the Economy 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 paragraphs. 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.

graphs 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 existing 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 Addresses (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 be-

tween 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 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

⁶A 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.

27, 1950 to July 27, 1953 for the Korean War, and February 7, 1965 to January 27, 1973 for the Vietnam War. The authors did not (and could not) provide an end-date for the war in Afghanistan, but I use the official end of the conflict on August 30, 2021.

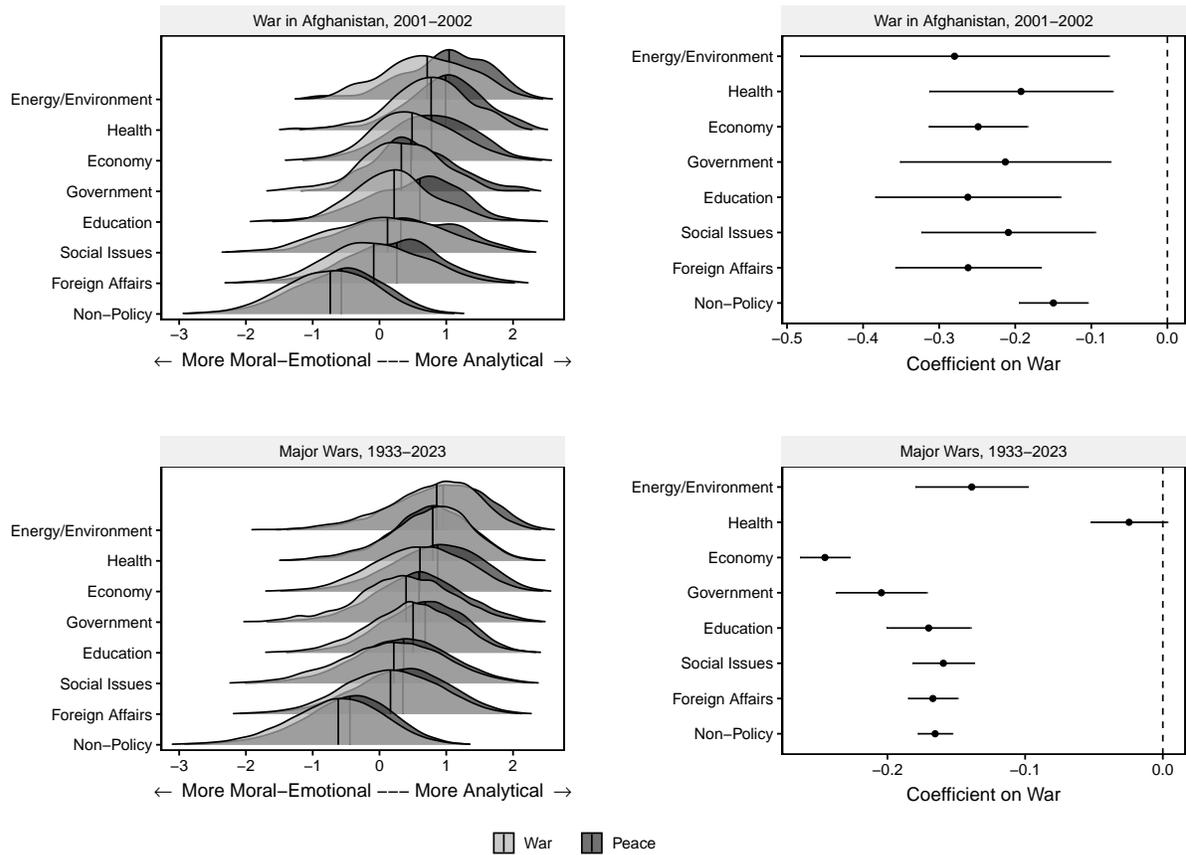
To formally test the Wartime Rhetoric Hypothesis, I use ordinary least squares to regress each paragraph's analytical/moral-emotional score on an indicator for whether a paragraph was delivered on or after October 7, 2001 (on days on which a major war was occurring) for the first (second) analysis. All 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 some regressions, 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 whether government is fully unified. 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

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.

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. For all topics, the median paragraph score within each topic becomes more moral-emotional in

war. The 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 with $p < 0.1$. 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

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*** (0.051)	–0.194*** (0.027)		–0.179*** (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*** (0.041)	–0.242*** (0.028)	–0.240*** (0.027)	–0.194*** (0.021)
International Travel Speech	0.051 (0.071)	0.060 (0.090)	0.069 (0.087)	0.040 (0.064)
Non-Stopword Count	0.008*** (0.001)	0.006*** (0.001)	0.006*** (0.001)	0.007*** (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.

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 becomes 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

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

A Mechanism Test

The results from Table 2 provide evidence that W. Bush's rhetoric becomes more moral-emotional at the onset of the Afghanistan War, consistent with a sharp change in the president's coalitional strength. However, the war in Afghanistan, and later Iraq, become less popular as they wore on—implying that the president's coalition weakened over time. If coalition strength is a mechanism connecting war and rhetoric, then we should see President Bush's speeches becoming less moral-emotional and more analytical over time.

I probe this mechanism with three empirical tests focused on the president's war-related approval, monthly wartime casualties, and cumulative casualties. I would expect increases in moral-emotional domestic policy language with higher war-related approval and increases in analytical language with higher casualties. To test these expectations, I collect all public opinion polls in the Roper Center (2024) database asking respondents about President Bush's handling of the War on Terror.⁷ This effort yields 347 unique surveys that exited the field between October 28, 2001 and August 4, 2008.⁸ To construct the independent variable, I sum the percentage of approving responses (including strong and weak approval) per poll. If multiple polls exited the field on the same day, responses are averaged across polls. Then, these approval results are assigned to speeches given on and after the day they exit the field until the next poll exits the field (or until August 31, 2008). As an alternative to approval, I leverage data from Donovan et al. (2019) that accounts for US military casualties in these wars. In theory, casualties and rallies are negatively correlated (e.g., Mueller 1973), and as such, increasing casualties should decrease

⁷Citations to included polls can be found in the associated Dataverse package.

⁸These questions specifically ask about the War on Terror. I exclude surveys specifically asking about e.g., Iraq, requests for congressional spending on the war, etc. Although these questions are all conceptually similar, the polling organizations, question wording, and response options vary.

Table 3: W. Bush's Rhetoric Becomes more Moral-Emotional (–) when War Approval Increases and Factual (+) as Casualties Increase

	(1)	(2)	(3)
	Domestic Only (10/2001 - 08/2008)		
Pct. Approve of War Handling	–0.004*** (0.001)		
Monthly Casualties		0.001*** (0.000)	
Cumulative Casualties (1000s)			0.038*** (0.006)
Domestic Travel Speech	–0.162*** (0.017)	–0.170*** (0.017)	–0.157*** (0.017)
International Travel Speech	0.022 (0.052)	0.022 (0.054)	0.013 (0.051)
Pres. Reelection Year	–0.055** (0.018)	–0.076*** (0.018)	–0.039* (0.019)
Midterm Year	–0.067*** (0.018)	–0.077*** (0.019)	–0.063*** (0.018)
Honeymoon	0.099 (0.081)	0.019 (0.079)	0.063 (0.079)
Unified Govt	0.039* (0.017)	0.019 (0.019)	0.062*** (0.017)
Non-Stopword Count	0.007*** (0.000)	0.007*** (0.000)	0.007*** (0.000)
Fixed Effects			
Speech Types	✓	✓	✓
Topic	✓	✓	✓
Month	✓	✓	✓
Num.Obs.	26,532	26,532	26,532
R2 Adj.	0.207	0.206	0.209
R2 Within Adj.	0.056	0.055	0.058

+ 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). The models are fit on data for George W. Bush only, between October 28, 2001 and August 31, 2008. Term has been dropped from the model due to multicollinearity.

the president's coalitional strength.

I test the mechanism in Table 3 using ordinary least squares. Consistent with expectations, in column 1, the president's rhetoric is more moral-emotional when war-related

approval, and thus coalition strength, is higher. Also consistent with expectations, the president's rhetoric becomes more analytical when (i) monthly casualties increase and (2) as cumulative casualties mount.

These results provide support for the theorized mechanism, however, they should be interpreted with caution. These models focus on a single president and a discrete, major war. Approval and cumulative casualties are (imperfectly) correlated with time, decreasing and increasing respectively. Monthly casualties are more variable, but do tend to increase as the war wears on. To some extent, wartime coalitions decline over time, so these collinearities are expected—but they cannot be separated from the distinct features of the 2001-2008 period. However, the president's domestic policy rhetoric is more moral-emotional when variables associated with coalition strength vary, consistent with expectations.

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 4 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.

In column 1, I provide evidence that during major wars, presidents use about 0.07 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.

Table 4: 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	–0.067*** (0.017)	–0.082*** (0.014)	–0.109*** (0.024)	–0.169*** (0.005)	–0.069*** (0.010)
Domestic Travel Speech	–0.127*** (0.010)	–0.143*** (0.006)	–0.133*** (0.017)	–0.114*** (0.005)	–0.109*** (0.005)
International Travel Speech	–0.062*** (0.014)	0.002 (0.018)	–0.312*** (0.057)	–0.060*** (0.011)	–0.051*** (0.011)
Pres. Reelection Year	–0.006 (0.013)	–0.027** (0.009)	–0.083** (0.030)	–0.025** (0.008)	–0.023*** (0.007)
Midterm Year	0.015 (0.011)	–0.008 (0.008)	0.068*** (0.019)	–0.014* (0.007)	–0.002 (0.006)
Honeymoon	0.067*** (0.017)	0.032** (0.011)	–0.001 (0.035)	0.001 (0.010)	0.036*** (0.009)
Unified Govt	–0.007 (0.013)	0.042*** (0.009)	–0.083** (0.032)	0.066*** (0.006)	0.027*** (0.007)
Term	0.020+ (0.011)	–0.018* (0.008)	–0.031 (0.021)	–0.006 (0.006)	–0.013* (0.006)
Non-Stopword Count	0.007*** (0.000)	0.007*** (0.000)	0.009*** (0.000)	0.007*** (0.000)	0.008*** (0.000)
Fixed Effects					
President	✓	✓	✓		✓
Topic		✓	✓	✓	✓
Month	✓	✓	✓	✓	✓
Speech Types	✓	✓	✓	✓	✓
Num.Obs.	109,718	207,814	38,059	468,261	468,261
R2 Adj.	0.074	0.169	0.141	0.384	0.400
R2 Within Adj.	0.029	0.041	0.043	0.045	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). 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.

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 uniqueness

of 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 almost 0.17—perhaps a consequence of presidents using more moral-emotional rhetoric over time. Finally, column 5 replicates column 4 with 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 4 provide evidence that presidents’ rhetoric is more moral-emotional and less analytical during war.

Robustness Tests

Absolute Measure of Moral-Emotional Rhetoric: Although my theory and measurement are focused on relative changes in analytical and moral-emotional language, perhaps they should not be scaled on a single dimension. Additionally, the relative measure admits several possibilities including asymmetric increases or decreases in both types of language during war. The results in Table B3 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.

Alternative Model Specifications: In Table B4, 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 models in Table 4 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 is 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.

Topic Labeling Error: Are these results sensitive to error in the topic labeling? 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 each year.⁹ 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.

War's Effects on Other Elite Rhetoric: 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 ef-

⁹One key difference is that this data is at the quasi-sentence, rather than the paragraph, level.

fort to rule out this alternative explanation, I examine nearly four million 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). I apply the same word embedding and supervised learning approaches to scale and topic-label speeches. In Appendix Table C.1, I assess the relationship between war and moral-emotional congressional rhetoric on domestic policy speeches. 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 particular effects on presidential rhetoric.

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 rhetoric of war to mobilize their larger base around their foreign and domestic policies. 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 also support the mechanism of coalition strength by analyzing changes in Bush’s rhetoric throughout the war as support declined. 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., Blume-
nau and Lauderdale 2022; Coppock 2022) to bridge the gap between going public (Canes-

Wrone 2006; Kernell 1997) and 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 generate legislative success, and does that depend on the incidence of war, or other factors conditioning presidents’ coalitional strength? 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 (Rags-

dale 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 rhetorical 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 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 information. 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.

References

- Aristotle. 2020. *Art of Rhetoric*. Loeb Classical Library 193 Cambridge, MA: Harvard University Press.
- Arnold, R. Douglas. 1990. *The Logic of Congressional Action*. Yale University Press.
- Ban, Pamela, Ju Yeon Park and Hye Young You. 2023. "How Are Politicians Informed? Witnesses and Information Provision in Congress." *American Political Science Review* (1):122–139.
- Bellodi, Luca. 2023. "A Dynamic Measure of Bureaucratic Reputation: New Data for New Theory." *American Journal of Political Science* 67(4):880–897.
- Bennett, W. Lance. 1990. "Toward a Theory of Press-State Relations in the United States." *Journal of Communication* 40(2):103–127.
- Blumenau, Jack and Benjamin E. Lauderdale. 2022. "The Variable Persuasiveness of Political Rhetoric." *American Journal of Political Science* .
- Bolton, Alexander and Sharece Thrower. 2021. *Checks in the Balance: Legislative Capacity and the Dynamics of Executive Power*. Princeton University Press.
- Bond, Jon R. and Richard Fleisher. 1990. *The President in the Legislative Arena*. University of Chicago Press.
- Boudreau, Cheryl and Scott A. MacKenzie. 2014. "Informing the Electorate? How Party Cues and Policy Information Affect Public Opinion about Initiatives." *American Journal of Political Science* 58(1):48–62.
- Brady, William J., Julian A. Wills, John T. Jost, Joshua A. Tucker and Jay J. Van Bavel. 2017. "Emotion shapes the diffusion of moralized content in social networks." *Proceedings of the National Academy of Sciences* 114(28):7313–7318.
- Brody, Richard A. 1991. *Assessing the President: The Media, Elite Opinion, and Public Support*. Stanford, Calif: Stanford University Press.
- Brody, Richard A. and Catherine R. Shapiro. 1989. "Policy failure and public support: The Iran-Contra affair and public assessment of President Reagan." *Political Behavior* 11(4):353–369.
- Broockman, David E. and Joshua L. Kalla. 2022. "When and Why Are Campaigns' Persuasive Effects Small? Evidence from the 2020 U.S. Presidential Election." *American Journal of Political Science* n/a(n/a).
- Bush, George W. 2001. "Address Before a Joint Session of the Congress on the United States Response to the Terrorist Attacks of September 11."
URL: <https://www.presidency.ucsb.edu/documents/address-before-joint-session-the-congress-the-united-states-response-the-terrorist-attacks>

- Cameron, Charles M. 2002. "Studying the Polarized Presidency." *Presidential Studies Quarterly* 32(4):647–663.
- Canes-Wrone, Brandice. 2006. *Who Leads Whom?: Presidents, Policy, and the Public*. Chicago: University of Chicago Press.
- Canes-Wrone, Brandice, William G. Howell and David E. Lewis. 2008. "Toward a Broader Understanding of Presidential Power: A Reevaluation of the Two Presidencies Thesis." *The Journal of Politics* 70(1):1–16.
- Cavari, Amnon. 2017. *The Party Politics of Presidential Rhetoric*. New York: Cambridge University Press.
- Christenson, Dino P. and Douglas L. Kriner. 2017. "Mobilizing the Public Against the President: Congress and the Political Costs of Unilateral Action." *American Journal of Political Science* 61(4):769–785.
- Christenson, Dino P. and Douglas L. Kriner. 2020. *The Myth of the Imperial Presidency: How Public Opinion Checks the Unilateral Executive*. University of Chicago Press.
- Cohen, Jeffrey E. 2006. "'The Polls': The Coalitional President from a Public Opinion Perspective." *Presidential Studies Quarterly* 36(3):541–550.
- Cohen, Jeffrey E. 2009. *Going Local: Presidential Leadership in the Post-Broadcast Age*. Cambridge; New York: Cambridge University Press.
- Coppock, Alexander. 2022. *Persuasion in Parallel: How Information Changes Minds about Politics*. Chicago, IL: University of Chicago Press.
- Dearborn, John A. 2021. *Power Shifts: Congress and Presidential Representation*. Chicago, IL: University of Chicago Press.
- Donovan, Kathleen, Paul M. Kellstedt, Ellen M. Key and Matthew J. Lebo. 2019. "Motivated Reasoning, Public Opinion, and Presidential Approval." *Political Behavior* .
- Druckman, James N. 2022. "A Framework for the Study of Persuasion." *Annual Review of Political Science* 25:65–88.
- Edwards, George C. 2000. "Building Coalitions." *Presidential Studies Quarterly* 30(1):47–78.
- Edwards, George C. III. 2003. *On Deaf Ears: The Limits of the Bully Pulpit*. New Haven, Conn.; London: Yale University Press.
- Edwards, George C. III and B. Dan Wood. 1999. "Who Influences Whom? The President, Congress, and the Media." *American Political Science Review* 93(2):327–344.
- Eshbaugh-Soha, Matthew. 2006. *The President's Speeches: Beyond "Going Public"*. Rienner.
- Eshbaugh-Soha, Matthew and Jeffrey S. Peake. 2011. *Breaking Through the Noise: Presidential Leadership, Public Opinion, and the News Media*. Stanford University Press.

- Fenno, Richard F. 1973. *Congressmen in Committees*. Boston, MA: Little, Brown and Company.
- Fournier, Ron. 2012. "How Bush's Emotions Mirrored Ours on 9/11."
URL: <https://www.theatlantic.com/politics/archive/2012/09/how-bushs-emotions-mirrored-ours-on-911/460752/>
- Galvin, Daniel J. 2009. *Presidential Party Building: Dwight D. Eisenhower to George W. Bush*. Princeton, N.J: Princeton University Press.
- Galvin, Daniel J. 2020. "Party Domination and Base Mobilization: Donald Trump and Republican Party Building in a Polarized Era." *The Forum* 18(2):135–168.
- Garten, Justin, Joe Hoover, Kate M. Johnson, Reihane Boghrati, Carol Iskiwitch and Morteza Dehghani. 2018. "Dictionaries and distributions: Combining expert knowledge and large scale textual data content analysis: Distributed dictionary representation." *Behavior Research Methods* 50(1):344–361.
- Gennaro, Gloria and Elliott Ash. 2022. "Emotion and Reason in Political Language." *The Economic Journal* 132(643):1037–1059.
- Gentzkow, Matthew, Jesse M. Shapiro and Matt Taddy. 2018. "Congressional Record for the 43rd-114th Congresses: Parsed Speeches and Phrase Counts."
- Gooch, Andrew. 2018. "Ripping Yarn: Experiments on Storytelling by Partisan Elites." *Political Communication* 35(2):220–238.
- Groeling, Tim and Matthew A. Baum. 2008. "Crossing the Water's Edge: Elite Rhetoric, Media Coverage, and the Rally-Round-the-Flag Phenomenon." *The Journal of Politics* 70(4):1065–1085.
- Groenendyk, Eric W. and Antoine J. Banks. 2014. "Emotional Rescue: How Affect Helps Partisans Overcome Collective Action Problems." *Political Psychology* 35(3).
- Hackenburg, Kobi, William J Brady and Manos Tsakiris. 2023. "Mapping moral language on US presidential primary campaigns reveals rhetorical networks of political division and unity." *PNAS Nexus* 2(6):pgad189.
- Hamilton, Alexander and James Madison. 2007. *The Pacificus-Helvidius debates of 1793-1794: toward the completion of the American founding*. Indianapolis: Liberty Fund.
- Hamilton, Alexander, John Jay and James Madison. 2001. *The Federalist*. The gideon edition ed. Indianapolis, IN: Libery Fund.
- Hawley, Michael C. 2021. "Beyond Persuasion: Rhetoric as a Tool of Political Motivation." *The Journal of Politics* 83(3):934–946.
- Heith, Diane J. 2013. *The Presidential Road Show: Public Leadership in an Era of Party Polarization and Media Fragmentation*. Paradigm Publishers.

- Howell, William G. and Jon C. Rogowski. 2013. "War, the Presidency, and Legislative Voting Behavior." *American Journal of Political Science* 57(1):150–166.
- Howell, William G., Saul P. Jackman and Jon C. Rogowski. 2013. *The Wartime President: Executive Influence and the Nationalizing Politics of Threat*. University of Chicago Press.
- Howell, William G. and Stephane Wolton. 2018. "The Politician's Province." *Quarterly Journal of Political Science* 13(2):119–146.
- Howell, William G. and Terry M. Moe. 2016. *Relic: How Our Constitution Undermines Effective Government—and Why We Need a More Powerful Presidency*. New York: Basic Books.
- Jeong, Gyung-Ho and Paul J. Quirk. 2019. "Division at the Water's Edge: The Polarization of Foreign Policy." *American Politics Research* 47(1):58–87.
- Jung, Jae-Hee. 2020. "The Mobilizing Effect of Parties' Moral Rhetoric." *American Journal of Political Science* 64(2):341–355.
- Kaufman, Aaron R. 2020. "Measuring the Content of Presidential Policy Making: Applying Text Analysis to Executive Branch Directives." *Presidential Studies Quarterly* 50(1):90–106.
- Kernell, Samuel H. 1997. *Going Public: New Strategies of Presidential Leadership*. Washington, D.C: CQ Press.
- Knox, Dean, Christopher Lucas and Wendy K. Tam Cho. 2022. "Testing Causal Theories with Learned Proxies." *Annual Review of Political Science* 25(1):annurev-polisci-051120-111443.
- Kozlowski, Austin C., Matt Taddy and James A. Evans. 2019. "The Geometry of Culture: Analyzing the Meanings of Class through Word Embeddings." *American Sociological Review* 84(5):905–949.
- Krehbiel, Keith. 1991. *Information and Legislative Organization*. University of Michigan Press.
- Kriner, Douglas L. and Andrew Reeves. 2015. *The Particularistic President: Executive Branch Politics and Political Inequality*. New York, NY: Cambridge University Press.
- Lee, Frances E. 2009. *Beyond Ideology: Politics, Principles, and Partisanship in the U. S. Senate*. Chicago: University of Chicago Press.
- Lewis, David. 1997. "The Two Rhetorical Presidencies: An Analysis of Televised Presidential Speeches, 1947-1991." *American Politics Quarterly* 25(3):380–395.
- Light, Paul. 1999. *The President's Agenda: Domestic Policy Choice from Kennedy to Clinton*. The John Hopkins University Press.

- Mahnken, Kevin. 2021. "9/11's Permanent Mark on NCLB: Tragedy, Triumph Failure." **URL:** <https://www.the74million.org/article/from-tragedy-to-triumph-to-failure-how-9-11-helped-pass-no-child-left-behind-and-fueled-its-eventual-demise/>
- Mayhew, David R. 2005. "Wars and American Politics." *Perspectives on Politics* 3(03).
- Miller, David Ryan. 2023. "The President Will See Whom Now? Presidential Engagement with Organized Interests." *American Political Science Review* 117(3):1019–1035.
- Miller, Joanne M. 2007. "Examining the Mediators of Agenda Setting: A New Experimental Paradigm Reveals the Role of Emotions." *Political Psychology* 28(6):689–717.
- Mueller, John. 1973. *War, Presidents and Public Opinion*. New York: John Wiley Sons Inc.
- Neustadt, Richard E. 1990. *Presidential Power and the Modern Presidents*. New York, NY: The Free Press.
- Nicholson, Stephen P. 2012. "Polarizing Cues." *American Journal of Political Science* 56(1):52–66.
- Noble, Benjamin S. 2023a. "Energy versus safety: unilateral action, voter welfare, and executive accountability." *Political Science Research and Methods* 11(3):468–482.
- Noble, Benjamin S. 2023b. "Presidential Cues and the Nationalization of Congressional Rhetoric, 1973-2016." *American Journal of Political Science* .
- Osnabrügge, Moritz, Elliott Ash and Massimo Morelli. 2021. "Cross-Domain Topic Classification for Political Texts." *Political Analysis* p. 1–22.
- Pennington, Jeffrey, Richard Socher and Christopher Manning. 2014. "Glove: Global Vectors for Word Representation." *Proceedings of the 2014 Conference on Empirical Methods in Natural Language Processing (EMNLP)* p. 1532–1543.
- Phoenix, Davin L. 2019. *The Anger Gap: How Race Shapes Emotion in Politics*. Cambridge University Press.
- Ragsdale, Lyn. 1984. "The Politics of Presidential Speechmaking, 1949-1980." *American Political Science Review* 78(4):971–984.
- Reeves, Andrew and Jon C. Rogowski. 2022. *No Blank Check: The Origins and Consequences of Public Antipathy towards Presidential Power*. Cambridge University Press.
- Rodriguez, Pedro L. and Arthur Spirling. 2022. "Word Embeddings: What Works, What Doesn't, and How to Tell the Difference for Applied Research." *The Journal of Politics* 84(1):101–115.
- Roper Center for Public Opinion Research. 2024. "The Roper Center for Public Opinion Research." **URL:** <https://ropercenter.cornell.edu/>

- Rossiter, Clinton. 1987. *The American Presidency*. Johns Hopkins University Press.
- Rottinghaus, Brandon. 2010. *The Provisional Pulpit: Modern Presidential Leadership of Public Opinion*. Texas AM University Press.
- Russell, Annelise and Rebecca Eissler. 2022. "Conditional Presidential Priorities: Audience-Driven Agenda Setting." *American Politics Research* 50(4):545–549.
- Rutledge, Paul E. and Heather A. Larsen Price. 2014. "The President as Agenda Setter-in-Chief: The Dynamics of Congressional and Presidential Agenda Setting." *Policy Studies Journal* 42(3):443–464.
- Schlesinger, Arthur M. Jr. 1986. *Imperial Presidency, the*. Boston: Houghton Mifflin Company.
- Schorpp, Susanne and Charles J. Finocchiaro. 2017. "Congress and the President in Times of War." *American Politics Research* 45(5):840–865.
- Seligman, Lester G. and Cary R. Covington. 1989. *The Coalitional Presidency*. Brooks/Cole Publishing Company.
- Sinclair, Barbara. 2006. *Party Wars: Polarization and the Politics of National Policy Making*. University of Oklahoma Press.
- Tulis, Jeffrey. 1987. *The Rhetorical Presidency*. Princeton University Press.
- Valentino, Nicholas A., Ted Brader, Eric W. Groenendyk, Krysha Gregorowicz and Vincent L. Hutchings. 2011. "Election Night's Alright for Fighting: The Role of Emotions in Political Participation." *The Journal of Politics* 73(1):156–170.
- Webster, Steven W. 2020. *American Rage: How Anger Shapes Our Politics*. Cambridge: Cambridge University Press.
- Wildavsky, Aaron. 1969. "The Two Presidencies." *Trans-Action* 4:230–243.
- Woolley, John and Gerhard Peters. N.d. "The American Presidency Project."
URL: <https://www.presidency.ucsb.edu/>
- Zaller, John and Dennis Chiu. 1996. "Government's little helper: U.S. press coverage of foreign policy crises, 1945–1991." *Political Communication* 13(4):385–405.
- Zaller, John R. 1992. *The Nature and Origins of Mass Opinion*. Cambridge England; New York, NY, USA: Cambridge University Press.

Supplementary Information

Fighting Words

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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.

Adapted from Ban, Park and You (2023).

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.

Adapted from Brady et al. (2017).

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*** (0.027)	0.366*** (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: Coefficients 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 Flesch 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 dur-

¹The 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.

ing which presidents aim to mobilize their base, a valid measure would point toward more moral-emotional language at rallies as compared to major national addresses 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 (Jones et al. 2023, 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.

²Some 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

Tables B1 and B2 present ordinary least squares regressions fit on speeches given during the 107th (2001-2002) Congress and all speeches given between 1933-2023, respectively. Models are fit on each topic individually. The dependent variable is a relative measure of analytical language use (more positive coefficients) relative to moral-emotional language use (more negative coefficients). These coefficients are used to produce Figure 1 in the main text. Coefficients for war in Table B1 (B2) are in top (bottom) right of Figure 1.

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

Table B1: Models Used to Produce Figure 1, Afghanistan Coefficients

	Energy/Environment	Health	Economy	Government	Education	Social	Foreign Affairs	Non-Policy
War	-0.280** (0.103)	-0.192** (0.061)	-0.249*** (0.033)	-0.213** (0.070)	-0.262*** (0.062)	-0.209*** (0.058)	-0.262*** (0.049)	-0.150*** (0.023)
Constant	0.990*** (0.073)	0.957*** (0.049)	0.768*** (0.022)	0.524*** (0.062)	0.508*** (0.051)	0.311*** (0.049)	0.198*** (0.044)	-0.619*** (0.020)
Num.Obs.	620	616	3063	559	1102	2179	4471	6348
R2	0.042	0.023	0.037	0.023	0.037	0.013	0.019	0.010

+ 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). Each model is fit on speech paragraphs of the specified topic given by George W. Bush during the 107th (2001-2002) Congress. Standard errors are clustered at the speech-level.

Table B2: Models Used to Produce Figure 1, Major Wars Coefficients

	Energy/Environment	Health	Economy	Government	Education	Social	Foreign Affairs	Non-Policy
War	-0.139*** (0.021)	-0.025+ (0.014)	-0.245*** (0.009)	-0.204*** (0.017)	-0.170*** (0.016)	-0.159*** (0.011)	-0.167*** (0.009)	-0.165*** (0.006)
Constant	0.902*** (0.014)	0.758*** (0.009)	0.829*** (0.005)	0.583*** (0.010)	0.658*** (0.009)	0.347*** (0.007)	0.318*** (0.006)	-0.492*** (0.003)
Num.Obs.	18920	16077	88382	16612	17173	54564	112234	154402
R2	0.009	0.000	0.029	0.019	0.016	0.010	0.013	0.013

+ 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). Each model is fit on speech paragraphs of the specified topic given by presidents between 1933-2023. Standard errors are clustered at the speech-level.

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 B3, 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 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 B3 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

Table B3: War Increases Moral-Emotional Rhetoric, Decreases Analytical Rhetoric

Dependent Variable	(1)	(2)	(3)	(4)
	Afghanistan, 2001-2002		Major Wars, 1933-2023	
	Moral-Emotional	Analytical	Moral-Emotional	Analytical
War	0.131*** (0.023)	-0.057*** (0.015)	0.038*** (0.010)	-0.032*** (0.007)
Domestic Travel Speech	0.256*** (0.024)	0.033* (0.015)	0.112*** (0.005)	-0.008* (0.004)
International Travel Speech	-0.084+ (0.050)	-0.033 (0.039)	-0.018+ (0.010)	-0.062*** (0.008)
Pres. Reelection Year			0.006 (0.007)	-0.016** (0.005)
Midterm Year			0.005 (0.006)	0.003 (0.004)
Honeymoon			-0.002 (0.009)	0.032*** (0.006)
Unified Govt			-0.041*** (0.008)	-0.009+ (0.005)
Term			-0.022*** (0.006)	-0.031*** (0.005)
Non-Stopword Count	0.008*** (0.000)	0.013*** (0.000)	0.007*** (0.000)	0.013*** (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.

coefficients in columns 2 and 4 provide evidence that presidents use less analytical language 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 con-

tent of speeches does decrease both relatively and absolutely.

The models in Table B4 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 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 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.

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

Table B4: Alternative Major War Models.

	(1)	(2)
	Presidential Approval	Speech Domestic Word Count
War	-0.087*** (0.014)	-0.084*** (0.013)
Pres. Approval	-0.001*** (0.000)	
Domestic Travel Speech	-0.142*** (0.006)	-0.166*** (0.006)
International Travel Speech	0.003 (0.018)	0.029+ (0.017)
Pres. Reelection Year	-0.025** (0.009)	-0.023* (0.009)
Midterm Year	-0.003 (0.008)	0.001 (0.008)
Honeymoon	0.048*** (0.012)	0.040*** (0.011)
Unified Govt	0.031** (0.010)	0.032*** (0.009)
Term	-0.020* (0.008)	-0.014+ (0.008)
Non-Stopword Count	0.007*** (0.000)	0.007*** (0.000)
Total Speech Domestic Non-Stopword Count		0.000*** (0.000)
Fixed Effects		
President	✓	✓
Topic	✓	✓
Month	✓	✓
Speech Types	✓	✓
Num.Obs.	204,502	207,814
R2 Adj.	0.171	0.174
R2 Within Adj.	0.041	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. Column 2 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 B5: 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

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 B6, 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, regressing 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, some of 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

Table B6: Alternative Topic Classification using Only Domestic Policy Speeches.

	(1)	(2)	(3)	(4)
	3-Topic Models		SOTU Only	
	Afghanistan	Major Wars		
War	-0.259*** (0.033)	-0.093*** (0.015)	-0.012* (0.006)	-0.010 (0.007)
Domestic Travel Speech	-0.234*** (0.032)	-0.140*** (0.007)		
International Travel Speech	0.023 (0.145)	-0.012 (0.020)		
Pres. Reelection Year		-0.019+ (0.011)		-0.005 (0.007)
Midterm Year		-0.013 (0.009)		0.000 (0.006)
Honeymoon		0.023+ (0.013)		0.015 (0.009)
Unified Govt		0.083*** (0.011)		-0.003 (0.007)
Term		-0.025** (0.010)		-0.014* (0.006)
Non-Stopword Count	0.009*** (0.001)	0.010*** (0.000)	0.005*** (0.000)	0.005*** (0.000)
Fixed Effects				
President		✓	✓	✓
Topic			✓	✓
Month		✓		
Speech Types	✓	✓		
Num.Obs.	11,346	280,187	8,982	8,982
R2 Adj.	0.111	0.110	0.200	0.205
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.

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.

C Alternative Explanation: All Elite Rhetoric Becomes More Moral-Emotional

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),³ a total of nearly four million speeches.⁴

In Table C1, I present results mirroring those in the two presidential analyses in the main text. 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

³Presidential 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).

⁴Following Noble (2023), 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 presidential speech data, lame duck periods are excluded.

Table C1: War and Congressional Moral-Emotional (–) Rhetoric Relative to Analytical (+) Rhetoric in Domestic Policy Speeches

	Senate			House		
	(1) Afghanistan (2001-2002)	(2) Major Wars (1933-2023)	(3) Major Wars (1933-2023)	(4) Afghanistan (2001-2002)	(5) Major Wars (1933-2023)	(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.

not the Senate where the switch occurred. Finally, the results in columns 3 and 6 look at the entire 90 year period. 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.

References

- Ban, Pamela, Ju Yeon Park and Hye Young You. 2023. "How Are Politicians Informed? Witnesses and Information Provision in Congress." *American Political Science Review* (1):122–139.
- Boydston, Amber E. 2014. "New York Times Front Page Dataset."
URL: https://www.comparativeagendas.net/datasets_odebooks
- Brady, William J., Julian A. Wills, John T. Jost, Joshua A. Tucker and Jay J. Van Bavel. 2017. "Emotion shapes the diffusion of moralized content in social networks." *Proceedings of the National Academy of Sciences* 114(28):7313–7318.
- Gentzkow, Matthew, Jesse M. Shapiro and Matt Taddy. 2018. "Congressional Record for the 43rd-114th Congresses: Parsed Speeches and Phrase Counts."
- Hill, Kim Quaile and Patricia A. Hurley. 2002. "Symbolic Speeches in the U.S. Senate and Their Representational Implications." *The Journal of Politics* 64(1):219–231.
- Jones, Bryan D., Frank R. Baumgartner, Sean M. Theriault, Derek A. Epp, Rebecca Eissler, Cheyenne Lee and Miranda E. Sullivan. 2023. "State of the Union Address Data."
URL: https://www.comparativeagendas.net/datasets_odebooks
- Knox, Dean, Christopher Lucas and Wendy K. Tam Cho. 2022. "Testing Causal Theories with Learned Proxies." *Annual Review of Political Science* 25(1):annurev-polisci-051120-111443.
- Noble, Benjamin S. 2023. "Presidential Cues and the Nationalization of Congressional Rhetoric, 1973-2016." *American Journal of Political Science* .
- Osnabrügge, Moritz, Elliott Ash and Massimo Morelli. 2021. "Cross-Domain Topic Classification for Political Texts." *Political Analysis* p. 1–22.
- Scacco, Joshua M. and Kevin Coe. 2021. *The Ubiquitous Presidency: Presidential Communication and Digital Democracy in Tumultuous Times*. Oxford University Press.
- Wolbrecht, Christina. 2016. "U.S. Party Platforms Data."
URL: https://www.comparativeagendas.net/datasets_odebooks