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Abstract

This dissertation examines the extent to which the military as a professional, trusted, and credible institution can influence public opinion on politically contentious issues facing the nation, including climate change, the national debt, and gender identity. I use original survey-experimentation to establish (1) the conditions under which the military can influence public attitudes on political issues, (2) the role public credibility in the military plays in this process, and (3) the potential consequences of military engagement on these issues. Research shows that the military can sway public opinion on the use of force issues, but few studies measure the military's reach to shape opinion beyond the use of force and into non-military issues.

Partisan cues often cause a back-fire effect whereby cross-partisans respond to cues by adopting the opposite policy positions. Although the military is often associated with conservative ideology, I theorize that the high levels of credibility and trust in the military from both Republican and Democratic Americans allow the military to effectively engage in co- and cross-partisan messaging without a back-fire effect. Moreover, I theorize that the military's effectiveness at messaging will allow it to influence not only general attitudes but also preferences on specific, concrete policy options.

Using an experiment embedded in surveys of the American public, chapters one and two present evidence that the military can influence public attitudes on climate change and the national debt. On the issue of climate change, the US military can be more effective than the scientific community at shaping public beliefs that climate change is occurring, that it is a threat to US national security, and that steps must be taken to prevent further temperature rising. This effect is particularly pronounced when the issue is framed as a security threat, but when the scientific community delivers the same security cue, treatment effects are not present. Despite Republicans being less inclined to think climate change is occurring or support preventative policies, Republicans are especially responsive to the military. Nearly half of all Republicans who do not think climate change is occurring but receive a security-based cue from the military update their position. When the NAS delivers the same message about climate change, the treatment effects are not present.

On the issue of the national debt, I compare the effectiveness of national security cues about the growing national debt delivered by the military and Republican congressional representatives on the House Armed Services and Budget Committees. I find that military cues are effective on both co- and cross-partisans, causing the public to, on average, increase perceptions that debt hurts national security and to report that more should be done to prevent the debt from growing. However, the evidence also reveals a partisan-motivated public in which Republican cues lead Democrats to report personal positions more dissonant than those advocated in the cue.

Chapter three investigates the consequences of military engagement on politically contentious issues like transgender employment practices, climate change, and fiscal spending. Traditional civil-military norms prescribe that political engagement by the military may erode the public's high confidence in the military. These norms suggest that military elites who speak publicly about military operations decrease public perceptions of the military, but little attention has been given in this literature to whether the military's positions on political issues unrelated to the use of force may also affect public perceptions of the military.

I present evidence of a partisan public that does not value the traditional apolitical norm but instead evaluates the military's position and updates its views of the military. Democrats report higher levels of trust in and credibility of the military when exposed to the military's pro-climate position but report lower levels of trust in and credibility of the military when exposed to the military's restrictions on transgender people joining the military. By contrast, Republicans who disagree with the military's position generally resist changing their views of the military. When presented with a potentially dissonant message about the military, Republicans instead engage in motivated reasoning and attribute the military's position to outside political influence. Importantly, I illustrate the downstream effects of the military's position on its effectiveness to influence opinions on another unrelated issue. Democrats who gain trust and credibility in the military from its position on climate change are more likely to oppose transgender people serving in the military and support other organizations being allowed to incorporate someone's gender identity into employment decisions.

Overall, these results show that the military can have important effects on public opinion on non-military issues, but there is a long-term risk to its institutional image the more it gets involved in these politically contentious topics.

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Introduction

Project Overview

Hostility toward cross-partisan elites is an increasingly observable trend in the US. When political ideologies clash, the partisan-public systematically filters issue-cues by institutions, politicians, and academics, often sanctioning experts who do not share the same political views. Partisans entrench, and policy stagnates.

The American public need credible sources to navigate a complex set of issues. I study whether the US military can fill this role and bridge the partisan divide. For decades, the US military has remained one of the most trusted and favored institutions among both Republicans and Democrats. Research shows that the military can sway public opinion on the use of force (Robinson 2018; Golby, Feaver, and Dropp 2017), but few studies measure the military's reach to shape opinion on other political issues. Within this framing, my dissertation examines the extent to which the military as a professional, trusted, and credible institution can influence public opinion on politically contentious issues facing the nation, include climate change, the national debt, and gender identity. Furthermore, if the military can influence public opinion, how will the public react and will repeated interventions degrade perceptions of the institution?

To answer these questions, I use original survey-experimentation to determine (1) the conditions under which the military can influence public attitudes on political issues, (2) the role public credibility in the military plays in this process, and (3) the potential consequences of military engagement on these issues. The dissertation comprises three chapters that collectively demonstrate that the military has significant influence to inform public attitudes on non-traditional military issues. I trace the military's effectiveness as a source of political information to high levels of credibility and to its ability to frame issues in terms of national security. However, my results also show that the institution's

credibility can suffer when it takes positions that are in conflict with those of some partisans.

Theory Overview

When individuals lack resources to form expert opinions on political issues, they look toward elite cues as heuristics to formulate an opinion (Zaller 1992; Lupia and McCubbins 1998). Cues from elites whom one sees as credible or informative may convince that individual to adopt that same viewpoint (Golby, Feaver, and Dropp 2017; James N. Druckman 2001). These include co-partisan political leaders (Benegal and Scruggs 2018; Zaller 1992), the media (McDonald 2009), policy experts (Guisinger and Saunders 2017), and international institutions (Grieco et al. 2011).

As issue complexity increases, individuals pay closer attention to the attributes of the source itself (Golby, Feaver, and Dropp 2017). Sources that an individual perceives as politically independent (Grieco et al. 2011), expert (Golby, Feaver, and Dropp 2017), like-minded (Siegrist, Cvetkovich, and Roth 2000; Charles S. Taber and Milton Lodge 2006), and politically similar (Kahan, Jenkins-Smith, and Braman 2011; Benegal and Scruggs 2018) are classified as highly credible and can exert greater influence the individual's issue beliefs and preferences (Robinson 2018).

Americans attribute the US military with many of these qualities. Military scholars suggest the public's confidence and trust in the military arises from the perception that the military is competent, accountable, non-partisan, politically independent, and subordinate to the interests of those in society (Hill, Wong, and Gerras 2013; Owens 2015, Newport 2017). Americans also associate high confidence in the military to the professionalism of its servicemembers and their commitment to a calling of service (Burbach 2017; Hill, Wong, and Gerras 2013).

For these reasons, I contend that the military is also an effective source of political information able to influence public attitudes on non-use of force issues. If the military is

an effective source of political information able to persuade people or attitudes on non-use of force issues, the military's position on climate change, the national debt, or even gender identity should lead at least some members of the American public to change their opinion more in congruence with the military's.

Chapter 1 - The US Military: An Old but New Voice in Climate Change Public Opinion

In this first chapter, I examine the extent to which the military as a trusted, expert and credible institution on national security issues can inform public opinion on climate change, a traditionally non-military yet highly polarized issue. Climate change represents a hard test for the military to influence the attitudes of Republicans as they have been shown to discount information from domain experts and resist updating their opinions. Using an experiment embedded in a survey of the American public, I compare the effects of the US military and the National Academy of Sciences (NAS) and security-based cues against environmental-based cues finding that the US military moves public opinion on climate change across all political parties and more effectively than the NAS. When the military issues a cue about the national security implications of climate change it raises the public's perception that climate change is happening and that more should be done to prevent further changes in the climate. When the NAS issues the same security cue, the same treatment effects are not present.

Across a nationally representative sample, security-based climate change cues delivered by the military cause a 10% increase in the number of people who believe climate change is occurring, a 22% increase in the belief that climate change threatens US national security, and a 13% increase in the belief that more should be done to prevent climate change. Among Republicans, the treatment effects are larger. A security-based cue from the military causes a 16% increase in the number of Republicans who think climate change

is occurring and a 16% increase in the preference among Republicans that more should be done to prevent climate change.

Using causal mediation analysis, I show that people's increased preference to prevent climate change is mediated through increased perceptions of the security threat climate change poses to the US. While military cues in general increased people's perceptions that climate is occurring, only security-based cues caused the general public, including Republicans, to want to increase prevention. The NAS was successful at increasing perceptions that climate change hurt national security but issuing a national security cue outside its primary expertise did not cause a change in attitudes of prevention. Republicans actually report wanting to do less to prevent climate change in response to such a cue. To move public opinion, it takes the combination of the credible source and the appropriate message.

These findings illustrate how far reaching and potentially powerful the US military's voice can be. As an in-group communicator, the military has particular sway with Republicans even in issue areas where partisan ideology has been shown to bias information from issue experts. Although Democrats reported relatively high baseline beliefs in climate change, evidence suggests that Democrats also respond positively to the military.

Chapter 2 - Going Against the Partisan Grain? Public Response to Security Implications of Debt

In chapter two, I further investigate the determinants and reach of military influence on non-use of force issues and trace the interaction between source credibility and national security. While climate change represented a hard test for whether the military can move Republicans, the issues of national debt and fiscal policy represent a hard test for Democrats. Furthermore, I examine the standing assumption in civil-military relations literature that military elites can shape opinions on military issues due to the credibility

gained from wearing the uniform. This assumption has largely escaped a degree of academic scrutiny.

Since former Chairman of the Joint Chiefs of Staff, Admiral Michael Mullen, named the national debt as the number one threat to US national security,¹ multiple Secretaries of Defense and State have attempted to communicate to congress the dangers of an increasing debt on both the economy and national defense. A growing debt burden weakens the American economy, constrains funding for a strong military, and draws resources away from investments essential for economic strength. This raises the question of whether individuals associated with the military have the same impact as the institution itself.

Using a survey that presented members of the public with cues about the national security implications of a growing national debt, I compare the effectiveness of cues from the military, the former Chairman of the Joint Chiefs of Staff (CJCS), and Republican congressional representatives on the House Armed Services Committee. I find that military cues are effective for both co- and cross-partisans, causing the public to increase perceptions that debt hurts national security and to report that more should be done to prevent the debt from growing. However, the evidence also reveals a partisan-motivated public in which Republican cues lead Democrats to shift their views in the opposite direction.

A Republican-endorsed security cue about the national debt causes Democrats to *decrease* perceptions that the debt hurts national security and to report wanting to do *less* to prevent the debt from growing when compared to the control group. A military-endorsed security cue about the national debt causes Democrats to *increase* perceptions that the debt hurts national security and to report wanting to do *more* to prevent the debt from growing

¹ "Mullen: Debt is top national security threat." *CNN*. August 27, 2010. <http://www.cnn.com/2010/US/08/27/debt.security.mullen/index.html>.

when compared to the same control group. When military-endorsed and Republican-endorsed cues are compared directly, Democrats exposed to military-endorsed cues report higher support for decreasing government spending and more opposition for cutting military spending. Importantly, Democrats respond to CJCS-endorsed cues similarly to military-endorsed cues, suggesting that individual military elites—as well as the military as an organization—can engage publicly on an issue and effectively influence public attitudes.

These findings advance our understanding of the military and civil-military relations literature in three ways. First, the military can effectively communicate to a public that discounts cross-partisan messages; Democrats respond positively to military-endorsed cues but respond negatively to Republican-endorsed cue. Second, the military can change public attitudes on concrete policy options. In this case, military-endorsed cues lead to increased public support for debt mitigation policies. Third, I validate previous studies on military elite cueing by demonstrating that military elites can be as effective at delivering political cues as the military as an institution. This implies that military elites and advocacy groups that employ retired military members may be more influential in shaping public policy than traditional partisan elites and advocacy groups.

Chapter 3 - Partisan Backing or Partisan Bashing?

Chapter 3 investigates the consequences of military engagement on political issues. The military is in a precarious position as it holds views on numerous politically contentious issues like transgender employment practices, gender equality, climate change, artificial intelligence, and fiscal policy, and is increasingly asked to share its views in Congress and in the media. Traditional civil-military norms prescribe that political engagement or partisan activity by the military may erode the public's high confidence and trust in the military (Huntington 1957; Golby, Dropp, and Feaver 2012). These norms

suggest that military elites who engage in political acts or speak publicly about military operations decrease public perceptions of the military (Golby, Dropp, and Feaver 2012; Robinson 2018), but little attention has been given in this literature to whether the military's positions on political issues unrelated to the use of force may also affect public perceptions of the military.

Although the military can influence public opinion because many Americans trust and identify with it, the military may also face associated risks for sharing its positions on political issues as issue positions have been found to drive both anger and enthusiasm toward the source (Mason 2016). It is therefore important to ask: Will the military's positions on non-use of force issues affect public perceptions of the military? If so, how will the issue domain, the military's position, and ideological beliefs of the public moderate changes in these perceptions?

I show evidence of a partisan public that does not value the traditional apolitical norm but instead evaluates the military's position through a partisan lens and updates its views of the military. Democrats report increased trust in and credibility of the military when exposed to the military's pro-climate position but report lower trust in and credibility of the military when exposed to the military's restriction on some transgender people joining the military. By contrast, Republicans who disagree with the military's position generally resist changing their views of the military. When presented with a potentially dissonant message about the military, Republicans instead engage in motivated reasoning and attribute the military's position to outside political influence. Importantly, I illustrate the downstream effects of the military's position on its effectiveness to influence opinions on another unrelated issue. Democrats who gain trust and credibility in the military from its position on climate change are more likely to oppose transgender people serving in the military and support other organizations being allowed to incorporate someone's gender identity into employment decisions.

Contributions and Motivations

My dissertation makes numerous contributions to civil-military and elite cueing literatures. First, I advance the argument that the public's high confidence and trust in the military grant the military influence to shape public attitudes on non-traditional military issues. As a highly trusted, apolitical institution, the military can cut through the emerging trend of partisan polarization and speak to both Republicans and Democrats, but not necessarily on the same issues. Second, I show that it often takes more than a highly credible source to motivate the public to change their preferences to address a problem. There is a strong interaction between source credibility and domain expertise that drive public preferences of change.

Third, I show that American's perceptions of military credibility are not driven by apolitical assessments. Instead, the degree to which the military aligns with an individual's own partisanship plays a significant role in determining confidence in the organization. This raises questions about the validity of the current framework suggested by the civil-military literature around the apolitical norm. I find that, contrary to the expectations produced by the apolitical norm, the military can sometimes increase its credibility with certain groups of Americans through political engagement if it takes certain political opinions. Fourth, I evaluate how specific beliefs, preferences, and behaviors of the military institution affect the public's views of the military. Previous work focused on the intermediary role that military elites serve in representing the institution. I suggest that views and beliefs of the military itself have significantly more impact on tarnishing or improving America's view of the military when compared to the activity of an individual.

Finally, and perhaps most importantly, I demonstrate the implications of military engagement in politically contentious issues and downstream effects that can increase persuasiveness in an unrelated issue. This suggests that the military may benefit from involvement in certain political spheres. For example, climate change may be an issue for

the military to increase engagement with less concern of backlash from the public than issues with less existing consensus. However, the military's position on transgender service members could be perhaps damaging area for the military. At the broadest level of concern, the military's position can cause significant groups of Americans to lose trust in the military. This could in turn degrade the military's ability to inform the public on other political matters or, importantly, military issues such as the use of force

Chapter 1

The US Military: An Old but New Voice in Climate Change Public Opinion

Overview

Can the US military influence American attitudes about non-military issues? If so, why and to what extent? Despite a general consensus by the scientific community that climate change is taking place, and humans are largely responsible, there remains a strong divide between the political left and right. Given that the public systematically filters messages from politicians and scientists through partisan lenses, can the military move opinions on this issue and, if so, what kinds of framing is effective? I use an experiment, embedded in a survey of the American public, to show that the US military can be more effective than the scientific community at shaping climate change public opinion across all political parties in believing that climate change is occurring, that it is a threat to US national security, and that steps must be taken to prevent further temperature rising. When the scientific community delivers the same security cue, treatment effects are not present. I argue that the military's ability to inform climate change public opinion and other non-military issues is rooted in high public credibility and its ability to an issue to national security.

Introduction

Can the US military shape American public opinion about non-military issues? If so, why and to what extent? Does reframing an issue in terms of national security affect the public's attitude? Prior research shows that the military can sway public opinion on the use of force issues (Robinson 2018; Golby, Feaver, and Dropp 2017), but few studies measure the military's reach to shape opinion beyond the use of force and into political issues.

Despite a general consensus by the scientific community that climate change is happening and that humans are largely responsible, there is a strong divide between the political left and right (McCright and Dunlap 2010; Campbell and Kay 2014; Funk and Caiazza 2018). Those who identify as politically conservative are both more likely to express skepticism about the existence and implications of anthropogenic climate change as well as disagree with the scientific community when compared to those who identify as politically liberal (McCright and Dunlap 2011; Rossen, Dunlop, and Lawrence 2015; Campbell and Kay 2014).

Climate change is typically conveyed as an environmental problem with political implications therefore promoting both scientists and politicians as the domain experts. However, the US military has become increasingly vocal about climate change since recognizing its security implications in 2003 (Military Expert Panel Report 2018). The US military firmly believes that climate change is an urgent and growing threat to national security since warming temperatures and rising sea levels will destroy military bases, decrease operational readiness, and draw the US into more violent conflict. Climate change threatens the operating environment acting as an "accelerant of instability or conflict, placing a burden to respond on civilian institutions and militaries around the world" (Quadrennial Defense Review 2010, 85).

In this chapter, I examine the extent to which the military as a trusted, expert, and credible institution on national security issues, can inform public opinion on a traditionally non-military issue using an experiment embedded in a survey of the American public. The experiment compares the US military and the National Academy of Sciences (NAS) and security-based cues against environmental-based cues finding that the US military moves public opinion on climate change across all political parties and more effectively than the

NAS. When the military issues a cue about the national security implications of climate change it raises the public's perception that climate change is happening and that more should be done to prevent further changes in the climate. When the NAS issues the same national security cue, the public backlashes against the institution.

Across a nationally representative sample, security-based climate change cues delivered by the military cause an 10% increase in the number of people who believe climate change is occurring, a 22% increase in the belief that climate change threatens US national security, and an 13% increase in the belief that more should be done to prevent climate change. Among Republicans, the treatment effects are larger. A security-based cue from the military causes a 16% increase in the number of Republicans who think climate change is occurring and a 16% increase in the preference among Republicans that more should be done to prevent climate change. When the NAS delivers the same security-based message, the public backlashes against the institution and treatment effects are not present.

My study advances research into elite cueing, climate change public opinion, and civil military relation literatures in four ways. First, it establishes a framework to study the military's ability to influence public opinion on traditionally non-military issues, an area of inquiry largely absent from the civil-military literature. Second, its experimental design allows for a direct cross-comparison between the US military and the scientific community as an authority on climate change, ultimately illustrating that the military may be more effective at increasing the public's awareness of climate change and how much should be done to prevent further changes in the climate. The study demonstrates that the military has particular influence among Republicans even in an issue area where partisan identity has been linked to an individual's unresponsiveness to update opinions. Third, it evaluates how re-framing a topic as a national security issue instead of an environmental issue requires the correct source to deliver the message. Fourth, it advances the debate as to whether or not a civilian-controlled military should communicate an independent voice on public issues.

Climate change: Political elites, scientists and the US military

Despite a general consensus within the scientific community that climate change is happening and that humans are largely responsible, those who identify as politically conservative are both more likely to express skepticism about the existence and implications of anthropogenic climate change as well as disagree with the scientific community when compared to those who identify as politically liberal (McCright and Dunlap 2011; Rossen, Dunlop, and Lawrence 2015; Campbell and Kay 2014).

Research connecting political ideology to climate change beliefs focuses on how increased political polarization among elites has led to divergent positions advocated by political and media leaders and entrenchment by conservatives to discount evidence of climate change (Ehret, Sparks, and Sherman 2017). When elites disagree over an issue, polarization occurs, and citizens may rely on political ideology to form an opinion (Brulle, Carmichael, and Jenkins 2012). Republicans and Democrats often rely on signals by co-partisan politicians and elites to formulate their baseline views on climate change.

Few studies evaluate if and how the public updates its climate change beliefs when presented with new information, a new frame, or a new actor.² Benegal and Scruggs (2018) employ a survey experiment to test a source credibility theory of correction finding that politicians can change the public's belief about climate change. In their experiment, Benegal and Scruggs present respondents with an anti-climate change statement made by the Chairman of the Senate Environment Committee, a Republican. Respondents are then prompted with a corrective statement by other prominent politicians in agreement with the Intergovernmental Panel on Climate Change's (IPCC) view that climate change is occurring. They find that corrections from Republicans speaking against the Chairman are most likely to persuade respondents to acknowledge a scientific consensus on anthropogenic climate change, agree that climate change is mainly caused by human activity, and agree that climate change is an important problem. Their study suggests that the partisan gap on climate change can be reduced by highlighting the views of elite

² Previous research found that higher educational levels and greater self-reported understanding of global warming have differing effects on global warming beliefs for Republicans and Democrats (Malka, Krosnick, and Langer 2009; J. A. Krosnick, Holbrook, and Visser 2000). Higher educated Republican are more likely to express global warming skepticism when compared to Democrats.

Republicans who acknowledge the IPCC's views, but it does not measure changes to the fundamental questions: is climate change happening and what should be done?

Feinberg and Willer (2011) conducted an experiment with 97 recruited college students to test whether informing people of the potential positive or negative consequence of global warming could alter their skepticism about whether or not climate change is occurring. They find that people who read articles about the dire consequences of climate change exhibit increased climate change skepticism and people who read articles about the positive consequences of climate change exhibit decreased climate change skepticism. They argue climate change challenges respondents' belief in a just world. When individuals' need to believe in a just world is threatened, they employ defensive responses often dismissing new information. But their findings appear counter-intuitive and may ultimately be driven by their sample selection and research design. Nonetheless, they suggest that threats to the public's physical well-being could sway public opinion on climate change.

Benegal and Scruggs (2018) and Feinberg and Willer (2011) suggest two important aspects about climate change from which to build a new study. First, public opinion about climate change may be responsive to co-partisan political cues. Second, issue framing matters.

The US military and climate change: Because climate change is predominantly viewed as an environmental issue with political implications, public opinion research on climate change tends to focus on scientists and politicians. However, scientists and politicians are not the only sources speaking about climate change. The US military firmly advocates that climate change is occurring and threatens national security.

The Department of Defense (DoD) has become increasingly vocal about climate change since recognizing its security implications in 2003 (Military Expert Panel Report 2018). The US military firmly believes that climate change is an urgent and growing threat to national security since warming temperatures and rising sea levels will destroy military bases, decrease operational readiness, and draw the US into more violent conflict. Climate change threatens the operating environment acting as an "accelerant of instability or conflict, placing a burden to respond on civilian institutions and militaries around the world" (Quadrennial Defense Review 2010, 85).

According to the 2014 DoD Climate Change Adaptation Roadmap, “climate change is a long-term trend... [and] threat multiplier... Rising global temperatures, changing precipitation patterns, climbing sea levels, and more extreme weather events will intensify the challenges of global instability, hunger, poverty, and conflict. They will likely lead to food and water shortages, pandemic disease, disputes over refugees and resources, and destruction by natural disasters in regions across the globe” (2). While the US military’s position aligns with the general consensus of the scientific community, the military also collects original atmospheric and sea-level data across the globe allowing it to run its own climate analysis somewhat independently from other scientific organizations.

What happens when the American public is exposed to the US military’s position on climate change or that climate change threatens national security? Will the public update its views to match the US military? Can the military shift climate change opinion more effectively than the scientific community? Can the military, which is predominantly conservative in makeup, move Republican opinion on climate change?

Theory and Hypotheses

Understanding how the military’s views on non-use of force issues may lead the public to change its perceptions of the military requires bridging elite cueing, source credibility, polarization, and civil-military literatures. A cue is “a piece of information that allows individuals to make inferences without drawing on more detailed knowledge” (Druckman et al., 2010). When individuals lack resources to form expert opinions on political issues, they look toward elite cues as heuristics to formulate an informed opinion (Zaller 1992; Lupia and McCubbins 1998). Cues from elites one sees as credible or informative may convince that individual to adopt that same viewpoint (Golby, Feaver, and Dropp 2017; James N. Druckman 2001). These include co-partisan political leaders (Benegal and Scruggs 2018; Zaller 1992), the media (McDonald 2009), policy experts (Guisinger and Saunders 2017), and international institutions (Grieco et al. 2011).

As issue complexity increases, individuals pay closer attention to the attributes of the source itself (Golby, Feaver, and Dropp 2017). Sources that an individual perceives as politically independent (Grieco et al. 2011), expert (Golby, Feaver, and Dropp 2017), like-

minded (Siegrist, Cvetkovich, and Roth 2000; Charles S. Taber and Milton Lodge 2006), and politically similar (Kahan, Jenkins-Smith, and Braman 2011; Benegal and Scruggs 2018) are classified as highly credible and greater influence the individual's issue beliefs and preferences (Robinson 2018).

Americans attribute the US military with many of these qualities. Military scholars credit the public's confidence and trust in the military to it being competent and accountable, and subordinate to the interests of those in society (Hill, Wong, and Gerras 2013; Newport 2017). Americans also associate high confidence in the military with its servicemembers who are highly professional and committed to a calling of service (Burbach 2017; Hill, Wong, and Gerras 2013). Furthermore, military confidence has been linked to its image as non-partisan and politically independent (Owens 2015).

A narrow body of research within the civil-military relations literature illustrate that these qualities translate into individual military elites being effective sources of political information able to influence public support for political candidates and decisions to use force. Golby, Feaver, and Dropp (2017) show that the Chairman of the Joint Chiefs of Staff's opposition to foreign intervention decreases public support for the intervention and the legitimacy of the intervention. Robinson (2018) finds similar levels of military elite effectiveness to deliver use of force messages but also shows that trust in the military moderates the strength of the treatment effect. The existing empirical work reveals important areas of inquiry.

Given the high level of trust, it is plausible that the military is an effective source of political information able to influence public attitudes on non-use of force issues. If the military is an effective source of political information able to persuade public attitudes on non-use of force issues, the military's position on climate change should lead respondents to change their perceptions about climate change to be in-line with the military's. This proposed relationship leads to the following hypothesis:

H1 (Military) – Respondents exposed to military-endorsed climate change cues will report, on average, higher perceptions that climate change is occurring and that more should be done to prevent further changes to the climate than respondents exposed to NAS-endorsed cues.

This hypothesis serves as an important baseline test to the public's overall responsiveness to a military cue, independent of the framing of an issue.

Alternatively, the content or framing of the cue may cause the public to change its climate change attitudes regardless of the source. Presenting climate change as a national security problem may lead respondents to see it as physically threatening. Hewgill and Miller (1965)³ found that threats in terms of physical consequences produce the greatest shift in attitudes toward the position advocated by a source (Pornpitakpan 2004). While I do not include individual measures of whether respondents view threats to US national security as more threatening than threats to the environment, I include in the security cue that climate change's rising sea levels and worsening extreme weather patterns could destroy US bases, damage military readiness, lead to more conflict, and thus draw the US into more military operations. Therefore, we should observe that respondents exposed to a national security-framed climate change cue should lead respondents to change their perceptions about climate change. This proposed relationship leads to the following hypothesis:

H2 (National Security Content) – Respondents exposed to security-framed climate change cues will report, on average, higher perceptions that climate change is occurring and that more should be done to prevent further changes to the climate than respondents exposed to non-security-framed cues.

It is also likely that people's change in preference to prevent climate change is mediated by his/her belief that climate change threatens national security. That is, a security-based climate change cue increases people's perceptions that climate change threatens national security and in turn increases people's preference to want to prevent it. We should therefore observe respondents increase their perception that climate change threatens national security.

³ They argue that if a source has high credibility with a listener, appeals eliciting strong fear will affect greater attitude change than appeals that elicit mild fear. Although their study looked at personal harm within the context of community, I extend the same logic to a larger scale.

The interaction between the cue source and cue content can increase or decrease the magnitude of the treatment effect. When the cue's content matches the domain expertise of the cue source, the treatment effects should be larger. If so, then the military's ability to move climate change public opinion is mediated through its ability to "sell" the national security implications and increase personal belief that climate change is indeed a security problem. Security-framed climate change cues delivered by the military, a credible national security institution, may cause a larger treatment effect than when compared to the military delivering an environmental-framed cue or if the NAS delivers a security-framed message. Although the NAS speaks convincingly on the environmental impacts of climate change, it may not be able to effectively communicate a security framed cue. This may explain why we observe the military being able to influence use of force public opinion (Robinson 2018). If this logic holds, we should observe the largest treatment effects when the military issues a security-framed climate change cue.

H3 (Interaction of Source and Content) - Respondents exposed to a security-framed climate change cue issued by the military will report, on average, higher perceptions that climate change is occurring, that it threatens national security, and that more should be done to prevent further changes to the climate than respondents not exposed to a security-framed climate change cue issued by the military.

It is also possible that the NAS issuing a security-framed cue about climate change could cause a back-fire effect because it may be interpreted as the NAS operating too far outside their expertise. This back-fire effect can actually lead individuals to express opinions increasingly opposite to the position advocated by the frame (Chong and Druckman 2007).

Lastly, a cue's effectiveness depends on the interaction between the cue-receiver, the cue-giver, and the content of the cue. There is a strong divide between Republicans and Democrats on whether climate change is happening, who is causing it, and how much should be done to prevent climate change (McCright and Dunlap 2010; Campbell and Kay 2014; Funk and Caiazza 2018). Conservatives express more skepticism about the existence

and implications of climate change and disagree with the scientific community when compared to liberals (J. Krosnick 2018; McCright and Dunlap 2011; Rossen, Dunlop, and Lawrence 2015; Campbell and Kay 2014).

Individuals tend to impute expert knowledge and trustworthiness to information sources with whom they perceive as sharing their worldviews and to discount those who are different (Kahan, Jenkins-Smith, and Braman 2011) and may seek certain sources who share their cultural associations (Kahan, Jenkins-Smith, and Braman 2011; Benegal and Scruggs 2018). The public turns to like-minded partisans, elites or institutions for the correct position to formulate or update their positions to align more closely (Siegrist, Cvetkovich, and Roth 2000; Charles S. Taber and Milton Lodge 2006). We should therefore expect that Republicans and Democrats to respond differently to varying sources and frames.

Climate change research illustrates that partisanship influences perceptions of credibility in climate change communication leading to individuals paying closer attention to co-party elite sources (Gauchat 2012; Benegal and Scruggs 2018; Kahan, Jenkins-Smith, and Braman 2011). Cues given by the scientific community in support of climate change may sway the political middle but can also cause a back-fire effect among political conservatives further strengthening their views against climate change (ideological-consistency model) (Ehret, Sparks, and Sherman 2017; Nisbet, Cooper, and Garrett 2015; Hamilton 2015). Cues given by media outlets, co-partisan political elites and interest groups can also influence climate change views, typically with the effect of strengthening existing views (Carmichael and Brulle 2017; Brulle, Carmichael, and Jenkins 2012).

Republicans generally hold higher levels of trust, expertise, and credibility in the military and perceive the military as an in-group member. On average, military members are more socially conservative than the rest of society and the mass public still views the military primarily as conservative and Republican (Golby, Feaver, and Dropp 2017).⁴ This

⁴ 92% of Republicans have confidence in the military compared with 64% of Democrats (Golby, Feaver, and Dropp 2017). Gallup's June 2017 poll reported 85% of Republicans and 64% of Democrats (63%) have a great deal or quite a lot of confidence in the military. <https://news.gallup.com/poll/212840/americans-confidence-institutions-edges.aspx>

may lead Republicans to believe that the military holds similar issue positions and values.⁵ Similarly, since Republicans perceive the military as more conservative, a military signal supporting climate change will be more surprising and informative than if the military's position were not pro-climate.

H4A (Republicans) – Republicans exposed to military-endorsed climate change cues will report, on average, higher perceptions that climate change is occurring and that more should be done to prevent further changes to the climate than Republicans exposed to NAS-endorsed cues.

Since conservatives tend to pay higher attention to national security issues, learning that climate change threatens the US will compound the treatment effect. If this logic holds, it is also expected that Republicans exposed to security-framed climate change cue issued by the military will have larger treatment effects than Republicans exposed to a non-security-framed cue.

Among Democrats, military cue treatment effects may be smaller due to lower levels of trust, expertise, and credibility of the military. For the same reason Republicans may respond to the military as a co-partisan elite voice, Democrats may view the NAS as a co-partisan elite with expert knowledge on climate change. Additionally, Democrats may be more attune to environmental issues instead of national security issues.

Moderators: Lastly, I consider several potential moderators to treatment effect. Existing empirical work connecting perceptions of military credibility and its influence on attitudes is limited. Robinson (2018) finds weak evidence of the moderating effect of confidence on military elite cues. The literature on source credibility, however, makes the clear theoretical prediction that sources individuals deem highly credible should produce stronger treatment effects than sources that are less credible. This would predict that people who hold higher views of the military when compared to the NAS should have stronger treatment effects from military cues. Additionally, respondents who hold higher

⁵ In a 2013 survey of the American public sponsored by the Hoover Institution, 58.6% of Republican respondents assessed the military being more socially conservative than the rest of society (“STAN0070” 2017)

perceptions of the military should have stronger treatment effects than respondents who hold lower perceptions of the military.

In summary, I expect that climate change cues delivered by the military will cause respondents to increase perceptions that climate change is happening and that more should be done to prevent it. Furthermore, these preferences are mediated by individual beliefs that climate change hurts national security and moderated by perceptions of military credibility. While it may be difficult to conclude that the military is better at shifting attitudes than the NAS due to concerns of pre-treatment, I expect on average the military will be effective when the NAS is not. The treatment effects will be largest when the military, as a national security domain expert, issues a security-framed climate cue. Finally, because Republicans treat the military as an in-group elite, trust the military more than the scientific community, and care more about national security issues, they will respond most positively to security-framed climate change cues issued by the military.

Research Design

I administered a survey experiment to evaluate the military's effectiveness to inform public attitudes on climate change. The experiment was fielded by Lucid, an internet-based polling firm, to a nationally representative opt-in sample of 2,030 US adults in May 2018.⁶ The survey compared US military cues to NAS cues and security framed cues to environment framed cues. Respondents were randomized into a control group or one of four treatment groups (military-security, military-environment, NAS-military, NAS-environment) producing a fully crossed 2x2 design (Table 1.1).⁷ Respondents read identical security or non-security framed cues attributed to either the military or the NAS. The only difference between the sets of cues was the cue giver.

⁶ The sample was recruited by Lucid, which selected participants to resemble the gender, age, geographic, and racial distribution of the U.S. adult population. Survey experiments are increasingly common in political science research. A recent article benchmarked Lucid's sample with other techniques finding that demographic and experimental findings on Lucid track well with US national benchmark (Coppock and McClellan 2019)

⁷ Because assignment to treatment was randomized, I expect the results to be robust to selection effects. Balance Table *for Treatment Assignment* is the covariate balance of the groups (refer to

Appendix *D* for a test on the randomization apparatus using a multinomial logistic regression).

Table 1.1 Experiment Treatment and Control Groups

		Climate Cue	
		Security	Environment
Institution	US military	Military security (n=410)	Military environment (n=401)
	National Academy of Sciences	NAS security (n=406)	NAS environment (n=404)

Note: Control group (n=410)

All respondents were asked the same battery of pre-treatment and post-treatment questions. Pre-treatment questions gathered measurements of potential moderators recommended by climate change opinion and cue-theory literatures to include the respondents' party identification, self-reported knowledge and strength of existing climate change opinion (J. A. Krosnick et al. 2006), and attitudes of trust, expertise, credibility and independence of both the military and scientific community.

For measurements of institutional trust, expertise, credibility of the military and scientific community, I drew on corporate credibility literature for a battery of questions. Similar to Robinson (2018), I used a modified four-question battery created by Newell and Goldsmith (2001). Respondents were asked a seven-point Likert measurement on the degree to which they agreed or disagreed that they trust the [military / scientific community] and believed they make truthful claims (trust) and that the [military / scientific community] has a great amount of expertise and is skilled at what they do (expertise). These two measurements were then combined to create an overall institutional credibility measure. Respondent's provided answers for both, but the order was randomized.

To introduce climate change and measure existing climate change attitudes, all respondents read a neutral statement widely utilized in climate change communication studies: “As you may know, there is a debate about whether the world's climate has been changing, whether average global temperatures have been going up over the past 100 years, and whether temperatures will go up in the next 75 years.” Respondents were then asked how knowledgeable they were with the issue of climate change and how strong their opinions were using five-point bipolar scales. Finally, respondents were asked in random order how likely or unlikely politics influences the military or scientific community’s views on climate change.

Respondents assigned to one of the four treatment groups then read, “you are about to read a summary on the [US military’s / National Academy of Science’s] position on climate change. The information accurately reflects the [US military's / National Academy of Science’s] view and is compiled from various statements. Please read the information carefully. Afterwards, you will be asked a few questions about what you read.” A short modifying, “The National Academy of Sciences is a private, non-profit society of distinguished scientists,” was added to the instructions.

Respondents next read the positions of either the US military or the NAS on climate change as either a threat to national security or to the environment (Figure 1.1).⁸ For a clean comparison of the institutional effect, the cues were identical except for the name of the cue source. The security and environmental cues were also nearly identical except for a short-bulleted section on the effects of climate change. The cues were built from statements made by the military in official documents and statements to Congress over the last four years. While the military has implied a direct link between its consumption of fossil fuels and the exacerbation of climate change, I did not include this in the cue. A follow-up study can measure whether the military can effectively move public opinion on the causes of climate change.

⁸ At the end of treatment, I administered an attention check asking the position of the source. In-line with my pre-analysis plan and similar to Press, Sagan, and Valentino (2013) and Tomz & Weeks (2019), all analysis reported in the paper do not include respondents who failed the attention check. There were no meaningful changes in the substantive size or statistical significance of any of my findings and analysis of the full sample is included in

Appendix. Final analysis leaves N=1,817.

Figure 1.1 Treatment Wording

[US Military / National Academy of Sciences] Position on Climate Change

[Department of Defense (DoD) / National Academy of Sciences (NAS)]– The *[US military / National Academy of Sciences]* firmly believes that climate change is an urgent and growing threat to [national security / the environment]. Global temperatures are increasing, severe weather patterns are worsening, and sea levels are rising.

[Military-Security and NAS-Security groups read]
Warming temperatures and rising sea levels will:

- Destroy US military bases
- Decrease operational readiness
- Draw the US into more violent conflict
- Increase the chance of war with other nations over natural resources

[Military-Environment and NAS-Environment groups read]
Warming air and water temperatures will:

- Melt arctic ice caps
- Raise sea levels
- Lead to greater chance of flooding
- Threaten fish stocks and coral

The *[US military / National Academy of Sciences]* believes immediate action must be taken to prevent rising temperatures and reduce the threat posed by climate change. Otherwise, warming temperatures and climate change lead to [security / environmental] impacts at home and abroad.

Respondents completed a post-treatment survey about their climate change attitudes. I used similar questions employed by Krosnick et al. (2006) and consistently used through 2018 to ensure consistency and comparability of my results to other climate change public opinion studies. To improve reliability and predictability, I followed each question with a branching question to measure how sure the respondent was that condition had occurred or will occur.

The dependent variables of interest were answers to the following questions:

- 1) (CC Happening) Do you think the world's temperature probably has been going up over the past 100 years, or do you think it probably has not been going up?

- Binary “Has been going up / Has not been going up” Coded this way, the treatment effect reports the absolute change in the number of respondents who answer the world’s temperature has been going up.
 - Followed by four-point branched question about “how sure”
 - When incorporating the branch responses and coded continuously from 0-100, it reports perception of how sure climate change is happening. This scaling method to measure beliefs in climate change is prominent in climate change research (J. Krosnick 2018).
 - This question is widely accepted, and small variants of this question have been used since 1997 as the principle measurement of whether people perceive climate change as occurring.⁹
- 2) (Security) If climate change were to occur, do you think it would help or hurt US national security?
- Seven-point bipolar scale “Help a great deal -> Hurt a great deal”
 - I present analysis of the both the continuous scale and on a binary scale (1=hurt), Coded continuously, it reports perceptions of how much climate change will hurt with 0 = “help a great deal” and 100 = “hurt a great deal.”
- 3) (Prevent) How much do you think should be done to prevent climate change?
- Five-point unipolar scale “Nothing -> A great deal”
 - I present analysis of the both the continuous scale and on a binary scale (1= “a lot” or “a great deal”). When coded as continuous, it reports preference to prevent climate change. When coded dichotomously, it represents the percentage of people who report preference to want to do “a lot” or “a great deal” to prevent climate change.

⁹ For consistency of results, climate question wording was similar to Jon Krosnick’s climate change research.

2013-2018: “What is your personal opinion? Do you think that the world’s temperature probably has been going up over the past 100 years, or do you think this probably has not been happening?” For a history of this question in surveys, refer to (J. Krosnick 2018)

Results

Average Treatment Effects by Institution: Table 1.2 presents average treatment effects across all respondents pooled by institution and relative to the control group. Treatment effects represent the absolute change in the number of respondents who believe that climate change is happening and that a lot or a great deal should be done to prevent it. In support of H1, the military treatment effects are positive and statistically significant across all outcome variables. When respondents are exposed to a cue from the military, there is a 7% absolute increase in the number of respondents who think climate change is happening and a 7.1% absolute increase in the number of who report that a lot or a great deal should be done to prevent it. Treatment effects for the NAS are positive, but statistically insignificant. These findings are robust to coding the variables as continuous and statistical significance levels hold, except that the military statistical significance level gets stronger (refer to Appendix).¹⁰

Table 1.2 Average Treatment Effect by Institution (All Respondents)

Dependent Variable	Cue Source	
	Military	NAS
Climate change is occurring <i>a > b</i> Control level = 84.1 %	7.02%*** ^a (0.000479)	2.97% ^b (0.141)
A lot should be done to prevent climate change <i>a > b</i> Control level = 58.3 %	7.11%** ^a (0.0179)	2.88% ^b (0.341)

Note: Control levels for climate change is happening, and a lot should be done to prevent climate change are 84.1% and 58.3%, respectively. Treatment effects are calculated relative to the control group. Treatment effects report the absolute change in the number of people who believe that climate change is occurring, or, the absolute change in the number of people who believe that “a lot” or “a great deal” should be done to prevent climate change. P-values in parentheses are two tailed *** p<0.01, ** p<0.05, * p<0.1

¹⁰ Coded as continuous variables, a military cue causes a 9.3% (p=0) increase in the belief that climate change is happening and a 7.4% (p=0) increase in the preference to want to do more to prevent climate change. A NAS cue causes statistically insignificant 3% (p=.12) increase in the belief that climate change is happening and no change (p=.6) in the preference to want to do more to prevent climate change.

For each of the outcome variable, I also conducted a Wald test comparing the military treatment effects to the NAS treatment effects. The Wald tests confirm that the military treatment effects are larger than the NAS treatment effects for all questions.¹¹ These findings suggest that the military is a more effective cue-giver than the NAS and holds significant influence to cause the public to adopt more pro-climate attitudes.

Average Treatment Effects by Cue Frame: Table 1.3 presents average treatment effects across all respondents pooled by cue frame and relative to the control group. In support of H2, national security treatment effects are positive and statistically significant across all outcome variables. When respondents are exposed to a national security cue about climate change, there is a 5.8% absolute increase in the number of respondents who think climate change is happening and an 8.6% absolute increase in the number of who report that a lot or a great deal should be done to prevent it. An environment cue increases the number of respondents who think climate change is happening but does not change people's perception of prevention. These finding are robust to coding the variables as continuous and statistical significance levels hold (refer to Appendix).¹²

¹¹ CC is happening (F= 6.35, p=.01); Prevent CC (F=2.82, p =.09)

¹² Coded as continuous variables, a national security cue causes a 5.6% (p=0) increase in the belief that climate change is happening and an 8.9% (p=0) increase in the preference to want to do more to prevent climate change. An environment cue causes 4.9% (p=.01) increase in the belief that climate change is happening and no change (p=.45) in the preference to want to do more to prevent climate change.

Table 1.3 Average Treatment Effect by Cue Frame (All Respondents)

Dependent Variable	Cue Frame	
	Security	Environment
Climate change is occurring $a > b$ Control level = 84.1 %	5.80%*** ^a (0.00411)	4.27%** ^b (0.0338)
A lot should be done to prevent climate change $a > b$ Control level = 58.3 %	8.56%** ^a (0.0045)	1.55% ^b (0.605)

Note: Treatment effects are calculated relative to the control group. Treatment effects report the absolute change in the number of people who believe that climate change is occurring, or, the absolute change in the number of people who believe that “a lot” or “a great deal” should be done to prevent climate change. P-values in parentheses are two tailed *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ Control levels for climate change is happening, and a lot should be done to prevent climate change are 84.1% and 58.3%, respectively

In support of H2, national security treatment effects are positive and statistically significant across all outcome variables. Wald tests comparing the security and environment treatment effects show that security treatment effect is larger for the prevention question but not the occurring question.¹³ These findings suggest security-framed climate change cues are more effective than the typical environment-based cues. Most interestingly, the public is significantly more inclined to take additional preventative measures against climate change when exposed to such a cue. The percentage of respondents who believe a lot should be done to prevent climate change raises from 58.3% to 66.9%. I discuss the possibility that preventative measures are mediated by personal perceptions that climate change threatens national security in subsequent sections.

Average Treatment Effects by Cue Source and Frame: Table 1.4 presents average treatment effects across all respondents by individual treatment group (randomized both cue-source and cue-frame). In support of H3, security framed climate change cues by the military cause the largest treatment effects across both questions.

¹³ CC is happening ($F = 1.0, p = .32$); Prevent CC ($F = 7.65, p = .006$)

Table 1.4 Average Treatment Effect by Cue Frame and Institution (All Respondents)

Dependent Variable	<u>Security Cue</u>		<u>Environment Cue</u>	
	Military	NAS	Military	NAS
Climate change is happening <i>a > c, b, d & c > d</i> Control level = 84.1 %	8.1%*** ^a (0.000541)	3.3% ^b (0.258)	5.9%** ^c (0.0121)	2.7% ^d (0.258)
A lot should be done to prevent climate change <i>a > c, d</i>	10.7%*** ^a (0.00215)	6.2%* ^b (0.0805)	3.4% ^c (0.334)	-0.3% ^d (0.939)

Note: Treatment effects are calculated relative to the control group. Treatment effects report the absolute change in the number of people who believe that climate change is occurring, or, the absolute change in the number of people who believe that “a lot” or “a great deal” should be done to prevent climate change. P-values in parentheses are two tailed *** p<0.01, ** p<0.05, * p<0.1 Control levels for climate change is happening and a lot should be done to prevent climate change are 84.1% and 58.3%, respectively

A security cue issued by the military causes an absolute increase of 8.1% in the number of respondents who think climate change is happening and a 10.7% absolute increase in the number of who report that a lot or a great deal should be done to prevent it. Notably, the military is still effective when delivering an environment cue illustrating the extent to which the military serves as a powerful source of information even in issues outside its conventional expertise. The NAS is marginally effective at influencing respondents’ preference to do more to prevent climate change when delivering a security cue; however, this is not robust to when “prevent” is coded as a continuous variable (2.9%, p=.216). Wald tests comparing the military-security and NAS-security treatment effects show a larger treatment effect for the military-security treatment on the belief that climate change is happening, but not on prevention.¹⁴ However, when “prevent” is coded as a continuous variable, the military-security treatment effect is 5.8% (p=.015) larger than the NAS-security treatment effect (refer to Appendix).

I draw three observations from this data that deserves further inquiry. First, the military has significant ability to influence the general public on the core belief that climate change is occurring. Regardless of the framing and content of the cue, the public is

¹⁴ When comparing the military-security and NAS-security treatment effects for climate change is happening and preventative measures, the Wald statistics are F=6.31 / p=.0121, and F=1.02, p=.3135, respectively.

responsive to the military. Second, the NAS is ineffective at changing these same beliefs. Third, framing climate change as a national security issue and not as an environmental issue motivates the public to want to act. Although it appears the NAS can move opinions on prevention, it does not hold when prevention is coded as a continuous variable. Why then is the military successful at moving public opinion using a security cue?

Causal Mediation Analysis: I advance a new argument to explain why the military has the largest impact on public opinion when providing a security cue. I claim preference to prevent climate change is mediated through the threat climate change poses to security. Feinberg and Willer (2011) linked climate change skepticism with concern about the consequences of climate change. Hewgill and Miller (1965) suggest that threats in terms of physical consequences produce the greatest shift in attitudes toward the position advocated by a credible source (Pornpitakpan 2004). Because the military is seen as a highly credible authority on national security, it can sell the message.

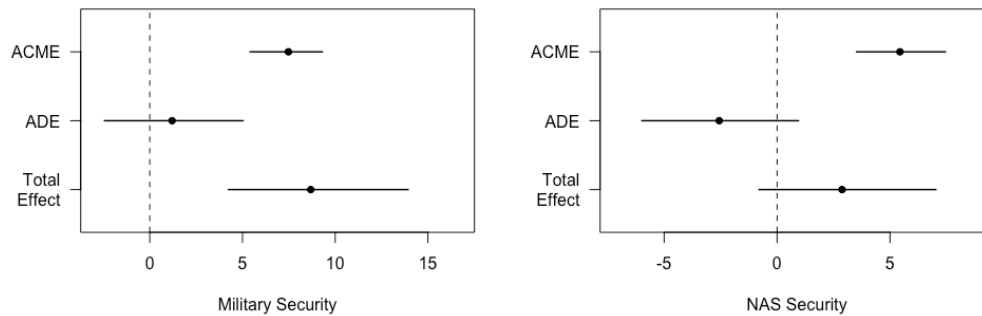
To test the mechanism, I employ causal mediation analysis in accordance with Baron and Kenny (1986) and Imai et al. (2011). I proceed in three steps: estimate the effect of the treatment on the mediator (the perception that climate change threatens national security); estimate the effect of the mediator on the dependent variable of prevention; estimate the average mediation effect. The analysis uses normal linear regression and procedures outlined in Baron and Kenny (1986) and Imai et al. (2011).¹⁵

Figure 1.2 presents the result of the causal mediation analysis (refer to appendix for detailed results). A security cue from the military and the NAS increases perceptions that climate change hurts national security by 13.3% and 9.7%, respectively. The proportion of total effect mediated by the perception that climate change hurts national security is .87 for the military security treatment group and .83 for the NAS security treatment group. Although there is evidence that climate change threat perceptions mediate prevention, when the NAS delivers the cue, there is a negative average direct effect (ADE) which offsets the total effect. It is possible that the NAS operating outside its domain could drive a back-fire effect, but causal mediation analysis is limited in explaining the contributors to

¹⁵ Statistical package used: Tingley, D, Yamamoto T, Hirose K, Keele L, Imai K. 2014. Mediation: R package for causal mediation analysis. J. Stat. Softw. 59: 1-38.

a negative direct effect. It is plausible that the military can sell the national security message because it is within its domain, but the NAS cannot because it is outside its domain.

Figure 1.2 Causal Mediation Analysis - Security Threat Mediates Prevention Preference



Note: This figure the predicted Average Causal Mediation Effect (ACME) of a respondent's perception that climate change hurts national security, the direct effect of the treatment institution, and the total effect on personal preference to prevent climate change. 95% confidence intervals are given. Refer to appendix for table. I control on age, education, gender, ethnicity, income, and region, news preference, religion, and military affiliation.

These findings have vast implications for policy makers, advocacy groups, and the general public at large. Framing climate change as a national security issue instead as an environmental issue may motivate people to support climate change prevention. However, the scientific community may not be the right communicator. Evidence suggests that the military may be the more effective source. While this study only looks at the macro-level military institution, future studies can test whether individual military elites like the Chairman of the Joint Chiefs or retired officer carry the same level of influence as the military or whether news agencies or politicians invoking the military's position produces similar levels or perhaps more backlash. Additionally, they can randomize non-military actors also considered national security experts, e.g. US intelligence agencies.¹⁶

Average Treatment Effects by party ID: As discussed earlier, Republicans are generally more resistant to updating their views on climate change. At the same time, however, they hold particularly high confidence in the military. The hardest test will be whether or not the previous findings are robust when examining Republicans. Table 1.5

¹⁶ In January 2019, the office of the Director of National Intelligence released the Worldwide Threat Assessment of the US Intelligence Community also warning of the threats climate change poses to US security (Coats 2019).

presents average treatment effects by individual treatment group and party ID.¹⁷ The baseline difference between Republican and Democrats is vast, confirming recent national surveys. 36% of control group Republicans vs. 80% of control group Democrats report a strong desire to prevent climate change.¹⁸

Table 1.5 Average Treatment Effect by Cue Frame and Institution (by PID)

Treatment Condition	Climate Change is Occurring		Prevent Climate Change	
	(1) Republican	(2) Democrat	(3) Republican	(4) Democrat
Military Environment	5.610 (0.229)	4.387* (0.0606)	-1.364 (0.807)	5.898 (0.157)
Military Security	11.64** (0.0135)	3.362 (0.142)	10.70* (0.0582)	5.250 (0.199)
NAS Environment	3.931 (0.397)	-0.951 (0.687)	1.399 (0.801)	-2.421 (0.565)
NAS Security	4.058 (0.409)	0.730 (0.753)	0.705 (0.905)	5.640 (0.173)
Constant (Control Level)	74.39*** (0)	93.71*** (0)	36.36*** (0)	79.55*** (0)
Observations	699	818	700	820
R-squared	0.009	0.009	0.008	0.008

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: Treatment effects are calculated relative to the control group. Treatment effects report the absolute change in the number of people who believe that climate change is occurring, or, the absolute change in the number of people who believe that “a lot” or “a great deal” should be done to prevent climate change. P-values in parentheses are two tailed

I find evidence in support of H4. Republicans are responsive to military cues, but less so when the military delivers an environmental cue. When the military delivers a

¹⁷ Refer to the Appendix for pooled results by institution and frame as well as data on Independents.

¹⁸ A 2018 randomized telephone-based survey conducted by Stanford’s Political Psychology Research Group (PPRG) captures a larger gap between Democrats and Republicans on whether global warming has been occurring. The PPRG finds 89% of Democrats and 57% of Republicans believe global warming has been happening. Likewise, the PPRG finds 87% of Democrats and 43% of Republicans believe the US government should do more than it’s now doing about global warming. <https://pprggw.wordpress.com/partisian-views/>

national security cue about climate change, it causes an 11.6% increase in the number of Republicans who report climate change is happening and a 10.7%¹⁹ increase in the number of people who report that a lot or a great deal should be done to prevent climate change.²⁰ Republicans marginally increase their reported belief that climate change is occurring when the military issues an environmental claim, but not on their reported preference to want to prevent climate change. These findings suggest that the military can be extremely effective as a cue giver to influence public opinion when delivering a cue related to national security.

It is somewhat surprising that Republicans do not respond as strongly when the military issues an environmental cue. Possible explanations could be that Republicans do not think the military is expert on environmental issues and therefore do not perceive the messaging as credible. Or, Republicans heavily consider both the source and the connection to national security. Weak statistical evidence shows that Republicans respond to a NAS security message on reported perception that climate change is happening, but not on preference for prevention. This suggests that Republicans may have a lower source credibility threshold to report that climate change is occurring, but a much higher threshold to want to act on those beliefs. When testing that Republicans' preference to prevent climate change is mediated through perceptions that climate change hurts US security, causal mediation analysis shows a backlash against the NAS, but a small increase in reported belief that climate change hurts national security (Appendix E Causal Mediation Analysis).

Democrats are less responsive to military cues which could be due to ceiling effects. When analyzing the dependent variables as continuous, we find statistical evidence to support the claim that Democrats respond to military cues (Appendix A). Coded on a continuous scale, exposure to a military security or military non-security cue causes Democrats to increase their preference to prevent climate change by 6.2% ($p=.017$) and 4.8% ($p=0.056$), respectively. Interestingly, Democrats also increase their preference to prevent climate change by 5.1% ($p=0.047$) when exposed to a security cue by the NAS. Exposure to a military security or military non-security cue also cause Democrats to

¹⁹ The significance level strengthens when coding prevention as continuous. ATE = 8.3% ($p=.0278$).

²⁰ This finding is robust to removing the Republican "leaners" from analysis: CC occurring ATE = 10.1% ($p=.065$), Prevent CC = 10.8% ($p=.087$).

increase the degree to which they perceive climate change occurring by 4.5% ($p=0.017$) and 3.16 ($p=.089$), respectively.

Why do Republicans respond to the military and national security frames? To determine why Republicans are more responsive to the military than the scientific community and why Republicans are more responsive to the military than Democrats, I included survey questions to measure respondent's views on the military and the scientific community.

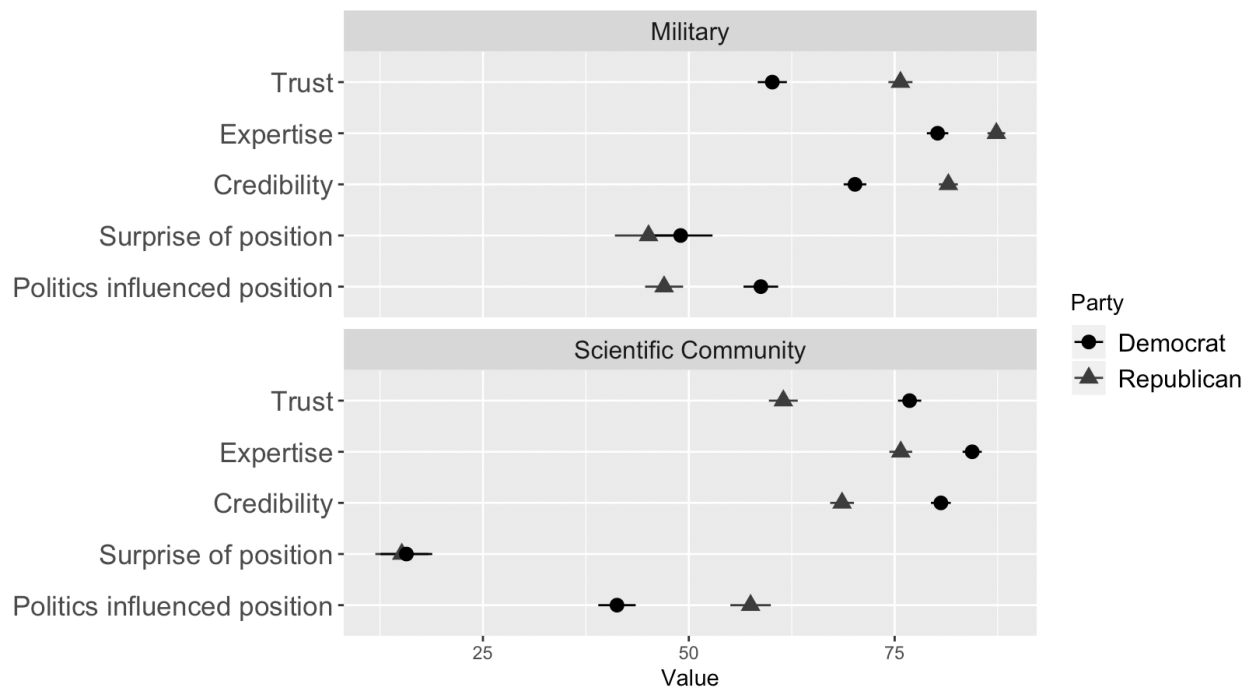
As discussed earlier, the survey included a modified four-question battery from corporate credibility (Newell and Goldsmith 2001) to measure perceptions of institutional credibility. To measure respondents' attitude of institutional independence from politics, respondents were also asked, "how likely do you think politics influence the military's view about climate," and, "how likely do you think politics influence the military's view about climate." The order of these two questions were randomized and measured on a 5-point unipolar scale from "not likely at all (1)" to "extremely likely (5)." To measure surprise of the cue, respondents in the military treatment groups were asked, "earlier in the survey, you read that the US military believes climate change is happening. How surprising was this information?" Those in the NAS treatment groups read the same statement but "US military" was replaced with "the National Academy of Sciences." The outcome was measured on a 5-point unipolar scale from "not surprising at all (1)" to "extremely surprising."

Figure 1.3 reports the perceptions of the military and scientific communities for both Republicans and Democrats. As expected, Republicans report more favorable views of the military than the scientific community and when compared to Democrats. Democrats' views are nearly mirror opposites. Interestingly, Republicans attribute greater autonomy to the military's position on climate change.²¹ This suggests that the military is an effective cue giver because it is perceived as having formed its climate change position. Future research can better understand the role of political influence on public attitudes of the military and how they may influence people's beliefs to accept a message as credible. Research in social psychology suggests that people may react to potentially dissonant

²¹ Chapter three investigates how Republicans' perception of political influence on the the military's climate change position changes after being exposed to the military's actual position.

messages by blaming others for the discordant information. This will be further explored in chapter 3.

Figure 1.3 Republican and Democrat Views of Military and Scientific Community



Note: Refer to Appendix for raw data. Reported means for sample respondents and 95% confidence interval.

Not all Republicans respond to a military cue — Although the military can influence public opinion due to Republicans' high trust or sense of identification, it may also face associated risks for sharing its positions on political issues as issue positions have been found to drive both anger and enthusiasm toward the source (Mason 2016). Some Republicans skeptical of climate change might change their views about climate change upon hearing the military's pro-climate position, but others may respond to a discrepant message in a different way: by decreasing their trust in the institution and their evaluation of its credibility.

From the sample, the number of Republicans who reported that climate change was occurring increased by 45% following a military security cue; however, 13% of Republicans exposed to a military security cue and 20% of Republicans exposed to a

military non-security cue still reported a perception that climate change was not occurring. It is therefore important to ask: Will the military's positions on non-use of force issues affect public perceptions of the military? If so, how will the issue domain, the military's position, and ideological beliefs of the public moderate changes in these perceptions? These questions will be further explored in chapter 3.

A weakness of my research design is the inability to measure the effect that level of surprise had on treatment as I do not have a proper control group to compare. When divided into "high" and "low" surprise groups about the military position, respondents had similar perceptions of climate change. This may mean that surprise did not affect the military treatment effect, but I am hesitant that "high" and "low" groups held the same baseline perceptions. Furthermore, I cannot measure if respondents were surprised of the military's climate change position or were surprised that the military had a climate change position. It is also possible that the low level of surprise of the NAS' position weakened treatment effects. Future research can include finer-grained measurements to help determine the relationship between surprise and cue effectiveness.

Moderator – Credibility in the Military: The literature on source credibility argues that personal perceptions of source credibility moderate cue effectiveness. As perceptions of source credibility increase, treatment effects should also increase. If perceptions of military credibility moderate the military's effectiveness, we should observe larger treatment effects among those who judge the military as credible. While the data show that the military is effective in general, it is important to test whether the source credibility condition holds. It is important to establish if the military's effectiveness to issue a cue is dependent on perceptions of credibility because it may predict that the changes to perceptions of credibility will enhance or diminish the military's voice in non-use of force issues.

To test the moderating effect of credibility, respondents were divided into two groups. Those who reported credibility in the military above the median were classified as "high" and those who reported credibility in the military below the median were classified as "low." I then calculated the interaction coefficient which represents the marginal effect between having "low" credibility in the military and having "high" credibility in the military. When pooling military treatment conditions together, having high credibility in

the military vs. having low credibility leads to a net increase of 6.0% ($p=0.417$) and a 6.5% ($p=0.0874$) in perceptions that climate change is occurring and preference for preventing climate change, respectively. Interestingly, the interaction effect is slightly weaker when only analyzing the military security treatment condition on a respondent's preference to prevent climate change. The appendix reports the full results of the moderating effect of credibility on military treatment effects.

Moderator – Opinion Strength: I was initially concerned that people's views of climate change were relatively firm and unresponsive given the high salience and coverage the topic gets in the media. This would bias the military's treatment effects toward zero both in general and among those who held strong opinions about climate change. To test the moderating effect of opinion strength, I compare "strong" and "weak" opinioned respondents.²² For full results, refer to the appendix. I find evidence that the military security treatment effects remain positive and statistically significant across dependent variable regardless of opinion strength. Interestingly, the military non-security treatment effect is as large as the military security treatment effect when measuring perceptions that climate change is occurring among weak opinioned respondents.

Pre-treatment Effects and Robustness Checks: There is strong evidence to support the claim that the military can influence climate change public opinion. Whether the military is more effective than the NAS at shifting public opinion warrants additional attention. The NAS may be relatively ineffective at shifting climate preferences simply because the public is more aware of the scientific community's position and has thus incorporated this information into its base level preferences. Pre-treatment would suppress the treatment effect making it appear the NAS is ineffective relative to the military. Druckman and Leeper (2012) imply that people who have high knowledge about the issue would be more likely to be pre-treated. To address this concern, I analyzed whether military and NAS treatment effects were present at varying levels of self-reported climate change

²² Responses were measured on a 5-point scale ranging from having a "not at all strong" opinion on climate change to having an "extremely strong" opinion on climate change. Respondents opinion strength was above the median were coded as "strong" and those who's opinion level was below the median were coded as "weak."

knowledge.²³ Before receiving treatment, respondents were asked how much they know about climate change.²⁴

In-line with Druckman and Leeper (2012), I make the assumption that those who are more knowledgeable about climate change are more likely to have incorporated the scientific community's position. If weak or null NAS treatment effects influenced by pre-treatment, there should be a larger NAS treatment effect among respondents who have low levels of climate change knowledge when compared to those who have high levels of climate change knowledge. If, however, the NAS treatment effects are indistinguishable between high and low knowledge respondents, or, that the military treatment effects are still relatively stronger in the high and low groups this would strengthen the claim that the military can be more effective than the military regardless of pretreatment.

There was no statistical difference in the NAS treatment effects in the perception that climate change is occurring or in preference for prevention. All NAS treatment effects were null in high and low knowledge groups. Furthermore, the military security treatment effects were larger than the NAS treatment effects in all instances except on the measurement of climate change occurring. Additionally, military security treatment effects held or strengthened when going from low to high knowledge groups. For full results, refer to the appendix.

One additional limit to my analysis is a concern in people's difference in familiarity between the US military and the NAS. I assumed that on average, Americans would be more familiar with the military than with any scientific organization I chose. I ultimately decided to represent the scientific community's views with the NAS because the NAS is a highly respected, non-partisan scientific organization made of the highest regarded scientists and academics. A lack of familiarity with the NAS could bias the NAS' treatment effects downward simply because the public may not know who the NAS is and therefore not be persuaded by its climate change views.

²³ Self-reported knowledge levels are less reliable than measure knowledge levels. However, I was concerned that asking pre-treatment questions to assess their level of knowledge could taint the results. I wanted to increase the probability to capture respondent's natural and unprompted climate change preferences.

²⁴ Responses were measured on a 5-point scale ranging from having no knowledge of climate change to having a lot of knowledge of climate change. Respondents whose knowledge level was above the median were coded as "high" and those who's knowledge level was below the median were coded as "low."

Discussion

Can the US military shape American public opinion about non-use of force issues? Does the military's high credibility with the public give the military influence beyond its primary domain? How effective is the military's voice at shifting attitudes of climate change where the public is sharply divided by partisanship? Using an experiment embedded in a survey of Americans, I showed that the US military can be highly effective at shaping climate change public opinion. A cue issued by the military on the threat climate change poses caused an 8.1% increase in the number of respondents who report climate change is occurring and a 13.1% increase in respondents' preference to prevent climate change. Despite Republicans being less inclined to think climate change is occurring or support preventative policies, Republicans are especially responsive to the military. When the NAS delivers the same security message about climate change, the treatment effects are not present.

Using causal mediation analysis, I presented evidence that people's increased desire to prevent climate change is mediated through increased perceptions of the security threat climate change poses to the US. While military cues in general increased people's perceptions that climate change is occurring, only security-based cues caused the general public or Republicans to want to increase prevention. The NAS was successful at increasing perceptions that climate change hurt national security but issuing a national security cue outside its primary expertise cause significant backlash against the NAS. Republicans actually report wanting to do less to prevent climate change. To move public opinion, it takes the combination of the correct source and the correct message.

These findings illustrate how far reaching and potentially powerful the US military's voice can be. The military's ability influence on public opinion extends beyond use of force issues and into a politically contentious issue outside of the military's usual role. As an in-group communicator, the military has particular sway with Republicans even in issue areas where partisan ideology has been linked to bias information from issue experts. Although Democrats reported relatively high baseline beliefs in climate change, evidence suggests that Democrats also respond positively to the military. The next question is whether the military can influence Democrats' opinion toward a position that goes against type, e.g. mitigating the national debt? grant

For policy makers and advocate groups trying to advance climate change policy, these findings imply that re-framing climate change as a security issue may be successful. Future research can measure how increased preference to prevent climate change could lead to support for specific types of preventative policies. However, simply framing climate change as a security problem will be unsuccessful unless delivered by a credible security source. Scientists and politicians may not be the right conduit simply because of the pre-conceived biases held by contra-partisans. If certain political actors try and deliver the security message, it may inadvertently cause backlash not only to the deliverer, but to the cause. Future research can randomize the identity of an actor delivering a security message, or whether third-party sources can invoke the military's position to shape policy.

At the same time, there are potential consequences and concerns about these findings. First, traditional civil-military norms prescribe that political engagement or partisan activity by the military may erode the public's high confidence and trust in the military (Huntington 1957; Golby, Dropp, and Feaver 2012). Military elites who engage in political acts or speak publicly about military operations decrease public perceptions of the military (Golby, Dropp, and Feaver 2012; Robinson 2018), but little attention has been given to whether the military's positions on political issues unrelated to the use of force may also affect public perceptions of the military. The military may be in a precarious position as it holds views on numerous politically contentious issues like transgender employment practices, gender equality, climate change, artificial intelligence, and fiscal spending, and is increasingly asked to share its views in Congress and in the media. Military public opinion research shows that when the military speaks contradictorily to the President on use of force issues, it can undermine the President. Does this happen in other issue areas as well? How does, for example, the military's position on climate change affect a politician's public support when they stand in opposition? Future studies could also look at how the US military is utilized in Congressional Committee Hearings to testify about climate change. If the US military is one of the most trusted and respected voices on national security issues, why are they infrequently called upon to testify in Congress on climate change?²⁵

²⁵ I introduce a new dataset in Appendix G on this question.

Appendix A Average Treatment Effects by Question

Tables 1.A Average Treatment Effects by Question

Climate Change Exists - Binary

	(1)	(2)	(3)	(4)
Treatment Groups	All Respondents	Republicans	Democrats	Independents
Military Environment	5.910** (0.0121)	5.610 (0.229)	4.387* (0.0606)	9.494* (0.0954)
Military Security	8.097*** (0.000541)	11.64** (0.0135)	3.362 (0.142)	9.494* (0.0954)
NAS Environment	2.651 (0.258)	3.931 (0.397)	-0.951 (0.687)	8.705 (0.114)
NAS Security	3.316 (0.164)	4.058 (0.409)	0.730 (0.753)	2.866 (0.608)
Pooled Source				
Pooled Military	7.018*** (0.000479)	8.581** (0.0320)	3.854* (0.0530)	9.494** (0.0486)
Pooled NAS	2.974 (0.141)	3.988 (0.324)	-0.0837 (0.967)	5.884 (0.213)
Pooled Frame				
Pooled Environment	4.272** (0.0338)	4.762 (0.232)	1.770 (0.381)	9.075* (0.0564)
Pooled Security	5.796*** (0.00411)	8.149** (0.0454)	2.082 (0.296)	6.091 (0.203)
Constant (Control Level)	84.15*** (0)	74.39*** (0)	93.71*** (0)	83.10*** (0)
Observations	1,814	699	818	297
R-squared	0.008	0.009	0.009	0.017

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Climate Change Exists - Continuous

Treatment Groups	(1)	(2)	(3)	(4)
	All Respondents	Republicans	Democrats	Independents
Military Environment	4.784*** (0.00696)	2.422 (0.458)	4.512** (0.0173)	9.549** (0.0175)
Military Security	6.254*** (0.000386)	6.458** (0.0500)	3.156* (0.0890)	10.24** (0.0108)
NAS Environment	2.649 (0.133)	2.646 (0.415)	0.344 (0.857)	8.324** (0.0320)
NAS Security	2.050 (0.254)	0.965 (0.779)	-0.101 (0.957)	4.006 (0.310)
Pooled Source				
Pooled Military	5.529*** (0.000256)	4.410 (0.115)	3.807** (0.0183)	9.897*** (0.00364)
Pooled NAS	2.359 (0.120)	1.893 (0.503)	0.115 (0.943)	6.238* (0.0611)
Pooled Frame				
Pooled Environment	3.709** (0.0143)	2.535 (0.363)	2.462 (0.132)	8.899*** (0.00816)
Pooled Security	4.230*** (0.00539)	3.929 (0.168)	1.572 (0.330)	7.041** (0.0372)
Constant (Control Level)	75.15*** (0)	66.06*** (0)	85.44*** (0)	70.77*** (0)
Observations	1,817	700	820	297
R-squared	0.008	0.006	0.012	0.032

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Prevent Climate Change - Binary

	(1)	(2)	(3)	(4)
Treatment Groups	All Respondents	Republicans	Democrats	Independents
Military Environment	3.395 (0.334)	-1.364 (0.807)	5.898 (0.157)	4.773 (0.587)
Military Security	10.72*** (0.00215)	10.70* (0.0582)	5.250 (0.199)	17.74** (0.0444)
NAS Environment	-0.269 (0.939)	1.399 (0.801)	-2.421 (0.565)	1.039 (0.903)
NAS Security	6.225* (0.0805)	0.705 (0.905)	5.640 (0.173)	5.065 (0.559)
Pooled Source				
Pooled Military	7.105** (0.0179)	4.578 (0.340)	5.561 (0.118)	11.25 (0.131)
Pooled NAS	2.875 (0.341)	1.088 (0.823)	1.724 (0.630)	2.984 (0.683)
Pooled Frame				
Pooled Environment	1.550 (0.605)	0.0321 (0.995)	1.805 (0.615)	2.792 (0.704)
Pooled Security	8.558*** (0.00450)	6.097 (0.212)	5.440 (0.125)	11.23 (0.130)
Constant (Control Level)	58.25*** (0)	36.36*** (0)	79.55*** (0)	56.34*** (0)
Observations	1,817	700	820	297
R-squared	0.007	0.008	0.008	0.016

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Prevent Climate Change - Continuous

Treatment Groups	(1)	(2)	(3)	(4)
	All Respondents	Republicans	Democrats	Independents
Military Environment	3.716 (0.104)	0.503 (0.893)	6.169** (0.0171)	2.452 (0.641)
Military Security	8.686*** (0.000135)	8.292** (0.0278)	4.840* (0.0561)	14.95*** (0.00467)
NAS Environment	-0.697 (0.760)	-0.420 (0.910)	-2.272 (0.383)	2.482 (0.625)
NAS Security	2.870 (0.216)	-5.266 (0.181)	5.108** (0.0468)	3.719 (0.472)
Pooled Source				
Pooled Military	6.232*** (0.00143)	4.341 (0.176)	5.478** (0.0133)	8.702* (0.0521)
Pooled NAS	1.030 (0.600)	-2.590 (0.425)	1.524 (0.494)	3.079 (0.483)
Pooled Frame				
Pooled Environment	1.494 (0.445)	0.0369 (0.991)	2.016 (0.367)	2.468 (0.575)
Pooled Security	5.887*** (0.00273)	2.051 (0.531)	4.971** (0.0246)	9.183** (0.0391)
Constant (Control Level)	66.38*** (0)	51.82*** (0)	80.54*** (0)	65.14*** (0)
Observations	1,817	700	820	297
R-squared	0.011	0.016	0.019	0.031

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Climate Change Hurts National Security - Binary

Treatment Groups	(1)	(2)	(3)	(4)
	All Respondents	Republicans	Democrats	Independents
Military Environment	11.21*** (0.00151)	12.73** (0.0212)	4.509 (0.367)	23.60*** (0.00795)
Military Security	29.31*** (0)	29.34*** (1.70e-07)	26.79*** (5.89e-08)	29.16*** (0.00108)
NAS Environment	7.403** (0.0354)	4.895 (0.372)	3.227 (0.522)	23.57*** (0.00613)
NAS Security	24.30*** (0)	20.14*** (0.000561)	22.15*** (9.28e-06)	29.36*** (0.000840)
Pooled Source				
Pooled Military	20.37*** (0)	20.92*** (1.30e-05)	16.09*** (0.000222)	26.38*** (0.000469)
Pooled NAS	15.58*** (3.96e-07)	11.72** (0.0153)	12.96*** (0.00313)	26.37*** (0.000378)
Pooled Frame				
Pooled Environment	9.294*** (0.00207)	8.770* (0.0628)	3.879 (0.367)	23.59*** (0.00149)
Pooled Security	26.90*** (0)	25.11*** (2.37e-07)	24.53*** (1.08e-08)	29.26*** (9.80e-05)
Constant (Control Level)	40.78*** (0)	27.27*** (0)	56.25*** (0)	33.80*** (1.52e-08)
Observations	1,817	700	820	297
R-squared	0.049	0.047	0.056	0.053

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Climate Change Hurts National Security - Continuous

Treatment Groups	(1)	(2)	(3)	(4)
	All Respondents	Republicans	Democrats	Independents
Military Environment	5.874*** (0.000485)	4.809** (0.0411)	5.009* (0.0621)	10.20*** (0.00725)
Military Security	13.30*** (0)	10.53*** (1.02e-05)	14.51*** (4.50e-08)	13.91*** (0.000272)
NAS Environment	4.468*** (0.00767)	1.663 (0.477)	4.722* (0.0812)	10.36*** (0.00483)
NAS Security	9.671*** (1.58e-08)	4.944** (0.0464)	12.00*** (7.68e-06)	9.439** (0.0116)
Pooled Source				
Pooled Military	9.633*** (0)	7.626*** (0.000173)	9.947*** (1.85e-05)	12.05*** (0.000188)
Pooled NAS	6.987*** (1.58e-06)	3.132 (0.126)	8.463*** (0.000293)	9.915*** (0.00171)
Pooled Frame				
Pooled Environment	5.166*** (0.000328)	3.219 (0.110)	4.868** (0.0351)	10.29*** (0.00122)
Pooled Security	11.55*** (0)	7.957*** (0.000117)	13.29*** (7.94e-09)	11.61*** (0.000297)
Constant (Control Level)	61.12*** (0)	56.26*** (0)	66.19*** (0)	59.86*** (0)
Observations	1,817	700	820	297
R-squared	0.039	0.031	0.046	0.053

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Appendix B Moderators to Treatment

Tables 1.B Moderators to Treatment

Moderator: Credibility in the Military

VARIABLES	DV Climate Change Occuring (Continuous)			DV Prevent Climate Change (Continuous)		
	(1)	(2)	(3)	(4)	(5)	(6)
	High Credibility	Low Credibility	Interaction	High Credibility	Low Credibility	Interaction
Treatment Condition						
Military Environment	8.286*** (0.00193)	1.534 (0.494)	1.534 (0.528)	8.323** (0.0119)	-0.552 (0.852)	-0.552 (0.859)
Military Security	9.078*** (0.000489)	3.865* (0.0900)	3.865 (0.118)	10.96*** (0.000691)	7.241** (0.0165)	7.241** (0.0217)
Interaction						
High Credibility			-7.705*** (0.00112)			-10.55*** (0.000474)
Military Environment X High			6.752* (0.0521)			8.875** (0.0455)
Military Security X High			5.213 (0.131)			3.720 (0.399)
Pooled Treatment Condition						
Pooled Military	8.702*** (0.000126)	2.666 (0.166)	2.666 (0.201)	9.711*** (0.000560)	3.232 (0.206)	3.232 (0.225)
Interaction						
High Credibility			-7.705*** (0.00111)			-10.55*** (0.000486)
Pooled Military X High			6.036** (0.0417)			6.479* (0.0874)
Constant	71.17*** (0)	78.87*** (0)	78.87*** (0)	60.93*** (0)	71.48*** (0)	71.48*** (0)
Observations	566	559	1,125	566	559	1,125
R-squared	0.026	0.005	0.023	0.022	0.014	0.028

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Moderator: Climate Change Knowledge Level

VARIABLES	Climate change is occurring (Binary)			Prevent Climate Change (Continuous)		
	(1) Low Knowledge	(2) High Knowledge	(3) Interaction	(1) Low Knowledge	(2) High Knowledge	(3) Interaction
Treatment Groups						
Military Environment	10.33** (0.0232)	4.115 (0.134)	10.33** (0.0176)	1.859 (0.635)	4.936* (0.0759)	1.859 (0.657)
Military Security	7.675* (0.0905)	8.440*** (0.00196)	7.675* (0.0768)	8.110** (0.0383)	9.264*** (0.000792)	8.110* (0.0526)
NAS Environment	6.720 (0.131)	0.949 (0.731)	6.720 (0.115)	1.659 (0.665)	-1.187 (0.671)	1.659 (0.686)
NAS Security	2.079 (0.652)	4.039 (0.146)	2.079 (0.637)	2.580 (0.516)	3.359 (0.233)	2.580 (0.544)
Interaction						
High Condition			3.769 (0.292)			8.098** (0.0189)
Military Environment X High			-6.212 (0.230)			3.077 (0.537)
Military Security X High			0.765 (0.882)			1.154 (0.816)
NAS Environment X High Condition			-5.770 (0.259)			-2.846 (0.563)
NAS Security X High Condition			1.960 (0.709)			0.778 (0.878)
Constant (Control, Condition for Interaction)	81.42*** (0)	85.19*** (0)	81.42*** (0)	60.53*** (0)	68.62*** (0)	60.53*** (0)
Observations	553	1,261	1,814	555	1,262	1,817
R-squared	0.012	0.009	0.011	R-squared	0.009	0.013

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Moderator: Climate Change Opinion Strength

VARIABLES	Climate Change is occurring (Binary)			Prevent Climate Change (Continuous)		
	(4)	(5)	(6)	(4)	(5)	(6)
	Weak Opinion	Strong Opinion	Interaction	Weak Opinion	Strong Opinion	Interaction
Treatment Groups						
Military Environment	13.47** (0.0126)	3.178 (0.213)	13.47*** (0.00409)	0.137 (0.973)	4.414* (0.0917)	0.137 (0.975)
Military Security	12.05** (0.0230)	6.615*** (0.00936)	12.05*** (0.00887)	7.086* (0.0785)	9.038*** (0.000545)	7.086 (0.103)
NAS Environment	11.51** (0.0252)	-0.451 (0.862)	11.51*** (0.00999)	-0.134 (0.973)	-0.183 (0.945)	-0.134 (0.975)
NAS Security	7.842 (0.137)	1.842 (0.481)	7.842* (0.0874)	7.251* (0.0710)	1.589 (0.554)	7.251* (0.0941)
Interaction						
High Condition			12.69*** (0.000477)			18.34*** (9.25e-08)
Military Environment X High Condition			-10.29* (0.0574)			4.277 (0.402)
Military Security X High Condition			-5.432 (0.308)			1.951 (0.698)
NAS Environment X High Condition			-11.96** (0.0225)			-0.0491 (0.992)
NAS Security X High Condition			-6.001 (0.263)			-5.662 (0.263)
Constant (Control, Condition for Interaction)	74.77*** (0)	87.46*** (0)	74.77*** (0)	52.80*** (0)	71.15*** (0)	52.80*** (0)
Observations	477	1,337	1,814	478	1,339	1,817
R-squared	0.018	0.007	0.018	0.015	0.012	0.079

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Appendix C Experiment Fielding Instructions

Section 1: Pre-treatment

- All respondents answer same battery of questions

Assignment to treatment or control

- Respondents are randomly assigned to one of five groups
- **Control (0)** - Respondents receive no climate change cue
- **Military Security (1)** – Respondents receive SECURITY climate change cue from the MILITARY
- **Military Environment (2)**– Respondents receive the ENVIRONMENT climate change cue from the MILITARY
- **NAS Security (3)** – Respondents receive the SECURITY climate change cue from the NATIONAL ACADEMY OF SCIENCES
- **NAS Environment (4)**– Respondents receive the ENVIRONMENT climate change cue from the NATIONAL ACADEMY OF SCIENCES

Section 2: Receive treatment

- Respondents in treatment groups Military-Security, Military-Environment, NAS Security, NAS-Environment read instructions indicating he/she is about to read a summary position of the respective institution (*US military / National Academy of Sciences*) and will then be asked to answer questions following reading the summary
- Respondents read the following summary on climate change, inserting the correct institution and frame by treatment group

[US Military / National Academy of Sciences] Position on Climate Change

[Department of Defense (DoD) / National Academy of Sciences (NAS)]– The [*US military / National Academy of Sciences*] firmly believes that climate change is an urgent and growing threat to [national security / the environment]. Global temperatures are increasing, severe weather patterns are worsening, and sea levels are rising.

[Military-Security and NAS-Environment groups]

Warming temperatures and rising sea levels will:

- Destroy US military bases
- Decrease operational readiness
- Draw the US into more violent conflict
- Increase the chance of war with other nations over natural resources

[Military-Environment and NAS-Environment groups]

Warming air and water temperatures will:

- Melt arctic ice caps
- Raise sea levels
- Lead to greater chance of flooding
- Threaten fish stocks and coral

The *[US military / National Academy of Sciences]* believes immediate action must be taken to prevent rising temperatures and reduce the threat posed by climate change. Otherwise, warming temperatures and climate change lead to [security / environmental] impacts at home and abroad.

Section 3: Post-treatment

- All respondents answer same battery of questions

Appendix D Assignment to Treatment

Table 1.D Assignment to Treatment Randomization Check

Balance Table for Treatment Assignment

Respondent Demographic	Control	Military-Security	Military-Environment	NAS-Security	NAS-Environment
Party Identification					
Republican	40.2%	38.5%	40.0%	33.9%	39.6%
Democrat	42.8%	46.1%	42.8%	48.2%	41.8%
Independent	17.0%	15.4%	17.2%	17.9%	18.7%
Gender					
Male	49.2%	48.3%	50.0%	47.4%	50.0%
Female	50.8%	51.7%	50.0%	52.6%	50.0%
Age					
18-30	22.9%	23.9%	24.6%	22.9%	25.4%
31-40	21.9%	18.5%	19.7%	20.6%	16.7%
41-50	15.8%	15.4%	15.4%	15.5%	12.9%
51-60	15.8%	14.6%	17.2%	18.4%	18.4%
61 and older	23.6%	27.6%	23.1%	22.6%	26.6%
Education					
High school or less	23.8%	25.2%	24.9%	26.0%	25.1%
Some college of Associates	40.1%	35.0%	41.0%	37.6%	44.0%
Completed college	23.1%	26.2%	22.9%	22.1%	21.9%
Post-graduate	12.9%	13.7%	11.0%	14.3%	8.7%
Income					
Less than \$50,000	32.3%	31.5%	33.3%	32.2%	29.9%
\$50,000 - \$99,999	49.8%	49.4%	48.3%	49.9%	52.5%
\$100,000 and more	13.1%	14.9%	13.2%	12.8%	13.7%
Prefer not to answer	4.9%	4.2%	5.2%	5.2%	4.0%
Race					
White	74.3%	76.0%	73.6%	74.5%	73.4%
Black or African American	7.8%	7.3%	10.2%	10.6%	9.2%
Other	15.5%	13.2%	12.7%	13.3%	16.2%
Prefer not to answer	2.4%	3.4%	3.5%	1.7%	1.2%
Total Respondents in treatment condition					
	411	410	402	407	402

NOTE: Percentages reflect segment of survey population assigned to each experimental condition or class of conditions. A seven-point PID scale was used, but then collapsed to a three-point scale. Respondents who first answered the first PID question with "Independent" or "No Preference" were asked a follow-up question about which we he/she leaned, if at all. If respondents answered the follow-up question with "I do not lean," the respondent was classified as an Independent.

Pearson's chi2 Values: (PID) = 6.9639, p=0.541 (Gender) = .8130, p=0.937 (Age) = 11.566, p=0.773 (Education) = 16.2554, p=0.435, (Income) = 3.6003, p=0.990 (Race) = 13.3343, p=0.345

Appendix E Causal Mediation Analysis

Note: These tables depict the Average Causal Mediation Effect (ACME), Average Direct Effect (ADE), Total Effect, and Proportion Mediation. The dependent variable used is reported preference level to prevent climate change coded as continuous (0-100). The mediator is reported level of threat climate change poses on national security coded as continuous (0-100).

Tables 1.E Mediation Analysis

Climate Change Hurts National Security (Continuous) on Treatment			Prevention (Continuous) on Climate Change Hurts National Security (Continuous)		
Treatment Groups	(1)	(2)	Treatment Groups	(1)	(2)
	All Respondents	Republicans		All Respondents	Republicans
Military Security	13.30*** (0)	10.756*** (0)	Military Security	1.22 (0.562)	2.33 (0.5107)
NAS Security	9.671*** (0)	5.174* (0.0375)	NAS Security	-2.558 (.230)	-7.83* (0.033)
Constant (Control Level)	61.13*** (0)	56.03*** (0)	Constant (Control Level)	32.075*** (0)	17.07*** (0)
Observations	1,817	696	Observations	1,817	696
R-squared	0.039	0.032	R-squared	0.18	0.161

pval in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Military Security Treatment Condition - Mediation Analysis (All Respondents)

Causal Mediation Analysis

Quasi-Bayesian Confidence Intervals

	Estimate	95% CI Lower	95% CI Upper	p-value
ACME	7.476	5.403	9.31	<2e-16 ***
ADE	1.205	-2.448	5.03	0.48
Total Effect	8.681	4.241	13.94	<2e-16 ***
Prop. Mediated	0.867	0.619	1.52	<2e-16 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Sample Size Used: 1817

Simulations: 100

NAS Security Treatment Condition - Mediation Analysis (All Respondents)

Causal Mediation Analysis

Quasi-Bayesian Confidence Intervals

	Estimate	95% CI Lower	95% CI Upper	p-value
ACME	5.44	3.52	7.46	<2e-16 ***
ADE	-2.56	-5.99	0.95	0.20
Total Effect	2.88	-0.80	7.03	0.14
Prop. Mediated	1.83	-8.11	12.03	0.14

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Sample Size Used: 1817

Simulations: 100

Military Security Treatment Condition - Mediation Analysis (Republicans)

Causal Mediation Analysis

Quasi-Bayesian Confidence Intervals

	Estimate	95% CI Lower	95% CI Upper	p-value
ACME	6.522	3.273	10.28	<2e-16 ***
ADE	1.682	-6.267	9.15	0.58
Total Effect	8.204	-0.284	14.40	0.06 .
Prop. Mediated	0.759	-1.149	2.79	0.06 .

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Sample Size Used: 696

Simulations: 100

NAS Security Causal Mediation Analysis (Republicans)

Causal Mediation Analysis

Quasi-Bayesian Confidence Intervals

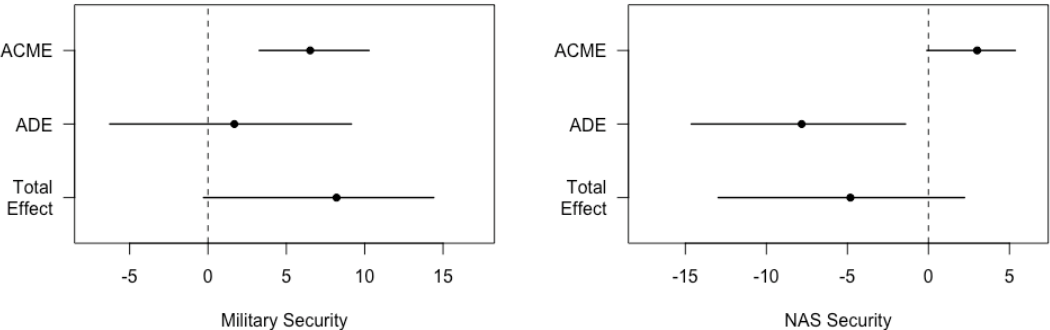
	Estimate	95% CI Lower	95% CI Upper	p-value
ACME	3.0067	-0.0967	5.36	0.08 .
ADE	-7.8214	-14.6285	-1.42	0.04 *
Total Effect	-4.8147	-12.9686	2.22	0.26
Prop. Mediated	-0.4023	-9.2550	6.20	0.34

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Sample Size Used: 696

Simulations: 100

Figure 1.E Climate Change's Security Threat Mediates Level of Prevention Among Republicans



Appendix F Attitudes toward the military and scientific community

Table 1.F Comparison of Military and Scientific Community attitudes by PID

	Respondent Party Identification	
	Republican	Democrat
Military		
Trust	75.70	60.14
Expertise	87.35	80.21
Credibility	81.52	70.18
Political Influence	47.00	58.75
Surprise of Position	45.11	49.01
Scientific Community		
Trust	61.48	76.81
Expertise	75.74	84.41
Credibility	68.61	80.61
Political Influence	57.50	41.28
Surprise of Position	15.15	15.71

Notes: All values recoded on continuous 0-100 scale.

Appendix G: Average Treatment Effects for Full Sample

Tables 1.G Average Treatment Effects for Full Sample

All Climate Change Exists - Binary

Treatment Groups	(1)	(2)	(3)	(4)
	All Respondents	Republican	Democrats	Independents
Military Environment	3.913* (0.0991)	5.113 (0.258)	1.635 (0.536)	6.756 (0.236)
Military Security	5.829** (0.0137)	9.787** (0.0315)	1.524 (0.555)	5.611 (0.338)
NAS Environment	2.354 (0.322)	4.855 (0.285)	-1.499 (0.573)	6.091 (0.277)
NAS Security	1.357 (0.566)	3.146 (0.504)	-2.388 (0.351)	1.833 (0.744)
Pooled Source				
Pooled Military	4.880** (0.0172)	7.428* (0.0581)	1.577 (0.486)	6.214 (0.210)
Pooled NAS	1.851 (0.366)	4.061 (0.306)	-1.979 (0.381)	3.976 (0.413)
Pooled Frame				
Pooled Environment	3.135 (0.127)	4.985 (0.203)	0.0910 (0.968)	6.412 (0.189)
Pooled Security	3.599* (0.0788)	6.691* (0.0921)	-0.468 (0.835)	3.568 (0.469)
Constant (Control Level)	84.15*** (0)	74.39*** (0)	93.71*** (0)	83.10*** (0)
Observations	2,028	780	899	349
R-squared	0.004	0.006	0.004	0.006

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

All Climate Change Exists - Continuous

Treatment Groups	(1)	(2)	(3)	(4)
	All Respondents	Republicans	Democrats	Independents
Military Environment	3.331* (0.0605)	3.039 (0.340)	2.496 (0.235)	6.037 (0.128)
Military Security	4.647*** (0.00857)	5.617* (0.0792)	1.729 (0.400)	7.250* (0.0758)
NAS Environment	2.367 (0.182)	3.672 (0.250)	-0.545 (0.797)	6.725* (0.0838)
NAS Security	0.647 (0.715)	0.606 (0.855)	-2.532 (0.214)	3.198 (0.413)
Pooled Source				
Pooled Military	3.994*** (0.00912)	4.316 (0.117)	2.094 (0.245)	6.611* (0.0559)
Pooled NAS	1.502 (0.327)	2.247 (0.420)	-1.615 (0.369)	4.985 (0.141)
Pooled Frame				
Pooled Environment	2.849* (0.0635)	3.353 (0.223)	0.993 (0.586)	6.395* (0.0602)
Pooled Security	2.652* (0.0833)	3.281 (0.240)	-0.440 (0.805)	5.059 (0.141)
Constant (Control Level)	75.15*** (0)	66.06*** (0)	85.44*** (0)	70.77*** (0)
Observations	2,032	781	901	350
R-squared	0.005	0.005	0.008	0.013

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

All Prevent Climate Change - Binary

Treatment Groups	(1)	(2)	(3)	(4)
	All Respondents	Republicans	Democrats	Independents
Military Environment	0.703 (0.837)	2.146 (0.693)	1.850 (0.662)	-5.613 (0.502)
Military Security	8.985*** (0.00827)	11.10** (0.0420)	2.994 (0.469)	14.63* (0.0893)
NAS Environment	-1.038 (0.761)	3.259 (0.550)	-4.545 (0.286)	-1.671 (0.838)
NAS Security	4.893 (0.151)	1.318 (0.816)	4.638 (0.258)	-1.544 (0.851)
Pooled Source				
Pooled Military	4.880* (0.0984)	6.583 (0.162)	2.449 (0.501)	3.967 (0.588)
Pooled NAS	1.945 (0.510)	2.357 (0.620)	0.400 (0.912)	-1.608 (0.823)
Pooled Frame				
Pooled Environment	-0.168 (0.955)	2.699 (0.566)	-1.310 (0.721)	-3.560 (0.620)
Pooled Security	6.944** (0.0184)	6.542 (0.170)	3.831 (0.286)	5.884 (0.418)
Constant (Control Level)	58.25*** (0)	36.36*** (0)	79.55*** (0)	56.34*** (0)
Observations	2,032	781	901	350
R-squared	0.006	0.006	0.006	0.018

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

All Prevent Climate Change - Continuous

Treatment Groups	(1)	(2)	(3)	(4)
	All Respondents	Republican	Democrats	Independents
Military Environment	2.460 (0.265)	2.995 (0.405)	4.053 (0.120)	-2.822 (0.581)
Military Security	7.394*** (0.000781)	8.625** (0.0171)	3.190 (0.211)	12.28** (0.0201)
NAS Environment	-0.836 (0.705)	1.641 (0.649)	-3.605 (0.170)	0.526 (0.916)
NAS Security	2.228 (0.311)	-3.449 (0.357)	3.899 (0.123)	-0.757 (0.881)
Pooled Source				
Pooled Military	4.948*** (0.00954)	5.784* (0.0637)	3.602 (0.109)	4.325 (0.337)
Pooled NAS	0.706 (0.712)	-0.724 (0.818)	0.436 (0.846)	-0.107 (0.981)
Pooled Frame				
Pooled Environment	0.812 (0.671)	2.322 (0.458)	0.269 (0.906)	-1.078 (0.807)
Pooled Security	4.817** (0.0115)	2.996 (0.345)	3.551 (0.110)	5.230 (0.242)
Constant (Control Level)	66.38*** (0)	51.82*** (0)	80.54*** (0)	65.14*** (0)
Observations	2,032	781	901	350
R-squared	0.008	0.014	0.014	0.028

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

All Climate Change Hurts National Security - Binary

	(1)	(2)	(3)	(4)
Treatment Groups	All Respondents	Republicans	Democrats	Independents
Military Environment	7.980** (0.0205)	10.62** (0.0457)	2.471 (0.622)	15.47* (0.0645)
Military Security	25.73*** (0)	25.26*** (2.56e-06)	23.12*** (2.75e-06)	29.10*** (0.000773)
NAS Environment	5.243 (0.128)	3.545 (0.506)	2.083 (0.680)	16.86** (0.0398)
NAS Security	19.67*** (1.13e-08)	16.93*** (0.00225)	16.20*** (0.000885)	25.10*** (0.00245)
Pooled Source				
Pooled Military	16.93*** (1.90e-08)	17.87*** (0.000121)	13.28*** (0.00236)	21.92*** (0.00282)
Pooled NAS	12.50*** (3.24e-05)	9.764** (0.0374)	9.684** (0.0262)	20.93*** (0.00360)
Pooled Frame				
Pooled Environment	6.611** (0.0264)	7.102 (0.123)	2.279 (0.600)	16.20** (0.0239)
Pooled Security	22.70*** (0)	21.38*** (5.20e-06)	19.59*** (4.72e-06)	26.94*** (0.000221)
Constant (Control Level)	40.78*** (0)	27.27*** (0)	56.25*** (0)	33.80*** (1.75e-08)
Observations	2,032	781	901	350
R-squared	0.037	0.036	0.038	0.039

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

All Climate Change Hurts National Security - Continuous

	(1)	(2)	(3)	(4)
Treatment Groups	All Respondents	Republicans	Democrats	Independents
Military Environment	3.179* (0.0676)	1.605 (0.517)	3.477 (0.213)	6.083 (0.114)
Military Security	10.64*** (9.67e-10)	7.134*** (0.00428)	12.03*** (1.13e-05)	13.53*** (0.000685)
NAS Environment	2.433 (0.162)	-0.497 (0.841)	3.648 (0.194)	6.141 (0.103)
NAS Security	6.238*** (0.000327)	2.554 (0.323)	7.701*** (0.00444)	6.123 (0.107)
Pooled Source				
Pooled Military	6.940*** (4.46e-06)	4.343** (0.0438)	7.953*** (0.000974)	9.606*** (0.00444)
Pooled NAS	4.347*** (0.00400)	0.920 (0.673)	5.831** (0.0153)	6.132* (0.0629)
Pooled Frame				
Pooled Environment	2.806* (0.0623)	0.560 (0.794)	3.562 (0.141)	6.113* (0.0649)
Pooled Security	8.442*** (2.10e-08)	4.999** (0.0219)	9.824*** (3.62e-05)	9.524*** (0.00458)
Constant (Control Level)	61.12*** (0)	56.26*** (0)	66.19*** (0)	59.86*** (0)
Observations	2,032	781	901	350
R-squared	0.021	0.015	0.025	0.033

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Chapter 2

Going Against the Partisan Grain? Public Response to Security Implications of Debt

Overview

Partisan cues often cause a back-fire effect whereby cross-partisans respond to cues by adopting the opposite policy positions. Although the military is often associated with conservative ideology, I theorize that the high levels of credibility and trust in the military from both Republican and Democratic Americans allow the military to effectively engage in co- and cross-partisan messaging without a back-fire effect. Moreover, I theorize that the military's effectiveness at messaging will allow it to influence not only general attitudes but also preferences on specific, concrete policy options. Using an experiment embedded in a survey of the American public, I compare the effectiveness of national security cues about the growing national debt delivered by the military and Republican congressional representatives on the House Armed Services and Budget Committees. I find that military cues are effective for both co- and cross-partisans, causing the public to increase perceptions that debt hurts national security and to report that more should be done to prevent the debt from growing. However, the evidence also reveals a partisan-motivated public in which Republican cues lead Democrats to report personal positions more dissonant than those advocated in the cue.

Introduction

In chapter one, I showed that the military holds considerable influence to inform public attitudes of Republicans and Democrats on a non-traditional military issue due to high levels of public belief in the military's credibility. When framed as a national security concern, military cues can even cause the public to increase support for policies intended to address the threat. These findings motivate a set of new research questions. First, what other issues may the military be an effective source of information? Second, if the military can inform Republican attitudes on a traditionally Democratic issue (climate change), can the military also inform Democratic attitudes on a traditionally Republican issue? Third, given the pervasiveness of political parties as sponsors of issue frames in policy debates, how effective are military cues when compared to party cues, e.g. a Republican or Democratic party cue? Fourth, do military cues change public support for specific public policies? In this chapter, I answer these questions by examining the extent to which—and how—the military can inform public opinion on the national debt.

The national debt is typically conveyed as an economic and political problem, and politicians and economists serve as the expected elite communicators for information about the issue. Republicans have generally been more outspoken on the need to rein in the debt and are often perceived as being more focused on this issue. The reality is more complicated since Republicans tend to raise the issue under Democratic administrations and have increased the debt when they hold the presidency. In 2018 and 2019, House Republicans introduced two resolutions to classify the national debt as a threat to national security, but these attempts have received little support from Democrats.²⁶ One reason the Republican framing of debt as a security issue has not gained traction is because cues that are highly partisan can be ineffective at informing cross-partisan attitudes, meaning messages from one party will not reach the segment of the public with the opposite partisan identity (Slothuus and de Vreese 2010; J. N. Druckman, Peterson, and Slothuus 2013).

However, the US military has also been outspoken about preventing the debt from rising due to the threat it poses to national security, the military, and the economy. In 2010, the Chairman of the Joint Chiefs of Staff (CJCS) Admiral Michael Mullen called the US

²⁶ In 2018 and 2019, House Republicans introduced two resolutions (H. Res. 149 -116th Congress and H. Res. 919 – 11th Congress) to recognize the national debt as a threat to national security.

national debt “the most significant threat to our national security.”²⁷ Since the CJCS’ comments, four Secretaries of Defense have also named the national debt the greatest threat to US security.²⁸ If the military is indeed able to influence partisans on the left and the right, it could perhaps do a better job at widely promoting a reframing of the national debt as a serious national security concern. Can military-endorsed cues on the national debt influence both Democrats’ and Republicans’ attitudes toward the national debt? If so, why and to what extent?

Drawing from theories on source credibility, political behavior, and motivated reasoning, I argue that the military is particularly strong at informing cross-partisan public attitudes because its widespread credibility and non-partisan label allow its messaging to be persuasive to a variety of audiences. While partisan cues can lead contra-partisans to report more dissonant attitudes (Slothuus and de Vreese 2010; J. N. Druckman, Peterson, and Slothuus 2013), I expect that military cues will not induce this back-fire effect even though it is generally seen as a Republican leaning institution. Using an experiment embedded in a survey of the American public, I compare the effectiveness of cues made by the US military, the Chairman of the Joint Chiefs of Staff, and congressional Republicans on the House Armed Services and Budget committees on public attitudes about a rising debt. I find evidence that the military is not only effective at influencing aggregate public attitudes about the national debt, but also that it is particularly effective at influencing Democrats’ attitudes.

A Republican-endorsed security cue about the national debt causes Democrats to *decrease* perceptions that the debt hurts national security and to report wanting to do *less* to prevent the debt from growing when compared to the control group. However, a military-endorsed security cue about the national debt causes Democrats to *increase* perceptions that the debt hurts national security and to report wanting to do *more* to prevent the debt from growing when compared to the same control group. When military-endorsed

²⁷ “Mullen: Debt is top national security threat.” *CNN*. August 27, 2010. <http://www.cnn.com/2010/US/08/27/debt.security.mullen/index.html>.

²⁸ As part of a 2016 joint-statement for the Coalition for Fiscal and National Security, former Secretaries of Defense Robert Gates, Leon Panetta, Chuck Hagel stated US “long-term debt is the greatest threat to our national security” (Coalition for Fiscal and National Security). At his 2017 Defense Secretary Confirmation Hearing, Gen (Ret). James Mattis agreed that US federal debt was the greatest threat to national security when asked by Senator David Perdue (Defense Secretary Confirmation Hearing).

and Republican-endorsed cues are compared directly, Democrats exposed to military-endorsed cues report higher support for decreasing government spending and more opposition for cutting military spending. Importantly, Democrats respond to CJCS-endorsed cues similarly to military-endorsed cues, suggesting that individual military elites—and not just the military as an organization—can engage publicly on an issue and effectively influence public attitudes.

These findings advance our understanding of the military and civil-military relations literature in three ways. First, the military can effectively communicate to a public that discounts cross-partisan messages; in particular Democrats respond positively to military-endorsed cues but respond negatively to Republican-endorsed cue. Second, the military can change public attitudes on concrete policy options. In this case, military-endorsed cues lead to increased public support for debt mitigation policies such as cutting spending or raising taxes. Third, I validate previous studies on military elite cueing by demonstrating that individual military elites can be as effective at delivering political cues as the military can as an institution. This implies that military elites and advocacy groups that employ retired military members may be more influential in shaping public policy than traditional partisan elites and advocacy groups.

Theory and Hypotheses

When individuals lack resources to form expert opinions on political issues, individuals look toward elite cues as heuristics to formulate opinions on political issues (Zaller 1992; Lupia and McCubbins 1998). Cues from elites one sees as credible or informative may convince that individual to adopt that same viewpoint (Golby, Feaver, and Dropp 2017; James N. Druckman 2001) or may influence that individual's behavior (Chong and Druckman 2007; Zhou 2016). As issue complexity increases, individuals pay closer attention to the attributes of the source itself (Golby, Feaver, and Dropp 2017). Sources that an individual perceives as politically independent (Greico et al. 2011), expert (Golby, Feaver, and Dropp 2017), like-minded (Siegrist, Cvetkovich, and Roth 2000; Charles S. Taber and Milton Lodge 2006), and politically similar (Kahan, Jenkins-Smith, and Braman 2011; Benegal and Scruggs 2018) are classified as highly credible and exert greater influence on individuals' issue beliefs and preferences (Robinson 2018). Americans

attribute the US military with many of these qualities. Military scholars credit the public's confidence and trust in the military to it being non-partisan and politically independent (Owens 2015), competent and accountable, subordinate to the interests of those in society (Hill, Wong, and Gerras 2013; Newport 2017), and comprised of highly professional servicemembers (Burbach 2017; Hill, Wong, and Gerras 2013).

Given the high levels of confidence and trust assigned to it, I theorize that the military is an effective source of political information and is able to influence public attitudes on a variety of non-use of force issues. If so, the military's position on the national debt should lead respondents to change their perceptions about the national debt to be in line with the military's view. This proposed relationship leads to the following baseline hypothesis:

H1 (Military) – Respondents exposed to a military-endorsed cue about the security threat posed by a rising national debt will increase their perceptions that a rising national debt hurts national security and that more should be done to prevent the debt from growing when compared to respondents who were not exposed to a cue.

This hypothesis serves as an important baseline test to the public's overall responsiveness to a military-endorsed cue.

Partisan Cues: Given the pervasiveness of political parties as sponsors of issue frames in policy debates, it is important to assess how the military may shape public opinion in comparison to a party source. Even though most frames enter political discourse through political actors, the majority of framing studies provide respondents with unendorsed frames or frames endorsed by a news organization (Druckman, Peterson, and Slothuus 2013). When party source is introduced to framing studies, endorsed messages influence co-partisans to adopt similar positions but influence contra-partisans to adopt opposite positions (J. N. Druckman, Peterson, and Slothuus 2013; Slothuus and de Vreese 2010).

On political issues, partisan-minded individuals are less motivated to form accurate opinions when presented with information.²⁹ Instead of weighing the substance of the information, partisan-minded individuals pay closer attention to the political identity of the source (Druckman, Peterson, and Slothuus 2013). The partisan identity of the source induces a “perceptual screen” preventing accurate interpretation of the information (J. N. Druckman and McGrath 2019). Animus toward contra-partisan sources lead some individuals to report positions more dissonant than the position advocated by the source. This would mean that a Democrat might see a Democratic party-endorsed policy as effective—and then to support that policy—but see the same policy as less effective and oppose it if endorsed by Republicans (J. N. Druckman and Bolsen 2011; J. N. Druckman, Peterson, and Slothuus 2013). This back-fire effect is especially prevalent in climate-change policy, where Democratic-endorsed cues lead Republicans to report less support for preventative policies (Zhou 2016).

If this same back-fire effect is present in the issue of national debt, a Republican-endorsed cue would lead Democrats to report preferences contrary to the position of the cue when compared to Democrats who did not receive a Republican-endorsed cue.³⁰ If Democrats see the military as non-partisan, then there will be no back-fire and Democrats exposed to a military-endorsed cue will report preferences closer to the position advocated in the cue when compared to Democrats who were not exposed to a military-endorsed cue.³¹ However, if Democrats see the military as a Republican-aligned institution, there could be a back-fire effect. These proposed relationships lead to the following hypotheses:

H2A – Democrats exposed to a Republican-endorsed cue about the security threat posed by a rising national debt will *decrease* perceptions that a rising debt hurts the nation and *decrease* support for preventing a rising debt when compared to Democrats not exposed to a cue.

²⁹ On political issues, cognitive motivation may arise from perceptions of social identity such as party identification and political ideology (Slothuus and de Vreese 2010; Bartels 2002; Jost et al. 2003; Zhou 2016).

³⁰ This is a more restrictive test than proposing that Democrats would simply not respond to a Republican-endorsed cue.

³¹ It is plausible that the public does not hold this political animus toward the military as confidence in the military is linked to its image as non-partisan and politically independent (Owens 2015).

H2B – Democrats exposed to a military-endorsed cue about the security threat posed by a rising national debt on the national debt will *increase* perceptions that a rising debt hurts the nation and *increase* support for preventing a rising debt when compared to Democrats not exposed to a cue.

Republicans, on the other hand, will not respond negatively against Republican-endorsed cues. The public expects politicians to make statements that align with their party's views and priorities (Lupia and McCubbins 1998). However, it is difficult to predict how effective Republican-endorsed cues will be and whether military-endorsed cues will be more effective. Republicans treat the military as an in-group communicator (Golby, Feaver, and Dropp 2017), so it is possible that military-endorsed cues and Republican-endorsed cues have similar effects on Republican attitudes.

Institution and Elites: A small but growing body of empirical research within the civil-military relations literature studies how military elites can inform public opinion because of their association with the military institution (Golby, Feaver, and Dropp 2017; Golby, Dropp, and Feaver 2012; Robinson 2018). This assumption, however, has largely escaped empirical scrutiny. Robinson (2018) argue that just as a corporate endorser gains his/her influence to sell a product from the credibility of the brand, so do military elites. Golby, Feaver, and Dropp (2017) similarly suggest that service in the military allow military elites extended influence with the public. To test these claims, I propose comparing military-endorsed cues to individual military elite-cues on the national debt. If the public does not distinguish between an individual elite associated with the military and the military itself, military-endorsed cues and military elite-cues should have similar effects on public attitudes toward the national debt. This proposed relationship leads to the following hypothesis:

H3 (Institution vs. Elite) – The average treatment effects for respondents exposed to a military-endorsed cue and respondents exposed to a CJCS-endorsed cue about the national debt will be equal.

Although the military holds positions on many political issues, it is more likely that individual military elites will be the ones to engage on the issue in the public sphere. For example, Admiral (Ret.) Mullen was an outspoken advocate on the issue of national debt while serving as the CJCS and since retiring, has increasingly advocated his position. If military elites are as influential as the military at delivering political messages, this could promote retired servicemembers using their association with the military as a way to gain influence or advance specific policy preferences.

Policy Preferences: If the military or individual military elites are persuasive in influencing the public to want to take preventative measures against a rising debt, it is plausible to also observe a change in respondents' preferences over policies that would reduce the debt, e.g. cutting government spending or increasing taxes. The military or individual military elites advocating that a rising national debt leads to increased military and economic competition from foreign nations should lead respondents to increase support for increasing taxes or cutting government spending. I propose the following hypothesis:

H4 (Policy Preferences) – Respondents exposed to a military-endorsed or CJCS-endorsed cue on how to mitigate the rising debt will be more supportive of reducing government spending and increasing taxes when compared to respondents not exposed to a cue.

Admittedly, military or individual military elite cues may simply cause partisans to increase their support for their preferred way to address the debt. This would mean that Democrats only increase support for taxes and that Republicans only increase support for cutting government spending. Therefore a hard test of military influence would be if military cues lead respondents to support policies that run contrary to their partisan preference.

Research Design

I administered a survey experiment to 2,460 Americans to evaluate the military's effectiveness to shape public opinion on the national debt and fiscal policy.³² The experiment exposed respondents to a cue made by either the US military, the CJCS, or congressional Republicans on the House Armed Services or Budget Committees, on the national security implications of a rising national debt. Respondents were randomized into a control group or one of the four treatment groups. Respondents who were assigned to treatment read identical security framed cues and only the identity of the cue-giver was manipulated.

All respondents were asked the same battery of pre-treatment and post-treatment questions. In-line with Druckman, Peterson, and Slothuus' (2013) study on how partisan-endorsed messages affect public attitudes, the control group received basic yet non-argumentative information about the rising national debt before answering the dependent measures.³³ This setup allows treatment effects to be calculated relative to the control group as well as comparisons of treatment effects across treatment groups. For measurements of institutional trust, expertise, credibility of the sources, I drew on corporate credibility literature for a battery of questions (refer to chapter 1 for discussion).

Respondents assigned to treatment read realistic cues of official statements reflecting real-world positions. I modified actual positions in one way, however. While most of these cue-givers called the national debt the "top threat" to national security, I toned this down to say that the national debt was "one of the top threats" (Figure 2.1). The military generally does not specify which threat is the greatest. The cues also stated that if the government cannot stop the debt from growing, it will weaken the economy, hurt the

³² The experiment was fielded by Lucid, an internet-based polling firm, to a nationally representative opt-in sample. Lucid provided of 2,460 respondents in August 2019 of which a total of 2,256 were included in final analysis due to manipulation check passage rates and pre-analysis plans. Analysis of the full sample does not change the substantive interpretations of the findings (refer to Appendix D).

³³ To introduce the topic about the national debt, all respondents read a neutral statement widely utilized in communication studies: "As you may know, there is a debate about how much financial debt the US government should have, what kind of problem it causes for Americans, and what should be done to keep it from growing. Some say that a high level of debt hurts the nation while others say that a high level of debt does not hurt the nation."

military, and increase competition from foreign nations. The cues concluded with the endorser urging lawmakers to mitigate a rising debt.³⁴

Figure 2.1 Treatment Wording

The National Debt Threatens US Security

Washington DC – According to [the US military / Admiral Michael Mullen, the former Chairman of the Joint Chiefs of Staff³⁵ / Republican members of congress on the House Budget and Armed Services Committees], America's growing national debt is one of the biggest threats to our national security.

If the US government cannot stop the national debt from growing, it will:

- Weaken the economy
- Hurt military effectiveness and readiness
- Increase economic and military competition from foreign nations

The [insert treatment group endorser] urges lawmakers to take immediate action to reduce the debt by changing entitlement programs, controlling healthcare costs, and overhauling the tax system.

Respondents completed a post-treatment survey about their attitudes toward the national debt. Although no standardized questions exist on measuring American attitudes toward the national debt, I constructed questions similar to public opinion questions on climate change and conducted two pre-tests to check internal validity and consistency across sampling. The dependent variables of interest were answers to the following questions:

- 1) (Hurts security / economy / military) “How much do you think the growing national debt would hurt US national security / economy / military?”

³⁴ At the end of treatment, I administered an attention check asking the position of the source. In-line with my pre-analysis plan and similar to Press, Sagan, and Valentino (2013) and Tomz & Weeks (2019), all analysis reported in the paper do not include respondents who failed the attention check. There were no meaningful changes in the substantive size or statistical significance of any of my findings and analysis of the full sample will be included in the appendix.

³⁵ To match real-world presentation of how the treatments would be presented, respondents assigned to the CJCS treatment group read the modifying phrase, “and highest ranking-military officer.”

- Five-point unipolar semantically anchored scale. Coded continuously, each measure reports perceptions of how much a growing debt will hurt each entity with 0 = “Not at all” and 100 = “a great deal”
- 2) (Prevent) “How much do you think should be done to prevent a growing national debt?”
- Five-point unipolar semantically anchored scale and coded continuously where 0 = “Not at all” and 100 = “a great deal”
- 3) (Policy Preferences) “To keep the debt from growing, the US government is considering a variety of policies. Please indicate how much you support the government enacting the following policies: Increase taxes, Decrease government spending, Decrease spending on the military” (randomized order).
- Five-point unipolar probability scale and coded continuously where 0 = “Definitely won’t support,” 50 = “Might or might not support,” 100 = “Definitely would support”

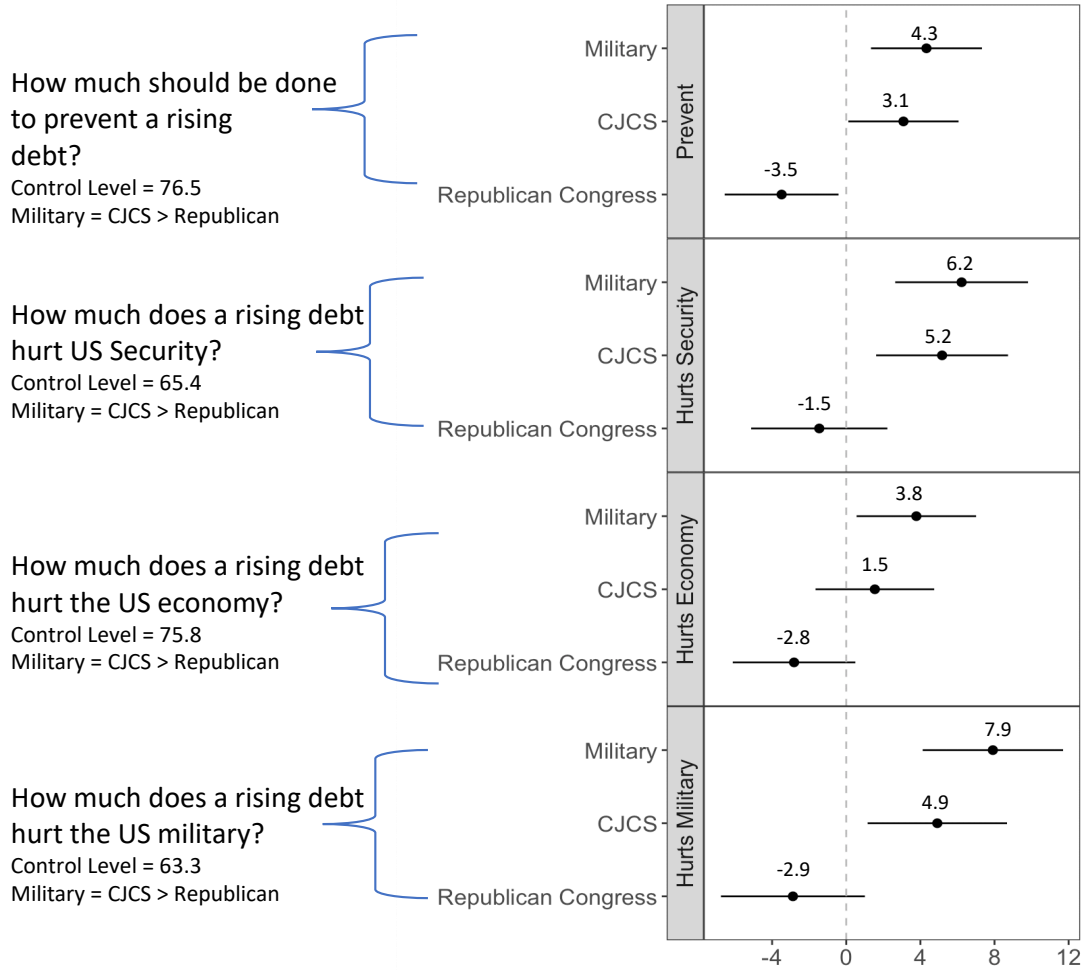
Results

To estimate the effects of the randomized treatments, I regressed each dependent variable on treatment, partisanship, and their interaction. Full regression models and interactions are included in the appendix. Effects are presented as the average treatment effects relative to the control group. First, I present the average treatment effects for the various cues on the full sample to assess the overall effect of military-endorsed cues on public perceptions of the national debt (H1). Second, I examine the interaction between partisanship and the identity of the source to test if Democrats back-fire against Republican-endorsed cues but update perceptions in line with the military (H2). Third, I test the difference between military-endorsed and CJCS-endorsed cues on public perceptions of the military (H3). Fourth, I test whether the military’s position leads to specific changes to policy preference bundles (H4). For the main analysis, I present only the treatment effects for military-endorsed, CJCS-endorsed, and Republican-endorsed cues. I include the more detailed results of the advocacy group in the appendix.

Aggregate Sample: Figure 2.2 depicts the average treatment effects across all respondents and relative to the control group. In support of H1, I find evidence that

military-endorsed cues are effective at changing public perceptions of the national debt.³⁶ Respondents exposed to a military-endorsed cue report increased perceptions that a rising national debt hurts national security, the economy, and the military as well as report wanting to do more to prevent a rising national debt.

Figure 2.2 Average Treatment Effects for Aggregate Sample



Note: Figure depicts the average treatment effects by cue source, relative to the control group. All dependent variables have been coded to a 0-100 continuous scale (refer to research design section for specific dependent variable measurement). Coded this way, the coefficients represent the absolute percent change in reported attitude. 95% confidence intervals are included. Full regression output is included in Appendix A. From top to bottom, the control levels are 76.5%, 65.4%, 75.8%, and 63.3%.

³⁶ I included an additional treatment condition where respondents received the same cue but endorsed by the Coalition of National and Fiscal Security, an advocacy group comprised of former government officials. Treatment effects were either not present or smaller than the military treatment effects. Refer to the appendix for reference.

Exposure to a military-endorsed cue increased the mean level of debt prevention by 4.3% ($p=.005$) the mean levels of perception that the growing debt hurts national security, the economy, and the military by 6.2% ($p=.001$), 3.7% ($p=.022$), and 7.9% ($p=0$), respectively. CJCS-endorsed cues are generally effective at influencing public attitudes and are similar in magnitude to military-endorsed cues consistent with H3. One interesting finding to highlight is that military-endorsed cues not only update public perceptions that a growing national debt hurts the military or national security, but that a growing national debt also hurts the economy. Despite economic issues being arguably outside the military's expertise, the public still responds to the military's opinion on the economy when communicated in context of a national security message. Importantly, the economic effect smaller than the security and military effects.

To test whether perceptions of military credibility affected the treatment, respondents were divided into two groups. Those who reported credibility in the military above the median were classified as "high" and those who reported credibility in the military below the median were classified as "low." I then calculated the interaction coefficient which represents the marginal effect between having "low" credibility in the military and having "high" credibility in the military. I find mixed support that credibility moderates the military and CJCS treatment effects (Refer to Appendix B). Respondents with high credibility in the military and exposed to military-endorsed or CJCS-endorsed cues report, on average, that a rising national debt hurts national security 6.6% ($p=.07$) or 10.1% ($p=.01$) more than respondents with low credibility in the military, respectively. Respondents with high credibility in the military also report, on average, higher support for taxes when exposed to a military-endorsed cue by 5.7% ($p=.15$) or a CJCS-endorsed cue by 7.8% ($p=.08$). Respondents with high credibility in the military report, on average, higher support for debt prevention when exposed to a military-endorsed cue (5.2%, $p=.01$); however, the marginal treatment effect of high credibility is small (2.4%, $p=.43$). The marginal treatment effects were also small and statistically insignificant on support for spending reductions.

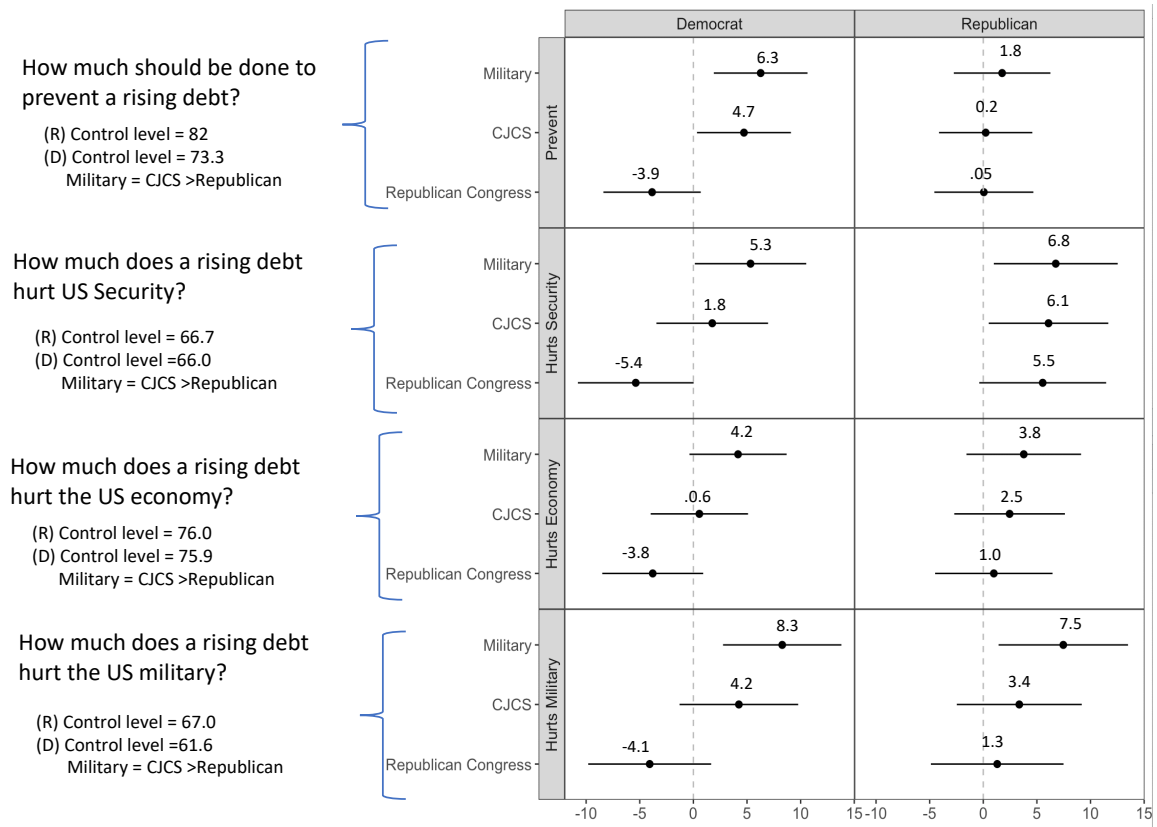
Partisanship: Figure 2.3 depicts average treatment effects by partisanship and tests H2A and H2B. Note the relatively high baseline attitudes of both Republicans and

Democrats toward debt prevention suggesting far less partisan polarization than on the climate change issue.³⁷ Data presented in chapter one show a 31% split between Republicans and Democrats on climate change prevention. Data collected on the national debt show only a 9% split in preventative attitudes between Republicans and Democrats. Furthermore, Republicans held comparatively low levels of support to prevent climate change but high levels of support to prevent the national debt from growing (50% compared to 82%). Democrats, on the other hand, reported similar levels of support to prevent climate change and the national debt (81% compared to 73%).

There is evidence that Democrats back-fire against a Republican-endorsed cue but respond positively to a military-endorsed cue (H2A and H2B). Democrats exposed to a Republican-endorsed cue report lower levels of debt prevention attitudes and weaker perceptions that debt hurts national security, the economy, and the military (H2A). However, Democrats exposed to military-endorsed cues also report higher levels of debt prevention attitudes, and increased perceptions that debt hurts national security, the economy, and the military (H2B). When comparing Democrats exposed to military-endorsed cues directly to Democrats exposed to Republican-endorsed cues, Democrats exposed to military-endorsed cues report wanting to do 10.1% ($p=.00$) more to prevent the national debt from growing and report that a rising debt hurts national security, the economy, and the military, 10.7% ($p=.00$), 8.9% ($p=.00$), and 12.4% ($p=.00$) more than Democrats exposed to Republican-endorsed cues.

³⁷ Similar to Guisinger and Saunders (2017), I use the term polarization to refer to the split in baseline attitudes between Republicans and Democrats on a particular issue using measures gathered directly from the survey. This method provides a distribution of public opinion at the given moment of the experiment.

Figure 2.3 Average Treatment Effects by Respondent Partisanship



Note: Figure depicts the average treatment effects by cue source, relative to the control group. Refer to research design section for specific dependent variable measurement. All dependent variables have been coded to a 0-100 continuous scale (refer to research design section for specific dependent variable measurement). Coded this way, the coefficients represent the absolute percent change in reported attitude. 95% confidence intervals are included. Refer to Appendix A for full regression output. For Democrats, from top to bottom, the control levels are 73.3%, 66%, 75.9%, and 61.6%. For Republicans, from top to bottom, the control levels are 82%, 66.7%, 75.9%, and 67%.

Among Republicans, a military-endorsed cue increases perceptions that the national debt hurts US security and the military but does not affect attitudes toward prevention. Recall from chapter one that Republicans hold a high threshold for changing attitudes on prevention with respect to climate change. Non-security-based military cues about climate change did not cause Republicans to want to do more to prevent climate change. Only security-based military cues about climate change caused Republicans to want to do more to prevent climate change. But because Republicans were exposed to security-based cues on the national debt, I predicted that they would increase their

preventative attitudes. I find little support for this hypothesis and find this especially puzzling because Republicans have higher trust in the military.

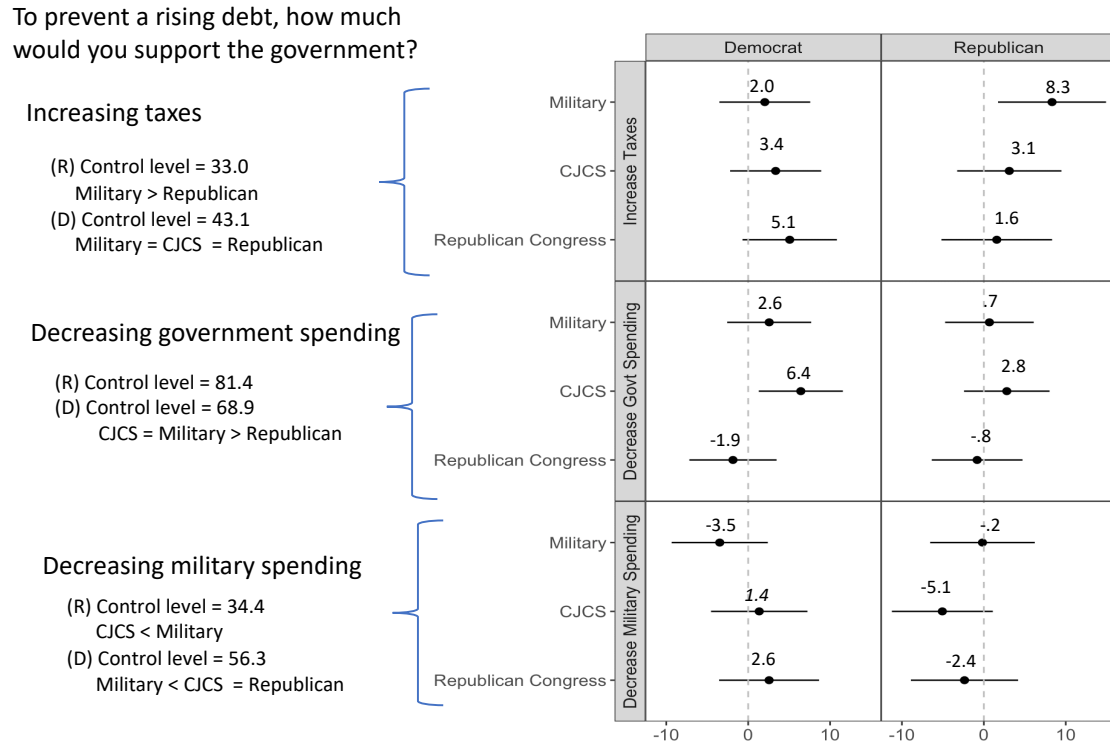
One possibility for this null-finding is that Republicans already have well-informed or well-established views on the issue of national debt. National debt cues would therefore be less influential in updating Republican attitudes. If true, Republicans with low knowledge about the national debt may therefore be responsive to national debt cues.³⁸ Furthermore, Druckman and Leeper (2012) suggest that high knowledge respondents could have a higher likelihood of already being aware of the military's position and therefore be less likely to respond.

Before receiving treatment, respondents were asked how knowledgeable they were on the issue of a rising national debt. Respondents were divided into high and low knowledge groups separated by the median reported knowledge level. Two thirds of Republicans were classified as high knowledge suggesting that the incorporation of new information would be less likely to influence prior attitudes because that prior is based on a large repository of information against which a new piece of information is relatively insignificant. However, both high and low knowledge Republicans did not respond to any of the cues. This is an interesting and puzzling observation. Why do Republicans increase preventative attitudes when exposed to a military-endorsed cue on a Democratic issue like climate change, but not on a Republican issue like national debt? Future studies can look at additional party-owned issues to understand this trend.

Policy Preferences: In chapter one, I found evidence that the military can influence general public attitudes toward prevention but was unable to test whether these general attitudes translated into specific policy preferences. In the national debt experiment, I therefore included additional measurements of individual preferences on how to prevent the debt from growing. Respondents were asked to report their level of support for the government increasing taxes, decreasing government spending, and decreasing military spending to prevent the debt from rising. Figure 2.4 depicts the average treatment effects interacted with partisanship.

³⁸ At the same time, if this hypothesis were true, it would also predict null effects not only for Republicans but also for Democrats.

Figure 2.4 Average Treatment Effects on Policy Preferences by Partisanship



Note: Figure depicts the average treatment effects for respondents' support for the government enacting respective policy to prevent a rising debt, relative to the control group. All dependent variables have been coded to a 0-100 continuous scale (refer to research design section for specific dependent variable measurement). Coded this way, the coefficients represent the absolute percent change in reported attitude. 95% confidence intervals are included. Refer to Appendix A for full regression output. For Democrats, from top to bottom, the control levels of support for each policy are 43%, 68%, and 45%. For Republicans, from top to bottom, the control levels of support for each policy are 33%, 81%, and 34%.

Compared to the control group, Democrats exposed to a military-endorsed cue report, on average, marginally higher support for decreasing government spending and lesser support for decreasing military spending. Although these differences in mean support are substantively small, they reveal the strength of the military voice among Democrats on an issue where the typical Republican-source hardens preferences. Republicans increase support for taxes by 8.3%, which seems somewhat remarkable given that sampled Republicans are going against the partisan grain. But this result mimics the results found on the issue of climate change. At the same time, Republicans did not change

support for spending. These results on changes to policy preference suggest that military-endorsed cues can lead to substantive changes in preferences.

Discussion

Drawing from the literatures on source credibility, political behavior, and motivated reasoning, I presented evidence that the military is particularly strong at informing cross-partisan public attitudes on the national debt. While partisan cues can lead contra-partisans to report more dissonant attitudes, military cues do not. The military is instead able to deliver cues about political issues without experiencing the back-fire effect that party cues experience. A Republican-endorsed security cue about the national debt causes Democrats to decrease perceptions that debt hurts national security and to report that less should be done to prevent the debt from growing but a military-endorsed security cue about the national debt causes Democrats to increase perceptions that debt hurts national security and to report that more should be done to prevent the debt from growing. I attribute this influence to high levels of public credibility in the military and the military's lack of a partisan label.

Existing theories about military elites generally suggest that elites' effectiveness come from their association with the military (Robinson 2018; Golby, Dropp, and Feaver 2012; Golby, Feaver, and Dropp 2017). My study largely validates this assumption, illustrating that the public responds positively and equally to both military-endorsed and individual military elite-endorsed cues. This is important for two reasons. First, it is more likely that individual military elites will be the actors that engage on a political issue in the public sphere. Admiral (Ret.) Mullen, for example, became a principal communicator of the national debt message while in uniform and after retiring. Admiral (Ret.) Mullen currently heads the Coalition of National and Fiscal security, an advocacy group comprised of former government officials (chiefly from the Department of Defense), which advises policy makers of the security threats of the national debt and what policies will mitigate these threats. Furthermore, being able to influence policy due to an association with the military may entice individuals to increase public engagement. Second, the similarity in influence between institution and elite should also indicate that the rest of my work about the military applies generally to military elites. Although I did not explicitly test a military

elite cue on climate change, I would expect that a military elite could also advocate for specific climate change mitigation policies and influence public support. Future work can test the degree to which Americans view individual members of the military as credible and non-partisan as the institution as a whole.

Given that the military can shape public attitudes on a variety of non-use of force issues, will these positions in-turn affect public credibility of the military? The military holds views on numerous politically contentious issues like transgender employment practices, gender equality, climate change, artificial intelligence, and fiscal spending, and is increasingly asked to share its views in Congress and in the media. Traditional civil-military norms hypothesize that political engagement or partisan activity by the military may erode the public's high confidence and trust in the military (Huntington 1957; Golby, Dropp, and Feaver 2012). But little empirical attention has been given in this literature to test this apolitical assumption.

The military may face associated risks for sharing its positions on political issues as issue positions have been found to drive both anger and enthusiasm toward the source (Mason 2016). Some people skeptical of climate change might change their views about climate change upon hearing the military's pro-climate position, but others may respond to a discrepant message in a different way: by decreasing their trust in the institution and their evaluation of its credibility. Alternatively, people who respond positively to the military's position on climate change may be more persuaded by the military's position on another issue, even if the same people would be inclined to disagree with the military's position. It is therefore important to ask: Will the military's positions on non-use of force issues affect public perceptions of the military? If so, what are the downstream effects of public faith in the military? The military can be persuasive on both use of force and non-use of force issues, but the persuasiveness depends on the public's credibility in the institution. If the military's credibility erodes, will it then degrade its ability to inform the public on use of force issues? It is to these questions that we turn in the final chapter.

Appendix A Average Treatment Effects

Note: Appendix A presents the average treatment effects by treatment group, relative to the control group, used to make the coefficient plots in the main body of chapter two. All dependent variables have been coded to a 0-100 continuous scale (refer to research design section for specific dependent variable measurement). Coded this way, the coefficients represent the absolute percent change in reported attitude. Two-tailed p-values are depicted beneath each coefficient.

Respondents who passed the manipulation check are included in the analysis. Refer to Appendix C for full sample.

Table 2.A National Debt Main Average Treatment Effects

Treatment Group	DV: How much should be done to prevent debt from rising? - Continuous (Prevent)				DV: How much the growing debt would hurt US national security? - Continuous (Security)			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Military	4.328*** 0.005	1.757 0.446	6.274*** 0.005	4.333 0.296	6.225*** 0.001	6.758** 0.023	5.331** 0.045	7.784* 0.098
CJCS	3.087** 0.043	0.224 0.92	4.717** 0.036	3.731 0.383	5.171*** 0.005	6.083** 0.033	1.759 0.509	12.998*** 0.008
Advocacy Group	0.649 0.674	-1.096 0.629	2.939 0.194	-3.516 0.417	5.838*** 0.002	7.621*** 0.009	4.046 0.133	6.305 0.199
Congress	-3.487** 0.027	0.054 0.982	-3.850* 0.097	-8.766** 0.034	-1.456 0.438	5.541* 0.067	-5.372* 0.052	-3.739 0.422
Constant (Control Level)	76.587*** 0	81.960*** 0	73.251*** 0	75.000*** 0	65.427*** 0	66.761*** 0	66.049*** 0	60.882*** 0
Respondents	All	Republicans	Democrats	Independents	All	Republicans	Democrats	Independents
Observations	2,256	803	1,085	368	2,255	803	1,084	368
R ²	0.012	0.002	0.021	0.034	0.013	0.011	0.016	0.039
Adjusted R ²	0.011	-0.003	0.017	0.024	0.011	0.006	0.012	0.028

Table depicts average treatment effects relative to control group. Dependent variables are re-coded to a 0-100 continuous scale.

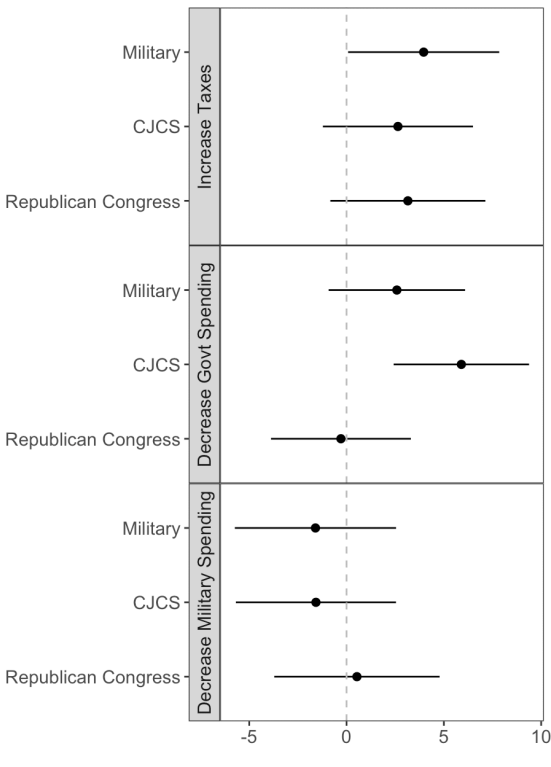
Treatment Group	DV: How much the growing debt would hurt US economy? - Continuous (Economy)				DV: How much the growing debt would hurt US military? - Continuous (Military)			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Military	3.782** 0.022	3.775 0.167	4.165* 0.072	2.667 0.551	7.912*** 0.00005	7.461** 0.016	8.284*** 0.004	8.039 0.108
CJCS	1.543 0.346	2.454 0.352	0.558 0.81	2.239 0.627	4.913** 0.011	3.357 0.26	4.242 0.134	9.855* 0.056
Advocacy Group	2.016 0.225	2.864 0.286	2.407 0.305	-1.563 0.738	5.514*** 0.005	5.331* 0.079	5.755** 0.045	4.159 0.425
Congress	-2.816* 0.096	0.984 0.725	-3.791 0.115	-7.143 0.108	-2.877 0.147	1.3 0.681	-4.073 0.165	-7.047 0.156
Constant (Control Level)	75.794*** 0	75.994*** 0	75.926*** 0	75.000*** 0	63.294*** 0	67.045*** 0	61.626*** 0	60.294*** 0
Respondents	All	Republicans	Democrats	Independents	All	Republicans	Democrats	Independents
Observations	2,256	803	1,085	368	2,256	803	1,085	368
R ²	0.007	0.003	0.011	0.016	0.017	0.009	0.02	0.037
Adjusted R ²	0.005	-0.002	0.007	0.005	0.015	0.004	0.016	0.026

Table depicts average treatment effects relative to control group. Dependent variables are re-coded to a 0-100 continuous scale.

Group	DV: How much you support the government enacting the following policy? -											
	Raising taxes - Continuous				Decrease government spending - Continuous				Decrease spending on military - Continuous			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Military	3.962** 0.046	8.328** 0.014	2.029 0.474	0.157 0.973	2.586 0.149	0.68 0.806	2.564 0.328	7.235 0.105	-1.598 0.45	-0.164 0.96	-3.474 0.247	-0.452 0.925
CJCS	2.64 0.18	3.109 0.339	3.354 0.238	0.018 0.998	5.899*** 0.001	2.803 0.294	6.425** 0.015	9.355** 0.043	-1.573 0.454	-5.065 0.108	1.347 0.655	0.204 0.967
Advocacy Group	1.515 0.448	4.082 0.218	1.179 0.682	-3.364 0.484	2.874 0.111	-0.065 0.981	4.496* 0.091	2.767 0.552	-1.453 0.496	2.199 0.493	-4.04 0.184	-0.874 0.862
Congress	3.151 0.122	1.578 0.648	5.070* 0.086	1.486 0.745	-0.289 0.875	-0.817 0.773	-1.858 0.495	5.313 0.23	0.533 0.806	-2.361 0.48	2.553 0.413	1.028 0.829
Constant (Control Level)	38.393*** 0	32.955*** 0	43.107*** 0	36.176*** 0	72.470*** 0	81.392*** 0	68.004*** 0	66.765*** 0	46.464*** 0	34.375*** 0	56.302*** 0	43.452*** 0
Respondents	All	Republicans	Democrats	Ind	All	Republicans	Democrats	Ind	All	Republicans	Democrats	Ind
Observations	2,256	803	1,085	368	2,255	803	1,084	368	2,254	803	1,084	367
R ²	0.002	0.008	0.003	0.003	0.007	0.003	0.011	0.014	0.001	0.007	0.006	0.0005
Adjusted R ²	0.0004	0.003	-0.0004	-0.008	0.005	-0.002	0.007	0.003	-0.001	0.002	0.003	-0.011

Table depicts average treatment effects relative to control group. Dependent variables are re-coded to a 0-100 continuous scale.

Figure 2.A Average Treatment Effects on Policy Preferences for Aggregate Sample



Note: Figure depicts the average treatment effects for respondents' support for the government enacting respective policy to prevent a rising debt, relative to the control group. Refer to research design section for specific dependent variable measurement. All dependent variables have been coded to a 0-100 continuous scale. Refer to Appendix A full regression output. 95% confidence intervals are included. From top to bottom, the control levels of support for each policy are 38%, 72%, and 56%.

Appendix B: Republican and Democrat Views of Military, Congress, and Advocacy Groups

I included a modified four-question battery from corporate credibility (Newell and Goldsmith 2001) to measure perceptions of credibility in the military, congress, and advocacy groups (refer to chapter one for detailed description of method). To measure surprise of the cue, respondents in the respective treatment groups were asked, “earlier in the survey, you read that the *[insert treatment group]* believes the national debt hurts national security. How surprising was this information?” The outcome was measured on a 5-point unipolar scale from “not surprising at all (1)” to “extremely surprising.”

Figure 2.B Republican and Democrat Views of Military, Congress, and Advocacy Groups

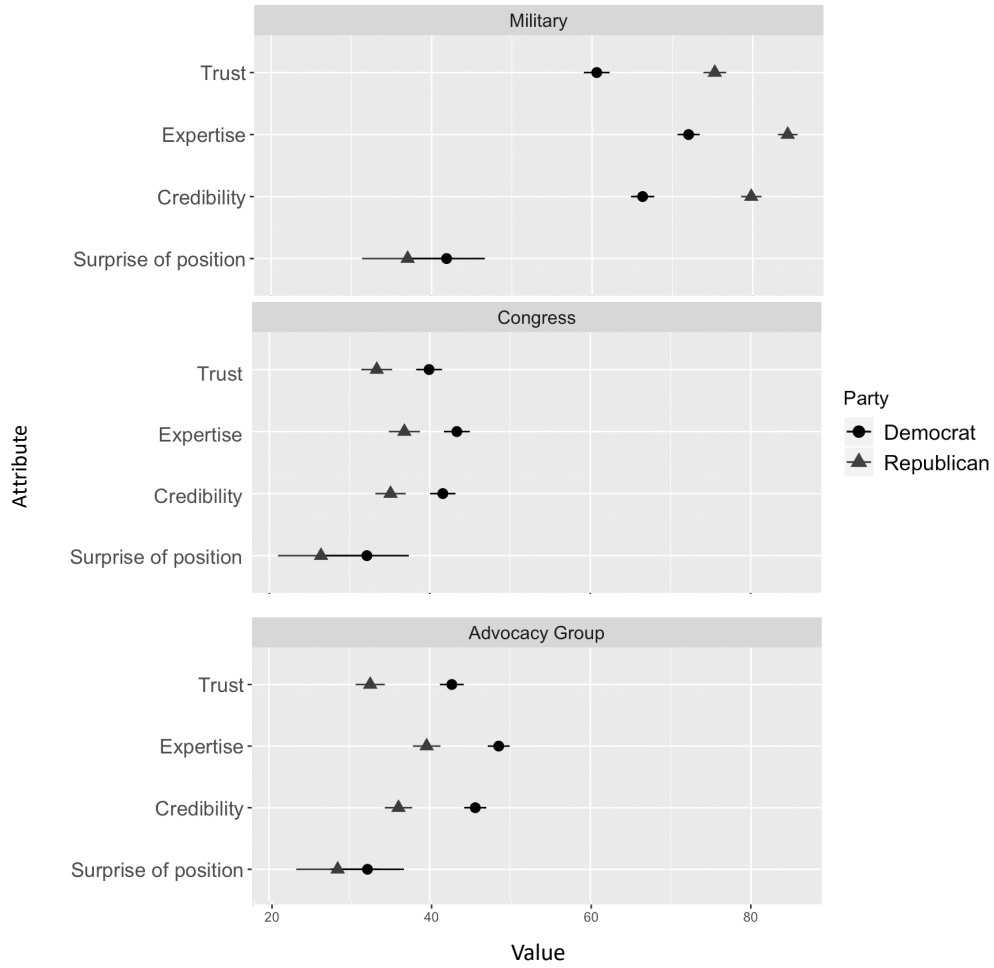


Table 2.B Republican and Democrat Views of Military, Congress, and Advocacy Groups

		Republican	Democrat
Military			
Trust	Republican	75.28	60.57
Expertise	Republican	84.37	72.02
Credibility	Republican	79.83	66.29
Surprise of position	Republican	37.01	41.86
Congress			
Trust	Republican	33.39	39.91
Expertise	Republican	36.83	43.37
Credibility	Republican	35.11	41.62
Surprise of position	Republican	26.44	32.16
Advocacy Group			
Trust	Republican	32.60	42.76
Expertise	Republican	39.63	48.60
Credibility	Republican	36.12	45.68
Surprise of position	Republican	28.55	32.26

Note: All values recorded on continuous 0-100 scale

Appendix C: Mechanisms

Tables 2.C Mechanism Average Treatment Effects

Preference to Prevent a Rising Debt

Mechanism: Credibility in Military

Treatment Group	All Respondents			Republicans			Democrats		
	(1) High Credibility	(2) Low Credibility	(3) Interaction	(4) High Credibility	(5) Low Credibility	(6) Interaction	(7) High Credibility	(8) Low Credibility	(9) Interaction
Military	5.180*** (0.00727)	2.768 (0.244)	2.768 (0.215)	2.479 (0.358)	-0.0744 (0.987)	-0.0744 (0.986)	7.605** (0.0186)	4.986* (0.0981)	4.986* (0.0904)
CICS	3.767* (0.0537)	2.376 (0.302)	2.376 (0.272)	-1.851 (0.480)	5.489 (0.189)	5.489 (0.186)	10.08*** (0.00249)	0.902 (0.760)	0.902 (0.755)
Advocacy Group	2.252 (0.250)	-1.519 (0.521)	-1.519 (0.495)	-2.122 (0.430)	1.746 (0.677)	1.746 (0.676)	8.475*** (0.00967)	-1.960 (0.521)	-1.960 (0.511)
Republican	-1.298 (0.522)	-5.630** (0.0174)	-5.630** (0.0114)	0.0443 (0.987)	0.521 (0.906)	0.521 (0.905)	0.438 (0.898)	-7.081** (0.0216)	-7.081** (0.0187)
High Credibility			5.427*** (0.00886)			4.557 (0.195)			1.722 (0.576)
Military X High			2.412 (0.426)			2.553 (0.620)			2.620 (0.555)
CICS X High			1.391 (0.643)			-7.339 (0.135)			9.181** (0.0404)
Advocacy X High			3.771 (0.216)			-3.868 (0.436)			10.43** (0.0205)
Republican X High			4.332 (0.162)			-0.477 (0.927)			7.518 (0.105)
Constant (Control Lvl)	79.18*** (0)	73.76*** (0)	73.76*** (0)	83.20*** (0)	78.65*** (0)	78.65*** (0)	74.26*** (0)	72.54*** (0)	72.54*** (0)
Observations	1,198	1,058	2,256	568	235	803	473	612	1,085
R-squared	0.011	0.014	0.040	0.006	0.011	0.011	0.033	0.024	0.051

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: Table depicts average treatment effects relative to control group. Dependent variables are re-coded to a 0-100 continuous scale.

**DV: How much does a rising debt hurt security -
Mechanism: Credibility in Military**

Treatment Group	All Respondents			Republicans			Democrats		
	(1) High Credibility	(2) Low Credibility	(3) Interaction	(4) High Credibility	(5) Low Credibility	(6) Interaction	(7) High Credibility	(8) Low Credibility	(9) Interaction
Military	9.049*** (0.000189)	2.459 (0.367)	2.459 (0.358)	7.099** (0.0436)	5.878 (0.281)	5.878 (0.297)	9.879** (0.0115)	1.246 (0.724)	1.246 (0.721)
CICS	10.01*** (4.60e-05)	-0.0526 (0.984)	-0.0526 (0.984)	7.803** (0.0227)	2.123 (0.680)	2.123 (0.690)	9.322** (0.0205)	-3.617 (0.296)	-3.617 (0.291)
Advocacy Group	8.544*** (0.000520)	2.541 (0.350)	2.541 (0.341)	8.008** (0.0226)	6.893 (0.184)	6.893 (0.198)	7.673* (0.0529)	0.788 (0.826)	0.788 (0.824)
Republican	2.761 (0.277)	-5.794** (0.0330)	-5.794** (0.0298)	6.977* (0.0554)	2.307 (0.672)	2.307 (0.682)	-0.254 (0.951)	-9.232*** (0.0107)	-9.232*** (0.00985)
High Credibility			1.931 (0.437)			0.846 (0.851)			2.186 (0.550)
Military X High			6.590* (0.0698)			1.221 (0.853)			8.633 (0.102)
CICS X High			10.06*** (0.00517)			5.679 (0.368)			12.94** (0.0151)
Advocacy X High			6.004 (0.101)			1.114 (0.861)			6.885 (0.198)
Republican X High			8.555** (0.0213)			4.670 (0.484)			8.978 (0.103)
Constant (Control Lvl)	66.35*** (0)	64.42*** (0)	64.42*** (0)	66.99*** (0)	66.15*** (0)	66.15*** (0)	67.33*** (0)	65.14*** (0)	65.14*** (0)

Note: Table depicts average treatment effects relative to control group. Dependent variables are re-coded to a 0-100 continuous scale.

**Policy Preference - Support Decrease Military Spending
Mechanism: Credibility in Military**

Treatment Group	All Respondents			Republicans			Democrats		
	(1) High Credibility	(2) Low Credibility	(3) Interaction	(4) High Credibility	(5) Low Credibility	(6) Interaction	(7) High Credibility	(8) Low Credibility	(9) Interaction
Military	-1.705 (0.531)	0.136 (0.963)	0.136 (0.963)	2.035 (0.580)	-6.176 (0.311)	-6.176 (0.304)	-6.596 (0.149)	0.404 (0.912)	0.404 (0.916)
CICS	-4.208 (0.127)	1.102 (0.697)	1.102 (0.700)	-5.331 (0.136)	-6.130 (0.288)	-6.130 (0.281)	-2.168 (0.645)	3.800 (0.289)	3.800 (0.312)
Advocacy Group	-0.553 (0.841)	-1.690 (0.562)	-1.690 (0.565)	3.106 (0.397)	-2.359 (0.684)	-2.359 (0.680)	-4.989 (0.281)	-2.013 (0.587)	-2.013 (0.604)
Republican	-3.368 (0.240)	4.035 (0.166)	4.035 (0.169)	-4.102 (0.281)	-0.223 (0.971)	-0.223 (0.970)	-2.650 (0.584)	6.680* (0.0738)	6.680* (0.0880)
High Credibility			-19.33*** (0)			-19.34*** (6.28e-05)			-14.64*** (0.000273)
Military X High			-1.841 (0.645)			8.210 (0.244)			-7.000 (0.225)
CICS X High			-5.310 (0.180)			0.799 (0.905)			-5.967 (0.305)
Advocacy X High			1.137 (0.777)			5.465 (0.421)			-2.976 (0.611)
Republican X High			-7.403* (0.0701)			-3.878 (0.586)			-9.330 (0.121)
Constant (Control Lvl)	37.26*** (0)	56.59*** (0)	56.59*** (0)	29.10*** (0)	48.44*** (0)	48.44*** (0)	47.77*** (0)	62.41*** (0)	62.41*** (0)
Observations	1,198	1,056	2,254	568	235	803	473	611	1,084
R-squared	0.003	0.004	0.116	0.014	0.009	0.082	0.005	0.010	0.099

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: Table depicts average treatment effects relative to control group. Dependent variables are re-coded to a 0-100 continuous scale.

Policy Preference - Support Decrease Spending
Mechanism: Credibility in Military

Treatment Group	All Respondents			Republicans			Democrats		
	(1) High Credibility	(2) Low Credibility	(3) Interaction	(4) High Credibility	(5) Low Credibility	(6) Interaction	(7) High Credibility	(8) Low Credibility	(9) Interaction
Military	2.427 (0.311)	2.166 (0.411)	2.166 (0.409)	3.132 (0.330)	-5.729 (0.284)	-5.729 (0.276)	0.284 (0.944)	4.070 (0.234)	4.070 (0.244)
CICS	4.365* (0.0724)	7.591*** (0.00301)	7.591*** (0.00284)	2.376 (0.448)	3.886 (0.443)	3.886 (0.435)	5.059 (0.226)	7.397** (0.0272)	7.397** (0.0307)
Advocacy Group	4.408* (0.0702)	0.718 (0.784)	0.718 (0.783)	1.918 (0.550)	-4.259 (0.402)	-4.259 (0.395)	6.538 (0.112)	2.297 (0.507)	2.297 (0.516)
Republican	1.403 (0.578)	-1.880 (0.473)	-1.880 (0.471)	0.576 (0.863)	-3.943 (0.460)	-3.943 (0.453)	-0.918 (0.831)	-2.663 (0.445)	-2.663 (0.455)
High Credibility			6.881*** (0.00471)			0.911 (0.829)			5.195 (0.155)
Military X High			0.261 (0.942)			8.861 (0.151)			-3.786 (0.472)
CICS X High			-3.226 (0.360)			-1.510 (0.798)			-2.338 (0.659)
Advocacy X High			3.690 (0.302)			6.177 (0.300)			4.241 (0.426)
Republican X High			3.283 (0.367)			4.519 (0.468)			1.746 (0.750)
Constant (Control Lvl)	75.76*** (0)	68.88*** (0)	68.88*** (0)	81.64*** (0)	80.73*** (0)	80.73*** (0)	71.04*** (0)	65.85*** (0)	65.85*** (0)
Observations	1,198	1,057	2,255	568	235	803	473	611	1,084
R-squared	0.004	0.014	0.028	0.002	0.020	0.014	0.011	0.015	0.021

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: Table depicts average treatment effects relative to control group. Dependent variables are re-coded to a 0-100 continuous scale.

Policy Preference - Support Increase Taxes
Mechanism: Credibility in Military

Treatment Group	All Respondents			Republicans			Democrats		
	(1) High Credibility	(2) Low Credibility	(3) Interaction	(4) High Credibility	(5) Low Credibility	(6) Interaction	(7) High Credibility	(8) Low Credibility	(9) Interaction
Military	6.689** (0.0154)	0.973 (0.732)	0.973 (0.740)	11.90*** (0.00353)	-1.116 (0.852)	-1.116 (0.862)	3.771 (0.386)	0.938 (0.801)	0.938 (0.804)
CICS	5.890** (0.0351)	-0.902 (0.744)	-0.902 (0.751)	5.216 (0.188)	-2.444 (0.666)	-2.444 (0.688)	8.829** (0.0491)	-0.539 (0.883)	-0.539 (0.884)
Advocacy Group	4.659* (0.0961)	-1.965 (0.489)	-1.965 (0.501)	5.432 (0.181)	0.214 (0.970)	0.214 (0.972)	4.241 (0.336)	-1.044 (0.782)	-1.044 (0.785)
Republican	2.239 (0.440)	3.964 (0.162)	3.964 (0.174)	4.770 (0.257)	-6.473 (0.280)	-6.473 (0.314)	1.117 (0.808)	8.111** (0.0334)	8.111** (0.0359)
High Credibility			-5.545** (0.0415)			-6.966 (0.176)			-4.724 (0.233)
Military X High			5.716 (0.151)			13.02* (0.0849)			2.833 (0.619)
CICS X High			6.792* (0.0844)			7.660 (0.288)			9.368 (0.103)
Advocacy X High			6.624* (0.0976)			5.217 (0.474)			5.285 (0.360)
Republican X High			-1.724 (0.671)			11.24 (0.140)			-6.995 (0.239)
Constant (Control Lvl)	35.74*** (0)	41.29*** (0)	41.29*** (0)	31.05*** (0)	38.02*** (0)	38.02*** (0)	40.35*** (0)	45.07*** (0)	45.07*** (0)
Observations	1,198	1,058	2,256	568	235	803	473	612	1,085
R-squared	0.006	0.004	0.007	0.015	0.007	0.013	0.010	0.012	0.012

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: Table depicts average treatment effects relative to control group. Dependent variables are re-coded to a 0-100 continuous scale.

Appendix D: Treatment Effects for Full Sample

Note: Appendix D presents the average treatment effects by treatment group, relative to the control group, used to make the coefficient plots in the main-body of chapter two. All dependent variables have been coded to a 0-100 continuous scale (refer to research design section for specific dependent variable measurement). Coded this way, the coefficients represent the absolute percent change in reported attitude. Two-tailed p-values are depicted beneath each coefficient.

All respondents from the sample are included regardless of passing the manipulation check or not.

Tables 2.D Average Treatment Effects for Full Sample

Treatment Group	DV: How much should be done to prevent debt from rising? - Continuous				DV: How much the growing debt would hurt US national security? - Continuous (Security)			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Military	2.985** 0.05	-0.008 0.998	5.580** 0.011	2.035 0.631	5.299*** 0.003	5.428* 0.062	5.221** 0.042	5.397 0.238
CJCS	2.028 0.187	-0.33 0.885	3.923* 0.077	0.685 0.877	4.976*** 0.006	6.719** 0.019	1.342 0.608	11.378** 0.018
Advocacy Group	-0.608 0.693	-2.582 0.261	2.827 0.202	-7.237* 0.098	5.235*** 0.004	7.250** 0.012	3.864 0.139	4.249 0.368
Congress	-4.222*** 0.007	-1.592 0.497	-3.624 0.103	-9.946** 0.017	-1.866 0.3	3.609 0.219	-4.646* 0.077	-3.893 0.385
Constant (Control Level)	76.587*** 0	81.960*** 0	73.251*** 0	75.000*** 0	65.427*** 0	66.761*** 0	66.049*** 0	60.882*** 0
Respondents	All	Republicans	Democrats	Independents	All	Republicans	Democrats	Independents
Observations	2,460	866	1,181	413	2,458	865	1,180	413
R ²	0.011	0.002	0.018	0.03	0.011	0.01	0.014	0.029
Adjusted R ²	0.009	-0.002	0.014	0.021	0.01	0.005	0.011	0.02

Table depicts average treatment effects relative to control group. Dependent variables are re-coded to a 0-100 continuous scale.

Treatment Group	DV: How much the growing debt would hurt US economy? - Continuous (Economy)				DV: How much the growing debt would hurt US military? - Continuous (Military)			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Military	1.741 0.287	1.077 0.692	3.106 0.172	-0.872 0.845	6.637*** 0.0005	5.440* 0.074	7.629*** 0.006	6.566 0.175
CJCS	0.808 0.625	2.459 0.357	-0.274 0.906	0.0 1.0	4.682** 0.014	3.673 0.219	3.918 0.159	8.541* 0.091
Advocacy Group	0.547 0.741	1.407 0.6	1.66 0.473	-4.934 0.282	5.315*** 0.006	4.706 0.117	6.155** 0.027	3.522 0.48
Congress	-4.048** 0.015	-0.534 0.846	-4.325* 0.063	-9.409** 0.032	-2.24 0.239	-0.021 0.995	-2.415 0.387	-5.187 0.274
Constant (Control Level)	75.794*** 0	75.994*** 0	75.926*** 0	75.000*** 0	63.294*** 0	67.045*** 0	61.626*** 0	60.294*** 0
Respondents	All	Republicans	Democrats	Independents	All	Republicans	Democrats	Independents
Observations	2,460	866	1,181	413	2,460	866	1,181	413
R ²	0.006	0.002	0.01	0.017	0.013	0.007	0.015	0.024
Adjusted R ²	0.004	-0.003	0.006	0.007	0.011	0.002	0.012	0.015

$p < .05$, *** $p < 0.01$

Table depicts average treatment effects relative to control group. Dependent variables are re-coded to a 0-100 continuous scale.

Treatment Group	Raise taxes - Continuous				Decrease government spending - Continuous				Decrease spending on military - Continuous			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Military	3.804** 0.048	7.430** 0.025	2.256 0.411	0.451 0.919	1.733 0.322	-0.327 0.905	2.441 0.338	4.747 0.277	-1.136 0.579	0.832 0.798	-3.378 0.24	-0.138 0.976
CJCS	3.239* 0.095	4.062 0.21	3.306 0.238	1.837 0.69	4.957*** 0.005	2.586 0.335	5.148** 0.047	7.893* 0.083	-1.113 0.59	-3.712 0.245	0.981 0.738	0.726 0.88
Advocacy Group	1.143 0.556	3.91 0.23	0.427 0.879	-2.624 0.565	1.86 0.292	-0.884 0.743	3.871 0.135	0.67 0.882	-0.485 0.815	3.619 0.26	-3.284 0.262	-0.36 0.94
Congress	2.516 0.195	1.555 0.64	4.152 0.139	0.383 0.93	-1.559 0.378	-2.558 0.353	-2.324 0.371	3.072 0.474	1.202 0.561	-1.093 0.739	2.47 0.401	2.152 0.635
Constant (Control Level)	38.393*** 0	32.955*** 0	43.107*** 0	36.176*** 0	72.470*** 0	81.392*** 0	68.004*** 0	66.765*** 0	46.464*** 0	34.375*** 0	56.302*** 0	43.452*** 0
Respondents	All	Republicans	Democrats	Independents	All	Republicans	Democrats	Independents	All	Republicans	Democrats	Independents
Observations	2,460	866	1,181	413	2,458	866	1,180	412	2,456	866	1,180	410
R ²	0.002	0.007	0.003	0.002	0.006	0.004	0.009	0.01	0.001	0.007	0.005	0.001
Adjusted R ²	0.0005	0.002	-0.001	-0.007	0.004	-0.0003	0.006	-0.0002	-0.001	0.002	0.002	-0.009

$p < .05$, *** $p < 0.01$

Table depicts average treatment effects relative to control group. Dependent variables are re-coded to a 0-100 continuous scale.

Chapter 3

Public Response: Partisan Backing or Partisan Bashing?

Overview

For nearly two decades, Americans have given the US military the highest confidence and trust ratings of any institution. But despite these high levels of confidence among both Republicans and Democrats, a growing body of research illustrates that political engagement by individual military members can degrade the credibility of the military. Given an increasingly polarized political landscape which finds the public systematically filtering policy prescriptions through partisan lenses, I ask how the military institution's preferences on climate change, national debt, and gender identity affect the long-standing credibility of the military institution? I use the results of original survey experimentation to determine how the military's stated positions on issues cause a partisan public to reward or punish the military. I find that Democrats are highly responsive to the military's positions projecting micro-level preferences to institutional measurements of credibility and trust. While the military's pro-climate stance causes Democrats to upgrade their views of the military, learning the military's restriction on some transgender people joining the military causes Democrats to downgrade their views of the military. Republicans, by contrast, are resistant to downgrading the military. Evidence suggests that motivated reasoning may lead Republicans to attribute preference inconsistencies to outside political pressure. I discuss the implications of these findings and the downstream effects.

Introduction

For nearly two decades, Americans have esteemed the military to be one of the most trusted, credible, and confident institutions despite a broader decline in support for other American institutions. A growing body of literature suggests that the military can influence public opinion of both Republicans and Democrats on a variety of issues because of this trust. At the same time, polarization and hostility toward cross-partisan groups is leading to a partisan public that sanctions experts who do not share the same political views (Robinson 2018).

The military is therefore in a precarious position as it holds views on numerous politically contentious issues like transgender employment practices, gender equality, climate change, artificial intelligence, and fiscal spending, and is increasingly asked to share its views in Congress and in the media. Traditional civil-military norms prescribe that political engagement or partisan activity by the military may erode the public's high confidence and trust in the military (Huntington 1957; Golby, Dropp, and Feaver 2012). These norms suggest that military elites who engage in political acts or speak publicly about military operations decrease public perceptions of the military (Golby, Dropp, and Feaver 2012; Robinson 2018), but little attention has been given in this literature to whether the military's positions on political issues unrelated to the use of force may also affect public perceptions of the military.

Although the military can influence public opinion because many people trust and identify with it, the military may also face associated risks for sharing its positions on political issues as issue positions have been found to drive both anger and enthusiasm toward the source (Mason 2016). For example, some people skeptical of climate change might change their views about climate change upon hearing the military's pro-climate position, but others may respond to a discrepant message in a different way: by decreasing their trust in the institution and their evaluation of its credibility. Alternatively, people who respond positively to the military's position on climate change may be more persuaded by the military's position on another issue, even if the same people would be inclined to disagree with the military's position.

It is therefore important to ask: Will the military's positions on non-use of force issues affect public perceptions of the military? If so, how will the issue domain, the military's position, and ideological beliefs of the public moderate changes in these perceptions?

Implications of the downstream effects of public faith in the military are significant. The military can be persuasive on both use of force and non-use of force issues, but the persuasiveness depends on how much credibility people ascribe to the institution. If the military's credibility erodes, will it then degrade its ability to inform the public on other use and non-use of force issues? Using three experiments embedded in surveys of the American public, I argue that the military's position on a variety of non-use of force issues that are currently central to public debate have the potential to change public perceptions of the military. The experiments measure the public's change in perceptions of credibility, expertise, and trust in the military after exposure to the military's position on climate change, fiscal responsibility, and military service of transgender people.

These issues represent a mixture of security and non-security topics, various levels of public involvement by the military, and variation as to which political party the military's views more closely align with. Climate change is a non-use of force issue but is increasingly seen as a security problem. Here, the military's pro-climate position aligns closely with Democratic issue preferences and less so with Republican issue preferences. Additionally, climate change is a topic in which Democratic policymakers have invoked the military's position with the intent to discount cross-partisans or as a way to garner support from Republicans. This issue presents an opportunity to test whether Democrats upgrade their perceptions of military confidence or whether Republicans downgrade the military on a politically contentious, but security-relevant issue.

The military's recommendation and support for restricting some transgender people from military service stands at the opposite end of the spectrum from climate change. The military's position opposes Democratic issues preferences of gender identity equality and is a way to test what happens when the military engages on social issues. However, the military has little public involvement in the issue beyond this internal regulation. Lastly, the military's opinion on the national debt—that is one of the biggest threats to security and should be mitigated by tax and spending policy changes—deals with an issue that is more regularly engaged on in public. This issue area allows me to test American

perceptions when the military takes a strong, but non-controversial stance on a polarizing topic.

Results show a highly partisan public in which Democrats and Republicans respond differently to the military's views. On average, Democrats are responsive to the military's position, both positively and negatively, across multiple issues. When Democrats are informed of the military's belief in climate change, they increase their perceptions of trust in and credibility of the military by 17% and 10%, respectively. However, when Democrats are informed of the military's position that transgender people who have gender dysphoria should be restricted from joining the armed forces, they decrease their perceptions of trust in and credibility of the military by 20% and 15%, respectively.

Republicans, on the other hand, are largely unresponsive to changing their views of the military across these same issues. Importantly, instead of downgrading their trust in the military when presented with a discrepant view, Republicans increase their perception of outside political influence, suggesting that Republicans engage in motivated reasoning to reduce the cognitive dissonance that would otherwise result from their support of the military.

The evidence also shows significant downstream consequences on the military's effectiveness as a cue giver. Although Democrats downgrade the military after exposure to the military's view on restricting some transgender people from joining the military, Democrats who first read that the military thinks climate change is happening become more restrictive on allowing transgender people to serve. Furthermore, these same group of Democrats also increase support for organizations being allowed to incorporate someone's gender identity into employment decisions. This suggests that, once Democrats are exposed to a view of the military's that matches their own party's preferences, they become more susceptible to agreeing with the military's policies in the future. This finding demonstrates the substantive importance of downstream effects of positive perceptions of the military as well as makes novel theoretical and empirical contributions to source credibility literature.

My study advances research into military public opinion, institutional credibility, and civil military relation literature in four ways. First, I extend analysis beyond the traditional use of force context and into other issue areas. The military takes positions on many non-use of force issues, which are sometimes considered politically sensitive. This

level of analysis is absent from military source credibility literature. Public confidence in the military has fluctuated since the 1970s but has always remained relatively high compared to public confidence in other institutions.³⁹ Although changes in military confidence generally tracked public support for major US military engagement overseas until 2010, this trend is less evident today. Americans' confidence in the military remains high despite both decreased support for military engagement overseas and a broader decline in support for other American institutions.

Second, I find that some Americans' perceptions of military credibility are not solely driven by assessments of the institution being apolitical. Instead, some Americans evaluate the degree to which the military aligns with their own partisanship. The current framework suggested by the civil-military literature around the apolitical norm may be mistaken, since the military can actually *increase* its credibility through political engagement if it takes certain opinions.

Third, I directly evaluate how beliefs, preferences, and behaviors of the military affect the public's views of the military. Previous works illustrate that the public's perceptions of the military are conditional, but they more closely focus on the intermediary role that military elites serve in representing the institution. I extend analysis to the entire institution and suggest that views and beliefs of the military itself have significantly more impact on tarnishing or improving America's view of the military when compared to the activity of an individual.

Fourth, I demonstrate the dynamics between source credibility and cue effectiveness. Previous elite cueing studies assume source credibility to be fixed and exogenous; however, I illustrate that cue content updates source credibility and future persuasiveness of the source. Furthermore, I show that this updating produces significant downstream effects. When source credibility rises from communicating one position, it translates into increased cue effectiveness in another issue.

³⁹ For additional reading, see Robinson (2018) and Gallup's institutional confidence survey research. Since 1973, Gallup has collected Americans' perceptions of confidence in various institutions. From 1981-1991, the percentage of Gallup respondents who held "a great deal" or "quite a lot of confidence" in the military rose from 50% to 85%. Following the Gulf War and throughout the 1990s, confidence in the military decreased to 60% until the events of September 11, 2001 when confidence in the military rose to 79%.

Theory and Hypotheses

Understanding how the military's views on non-use of force issues may lead the public to change its perceptions of the military requires bridging the literatures of elite cueing, source credibility, polarization, and civil-military relations. When individuals lack resources to form expert opinions on political issues, they look toward elite cues as heuristics to formulate an opinion (Zaller 1992; Lupia and McCubbins 1998). As issue complexity increases, individuals pay closer attention to the attributes of the source itself (Golby, Feaver, and Dropp 2017). Sources that an individual perceives as politically independent (Greico et al. 2011), like-minded (Siegrist, Cvetkovich, and Roth 2000; Charles S. Taber and Milton Lodge 2006), and politically similar (Kahan, Jenkins-Smith, and Braman 2011; Benegal and Scruggs 2018) are classified as highly confident, credible, or trusted and greater influence the individual's issue beliefs and preferences (Robinson 2018).

Americans attribute the US military with many of these qualities. Military scholars suggest the public's confidence and trust in the military to the military being competent and accountable, committed to a calling of service and sacrifice, and subordinate to the interests of those in society (Hill, Wong, and Gerras 2013). Gallup survey data show that the American public attributes the highest levels of confidence in the military due to high competence, the importance of what the military does for the nation, and strong positive feelings toward servicemembers.⁴⁰

Republicans hold particularly strong positive perceptions of the military. Republicans see the military as a like-minded, in-group communicator with similar social values. On average, military members are more socially conservative than the rest of society and the mass public view the military as conservative and Republican-leaning (Golby, Feaver, and Dropp 2017). For these reasons, the military has broad influence to inform public opinion on issues ranging from the decision to employ force against another

⁴⁰ Gallup's 2017 confidence in institutions survey finds that 32% of respondents attribute their reason for having high confidence in the military to perceived competence of the institution whereas 26% of respondents attribute their reason to the importance of the military's mission. 22% of people attribute their reason to having a personal connection with the military and another 22% of people attribute their reason to having positive feelings about the people who serve in the military. <https://news.gallup.com/poll/214511/high-confidence-military-reflects-perceived-competency.aspx>

nation (Robinson 2018; Golby, Feaver, and Dropp 2017) to non-use of force issues such as climate change and government spending.

Though the elite cueing literature suggests that the military can influence public opinion on various issues, civil-military relations norms warn against the military engaging in politics. Beginning with Samuel Huntington (1957), modern theorists have advocated that the military and its servicemembers remain politically neutral. When evaluating policy, the military should remain apolitical in its behaviors and motivations and agnostic to the political leanings of its servicemembers. If the military or its officer corps violate these behaviors or motivations, it could damage military effectiveness and challenge democratic norms.⁴¹

A small but growing empirically based set of studies test the consequences of political activity⁴² on perceptions of the military. Rather than all members of the public downgrading military elites for engaging in politics, individuals downgrade the elite and the military only when they hold incongruent partisan ideologies (Robinson 2018). Partisanship, not necessarily political activity, is suggested as a primary moderator to changes in perceptions of the military. Furthermore, Robinson's work illustrates that Republicans and Democrats do not evaluate new information about the military in a rationally Bayesian manner. Instead, Republicans and Democrats judge newly-salient information with bias. When faced with negative information, Republicans protect their perceptions of the military by blaming political leaders for military failures or by reducing the weight of the negative information.

Robinson's connection between partisanship and military credibility suggests important areas of inquiry. If the public alters its perceptions of the military in response to overt displays of military elite partisanship (e.g. support for a political candidate, working on a political campaign, or media presence on a partisan-leaning network), will it also alter its perceptions of the military when the military shares positions on a political issue? If so,

⁴¹ Civil-military relations scholars' warning against political activity reflects the Department of Defense's directives in which members' should not engage in public endorsements, work for a political campaign, engage in acts of partisanship, criticize an administration's policy, or use the uniform as a means to project legitimacy toward a political activity (DoDD 1344.10; Owens 2015; Robinson 2018).

⁴² These studies more narrowly define political activity as individual military members having direct affiliation with a political party, making partisan-based comments for or against a political candidate and his/her decisions on military issues, or appearances on partisan-biased news outlets (Golby, Dropp, and Feaver 2012; Golby, Feaver, and Dropp 2017; Robinson 2018).

how do Republicans and Democrats incorporate and interpret the military's positions? To answer these questions, I extend a theory with testable hypotheses on how the public might react to the military's position on various issues.

Modern civil-military theorists suggest that the public's trust and credibility in the military is linked to the military's ability to remain apolitical (Huntington 1957, Dempsey 2009, Owens 2015) and non-partisan (Golby, Cohn, and Feaver 2016; Urban 2017; Hill, Wong, and Gerras 2013; Golby, Dropp, and Feaver 2012). As discussed earlier, political or partisan activity by the military should therefore lead to respondents uniformly downgrading perceptions of confidence in and credibility of the military. I contend that the military holding positions on politically contentious issues serve as political and/or partisan behavior. If a respondent values an apolitical and non-partisan military, the military holding a position on a political issue should lead him/her to decrease his/her perceptions of confidence in and credibility of the military. This proposed relationship leads to the following hypothesis:

H1 (Apolitical Norm) – Respondents exposed to the military's position on a non-military issue will, on average, report lower perceptions of credibility of the military than respondents not exposed to the military's position.

If the Apolitical Norm hypothesis holds, we should observe that in all three issue areas, the public downgrades the military after being exposed to its position. This hypothesis serves as an important baseline test to the public's adherence to an apolitical norm and the link between political positions and military perceptions. I address potential moderators later.

There is considerable doubt that the public, on average, embraces the apolitical norm and uniformly downgrades the military for holding a political position. People probably embrace the norm in the sense of agreeing with it, but that does not mean they respond in a way consistent with the norm. Instead the public could upgrade or downgrade the military based on the degree to which they share or do not share a common identity.

I argue that the military's preferences on politically polarized issues reveal salient political identity information the public uses to adjust its perceptions of the military. This represents a significant innovation in understanding source credibility as the literature

largely treats source credibility as fixed and exogenous. Political, social, and institutional cues from credible sources serve as heuristics for citizens to formulate an informed opinion (Zaller 1992), but also reveal important information about the similarities and differences between the source and an individual. I expect that a partisan-motivated public will not uniformly downgrade the military but instead downgrade the military when it expresses a contra-partisan position and upgrade the military when it expresses a co-partisan position.

When the military holds issue positions congruent with an individual's partisanship, it reveals a sense of common identity or like-mindedness between the two. As shared identity or like-mindedness grow, it leads to the individual increasing their perceptions of the credibility of the military. If the military holds issue positions incongruent with an individual's partisanship, it reveals a disparate identity between the two. As shared identity decreases, it leads to the individual decreasing their confidence in and credibility of the military. I capture the idea of identity and like-mindedness through shared partisanship with the military.

Party identification can affect anger and enthusiasm toward political messages (Huddy, Mason, and Aaroe 2015) and lead people to co-partisan favoritism and contra-partisan animus (Iyengar and Westwood 2015; Mason 2015). Robinson (2018) illustrated that perceptions of military credibility are not insulated from a partisan public. Democrats downgrade military elites who hold an overt Republican identity but upgrade military elites who hold an overt Democratic identity. This logic and relationship might still apply at the institutional level.

Because climate change, fiscal spending, and gender identity are politically-charged issues with Republicans and Democrats having starkly different preferences, partisanship will capture the sense of shared political identity. An issue position that more clearly aligns with the Democratic party's position could signal that the military may either be Democratic leaning, or at least less Republican leaning. I assume that Democrats and Republicans can map the military's position toward one of the major political parties but expect them to make different evaluative judgements on what to do with this information. A partisan-public will not value an apolitical norm but instead upgrade and downgrade perceptions of the military dependent on the level of partisan connection they have. I form the following hypothesis:

H2A (PID Congruence) - Respondents exposed to the military's position on a non-military issue will, on average, report *higher* perceptions of credibility of the military than respondents not exposed to the military's position when the military's position is *congruent* with the position of the political party the respondent identifies with.

H2B (PID Incongruence) - Respondents exposed to the military's position on a non-military issue will, on average, report *lower* perceptions of credibility of the military than respondents not exposed to the military's position when the military's position is *incongruent* with the position of the political party the respondent identifies with.

H2 implies that the military's belief in climate change will be perceived as closer to Democratic preferences and cause Democrats to increase credibility of the military and Republicans to decrease credibility of the military. Although cross-partisan attitude research predominately suggests stronger bias against the outgroup among Republicans (Jost et al. 2003; Jost, Hennes, and Lavine 2013; Stern et al. 2012), more recent studies illustrate that negative attitudes are shared across both left and right leaning partisans (Iyengar and Westwood 2015).⁴³ Therefore, Democrats may also downgrade their perceptions of the military. The military's restriction of some transgender people from serving will be perceived as further from Democratic preferences and lead Democrats to lose credibility in the military. The military's position that rising debt threatens national security and broad bi-partisan reform should be taken by policy makers does not map closer toward one of the two political parties. Therefore, there may be no movement by the two partisan groups.

If the military's position signals its partisanship, respondents exposed to treatment should change their perception of the partisan leaning of the military. Respondents exposed to the military's climate change position should report the military being more Democratic

⁴³ However, Iyengar and Westwood illustrate that among people who identify as strongly partisan, out-party animus is stronger among Republicans.

leaning than the control group and respondents exposed to the military's transgender servicemember policy should report the military being more Republican leaning than the control group.

Downstream Effects - If the military's position can increase public perceptions of credibility, will it then lead the military to being more persuasive in another unrelated issue? Source credibility is built from repeated transaction between the source and the receiver. Therefore, if a source gains credibility, it should be more effective in persuading people's preferences on another issue. The military's position on climate change would lead Democrats to being more supportive of restricting some transgender people from joining the military. I form the following hypothesis:

H3 (Downstream Effects) - Individuals who increase credibility of the military from its position on one issue will be more persuaded to adopt the military's position on another issue. Individuals who decrease credibility of the military from its position on one issue will be less persuaded to adopt the military's position on another issue.

Cognitive Dissonance and Motivated Reasoning: There is an important caveat to partisan-motivated changes in perceptions of the military: It is possible that Republicans and Democrats perform different evaluative processes on new information about the military. Republicans and Democrats may respond to negative information about the military differently because Republicans have some level of in-group defense bias. By this logic, Republicans will not decrease (or will decrease to a lesser degree) their views of the military when presented a dissonant issue view held by the military due to motivated reasoning.

A contrary view by the military leads to cognitive dissonance, or the mental discomfort experienced by a person when presented with new information that contradicts pre-existing beliefs about a topic or source. When new information contradicts pre-existing beliefs, ideals, and values, people try and resolve the contradiction to reduce discomfort (Festinger 1957). To reduce cognitive dissonance, people can incorporate the information to align a new cognitive pattern or can resist the contradictory information by redirecting it (Festinger 1957).

To reduce cognitive dissonance yet maintain pre-existing beliefs about a source, individuals engage in motivated reasoning. Motivated reasoning occurs when individuals view evidence consistent with prior opinions as stronger or more effective and counter-argue evidence inconsistent with prior opinions (Kunda 1990). Individuals can discount, ignore, or bias-process new information toward support for prior positions (Lodge and Taber 2000; Lodge and Taber 2008; Redlawsk 2002; Westen et al. 2006; Bolsen and Druckman 2018) or enhance strength to support existing affect (Lodge, Taber, and Galonsky 1999a, Lodge and Taber 2000, Redlawsk 2000).⁴⁴

From chapters one and two, not all respondents update their positions to be more in-line with the military's position. Potentially, respondents who do not change their personal preferences to be closer to the military's could downgrade the military. However, Republicans treat the military as an in-group institution that shares many of their same values and beliefs. This may lead Republicans to hold an elevated and firm perception of the military. As Robinson (2018) discovered, the military can do little harm for Republicans and thus is insulated from a loss of credibility. When faced with negative information, Republicans tend to protect their perceptions of the military by blaming political leaders for military failures or by reducing the weight of negative information (Robinson 2018).

Within the climate change issue, for example, Republicans may believe that the military should share similar beliefs and preferences. When presented with the military's pro-climate position, a Republican's existing perception of the military would be challenged. To reduce cognitive dissonance, the individual can discount, counter-argue, or warp the military's position by blaming someone else for the military's position. Remembering that the military is largely seen as an apolitical institution, individuals engaged in motivated reasoning may reduce cognitive dissonance by attributing the military's views to pressure from politicians. This would prevent Republicans from downgrading the military when faced with a dissonant view held by the military. If being Republican so strongly informs one's resistance to downgrade the military that even

⁴⁴ Taber and Lodge (2006) argue that motivated reasoning is stronger in those who hold stronger prior opinions.

Republicans who hold a contrary position on climate change should not downgrade the military.

Democrats, on the other hand, hold relatively high levels of confidence in the military but also more contrasting values, opinions, and social preferences. When presented with negative information about the military, e.g. the military supports restriction of transgender people from serving in the military, it may be dissonant; however, I do not expect that a dissonant message leads to motivated reasoning among Democrats. It is plausible that Republicans' motivated reasoning is sourced from co-partisan and in-group defense of the military (Iyengar and Westwood 2015; Mason 2015). Because Democrats may not see the military as an in-group and need to defend it if presented with a dissonant military position, Democrats will be less likely to engage in motivated reasoning. I therefore propose the following hypotheses:

H4 (Motivated Reasoning) - When exposed to a dissonant position held by the military, Republicans are more likely to perceive the military's position as politically influenced than Republicans not exposed to the military's position and Democrats are equally likely to perceive the military's position as politically influence than Democrats not exposed to the military's position.

Moderators – Familiarity: There are important factors that may moderate the strength of treatment. It is possible that an individual's level of knowledge or familiarity with the military moderates the strength of treatment. Individuals with a larger base of knowledge about the military may be less responsive to the military's cue because incorporating new information about the military may not be influential enough to affect established attitudes. This falls in line with Zaller and Feldman's (1992) model that expressed public opinion is a probabilistic draw from a running count of information. Individuals more familiar with the military would be less influenced by new information, both positive or negative, and less inclined to update their perceptions of the military.

Two additional moderators could affect the treatment: 1) personal opinion strength and salience of issue, and 2) issue connection to national security. An individual's opinion strength and/or personal belief of the issue salience might moderate treatment. Individuals

who hold strong opinions about an issue or place high importance on an issue should have larger treatment effects than those who do not. If the public prescribes to a partisan/shared identity image of the military, we would expect that people who hold strong opinions or high issue salience to have larger treatment effects in both directions. Lastly, it is possible that individuals deem it more appropriate for the military to hold positions on political issues if they perceive an issue to be closer to the military's primary expertise in national security. If the public prescribes to the apolitical image norm, it would predict the public downgrades the military more on social issues (e.g. military service by transgender people) when compared to security issues (e.g. climate change or the national debt).

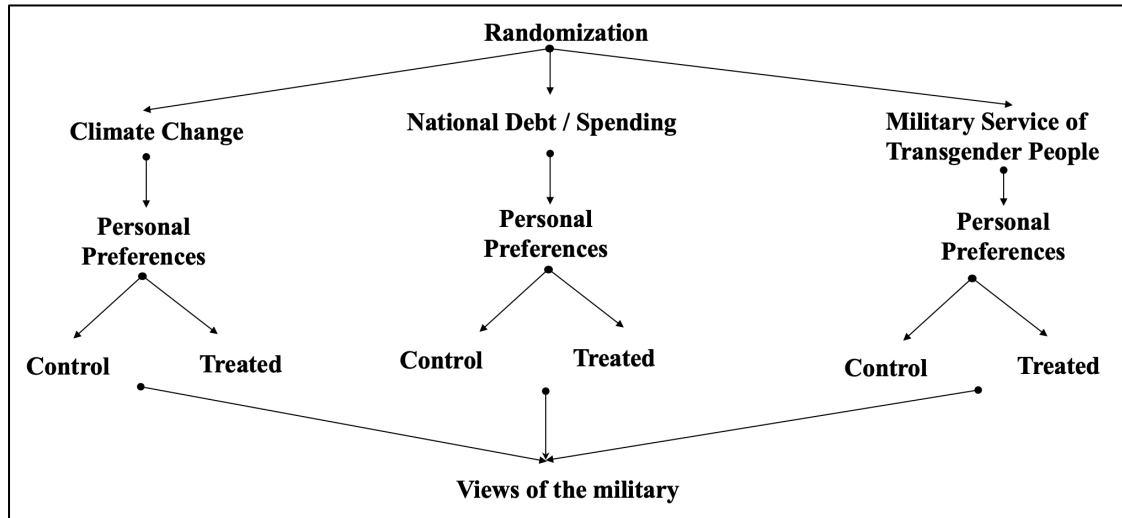
Research Design

I conducted three survey experiments to evaluate whether the military's preferences on non-use of force issues affect the public's perceptions of US military credibility and confidence. The experiments were fielded by Lucid, an internet-based polling firm, to a nationally representative opt-in sample of 4,039 US adults in April 2019. The experiments measure the causal effect that the military's position on several policy issues currently under debate has on the public's perception of the military.⁴⁵

Respondents were randomly assigned into one of three issue categories (climate change, the national debt, and transgender servicemembers) and then into one of two experimental groups (control or treatment). This produced a 3x2 design (Figure 3.1) where treatment effects could be calculated within each issue as well as be compared between each issue. Directly comparing three similarly designed experiments conducted in parallel helps further isolate issue-dependent effects (Guisinger and Saunders 2017) while guarding against spill-over effects between issues.

⁴⁵ Lucid selects participants to resemble the gender, age, geographic, and racial distribution of the American population.

Figure 3.1 Experimental Design



Climate change, the national debt, and military service of transgender people represent a mixture of security and non-security topics, various levels of public involvement by the military, and variation as to which political party the military's views more closely align with. Climate change is increasingly portrayed as a security problem with the military's pro-climate position aligning more closely with Democratic issue preferences and less so with Republican issue preferences. It tests whether Democrats upgrade their perceptions of military confidence or whether Republicans downgrade the military on a politically contentious, but security-relevant issue. The military's recommendation and support for restricting some transgender people from military service opposes Democratic issues preferences of gender identity equality and tests what happens when the military engages on social issues. Lastly, the military's opinion on the threat of a growing national debt tests changes to military perceptions on an issue regularly engaged in by the military and tests when the military takes a strong, but non-controversial stance on a topic.

Before receiving treatment of the military's position on the assigned issue, respondents answered questions that measured their existing personal preferences on their assigned issue. Respondents assigned to treatment were next informed that the military is considering sharing its views on the respective issue and then exposed to a cue made by the military that states the military's position on the issue. Individuals assigned to control

received background details to identify the issue, but no additional information on the military's position was provided.⁴⁶

The cues summarized the military's position on the assigned issue. They were compiled from official military statements and styled to appear similar to a Department of Defense press release. Cue content and structure were analogous across issues to better isolate the effect of the military's position and the effect of the issue domain. Respondents read the military's stance on the assigned issue, three bullets on how the issue affected the military or national security,⁴⁷ and a concluding statement about the military asking lawmakers to take action (refer to Appendix for treatment wording).

Respondents assigned to climate change treatment read that the military believes climate change is happening and hurts national security or the military. Those assigned to the national debt treatment groups read that the military believes the national debt hurts national security or the military. Those assigned to the gender identity treatment groups read that the military believes in restricting transgender people with gender dysphoria from joining the military and that not enforcing restrictions could hurt national security or the military.⁴⁸

After exposure to treatment, respondents were asked (1) a four-question battery measuring the perceived credibility of the military, (2) Gallup's confidence in the military question, (3) their perceived political influence on the military's position, (4) their level of appropriateness for the military to comment publicly, (5) their perceived partisan leaning of the military. and (6) their level of and reason for surprise of the military's position. Respondents were then re-randomized and exposed to the military's position on a different issue. On the second issue, respondents' personal issue preferences were measured after treatment.

⁴⁶ Instead of reading the military's view on the issue, the control group read a similarly formatted passage on the Federal Aviation Administration's preference for a policy.

⁴⁷ I randomized the framing of the issue as strictly a military issue or a national security issue to balance the effect of framing but pool the treatments for analysis. The direction of treatment effects was in the same direction.

⁴⁸ At the end of treatment, I administered an attention check, shown in the appendix. The control group read an analogous attention check as well. In-line with my pre-analysis plan and similar to Press, Sagan, and Valentino (2013) and Tomz & Weeks (2019), all analysis reported in the paper do not include respondents who failed the attention check. There were no meaningful changes in the substantive size or statistical significance of any of my findings and analysis of the full sample is included in the appendix. Final analysis leaves N=3,256.

To measure perceptions in the military, the main dependent variable of interest, I use established measures of source credibility, expertise, and trust from corporate credibility literature to measure military credibility. I included Gallup's institutional confidence to check external validity of the sampling method; however, Gallup's five-point unipolar scale lacks granularity.⁴⁹ Gallup's measure reflects broad perceptions of competence or expertise,⁵⁰ but not fine measurements of trust. Public perceptions of credibility distinctly captures trust in and expertise of the military (Newell and Goldsmith 2001; Lupia and McCubbins 1998). Expertise is the extent to which the source is perceived to be capable of making correct assertions while trust refers to the degree which an individual perceives the assertions made by the source to be valid (Pornpitakpan 2004). Source credibility grants the military ability to be an effective cue giver.

I employed a modified four-question battery created by Newell and Goldsmith (2001) recently applied by Robinson (2018) to military elite credibility. By using the same measurements as Robinson, I can directly compare the magnitude of change between a military elite's preferences and the military's preferences. Respondents were asked a seven-point Likert measurement on the degree to which they agreed or disagreed that they trust the military and believed it makes truthful claims (trust) and that the military has a great amount of expertise and is skilled at what they do (expertise). These questions created a 14-point scale for institutional trust in the military, a 14-point scale for institutional expertise of the military, and a 28-point scale for institutional credibility of the military.

To measure beliefs on military autonomy, I included a five-point unipolar scale that gathered the perceived likelihood that politicians influenced the military's view on the issue. To gauge respondents' perceptions on the military's position in public communication, they were asked the level of appropriateness of the military commenting publicly about the issue (seven-point bipolar scale). Lastly, respondents assigned to treatment were asked to answer a five-point scale on how surprising the military's view on

⁴⁹Respondents were asked Gallup's five-point institutional confidence question used since 1973. I dichotomized the dependent variable: 100 if respondents held "a great deal" or "quite a lot of confidence" and 0 otherwise to match Gallup's historical presentation. The dependent variable measures the percentage of Americans with high confidence and matches Gallup's presentation and methods. Analysis is included in the appendix.

⁵⁰Newport, Frank. "US Confidence in Military Reflects Perceived Competency." <https://news.gallup.com/poll/214511/high-confidence-military-reflects-perceived-competency.aspx>

the issue was and their main expectation that led to their level of surprise.⁵¹ This allows for understanding of how people's pre-conceived beliefs about the military affect the strength of treatment. For my main analyses, I recoded Likert-scaled questions to ease interpretability.

Results

To estimate the effects of the randomized treatments and whether the military's position on a non-use of force issue changes the American public's perception of the military, I regressed each dependent variable on the interaction between issue, partisanship, or pre-existing personal preference. My main dependent variables of interest are perceptions of trust, expertise, and credibility of the military. Full regression models and interactions are included in Appendix C. Effects are presented as the average change in respondents' perception of the military relative to the respective control group thus scaling the effect sizes for ease of interpretation.

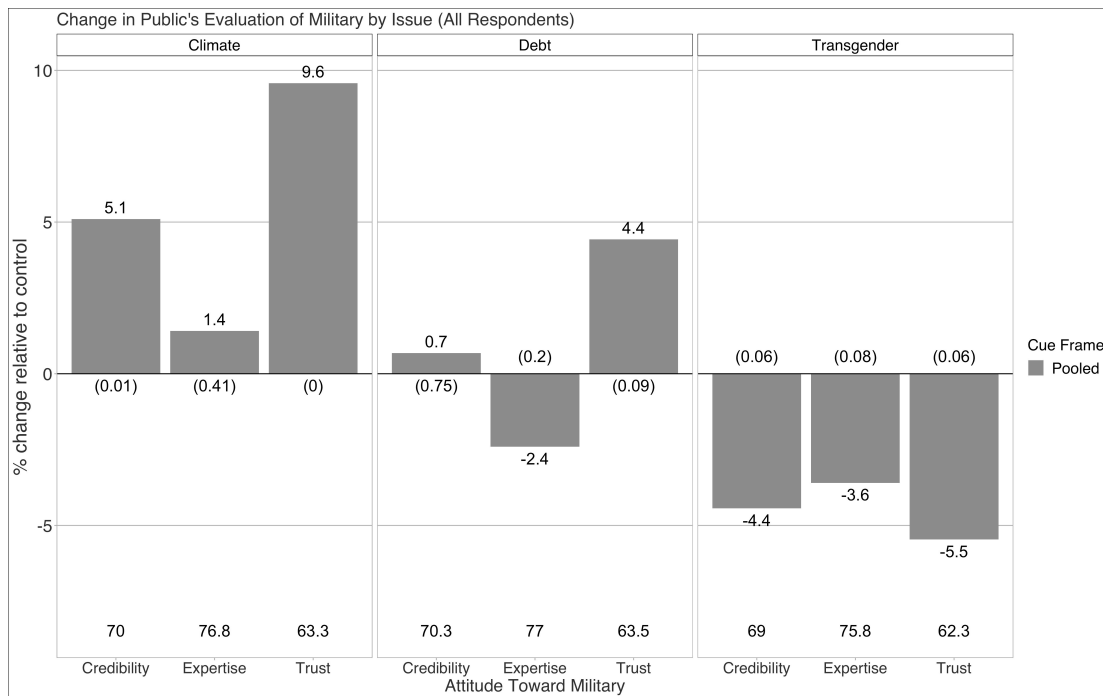
First, I present the effect of the military's position on the public perceptions of the military by issue to assess the public's adherence to an apolitical norm. Second, I examine the interaction between the military's position and a respondent's partisanship or ex ante issue position to assess whether public perceptions of the military and adherence to an apolitical norm are dependent on a sense of joint identity with the military. Third, I examine whether cognitive dissonance and motivated reasoning moderate the public's responsiveness to the military's position. Finally, I present analysis of the downstream effects of the military's position on other issues.

Effects on all respondents: The first dimension of analysis is whether respondents show evidence of an apolitical military norm and uniformly decrease perceptions of the military when exposed to the military's position on politically contentious issues. If the public adhered to the apolitical norm hypothesis, individuals exposed to the military's

⁵¹ Q: "Why was it surprising that the military thinks X" A: "I expected the military would... 1) not think X is happening, 2) not have a position on X, 3) not make a comment about X." To better compare how the surprise of the military's position might contribute to the public's change in views of the military, the control group was asked to share its expectations of the military's position on the assigned issue. Q: "What are the chances that the military does or does not have a position on X?" Respondents answered with a five-point unipolar scale. Next, respondents were asked, "What do you expect the military's position on X is?" A: 1) "The military thinks X, the military does not think X, the military has no position on X."

position on a non-military issue should decrease perceptions of military credibility (H1). Figure 3.2 presents the effect of the military's position on public perceptions of the military, interacted with issue.

Figure 3.2 Change in Public's Evaluation of Military (All Respondents)



NOTE: This figure depicts the change in perceptions of confidence, trust, and expertise of the military in reference to each issue's unique control group. The figures reflect the magnitude of effect for two-tailed test for difference in means between the pooled treatment groups and the control groups by each issue. The two-tailed p-values are depicted in parentheses along the x-axis and the control level is reported above the x-axis. For ease of interpretability, I recoded the measurements to 0-100 continuous scale. Respondents were from an opt-in panel from Lucid during April 2019. N=3,256.

The data show no evidence that the public adheres to an apolitical norm. Respondents do not uniformly decrease its perceptions of the military across all issues when exposed to the military's position. Respondents instead respond positively when exposed to the military's pro-climate change position, in a mixed way when exposed to the military's fiscal position, and negatively when exposed to the military's transgender servicemember position. On climate change, credibility increases by 5.1% ($p=.01$), mostly driven by a 9.6% increase in trust ($p=0$). On restricting some transgender people from joining the military, credibility decreases by 4.4% ($p=.06$) with trust decreasing by 5.5%

($p=.06$). Interestingly, the military's position that national debt threatens security increases trust by 4.4% ($p=.09$) and marginally decreases perceptions of expertise. One possible explanation why perceptions of expertise are relatively unresponsive could be that the public judges the military's ability to make correct assertions directly with the military's primary profession, i.e. warfare. The military speaking outside its lane would be less likely to influence this measure. Trust, however, is directly evaluated by the validity of the claim and more likely to be evaluated on issues outside the military's domain.

To test the moderating effect of familiarity with the military,⁵² and connection to national security, I calculated the marginal effects of each variable on perceptions of credibility. I regressed credibility on treatment, each variable, and their interaction and report the magnitude, direction, and significance of each moderator (refer to appendix for detailed results). Increased familiarity with the military did not moderate the treatment effect to a statistically significant level in all three issues; however, the interaction term between treatment and having high familiarity with the military were in the expected direction of H3A for climate change and the national debt, but not in the transgender issue. On the transgender servicemember issue, having high familiarity with the military marginally strengthens respondents' negative perceptions of the military. Increased perceptions that climate change and the national debt would hurt national security strengthened positive perceptions of the military by 6% ($p=0$) and 1.4% ($p=.24$), respectively.

These aggregate findings suggest that the American public does not, on average, adhere to the apolitical norm but is instead responsive to being told of the military's position on certain non-use of force issues. Respondents' trust in the military changed more than their perceptions of expertise. The military's climate change and national debt positions significantly increased trust in the military while its position on transgender people joining the military decreased trust.

The degree to which the issue connects to national security appears to moderate the treatment effect and could help explain the varying degrees of public responses. People

⁵² Q: "In general, how familiar do you consider yourself to be with the US military?" A: "Extremely familiar, very familiar, moderately familiar, slightly familiar, not familiar at all." Analysis performed on dichotomous coding of the variable divided at the median. Low familiarity (0) = "not familiar at all" or "slightly familiar."

who more connect climate change and a rising national debt to national security, on average, are more likely to upgrade military credibility. Respondents, on average, were less likely to perceive transgender people joining the military as a security issue.⁵³ This could also explain why respondents exposed to the military's position on climate change and the national debt raised the appropriateness for the military to share its views with the public by 17.7% and 15.3%, respectively (Appendix).

Furthermore, social issues may be seen as well outside the military's expertise and therefore invoke a more negative response by the public. When asked how appropriate or inappropriate it was for the military to share its position on transgender issues with the public, control group respondents reported that it was 12% more inappropriate than sharing its views on climate change. Democrats were particularly sensitive to the military's position on transgender issues and reported a 28.7% absolute decrease in how appropriate it would be for the military to share its position with the public after exposure to the military's position.

While evidence supports that the military's position changes public perceptions of the military, I caution making broad conclusions when looking at the aggregate sample. There is significant heterogeneity between Democrats and Republicans views of the military and the issues tested. Aggregate trends may mask important partisan and personal belief heterogeneity.

Motivated Public: Examining the heterogeneous treatment effects between Republicans and Democrats may help explain why the public, in aggregate, does not uniformly downgrade the military. On average, Democrats and Republicans hold contrasting issue preferences and attitudes toward the military. When compared to Democrats, Republicans share more favorable views of the military, treat the military as an in-group elite voice, and pay more attention to national security issues.

Figure 3.3 shows the effects of the military's position on perceptions of the military by partisanship.⁵⁴ The data paint a clear picture of a partisan-motivated public where

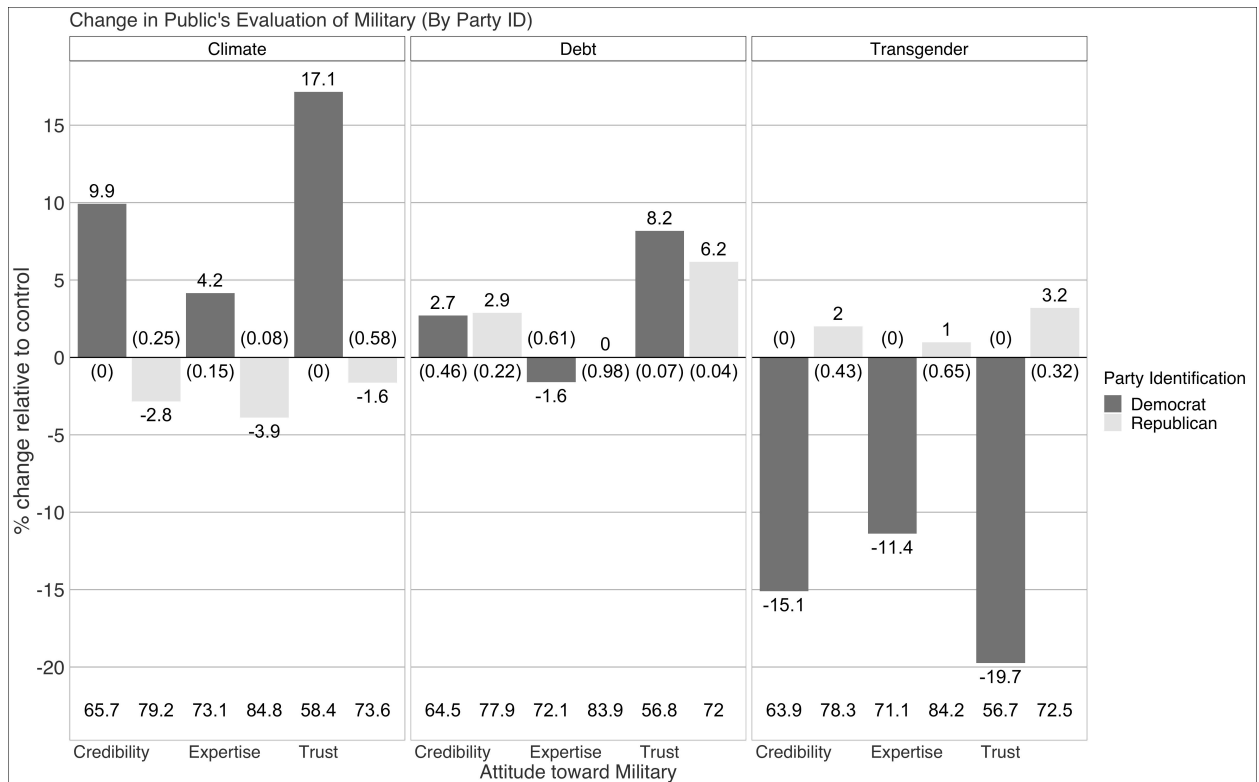
⁵³ The number of respondents who perceived that the military allowing transgender people to join the military would probably or definitely hurt US national security was 20.5% compared to 33.6% and 72.2% for climate change and a rising national debt, respectively.

⁵⁴ The percentage of Republicans (85%) and Democrats (63%) who have high confidence in the military closely match Gallup's institutional confidence measures and supporting the external validity of the sampling and results. Gallup's June 2017 poll reported 82% of Republicans vs. 64% of Democrats give the

exposure to the military's position effect Democrats and Republicans differently. The military's positions on climate change and military service of transgender people cause, on average, Democrats to change their perceptions of military credibility more than Republicans. Furthermore, Democrats move in the expected direction of H2A. The military's pro-climate position causes 9.9% ($p=0$) increase in Democrats' perception of military credibility, mostly driven by the 17.1% ($p=0$) increase in trust. The military's position on transgender people joining the military leads to a 15.1% ($p=0$) and 19.7% ($p=0$) decrease in Democrats' perception of military credibility and trust, respectively. Republicans, however, appear resistant to downgrading trust in the military on climate change but will increase their level of trust when exposed to the military's national debt message (6.2%, $p=.04$). The combination of Democrats moving in partisan fashion and Republicans staying unchanged means that the effects in the aggregate sample are driven by the Democrats.

military a great deal or quite a lot of confidence. <https://news.gallup.com/poll/212840/americans-confidence-institutions-edges.aspx>

Figure 3.3: Change in Public’s Evaluation of Military (By Party ID)



NOTE: This figure depicts the change in perceptions of confidence, trust, and expertise of the military in reference to each issue’s unique control group. The figures reflect the magnitude of effect for two-tailed test for difference in means between the pooled treatment groups and the control groups by each issue. The two-tailed p-values are depicted in parentheses along the x-axis and the control level is reported above the x-axis. For ease of interpretability, I recoded the measurements to 0-100 continuous scale. Respondents were from an opt-in panel from Lucid during March and April 2019. Leaning Independents and no partisan preference respondents were grouped into respective PID. $N_{Republican}=1,233$, $N_{Democrat}=1,423$.

Shared beliefs about the implications of a growing national debt between Republicans and Democrats may explain shared movements on trust. When asked how good or bad a growing national debt would be for the country, 77% of Republicans vs. 83% of Democrats believe it would be moderately to extremely bad for the country.⁵⁵ Furthermore, the number of Democrats and Republicans who perceived that a rising national debt would probably or definitely hurt US national security was 76% and 67%, respectively. Partisans may differ on how best to address the national debt (i.e. increase

⁵⁵ Two-tailed ttest on the number of Republican or Democrat respondents who believe the national debt will be moderately or extremely bad was conducted ($t=1.859$; $\Pr(|T| > |t|) = 0.0636$). Q: Do you think a growing US national debt would be good, bad, or neither good or bad for the country? The preceding question was followed with a branch question asking how good/bad would the growing national debt be for the country, or, Q: If you had to choose, would you lean toward a growing US national debt being good or bad for the country, or I don't lean either way?

taxes, decrease entitlement spending, or decrease military spending), but they share similar concern.

Republicans and Democrats also differ on how appropriate it would be for the military to share its position on an issue with the public. In general, both Republicans and Democrats reported it was more appropriate for the military to comment on issues where the military's position matched positions associated with their personal partisanship (Appendix). Control group Democrats reported that it was twice as appropriate for the military to comment on climate change than the transgender servicemember issue,⁵⁶ whereas control group Republicans reported that it was 22% less appropriate for the military to share its view on climate change.⁵⁷

Motivated reasoning: Why are Republicans resistant to downgrading the military when informed of a discrepant message? One possible explanation is that Republicans have more familiarity with the military and newly negative information does not meet the threshold to downgrade the military. While I cannot rule out the possibility that differences in familiarity between Republicans and Democrats account for some Republican rigidity, both partisan groups share similar levels of familiarity with the military. When asked "In general, how familiar you consider yourself to be with the military" 72% of Republicans compared to 61% of Democrats reported having a least moderate levels of familiarity. Furthermore, interacting familiarity on partisanship and treatment did not lead to significant changes to the treatment effect (refer to appendix).

Another possibility is that Republicans do not see the military's pro-climate stance as dissonant because a majority of Republicans now think climate change is occurring.⁵⁸ With that said, 64% of sampled Republicans reported that climate change will only hurt US security a little or not at all. Republicans appear not to view climate change as a security issue or want to take significant preventative action against further changes to the climate.

⁵⁶ Democrats, on average, reported it was 64% appropriate for the military to comment on climate change vs. 33% appropriate for the military to comment on transgender servicemembers.

⁵⁷ Republicans, on average, reported it was 47.9% appropriate for the military to comment on climate change vs. 61.8% appropriate for the military to comment on transgender servicemembers.

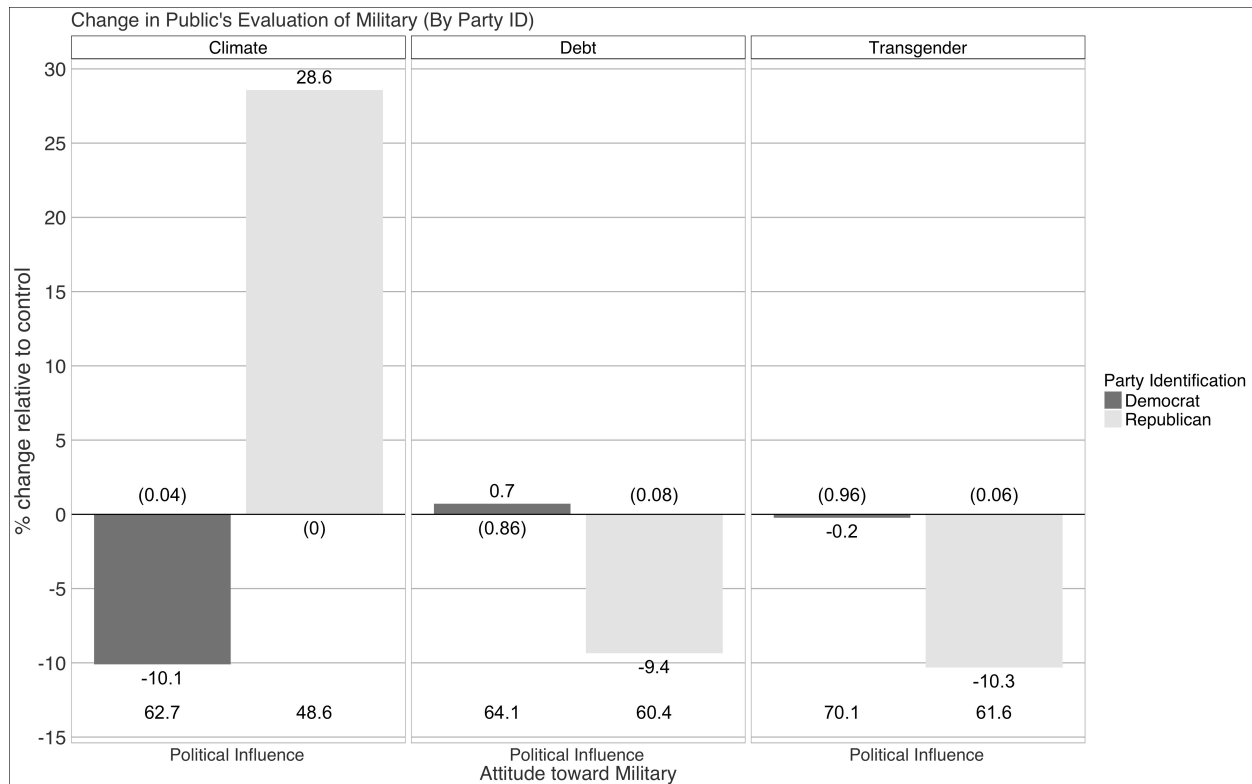
⁵⁸ When asked pre-treatment, 71% of respondents reported that the earth's temperature had risen over the past 100 years. But of the 29% of sampled Republicans who do not think climate change is happening, there is statistically insufficient evidence that they downgrade military credibility (5.7%, $p=.13$).

Thus, the military's position that climate change is a security threat and preventative actions must be taken is dissonant to most Republicans.

I show evidence of a third possibility: Republicans reduce cognitive dissonance by engaging in motivated reasoning (H3). Republicans treat the military as an in-group institution that shares many of the same values and beliefs. This may lead Republicans to a firm and elevated perception of the military. The military's pro-climate position may be dissonant to Republicans and in order to reduce cognitive dissonance, Republicans may discount, counter-argue, or excuse the military's position by blaming someone else for the military's position. Remembering that the military is largely seen as an apolitical institution, individuals engaged in motivated reasoning may reduce cognitive dissonance by attributing the military's views to pressure from politicians. This would prevent Republicans from downgrading the military when faced with a dissonant view held by the military but instead increase their belief that an outsider influenced the military's position.

Figure 3.4 presents the pooled aggregate treatment effects of the military's position on perceptions that outside political actors influenced the military's position. To measure outside political influence on the military's position, respondents were asked "How likely is it that politicians influence the military's view on climate change/the national debt/transgender people?" Response choices were on a five-point unipolar probability scale from "not at all likely" to "extremely likely." For interpretability, responses were re-coded on a 0-100 continuous probability scale.

Figure 3.4 Change in Public’s Evaluation of Political Influence (By Party ID)



NOTE: This figure depicts the average change in perceptions of political influence on the military’s position in reference to the control group. The measures are pooled across both the security and non-security treatment groups. To measure outside political influence on the military’s position, respondents were asked “How likely is it that politicians influence the military’s view on climate change/the national debt/transgender people?” Response choices were on a five-point unipolar probability scale from “not at all likely” to “extremely likely.” The figures reflect the magnitude of effect for two-tailed test for difference in means between the pooled treatment groups and the control groups by each issue. The two-tailed p-values are depicted in parentheses along the x-axis and the control level is reported above the x-axis. For ease of interpretability, I recoded the dependent variable to 0-100 continuous scale. Respondents were from an opt-in panel from Lucid during March and April 2019. Leaning Independents and no partisan preference respondents were grouped into respective PID. $N_{Republican}=1,233$, $N_{Democrat}=1,423$.

Republicans appear to increase perceptions of outside political influence when exposed to the military’s pro-climate position and decrease perceptions of outside political influence when exposed to the military’s anti-debt and restrictions on transgender people joining the military positions.⁵⁹ Democrats, on the other hand, decrease their perceptions of outside political influence when exposed to the military’s pro-climate position. Democrats do not engage in motivated reasoning when exposed to a dissonant message on the military’s transgender position possibly because Democrats do not perceive the military as an in-group institution. Future studies can include measurements to capture individual’s

⁵⁹ These findings are robust to Republicans who think climate change is happening.

treatment of the military as an in-group or out-group institution and further examine the mechanisms that may explain resistance to changing views of the military.

The tendency for some Republicans to increase perceptions of political influence on the military's climate change position is seemingly in tension with the findings in chapter one. The argument in chapter one was that Republicans, on average, increase perceptions that climate change is occurring, and more should be done to prevent it when presented with the military's climate change position due to high levels of trust in and credibility of the military. If Republicans increase perceptions of political influence, why would they also respond to the military's position? One possible reason is that the experiment in chapter three is unable to distinguish those who would be more inclined to report that climate change is happening following a military cue from those who are not. From chapter one, the number of Republicans who reported that climate change is not occurring decreased by 45% following exposure to a military cue. The experiment could not detect why the other group of Republicans did not update their perceptions. A similar group of Republicans could be what the current experiment is detecting.

Downstream effects: Given that the military position on climate change increases perceptions of trust and credibility in the military for Democrats, will it also lead Democrats to be more responsive to the military's position on another issue? To answer this question, respondents were randomly assigned to another topic and to either to a control or treatment group following completion of the first experiment. For example, some people assigned to the climate control group and some people assigned to the climate treatment group in the first experiment were randomly assigned to either the control or treatment groups of the transgender issue. The treatment groups were exposed to the same military cue as in the first experiment but were not asked to share their personal preferences until after exposure to the military's position. Respondents were asked the same questions as in the first experiment, but those assigned to service of transgender people in the military were asked additional questions about their direct level of support for transgender people serving in the military.

I could then calculate two sets of treatment effects for comparison based on four different groups. Group 1 are respondents who were assigned to a control condition in the first experiment and again assigned to the transgender control group. Group 2 are

respondents who were assigned to a control condition in the first experiment and then assigned to the transgender treatment group. Group 3 was assigned to a climate treatment group in experiment one but then assigned to the transgender control group. Group 4 was assigned to a climate treatment group in experiment one and then assigned to the transgender treatment group. I then can compare the treatment effect between Groups 3 and 4 with the treatment effect between Groups 1 and 2. For comparison, I looked at whether people supported or opposed transgender people from being allowed to serve in the military as well as overall support for organizations being allowed to incorporate gender identity in employment decisions.

Remembering that Democrats have a strongly negative reaction to the military's transgender position, the hardest test for H3 would be to see if Democrats become more restrictive of transgender people serving in the military after first reading the military's pro-climate position. I find significant downstream effects on Democrats' support to allowing transgender people to serve in the military if first exposed to the military's position on climate change. Democrats who first read the military's pro-climate position are more inclined to oppose transgender people from serving in the military after exposure to the military's position ($p=.007$).⁶⁰ The number of Democrats who oppose transgender people serving in the military increased by 16% if they first read the military's pro-climate position compared to a 21% decrease if they did not read the military's pro-climate position first (Appendix).

I also tested whether this relationship would translate to broader employment practices involving transgender people. When asked how much they would support or oppose organizations being allowed to incorporate someone's gender identity into employment decisions, Democratic respondents increased support by 13% after being exposed to first to the military's pro-climate position. The implications are concerning as I find that people might apply military's standards to non-military organizations. Due to

⁶⁰ I conducted Wald tests to compare the treatment effects between Democrats who were not first exposed to the military's pro-climate position (1) but then exposed to the military's transgender position (2), to, Democrats who were first exposed to the military's pro-climate position (3) and then exposed to then exposed to the military's transgender position (4). $H_0: 4 - 3 = 2 - 1$; $H_a: 4 - 3 > 2 - 1$. Refer to Appendix for treatment logic and schematic.

sample size limits, I was unable to test whether Democrats also respond more favorability to the military's position on the national debt.

Lastly, I tested whether Republicans are less influenced by the military's position on military service of transgender people after being exposed to the military's climate change position. Although Republicans, on average, may not downgrade the military when exposed to a dissonant position, the military may lose ability to influence issue opinions of some Republicans. I find significant downstream effects on Republicans' support to allowing transgender people to serve in the military if first exposed to the military's position on climate change. Republicans who first read the military's pro-climate position are less inclined to oppose transgender people from serving in the military after exposure to the military's position (Appendix D). The number of Republicans who oppose transgender people serving in the military increased by 22% ($p=.00825$) if they did not first read the military's pro-climate position. However, if they first read the military's pro-climate position, there is no change in the number of Republicans who oppose transgender people serving in the military. The military lost its ability to inform Republican attitudes. Furthermore, Republicans who were first exposed to the military's climate change position were less likely to support organizations being allowed to consider someone's gender identity in employment decisions when compared to Republicans who were not first exposed to the military's climate change position.

In summary, evidence depicts a highly-partisan public that does not conform to the traditional apolitical norm but instead evaluates the military's position and updates its views of the military. Democrats gain trust and credibility in the military when exposed to the military's pro-climate position but lose trust in and credibility of the military when exposed to the military's restriction on some transgender people joining the military. Republicans generally resist changing their views of the military, even among those who disagree with the military's position. When presented with a potentially dissonant message about the military, Republicans engage in motivated reasoning and increasingly attribute the military's position to outside political influence. The evidence also shows significant downstream consequences on the military's effectiveness as a cue giver. Although Democrats downgrade the military after exposure to the military's view on restricting some transgender people from joining the military, Democrats who first read that the military

thinks climate change is happening become more restrictive on allowing transgender people to serve. Furthermore, these same group of Democrats also increase support for organizations being allowed to incorporate someone's gender identity into employment decisions.

Discussion

These findings advance research into military public opinion, institutional credibility, and civil military relation literature in three ways. First, some Americans' perception of military credibility is not driven by apolitical assessments. Instead, the degree to which the military aligns with an individual's own partisanship plays a significant role in determining confidence in the organization. This raises questions about the validity of the current framework suggested by the civil-military literature around the apolitical norm. Contrary to the expectations produced by the apolitical norm, the military can increase its credibility through political engagement if it takes certain political opinions.

Second, the study evaluates how specific beliefs, preferences, and behaviors of the military institution affect the public's views of the military. Previous work focused on the intermediary role that military elites serve in representing the institution. I suggest that views and beliefs of the military itself have significantly more impact on tarnishing or improving America's view of the military when compared to the activity of an individual. I show that Democrats can increase overall perceptions of trust and credibility when informed about military policies that match their partisan preferences. Furthermore, because respondents are treated with the military's true position on these issues and not a fictional actor, my study further emphasizes the real impact of the military's policies on public preferences. Although I focus on the military as a cohesive institution, future studies could analyze a potential additional avenue for downstream effects by investigating how elite credibility changes when invoking the military's position on these same issues. Third, I demonstrate the dynamics between source credibility and cue effectiveness. Gaining trust and credibility from holding a position on one issue creates downstream effects that can increase or decrease persuasiveness in an unrelated issue.

Admittedly, this study only evaluates perceptions of political activity and issue positions on Americans' evaluation of the military and not in competition with other

evaluative factors. The military's credibility is also linked to battlefield performance, perceived competence, mission importance, patriotism, and whether or not the nation is at war (Hill, Wong, and Gerras 2013; Newport 2017; Gronke and Feaver 2001; Robinson 2018). Future studies can understand how political activity and issue positions affect military credibility relative to other factors.

Given that the military can be both persuasive and accountable for its positions on non-military issues, what are the important implications to our understanding of evolving civil-military norms and the potential consequences of military engagement in the public sphere? The military can be an effective voice to advance salient security issues that are politically sensitive due its high standing with the American public. Importantly, the military may be able to persuade opinion while simultaneously gaining trust and credibility. This suggests that the military may benefit from involvement in certain, less controversial, political spheres. For example, climate change may be a safe issue for the military to increase engagement with less concern of backlash from the public than issues with less existing consensus. This is because Republicans do not downgrade, while Democrats upgrade.

While my study shows that climate change could be a potential area of increased engagement, my study did not measure the consequences when the military's views conflict with views of the president. The current administration's removal of climate change as a national security threat from the 2017 National Security Strategy is at odds with the military who recently released a congressionally mandated assessment showing that 53 US military installations are already experiencing climate related issues.⁶¹ It is therefore important to ask whether military engagement on climate change would cause the public to increase or decrease confidence in both the president and/or the military.

The military's position on transgender service members could be perhaps the most damaging area for the military to be involved in. At the broadest level of concern, the military's position can cause significant groups of Americans to lose trust in the military. This could in turn degrade the military's ability to inform the public on other political matters or, importantly, military issues such as the use of force. Additionally concerning is

⁶¹ Report on Effects of a Changing Climate to the Department of Defense. *Office of the Under Secretary of Defense for Acquisition and Sustainment*. January 2019.

the possibility that the military's restriction of some transgender people from serving could influence the public's treatment of transgender people in general.

Lastly, since adopting the current policy, the four military service chiefs and the Joint Chiefs of Staff are on record before congress stating that they are not aware of any negative effects from transgender personnel serving, which might be perceived as a public departure from the president and could therefore potentially undermine good order and discipline.⁶² I caution interpreting their statements as being fully supportive of no restrictions on transgender people. Their responses to Senator Kristin Gillibrand's question did not include evaluative statements about changing the policy. The new Chairman of the Joint Chiefs of Staff General Mark Milley recently said that transgender servicemembers must meet the same standards. This is not a departure from the current policy or view of the military. With that said, some may consider the service chief's statements as a public split with the president and thus damaging to the president's authority.

Civil-military norms would suggest that the public should respond negatively toward the military if it were to disagree with the president on an issue. However, as shown earlier, the public holds a partisan lens. This may then predict that Republicans and Democrats think differently as to what is appropriate or inappropriate for the military to engage on and that it depends on the political party of the president. Future studies can try to understand what informs the public to support or not support the military voicing its opinion when it stands in opposition to the president.

⁶² Copp, Tara. "All 4 service chiefs on record: No harm to units from transgender service." April 14, 2018. <https://www.militarytimes.com/news/your-military/2018/04/24/all-4-service-chiefs-on-record-no-harm-to-unit-from-transgender-service/>

Appendix A: Coding Instructions

Assignment to treatment or control

- Respondents are randomly assigned to one of three issue areas
 - Climate change, national debt, military service of transgender people
- And, to a control group or one of two treatment groups (security / non-security frame)

Section 1: Pre-treatment

- All respondents assigned to the same issue answer questions gathering ex ante issue preferences
- Text is included in research design and analysis sections of main body

Section 2: Receive treatment

- Respondents in treatment groups read instructions:
 - The US military is considering sharing its views on [insert issue]. You are about to read a report on the US military's position on [insert issue]. The information accurately reflects the views of senior US military leadership and is compiled from various statements. Please read the information carefully. Afterwards, you will be asked a few questions about what you read.
- Respondents in treatment groups read:

Climate Change and the US Military	The National Debt and the US Military	Transgender People and the US Military
Department of Defense (DoD) – The US military believes that <u>climate change is happening and that it [hurts the military / threatens national security]</u> .	Department of Defense (DoD) – The US military believes <u>America's growing national debt [hurts the military / threatens national security]</u> .	Department of Defense (DoD) – The US military believes that <u>transgender people joining the military hurts [the military / national security] and should be restricted.</u>
Recent military reports state rising temperatures and sea levels: <ul style="list-style-type: none"> • Destroy US military bases • Decrease operational readiness • Draw the US into more violent conflict 	Recent military reports state rising debt levels and uncontrolled spending: <ul style="list-style-type: none"> • Increase economic and military competition from foreign nations • Weaken the economy • Slash funding for both the military and government programs 	Recent military reports state Service members suffering from gender dysphoria: <ul style="list-style-type: none"> • Undermine military readiness • Disrupt unit cohesion • Impose unreasonable burdens and costs on the military
Military leaders urge lawmakers to take immediate action to prevent impact to the military's missions, operational plans, and installations.	Military leaders urge lawmakers to take immediate action to reduce the debt by changing entitlement programs, controlling healthcare costs, and overhauling the tax system.	Military leaders urge lawmakers to take immediate action and restrict transgender people suffering from gender dysphoria from joining the military.

Section 3: Dependent Variable Measurement

- Text is included in research design and analysis sections of main body

Section 4: Second Experiment

- Respondents are randomly assigned to a control or treatment group in another issue topic

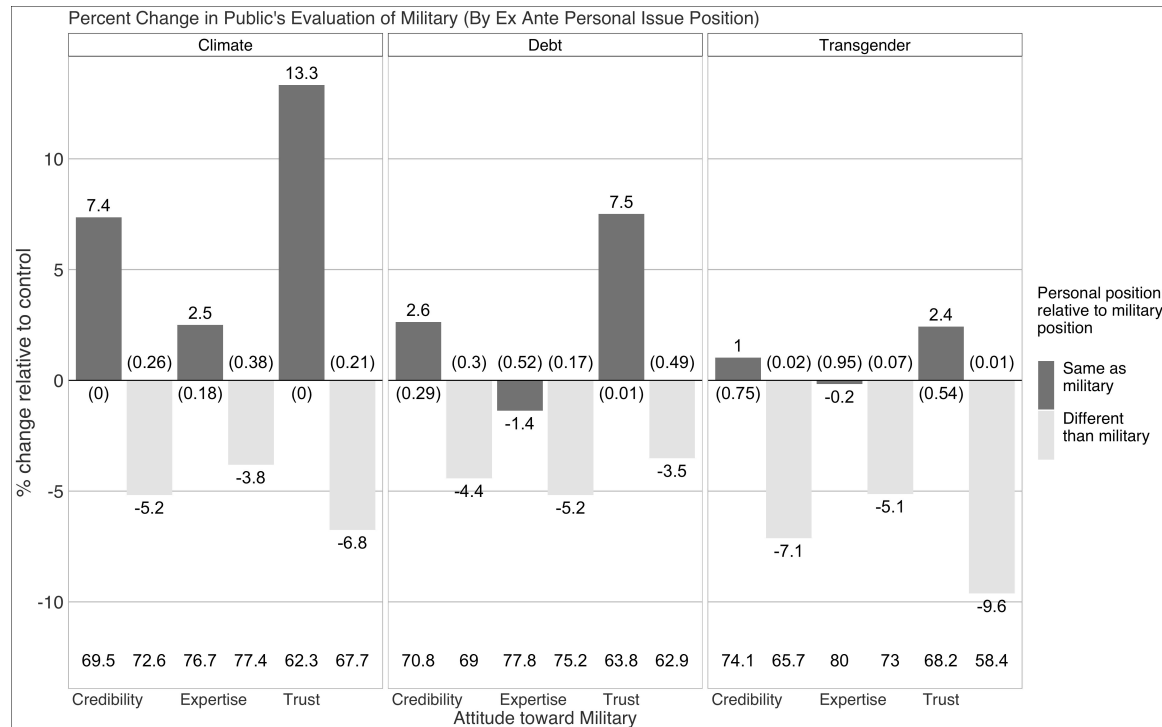
Section 5: Demographic Measurements

Appendix B: Effect of Ex Ante Issue Position

Effect of Ex Ante Issue Position: A potential criticism to the partisanship explanation is skepticism that the public maps the military's position to an overall political leaning. Instead, it may be more conceivable that individuals only react to the level of shared preference on the exposed issue. Individuals who, ex ante, think climate change is happening, that the national debt is a serious threat to national security, or that the military can make employment decisions based on someone's gender identity, might have more positive perceptions of the military if they were exposed to the military's position on these issues. The opposite would hold be true as well.

Figure 3.B shows the effects of the military's position on perceptions of the military, interacted with issue and pre-existing belief.

Figure 3.B Percent Change in Public’s Evaluation of Military (By Ex Ante Personal Issue Position)



NOTE: This figure depicts the change in perceptions of confidence, trust, and expertise of the military in reference to each issue’s unique control group. The figures reflect the magnitude of effect for two-tailed test for difference in means between the pooled treatment groups and the control groups by each issue. The two-tailed p-values are depicted in parentheses along the x-axis and the control level is reported above the x-axis. For ease of interpretability, I recoded the measurements to 0-100 continuous scale. Respondents were from an opt-in panel from Lucid during April 2019. N=3,256.

Before receiving treatment, respondents were asked to share their ex ante position on the assigned issue. Respondents who answered the pre-treatment question that climate change is happening, that organizations should be allowed to consider someone’s gender identity into employment decisions, or that a lot or more should be done to prevent a growing national debt,⁶³ are coded as having the same personal position relative to the military.

The treatment effect patterns generally follow the partisan patterns presented in the main body of the paper, but it is difficult to properly measure congruence with the

⁶³ Respondents were also asked how good or bad a growing national debt was for the country and the degree to which a growing national debt hurt national security. Results hold when “Same as military” is alternatively coded as those respondents who believe the national debt is bad or believe that the national debt will likely hurt national security.

military's position. First, the military's position includes various dimensions. For example, the military thinks climate change is happening, but frames it within a security context. Therefore, is congruence with the military belief on climate change or the belief that climate change is a security problem? I tested alternative coding of the variables and the results were robust.

Second, I experienced a particular problem trying to measure the public's views on transgender people serving in the military. During pre-testing, I fielded a more direct question about whether or not the military should be allowed to consider one's gender identity, but found that by asking respondents directly to share this view, it pre-treated respondents and drove control level perceptions of the military significantly downward when compared to other issue control groups.

Appendix C: Credibility, Trust, Expertise, Confidence Tables

Tables 3.C Average Treatment Effects (Credibility, Trust, Expertise, Confidence)

Topic: Climate Change				
DV - Perception of Military Credibility (Recoded to 0-100 Scale)				
VARIABLES	(1) Baseline	(2) PID	(3) Position	(4) PID X Position
Treated	3.572*** (0.00975)	-2.246 (0.303)	-3.760 (0.254)	-5.748 (0.144)
<u>Personal Position</u>				
Same position as military			-3.047 (0.313)	1.584 (0.680)
<u>Treated X Personal Position</u>				
Treated X Same position as military			8.873** (0.0145)	4.763 (0.313)
<u>Party ID</u>				
Democrat		-13.49*** (6.35e-08)		-22.79*** (0.00623)
Independent		-18.78*** (6.58e-09)		-16.48** (0.0217)
<u>Interaction of treatment and PID</u>				
Treated X Democrat		8.770*** (0.00340)		15.46* (0.0971)
Treated X Independent		12.10*** (0.00160)		5.331 (0.545)
<u>Personal Position X PID</u>				
Same position as military X Democrat				9.330 (0.288)
Same position as military X Independent				-3.047 (0.705)
<u>Treated X Personal Position X PID</u>				
Treated X Same position as military X Democrat				-7.648 (0.440)
Treated X Same position as military X Independent				7.097 (0.469)
Constant (Control, Republican, Different position than military)	70.04*** (0)	79.23*** (0)	72.56*** (0)	78.15*** (0)
Observations	1,084	1,084	1,083	1,083
R-squared	0.006	0.057	0.015	0.072

pval in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Topic: Climate Change
DV - Trust (0-100 Scale)

VARIABLES	(1) Baseline	(2) PID	(3) Position	(4) PID X Position
Treated	6.059*** (8.00e-05)	-1.201 (0.620)	-4.568 (0.210)	-7.209* (0.0984)
<u>Personal Position</u>				
Same position as military			-5.324 (0.111)	-0.499 (0.907)
<u>Treated X Personal Position</u>				
Treated X Same position as military			12.88*** (0.00136)	8.349 (0.110)
<u>Party ID</u>				
Democrat		-15.25*** (3.65e-08)		-27.56*** (0.00286)
Independent		-21.10*** (4.32e-09)		-17.32** (0.0296)
<u>Interaction of treatment and PID</u>				
Treated X Democrat		11.21*** (0.000745)		19.85* (0.0547)
Treated X Independent		14.26*** (0.000806)		6.376 (0.514)
<u>Personal Position X PID</u>				
Same position as military X Democrat				13.07 (0.179)
Same position as military X Independent				-4.467 (0.616)
<u>Treated X Personal Position X PID</u>				
Treated X Same position as military X Democrat				-10.50 (0.339)
Treated X Same position as military X Independent				7.906 (0.467)
Constant (Control, Republican, Different position than military)	63.28*** (0)	73.64*** (0)	67.67*** (0)	73.98*** (0)
Observations	1,084	1,084	1,083	1,083
R-squared	0.014	0.063	0.027	0.081

pval in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Topic: Climate Change DV - Expertise (0-100 Scale)

VARIABLES	(1) Baseline	(2) PID	(3) Position	(4) PID X Position
Treated	1.085 (0.414)	-3.291 (0.117)	-2.951 (0.352)	-4.287 (0.259)
<u>Personal Position</u>				
Same position as military			-0.770 (0.791)	3.668 (0.324)
<u>Treated X Personal Position</u>				
Treated X Same position as military			4.867 (0.164)	1.177 (0.796)
<u>Party ID</u>				
Democrat		-11.73*** (1.04e-06)		-18.03** (0.0250)
Independent		-16.46*** (1.29e-07)		-15.65** (0.0241)
<u>Interaction of treatment and PID</u>				
Treated X Democrat		6.325** (0.0283)		11.08 (0.218)
Treated X Independent		9.929*** (0.00718)		4.287 (0.614)
<u>Personal Position X PID</u>				
Same position as military X Democrat				5.587 (0.510)
Same position as military X Independent				-1.627 (0.834)
<u>Treated X Personal Position X PID</u>				
Treated X Same position as military X Democrat				-4.797 (0.616)
Treated X Same position as military X Independent				6.287 (0.506)
Constant (Control, Republican, Different position than military)	76.81*** (0)	84.82*** (0)	77.44*** (0)	82.32*** (0)
Observations	1,084	1,084	1,083	1,083
R-squared	0.001	0.047	0.005	0.058

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Topic: Climate Change
DV - Perception of Military Confidence (Binary)

VARIABLES	(1) Baseline	(2) PID	(3) Position	(4) PID X Position
Treated	4.377 (0.127)	-2.239 (0.624)	-11.37* (0.0966)	-3.706 (0.653)
<u>Personal Position</u>				
Same position as military			-9.237 (0.141)	3.437 (0.670)
<u>Treated X Personal Position</u>				
Treated X Same position as military			19.04** (0.0116)	1.842 (0.852)
<u>Party ID</u>				
Democrat		-19.99*** (0.000125)		2.787 (0.873)
Independent		-27.64*** (4.32e-05)		-22.93 (0.128)
<u>Interaction of treatment and PID</u>				
Treated X Democrat		10.58* (0.0914)		-26.13 (0.181)
Treated X Independent		13.07 (0.103)		-11.29 (0.541)
<u>Personal Position X PID</u>				
Same position as military X Democrat				-24.92 (0.176)
Same position as military X Independent				-6.294 (0.709)
<u>Treated X Personal Position X PID</u>				
Treated X Same position as military X Democrat				39.44* (0.0576)
Treated X Same position as military X Independent				27.89 (0.175)
Constant (Control, Republican, Different position than military)	71.69*** (0)	85.27*** (0)	79.31*** (0)	82.93*** (0)
Observations	1,084	1,084	1,083	1,083
R-squared	0.002	0.034	0.009	0.049

pval in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Topic: National Debt				
DV - Perception of Military Credibility (Recoded to 0-100 Scale)				
VARIABLES	(1) Baseline	(2) PID	(3) Position	(4) PID X Position
Treated	0.479 (0.751)	2.236 (0.344)	-3.051 (0.277)	1.275 (0.772)
<u>Personal Position</u>				
Same position as military			1.781 (0.517)	1.010 (0.814)
<u>Treated X Personal Position</u>				
Treated X Same position as military			4.917 (0.139)	1.469 (0.777)
<u>Party ID</u>				
Democrat		-13.46*** (3.77e-07)		-14.39*** (0.00406)
Independent		-9.913*** (0.00463)		-9.706 (0.108)
<u>Interaction of treatment and PID</u>				
Treated X Democrat		-0.488 (0.879)		-4.426 (0.460)
Treated X Independent		-6.051 (0.148)		-15.78** (0.0362)
<u>Personal Position X PID</u>				
Same position as military X Democrat				1.297 (0.825)
Same position as military X Independent				-0.176 (0.981)
<u>Treated X Personal Position X PID</u>				
Treated X Same position as military X Democrat				5.349 (0.449)
Treated X Same position as military X Independent				12.37 (0.172)
Constant (Control, Republican, Different position than military)	70.28*** (0)	77.94*** (0)	69.02*** (0)	77.21*** (0)
Observations	1,038	1,038	1,038	1,038
R-squared	0.000	0.089	0.013	0.111

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Topic: National Debt DV - Trust (0-100 Scale)

VARIABLES	(1) Baseline	(2) PID	(3) Position	(4) PID X Position
Treated	2.814* (0.0918)	4.437* (0.0894)	-2.211 (0.475)	2.761 (0.570)
Personal Position				
Same position as military			0.974 (0.748)	1.204 (0.800)
Treated X Personal Position				
Treated X Same position as military			7.009* (0.0560)	2.524 (0.660)
Party ID				
Democrat		-15.12*** (2.48e-07)		-14.62*** (0.00825)
Independent		-9.988*** (0.00985)		-9.412 (0.159)
Interaction of treatment and PID				
Treated X Democrat		0.211 (0.952)		-5.557 (0.401)
Treated X Independent		-6.909 (0.136)		-16.51** (0.0473)
Personal Position X PID				
Same position as military X Democrat				-0.678 (0.917)
Same position as military X Independent				-0.728 (0.929)
Treated X Personal Position X PID				
Treated X Same position as military X Democrat				7.817 (0.317)
Treated X Same position as military X Independent				12.14 (0.225)
Constant (Control, Republican, Different position than military)	63.55*** (0)	71.96*** (0)	62.85*** (0)	71.08*** (0)
Observations	1,038	1,038	1,038	1,038
R-squared	0.003	0.088	0.017	0.110

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Topic: National Debt DV - Expertise (0-100 Scale)

VARIABLES	(1) Baseline	(2) PID	(3) Position	(4) PID X Position
Treated	-1.856 (0.200)	0.0356 (0.987)	-3.890 (0.148)	-0.211 (0.960)
<u>Personal Position</u>				
Same position as military			2.588 (0.326)	0.815 (0.844)
<u>Treated X Personal Position</u>				
Treated X Same position as military			2.824 (0.376)	0.413 (0.934)
<u>Party ID</u>				
Democrat		-11.80*** (3.41e-06)		-14.17*** (0.00326)
Independent		-9.838*** (0.00342)		-10.000* (0.0852)
<u>Interaction of treatment and PID</u>				
Treated X Democrat		-1.188 (0.699)		-3.296 (0.567)
Treated X Independent		-5.193 (0.196)		-15.05** (0.0377)
<u>Personal Position X PID</u>				
Same position as military X Democrat				3.272 (0.561)
Same position as military X Independent				0.375 (0.958)
<u>Treated X Personal Position X PID</u>				
Treated X Same position as military X Democrat				2.881 (0.671)
Treated X Same position as military X Independent				12.60 (0.148)
Constant (Control, Republican, Different position than military)	77.02*** (0)	83.93*** (0)	75.18*** (0)	83.33*** (0)
Observations	1,038	1,038	1,038	1,038
R-squared	0.002	0.085	0.011	0.104

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Topic: National Debt				
DV - Perception of Military Confidence (Binary)				
VARIABLES	(1)	(2)	(3)	(4)
	Baseline	PID	Position	PID X Position
Treated	-4.164 (0.172)	-1.336 (0.779)	-6.173 (0.277)	-4.691 (0.601)
<u>Personal Position</u>				
Same position as military			4.465 (0.422)	-0.0633 (0.994)
<u>Treated X Personal Position</u>				
Treated X Same position as military			2.784 (0.679)	4.891 (0.644)
<u>Party ID</u>				
Democrat		-25.43*** (2.03e-06)		-35.74*** (0.000470)
Independent		-20.92*** (0.00316)		-13.24 (0.282)
<u>Interaction of treatment and PID</u>				
Treated X Democrat		0.963 (0.882)		8.713 (0.475)
Treated X Independent		-12.65 (0.135)		-32.81** (0.0326)
<u>Personal Position X PID</u>				
Same position as military X Democrat				14.23 (0.233)
Same position as military X Independent				-12.08 (0.422)
<u>Treated X Personal Position X PID</u>				
Treated X Same position as military X Democrat				-10.90 (0.448)
Treated X Same position as military X Independent				27.85 (0.131)
Constant (Control, Republican, Different position than military)	73.39*** (0)	88.19*** (0)	70.21*** (0)	88.24*** (0)
Observations	1,042	1,042	1,042	1,042
R-squared	0.002	0.082	0.006	0.093

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

:: Military Service of Transgender People

DV - Perception of Military Credibility (Recoded to 0-100 Scale)

VARIABLES	(1) Baseline	(2) PID	(3) Position	(4) PID X Position
Treated	-3.063* (0.0575)	1.571 (0.505)	-4.682** (0.0192)	-4.062 (0.233)
<u>Personal Position</u>				
Same position as military			8.354*** (0.00158)	-3.381 (0.384)
<u>Treated X Personal Position</u>				
Treated X Same position as military			5.440* (0.0922)	10.83** (0.0204)
<u>Party ID</u>				
Democrat		-14.41*** (9.51e-08)		-20.27*** (2.45e-08)
Independent		-16.24*** (1.89e-06)		-20.16*** (3.15e-06)
<u>Interaction of treatment and PID</u>				
Treated X Democrat		-11.22*** (0.000571)		-4.013 (0.352)
Treated X Independent		-1.859 (0.655)		4.414 (0.398)
<u>Personal Position X PID</u>				
Same position as military X Democrat				15.99*** (0.00371)
Same position as military X Independent				10.92 (0.132)
<u>Treated X Personal Position X PID</u>				
Treated X Same position as military X Democrat				-13.82** (0.0403)
Treated X Same position as military X Independent				-12.58 (0.162)
Constant (Control, Republican, Different position than military)	69.02*** (0)	78.32*** (0)	65.72*** (0)	80.16*** (0)
Observations	1,126	1,126	1,126	1,126
R-squared	0.003	0.178	0.058	0.202

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Topic: Military Service of Transgender People
DV - Trust (0-100 Scale)

VARIABLES	(1) Baseline	(2) PID	(3) Position	(4) PID X Position
Treated	-3.402* (0.0591)	2.321 (0.376)	-5.620** (0.0114)	-4.592 (0.224)
<u>Personal Position</u>				
Same position as military			9.762*** (0.000890)	-3.937 (0.360)
<u>Treated X Personal Position</u>				
Treated X Same position as military			7.271** (0.0428)	13.30** (0.0101)
<u>Party ID</u>				
Democrat		-15.72*** (1.72e-07)		-22.97*** (1.18e-08)
Independent		-18.00*** (2.14e-06)		-22.10*** (3.97e-06)
<u>Interaction of treatment and PID</u>				
Treated X Democrat		-13.53*** (0.000194)		-4.962 (0.299)
Treated X Independent		-2.785 (0.548)		4.498 (0.437)
<u>Personal Position X PID</u>				
Same position as military X Democrat				19.97*** (0.00108)
Same position as military X Independent				11.09 (0.168)
<u>Treated X Personal Position X PID</u>				
Treated X Same position as military X Democrat				-15.72** (0.0352)
Treated X Same position as military X Independent				-14.00 (0.160)
Constant (Control, Republican, Different position than military)	62.27*** (0)	72.46*** (0)	58.41*** (0)	74.60*** (0)
Observations	1,126	1,126	1,126	1,126
R-squared	0.003	0.184	0.069	0.216

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Topic: Military Service of Transgender People DV - Expertise (0-100 Scale)

VARIABLES	(1) Baseline	(2) PID	(3) Position	(4) PID X Position
Treated	-2.725* (0.0760)	0.821 (0.719)	-3.745* (0.0514)	-3.532 (0.288)
<u>Personal Position</u>				
Same position as military			6.947*** (0.00626)	-2.825 (0.456)
<u>Treated X Personal Position</u>				
Treated X Same position as military			3.608 (0.245)	8.354* (0.0668)
<u>Party ID</u>				
Democrat		-13.11*** (5.58e-07)		-17.57*** (7.17e-07)
Independent		-14.49*** (1.16e-05)		-18.21*** (1.60e-05)
<u>Interaction of treatment and PID</u>				
Treated X Democrat		-8.916*** (0.00473)		-3.065 (0.466)
Treated X Independent		-0.934 (0.817)		4.331 (0.396)
<u>Personal Position X PID</u>				
Same position as military X Democrat				12.01** (0.0255)
Same position as military X Independent				10.76 (0.129)
<u>Treated X Personal Position X PID</u>				
Treated X Same position as military X Democrat				-11.92* (0.0702)
Treated X Same position as military X Independent				-11.15 (0.204)
Constant (Control, Republican, Different position than military)	75.78*** (0)	84.18*** (0)	73.03*** (0)	85.71*** (0)
Observations	1,126	1,126	1,126	1,126
R-squared	0.003	0.147	0.039	0.161

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

ic: Military Service of Transgender People
DV - Perception of Military Confidence (Binary)

VARIABLES	(1) Baseline	(2) PID	(3) Position	(4) PID X Position
Treated	-4.862 (0.101)	1.346 (0.766)	-5.969 (0.110)	-0.303 (0.963)
<u>Personal Position</u>				
Same position as military			11.20** (0.0233)	4.127 (0.584)
<u>Treated X Personal Position</u>				
Treated X Same position as military			4.335 (0.473)	3.510 (0.698)
<u>Party ID</u>				
Democrat		-21.09*** (4.55e-05)		-21.79*** (0.00192)
Independent		-21.01*** (0.00128)		-20.54** (0.0142)
<u>Interaction of treatment and PID</u>				
Treated X Democrat		-14.73** (0.0183)		-12.10 (0.148)
Treated X Independent		-3.099 (0.698)		-0.872 (0.931)
<u>Personal Position X PID</u>				
Same position as military X Democrat				5.125 (0.631)
Same position as military X Independent				2.294 (0.871)
<u>Treated X Personal Position X PID</u>				
Treated X Same position as military X Democrat				-5.011 (0.702)
Treated X Same position as military X Independent				-5.130 (0.769)
Constant (Control, Republican, Different position than military)	71.70*** (0)	84.78*** (0)	67.27*** (0)	82.54*** (0)
Observations	1,127	1,127	1,127	1,127
R-squared	0.002	0.103	0.024	0.108

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Topic: Military Service of Transgender People
DV - Perception of Military Confidence (Recoded to 0-100 Scale)

VARIABLES	(1) Baseline	(2) PID	(3) Position	(4) PID X Position
Treated	-3.531** (0.0282)	-2.100 (0.385)	-4.397** (0.0293)	-4.822 (0.172)
Personal Position				
Same position as military			7.134*** (0.00749)	0.746 (0.853)
Treated X Personal Position				
Treated X Same position as military			3.213 (0.324)	5.389 (0.264)
Party ID				
Democrat		-15.26*** (3.75e-08)		-17.40*** (3.60e-06)
Independent		-16.85*** (1.48e-06)		-16.42*** (0.000239)
Interaction of treatment and PID				
Treated X Democrat		-5.618* (0.0921)		-1.958 (0.661)
Treated X Independent		3.002 (0.482)		5.136 (0.342)
Personal Position X PID				
Same position as military X Democrat				7.231 (0.204)
Same position as military X Independent				-0.825 (0.913)
Treated X Personal Position X PID				
Treated X Same position as military X Democrat				-7.037 (0.313)
Treated X Same position as military X Independent				-3.031 (0.745)
Constant (Control, Republican, Different position than military)	75.55*** (0)	85.33*** (0)	72.73*** (0)	84.92*** (0)
Observations	1,127	1,127	1,127	1,127
R-squared	0.004	0.131	0.036	0.142

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Topic: Climate Change
DV - Perception of Military Confidence (Recoded to 0-100 Scale)

VARIABLES	(1) Baseline	(2) PID	(3) Position	(4) PID X Position
Treated	0.590 (0.695)	-3.938* (0.0989)	-5.880 (0.102)	-3.461 (0.422)
<u>Personal Position</u>				
Same position as military			-3.565 (0.280)	2.952 (0.484)
<u>Treated X Personal Position</u>				
Treated X Same position as military			7.839** (0.0480)	-0.824 (0.873)
<u>Party ID</u>				
Democrat		-12.71*** (3.10e-06)		-3.136 (0.731)
Independent		-17.62*** (6.28e-07)		-19.21** (0.0147)
<u>Interaction of treatment and PID</u>				
Treated X Democrat		6.934** (0.0342)		-11.14 (0.275)
Treated X Independent		9.480** (0.0237)		3.461 (0.720)
<u>Personal Position X PID</u>				
Same position as military X Democrat				-10.90 (0.257)
Same position as military X Independent				1.385 (0.875)
<u>Treated X Personal Position X PID</u>				
Treated X Same position as military X Democrat				19.98* (0.0659)
Treated X Same position as military X Independent				7.034 (0.513)
Constant (Control, Republican, Different position than military)	75.08*** (0)	83.72*** (0)	78.02*** (0)	81.71*** (0)
Observations	1,084	1,084	1,083	1,083
R-squared	0.000	0.044	0.005	0.056

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

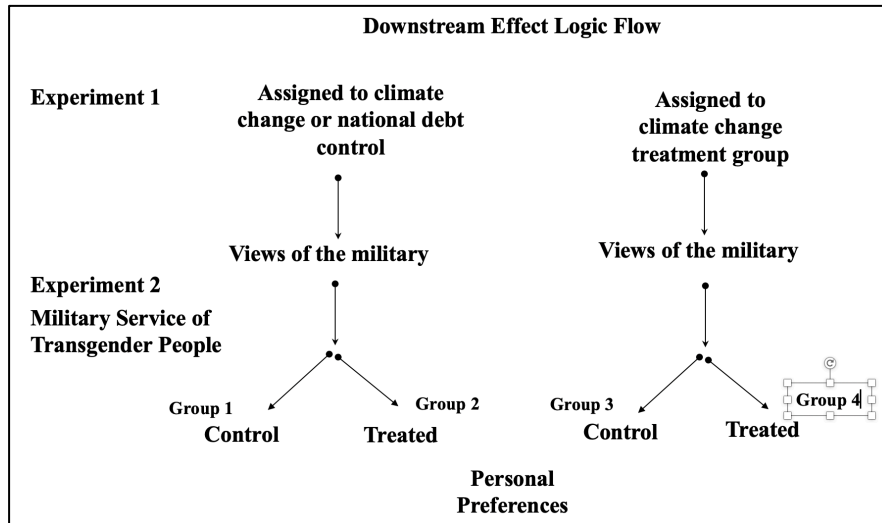
Topic: National Debt
DV - Perception of Military Confidence (Recoded to 0-100 Scale)

VARIABLES	(1) Baseline	(2) PID	(3) Position	(4) PID X Position
Treated	0.479 (0.751)	2.236 (0.344)	-3.051 (0.277)	1.275 (0.772)
<u>Personal Position</u>				
Same position as military			1.781 (0.517)	1.010 (0.814)
<u>Treated X Personal Position</u>				
Treated X Same position as military			4.917 (0.139)	1.469 (0.777)
<u>Party ID</u>				
Democrat		-13.46*** (3.77e-07)		-14.39*** (0.00406)
Independent		-9.913*** (0.00463)		-9.706 (0.108)
<u>Interaction of treatment and PID</u>				
Treated X Democrat		-0.488 (0.879)		-4.426 (0.460)
Treated X Independent		-6.051 (0.148)		-15.78** (0.0362)
<u>Personal Position X PID</u>				
Same position as military X Democrat				1.297 (0.825)
Same position as military X Independent				-0.176 (0.981)
<u>Treated X Personal Position X PID</u>				
Treated X Same position as military X Democrat				5.349 (0.449)
Treated X Same position as military X Independent				12.37 (0.172)
Constant (Control, Republican, Different position than military)	70.28*** (0)	77.94*** (0)	69.02*** (0)	77.21*** (0)
Observations	1,038	1,038	1,038	1,038
R-squared	0.000	0.089	0.013	0.111

pval in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Appendix D: Downstream Effects

Figure 3.D Downstream Effect Logic Flow



Tables 3.D Downstream Effects of Exposure to Pro-Climate Position on Support for Transgender Servicemembers

Downstream Effect of Exposure to Pro-Climate Position on Support for Transgender Servicemembers

DV: Percent of people who support transgender people
Serving in the military

VARIABLES	(1) Democrats
Group 2 Treatment 1 = 0, Treatment 2 = 1	3.974 (0.584)
Group 3 Treatment 1 = 1, Treatment 2 = 0	2.996 (0.684)
Group 4 Treatment 1 = 1, Treatment 2 = 1	-0.413 (0.950)
Group 1 (Constant) Treatment 1 = 0, Treatment 2 = 0	60.87*** (0)
Observations	579
R-squared	0.002

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Ho: Group 4 - Group 3 = Group 2 - Group 1

Ha: Group 4 - Group 3 > Group 2 - Group 1

Test: -3.409 = 3.974

Prob > F = .0001

**Downstream Effect of Exposure
to Pro-Climate Position on Transgender Views**

DV = Percentage of people who oppose
transgender people serving in the military

VARIABLES	(1) Democrats
Group 2 Treatment 1 = 0, Treatment 2 = 1	-3.997 (0.460)
Group 3 Treatment 1 = 1, Treatment 2 = 0	-5.395 (0.325)
Group 4 Treatment 1 = 1, Treatment 2 = 1	-3.251 (0.506)
Group 1 (Constant) Treatment 1 = 0, Treatment 2 = 0	18.84*** (1.78e-05)
Observations	579
R-squared	0.002

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Ho: Group 4 - Group 3 = Group 2 - Group 1

Ha: Group 4 - Group 3 > Group 2 - Group 1

Test: 2.144 = -3.997

Prob > F = .007

**Downstream Effect of Exposure
to Pro-Climate Position on General Employment Practices**

DV - Support for allowing organizations to consider gender
identity in employment decisions (0-100)

VARIABLES	(1) Democrats
Group 2 Treatment 1 = 0, Treatment 2 = 1	-5.310 (0.330)
Group 3 Treatment 1 = 1, Treatment 2 = 0	-6.420 (0.245)
Group 4 Treatment 1 = 1, Treatment 2 = 1	-1.677 (0.734)
Group 1 (Constant) Treatment 1 = 0, Treatment 2 = 0	42.03*** (0)
Observations	579
R-squared	0.004

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Ho: Group 4 - Group 3 = Group 2 - Group 1

Ha: Group 4 - Group 3 > Group 2 - Group 1

Test: 4.73 = -5.31

Prob > F = 0

Downstream Effect of Exposure to Pro-Climate Position on Opposition of Transgender Servicemembers - (Republicans)

DV - Percent of people who oppose transgender people serving in the military

VARIABLES	(1) Republicans
Group 2 Treatment 1 = 0, Treatment 2 = 1	21.79*** (0.00825)
Group 3 Treatment 1 = 1, Treatment 2 = 0	8.787 (0.275)
Group 4 Treatment 1 = 1, Treatment 2 = 1	12.25 (0.103)
Group 1 (Constant) Treatment 1 = 0, Treatment 2 = 0	40.35*** (1.94e-09)
Observations	468
R-squared	0.017

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Ho: Group 4 - Group 3 = Group 2 - Group 1

Ha: Group 4 - Group 3 < Group 2 - Group 1

Test: 3.463 = 21.79

Prob > F = 0.074

Downstream Effect of Exposure to Pro-Climate Position on General Employment Practices - (Republicans)

DV - Support for allowing organizations to consider gender identity in employment decisions (0-100)

VARIABLES	(1) Republicans
Group 2 Treatment 1 = 0, Treatment 2 = 1	14.43** (0.0127)
Group 3 Treatment 1 = 1, Treatment 2 = 0	-2.202 (0.697)
Group 4 Treatment 1 = 1, Treatment 2 = 1	3.899 (0.460)
Group 1 (Constant) Treatment 1 = 0, Treatment 2 = 0	58.99*** (0)
Observations	468
R-squared	0.028

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Ho: Group 4 - Group 3 = Group 2 - Group 1

Ha: Group 4 - Group 3 < Group 2 - Group 1

Test: 6.101 = 14.43

Prob > F = 0.0

Downstream Effect of Exposure to Pro-Climate Position on Support of Transgender Servicemembers - (Republicans)

DV - Percent of people who support transgender people serving in the military

VARIABLES	(1) Republicans
Group 2 Treatment 1 = 0, Treatment 2 = 1	-18.77*** (0.00857)
Group 3 Treatment 1 = 1, Treatment 2 = 0	-4.885 (0.484)
Group 4 Treatment 1 = 1, Treatment 2 = 1	-7.292 (0.262)
Group 1 (Constant) Treatment 1 = 0, Treatment 2 = 0	33.33*** (9.66e-09)
Observations	468
R-squared	0.019

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Ho: Group 4 - Group 3 = Group 2 - Group 1

Ha: Group 4 - Group 3 < Group 2 - Group 1

Test: -2.407 = -18.77

Prob > F = 0.0001

Appendix E: Treatment Effects on Views of Military Partisanship and Communication

Tables 3.E Affect of Treatment on Views of Military Partisanship Leaning

Affect of Treatment on Views of Military Partisanship Leaning

DV: Expected personal values of military leadership

(Democrat Party = -1, Equal = 0, Republican Party = 1)

VARIABLES	<u>Climate Change</u>	<u>National Debt</u>	<u>Transgender</u>
	(1)	(2)	(3)
Treated	-0.142*** (0.00177)	-0.0535 (0.247)	0.0866** (0.0267)
Constant (Control Level)	0.366*** (0)	0.417*** (0)	0.456*** (0)
Observations	1,085	1,041	1,127
R-squared	0.009	0.001	0.004

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

DV - Appropriateness for Military to Communciate on Issue (0-100)

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
	Climate		Debt		Transgender	
Treated	17.68*** (0)	19.28*** (0)	15.78*** (0)	19.85*** (5.80e-11)	5.964*** (0.00969)	6.659* (0.0517)
<u>PID</u>						
Democrats		18.04*** (1.46e-08)		-2.474 (0.460)		-28.71*** (0)
Independents		9.845** (0.0158)		-2.391 (0.591)		-19.81*** (6.16e-05)
<u>Treated X PID</u>						
Treated X Democrat		-3.239 (0.395)		-6.132 (0.132)		-2.383 (0.613)
Treated X Independent		-1.997 (0.681)		-6.153 (0.248)		-1.659 (0.784)
Constant (Control, Republican)	57.51*** (0)	47.93*** (0)	53.62*** (0)	55.12*** (0)	45.70*** (0)	61.84*** (0)
Observations	1,086	1,086	1,042	1,042	1,127	1,127
R-squared	0.084	0.148	0.065	0.080	0.006	0.154

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Appendix F: Moderators to Treatment

Moderator: Familiarity with military (Continuous)

VARIABLES	DV = Credibility								
	All			Republican			Democrat		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Climate	Debt	Transgender	Climate	Debt	Transgender	Climate	Debt	Transgender
Treated	8.288*** (0.00229)	-4.104 (0.143)	-0.949 (0.759)	4.189 (0.364)	-1.222 (0.733)	0.799 (0.846)	5.057 (0.225)	-3.193 (0.481)	-4.351 (0.344)
Familiarity with Military	5.690*** (5.54e-08)	2.389** (0.0269)	4.670*** (2.90e-05)	4.523*** (0.00373)	1.217 (0.319)	3.872*** (0.00433)	2.887* (0.0925)	1.355 (0.470)	4.361** (0.0178)
Treated X Familiarity with Military	-2.377* (0.0532)	2.281* (0.0842)	-1.084 (0.425)	-2.692 (0.143)	1.392 (0.368)	0.677 (0.680)	0.952 (0.641)	2.760 (0.225)	-3.162 (0.151)
Constant	59.07*** (0)	66.08*** (0)	59.90*** (0)	68.78*** (0)	75.66*** (0)	69.51*** (0)	60.65*** (0)	62.19*** (0)	56.35*** (0)
Observations	1,084	1,038	1,126	406	377	448	470	470	480
R-squared	0.055	0.040	0.037	0.032	0.026	0.069	0.049	0.024	0.046

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Moderator: Familiarity with military - Binary (All Respondents)

VARIABLES	(1)	(2)	(3)
	Climate	Debt	Transgender
Treated	4.374* (0.0624)	-2.561 (0.275)	-0.351 (0.898)
High Familiarity	7.577*** (0.00181)	3.088 (0.217)	8.269*** (0.00307)
Treated X High Familiarity	-0.739 (0.798)	4.132 (0.178)	-4.009 (0.236)
Constant (Low Familiarity and Control Group Level)	64.93*** (0)	68.58*** (0)	63.55*** (0)
Observations	1,084	1,038	1,126
R-squared	0.032	0.017	0.015

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Moderator: Familiarity with military (Binary) - By Partisanship

VARIABLES	Climate		Debt		Transgender	
	(1)	(2)	(3)	(4)	(5)	(6)
	Republican	Democrat	Republican	Democrat	Republican	Democrat
Treated	-3.319 (0.425)	5.236 (0.139)	0.441 (0.889)	-2.264 (0.527)	1.218 (0.747)	-5.750 (0.144)
High Familiarity	4.095 (0.309)	2.391 (0.525)	2.585 (0.391)	-1.867 (0.635)	6.523* (0.0839)	5.987 (0.140)
Treated X High Familiarity	1.890 (0.689)	2.362 (0.599)	1.693 (0.665)	6.787 (0.153)	1.223 (0.783)	-6.356 (0.202)
treatment_debt_pooled = 1						
Constant (Control level - Low Familiarity and Control)	75.96*** (0)	64.23*** (0)	76.47*** (0)	65.51*** (0)	73.45*** (0)	60.25*** (0)
Observations	406	470	377	470	448	480
R-squared	0.020	0.027	0.014	0.009	0.032	0.037

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Issue Salience Moderator: To test whether high personal issue salience moderated the treatment effect, I compare the magnitude of the treatment effect between respondents with high personal issue salience and respondents with low personal issue salience. The climate change group was interacted with climate change issue salience. The national debt group was interacted with economy issue salience. The service of transgender individuals was interacted with social equality issue salience.⁶⁴

Moderator: Issue Salience - Continuous All Respondents

VARIABLES	DV = Credibility								
	All			Republican			Democrat		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Climate	Debt	Transgender	Climate	Debt	Transgender	Climate	Debt	Transgender
Treated	-11.10*** (0.000260)	0.737 (0.891)	4.288 (0.284)	-11.05*** (0.000940)	12.47 (0.131)	2.576 (0.560)	-5.506 (0.446)	-15.76* (0.0542)	-1.813 (0.818)
Personal Issue Salience	-2.858*** (0.00140)	3.964*** (0.00485)	-2.523** (0.0338)	-0.207 (0.865)	5.777*** (0.00701)	-0.775 (0.617)	-0.717 (0.711)	-0.567 (0.794)	-0.588 (0.772)
Treated X Personal Issue Salience	5.784*** (7.00e-08)	-0.106 (0.949)	-2.804** (0.0455)	4.620*** (0.00174)	-3.092 (0.213)	-0.531 (0.768)	4.007* (0.0719)	5.695** (0.0294)	-2.510 (0.308)
Constant	77.33*** (0)	58.11*** (0)	75.64*** (0)	79.61*** (0)	59.10*** (0)	80.05*** (0)	67.99*** (0)	66.16*** (0)	65.68*** (0)
Observations	1,084	1,038	1,124	406	377	447	470	470	480
R-squared	0.038	0.024	0.051	0.071	0.035	0.007	0.038	0.028	0.043

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Moderator: Issue Salience (Binary) - All Respondents

VARIABLES	(1)	(2)	(3)
	Climate	Debt	Transgender
Treated	-3.509* (0.0862)	-2.221 (0.492)	0.599 (0.808)
High Issue Salience	-6.303*** (0.00594)	5.074* (0.0919)	-4.034 (0.129)
Treated X High Issue Salience	12.79*** (3.59e-06)	3.360 (0.357)	-6.284* (0.0519)
Constant (Control Level for Low Issue Salience)	73.54*** (0)	66.31*** (0)	71.39*** (0)
Observations	1,084	1,038	1,124
R-squared	0.029	0.019	0.032

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

⁶⁴ Q: “How important are the following issue areas to you personally? National security; the economy; climate change; social equality” A: “Extremely important, very important, moderately important, slightly important, not at all important.” I included the continuous variable in the model and made the assumption that the answer choices map in equal intervals from 0-100.

Moderator: Issue hurts national security - Continuous (0-100)

VARIABLES	DV = Credibility					
	All		Republican		Democrat	
	(1)	(2)	(3)	(4)	(5)	(6)
	Climate	Debt	Climate	Debt	Climate	Debt
Treated	-8.779*** (0.00207)	-2.821 (0.387)	-9.903*** (0.00823)	0.0876 (0.985)	-3.922 (0.455)	-4.622 (0.322)
Issue Hurts US Security	-4.725*** (6.38e-06)	0.693 (0.478)	-2.336 (0.167)	-0.617 (0.636)	-3.456** (0.0478)	-0.00761 (0.996)
Treated X Issue Hurts US Security	6.002*** (9.09e-07)	1.369 (0.241)	4.461** (0.0217)	0.816 (0.606)	4.310** (0.0290)	2.724 (0.106)
Constant (Control Level)	79.89*** (0)	68.55*** (0)	82.85*** (0)	79.58*** (0)	74.45*** (0)	64.50*** (0)
Observations	1,084	1,038	406	377	470	470
R-squared	0.028	0.011	0.020	0.005	0.029	0.020

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Moderator: opinion Strength - Continuous

VARIABLES	DV = Credibility								
	Climate			Debt			Transgender		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	All	Republican	Democrat	All	Republican	Democrat	All	Republican	Democrat
Treated	-2.808 (0.323)	-2.731 (0.423)	-0.747 (0.906)	-0.551 (0.825)	1.519 (0.638)	1.708 (0.664)	-1.007 (0.745)	-0.667 (0.849)	-3.997 (0.466)
Issue Opinion Strength	-4.244 (0.119)	3.479 (0.304)	-5.375 (0.367)	3.794 (0.137)	3.494 (0.260)	0.256 (0.949)	-1.808 (0.547)	-1.254 (0.724)	-1.271 (0.802)
Treatment X Issue Opinion Strength	8.342** (0.0103)	0.332 (0.937)	8.396 (0.212)	1.025 (0.744)	0.467 (0.905)	0.0252 (0.996)	-2.981 (0.410)	3.297 (0.441)	-7.168 (0.240)
Constant	73.32*** (0)	76.99*** (0)	70.56*** (0)	67.99*** (0)	75.72*** (0)	64.33*** (0)	70.36*** (0)	79.17*** (0)	64.94*** (0)
Observations	1,083	406	470	1,038	377	470	1,125	447	480
R-squared	0.013	0.012	0.022	0.009	0.014	0.001	0.009	0.003	0.045

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Conclusion

This dissertation examined the extent to which the military can influence public attitudes on politically contentious issues facing the nation to include climate change, the national debt, and gender identity. Although the military is often associated with conservative ideology, I theorized that the high levels of credibility and trust in the military from both Republican and Democratic Americans allow the military to effectively engage in co- and cross-partisan messaging without a back-fire effect. Moreover, the military's effectiveness at messaging allow it to influence not only general attitudes but also preferences on specific, concrete policy options. Using original survey-experimentation, I provided evidence on (1) the conditions the military can influence public attitudes on political issues, (2) the role public credibility in the military plays in this process, and (3) the potential consequences of military engagement on these issues.

Chapters one and two considered the interaction between source credibility, domain expertise, and cue framing on the military's effectiveness to influence attitudes on two traditionally non-military issues: climate change and the national debt. Across two nationally representative samples, security-based cues issued by the military moved public attitudes on climate change and the national debt. The military swayed both Republicans and Democrats on issues where partisan ideology has been shown to drive back-fire effects. A military-endorsed cue about the national security implications of climate change or the national debt, on average raised people's perception that climate change or the growing national debt hurt national security and that more should be done to mitigate the problem. The studies also illustrated the importance of having the correct source deliver the message.

While the military may have the ability to influence public attitudes, chapter three investigated the consequences of military engagement and advanced a dynamic theory of source credibility. The military holds positions on numerous politically contentious issues like transgender employment practices, gender equality, climate change, artificial intelligence, and fiscal spending, and is increasingly asked to share its views in Congress and in the media. Traditional civil-military norms posit that political engagement or partisan activity by the military could erode the public's high confidence and trust in the military, but little attention had been given in this literature to whether the military's

positions on political issues unrelated to the use of force may also affect public perceptions of the military.

Evidence showed that Republicans and Democrats respond differently to the military's positions on non-military issues and systematically upgrade or downgrade perceptions of military credibility. This raised questions about the validity of the current framework suggested by the civil-military literature around the apolitical norm. Contrary to the expectations produced by the apolitical norm, the military can sometimes increase its credibility with certain groups of Americans through political engagement if it holds political opinions. Democrats gain trust in and credibility of the military when exposed to the military's pro-climate position but lose trust in and credibility of the military when exposed to the military's restriction on some transgender people joining the military. Republicans, on the other hand, generally do not alter their perceptions of military credibility. Importantly, there are downstream effects of the military's position on its effectiveness to influence opinions on another unrelated issue. Democrats who gain trust and credibility in the military from its position on climate change are more likely to oppose transgender people serving in the military and support other organizations being allowed to incorporate someone's gender identity into employment decisions.

While the dissertation makes numerous advancements in the literatures of source credibility and civil military relations, future studies should test additional topics and sources, as well as better establish the mechanisms of military influence. The experiments included in the dissertation presented information directly sourced from the military. However, the military may not need to deliver the information directly to the public to influence attitudes. If another source, e.g. the media or a politician, invoke the military's position on a topic, will the cue be as effective as if the military were to deliver the message directly? How would this in turn affect public credibility of the military?

Of the issues discussed in the dissertation, climate change may hold the greatest opportunity for immediate inquiry. Although the experiment conducted in chapter one only compared military-endorsed and NAS-endorsed cues, future research can study how military-endorsed cues fare in a politically competitive environment. Interestingly, some politicians who draw support from communities with high trust in the military also hold

contrary views to the military on climate change. Will the military's climate change position affect public support for a politician who disagrees with the military?

Furthermore, this dissertation only studied perceptions of political activity and issue positions on Americans' evaluation of military credibility. The military's credibility is also linked to battlefield performance, perceived competence, mission importance, patriotism, and whether or not the nation is at war. Future research should incorporate multiple determinants of military credibility and how might political activity work relative to traditional credibility factors.

Lastly, civil-military norms theorize that the public should respond negatively toward the military if it were to speak against the president on an issue. But given that some members of the public selectively evaluate the apolitical norm due to partisanship, will some members of the public actually promote disagreement between the president and the military? It is plausible that Republicans and Democrats judge disagreement between the president and the military conditional on personal congruence with the president. This has present-day implications. For example, the current administration's removal of climate change as a national security threat from the 2017 National Security Strategy is at odds with the military who recently released a congressionally mandated assessment showing that 53 US military installations are already experiencing climate related issues. Would military engagement on climate change cause the public to increase or decrease confidence in both the president and/or the military? Future studies can try to understand what informs the public to support or not support the military voicing its opinion when it stands in opposition to the president.

Congressional Committee Hearing Dataset and Study

What role do expert witnesses play in Congressional Hearings on climate change? If climate change is considered a threat to US national security, who is being called to testify about it? Are members of the Department of Defense (DoD) and US military being asked to serve as authoritative voices on the matter, or are they generally not providing testimonials in Congress? Who from the military is being called to testify, and does it depend on the ranking committee member or controlling political party?

To answer these questions and understand the patterns of expert testimony concerning climate change in Congress, my colleagues and I created a new dataset of all Congressional Committee Hearings from 1995-2018.⁶⁵ Utilizing web-scraping, text analysis, dictionary, and hand-coding methods, we craft a novel way to classify hearings and witnesses to illustrate which committees are speaking more about climate change, what organizations or professionals have higher or lower propensities to be called on to testify, and the extent to which climate change is being talked about as a national security concern.

Although we are still growing our dataset and refining our classification techniques, we have made three significant findings thus far. First, current members of the military are not being called to testify about climate change.⁶⁶ Second, Congress does not appear to talk about climate change as a threat to national security. Third, university and academic professionals have the highest occurrence to called to testify about climate change.

⁶⁵ Nathan Lee, Stanford University, and Sara Yeganeh, Stony Brook University, serve as collaborators on this project and dataset formulation

⁶⁶ In committee hearings that have a climate change or global warming related words in the title, we have not found a single instance where an active member of the military or senior ranking DoD official is included in witness testimony.

Motivation

Despite a general consensus by the scientific community that climate change is taking place and that humans are largely responsible, those who identify as politically conservative are both more likely to express skepticism about the existence and implications of anthropogenic climate change as well as disagree with the scientific community when compared to those who identify as politically liberal.

Research connecting political ideology to climate change beliefs focuses on how increased political polarization among elites has led to divergent positions advocated by political and media leaders and entrenchment by conservatives to discount evidence of climate change (Ehret, Sparks, and Sherman 2017). When elites disagree over an issue, polarization occurs, and citizens rely on other indicators such as political ideology to form an opinion (Brulle, Carmichael, and Jenkins 2012). Although political polarization is a major determinant of climate change opinion, few studies have looked at how the climate change debate occurs in Congress.

Because climate change is predominantly viewed as an environmental issue with political implications, research on climate change clusters around scientists and politicians. However, scientists and politicians are not the only sources speaking about climate change. The US military firmly advocates that climate change exists and threatens national security.

I am interested in asking the two basic questions: 1) if the military is a trusted, credible, and expert source on national security issues, are they being called to testify in Congress about climate change? 2) To what degree is Congress discussing the national security implications of climate change?

Theory, Expectations, and Hypotheses:

I expect to find that the military is not being called to testify about climate change and that climate change is seldom talked about in terms of a national security threat. Partisanship divides Congress on what to do about climate change. Democratic members of Congress have adopted a significantly more pro-climate position when compared to

Republican members of Congress but appear to focus more on the environmental implications of long-term climate change. Republicans in general, and within Congress, are more closely aligned with the military. They hold significantly higher levels of trust, expertise, and credibility towards the military than Democrats

Climate change, however, is an issue in which the general Republican position is misaligned with the US military's position. Due to this misalignment, I expect that Republican members of Congress will be less inclined to have the military testify about climate change. I equally expect that Democrats will not call the military to testify because Democrats appear to pay more attention to the environmental implications of climate change and hold lower levels of trust, expertise, and credibility towards the military than the scientific community. I argue that the military is the forgotten voice in climate change, firmly sandwiched between Republicans, who don't share as high of concern about climate change, and Democrats, who see climate change as an environmental issue needing scientific witnesses to testify. I make two simple hypotheses from this logic.

H1: The military is rarely called to testify about climate change

H2: Congress is treating climate change as an environmental issue and not as a security issue

From our newly constructed datasets, 1) a low number of military officials populating the witness lists, 2) a high volume of non-security officials populating the witness lists, and 3) a low number of climate change hearings that speak on the security implications of climate change, would offer evidence in support of these two hypotheses.

Data Overview

To determine the patterns of expert testimony in Congress on climate change, we collected all archived transcripts of Congressional Committee Hearings from 1995 until May 2018 (104 to 114 Congressional sessions) from the US Government Publishing Office

(GPO) and studied the extent to which each address climate change. These hearings include testimonies from both the members of the committee (MOC) and expert witnesses.

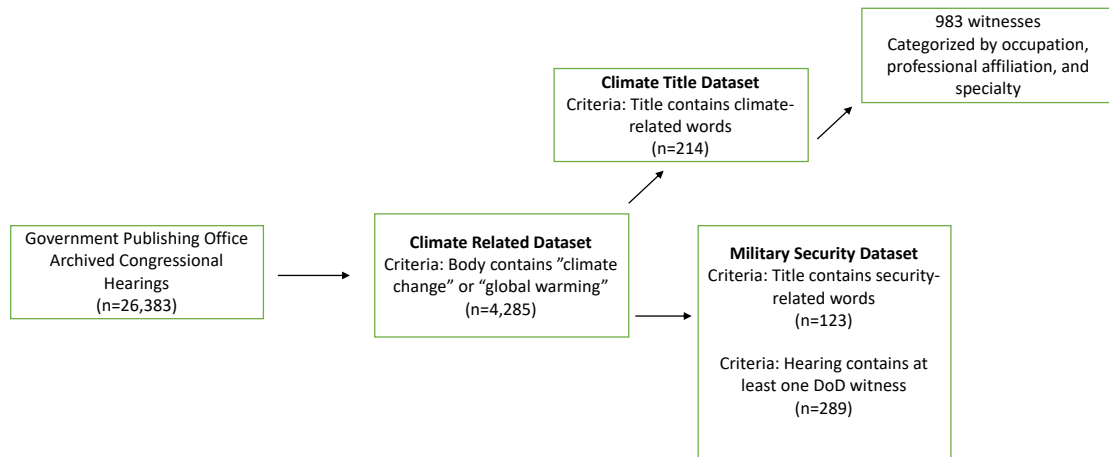
Data structure: Most hearing documents have a semi-standardized title page, list of the members of the committee, list of the expert witnesses, and a table of contents. Following the metadata, there is typically an opening statement made by one of the members of the committee and/or statements made by one or multiple witnesses. After the oral statements, there are varying lengths of questions and answers between the MOC and the witnesses. We wrote automated scripts to search, scrape, parse, aggregate, and analyze the hearing data.

From an initial 26,383 documents available on the GPO website, we created three datasets of varying topical degrees (Figure). The broadest dataset, “Climate Related Dataset” consists of 4,285 climate-related hearings (defined as any hearing containing either “climate change” or “global warming” bigrams). From this first pass, we more narrowly defined a climate-related hearing as any hearing whose title includes climate-related vocabulary. This resulted in a more manageable 214 hearings, which I refer to as “Climate Title Dataset.” The “Climate Title Dataset” includes 883 distinct witnesses assigned to three levels of organization affiliation (occupation, professional affiliation, specialty). Because I am equally interested in the national security side of climate change and military testimonies, I created an additional database.

The “Military Security Dataset” includes indicator variables on whether climate change was talked about as a security problem or if a military witness was called. To determine if climate change was talked about as a security issue, I classified all hearings that included either the phrase “climate change” or “global warming” in the body of the hearing, but also security-related verbiage directly in the title of the hearing. This created a security-based population of interest of 123 hearings. To determine if a military or DoD witness was called to testify, I classified all hearings that included either the phrase “climate change” or “global warming” in the body of the hearing, but also included at least

one DoD official or military member, Active or Retired, as a witness. This created a military-based population of interest of 289 hearings. Methodological and analytical decisions will be discussed in Section 4.

Figure A.1 Dataset Construction Tree



Previous datasets: To our knowledge, no dataset exists that parses the witnesses from Congressional Hearings for analysis and assigns them organizational titles. Robert Shaffer, from UT Austin, wrote a Python-based script (GPO tools) that scrapes hearing data from the GPO, but does not parse or classify witnesses.⁶⁷ Matthew Gentzkow, Jesse Shapiro, and Matt Taddy created a dataset containing processed text from the bound and daily editions of the US Congressional Record (floor speeches).⁶⁸ They used a script to parse text spoken on the Congressional chamber floor assigning metadata to the speakers. The authors then aggregate over sessions to find patterns and rarities to measure

⁶⁷ Shaffer, Robert. (2017). "Cognitive load and issue engagement in congressional discourse." *Cognitive Systems Research*. Elsevier. Vol 44, 89-99.

After writing and running our own script on FDSys, I tried running Shaffer's scraping code, but was unable to get it to execute properly.

⁶⁸ Gentzkow, Matthew, Jesse M. Shapiro, and Matt Taddy. Congressional Record for the 43rd-114th Congresses: Parsed Speeches and Phrase Counts. Palo Alto, CA: Stanford Libraries [distributor], 2018-01-16. https://data.stanford.edu/congress_text

polarization.⁶⁹ Similarly to Gentzkow, Shapiro, and Taddy, we would like to create a comprehensive witness-based dataset for all Congressional Committee Hearings.

Methodology

To direct our project, our team wrote a pre-analysis plan. Although we diverged from the pre-analysis plan, much of it remains intact. I outline our assumptions, data collection, and augmentations below.

Step 1: Set Scope Conditions

To define our population of interest and guide our initial data collection, we constructed a simple assumption:

Assumption 1: For a hearing to be classified as a “climate change” hearing, the phrases “global warming” or “climate change” must be included in the title or body of the hearing.

We believe this to be a safe assumption and not overly restricted for two reasons. First, climate change and global warming have been widely accepted to describe the phenomena that we are interested in studying (increasing average global temperatures, more extreme and/or frequent weather patterns, and rising sea levels). The climate change debate is so well-covered, that any extended conversation about changes to the environment should include these two phrases. Second, the rate at which these two phrases are used differs from year to year and party to party (i.e. climate change is the less politically charged of the two phrases and has become more accepted phrase to use more recently) but are used by both sides.

Step 2: Scrape and Collect the Data⁷⁰

⁶⁹ Gentzkow, Matthew, Jesse M. Shapiro, and Matt Taddy. (2017). “Measuring Polarization in High-dimensional Data.” Working Paper.

⁷⁰ Refer to `testimonyscraper&parser.R` lines 19-226

Having clearly identified the initial scope conditions, we wrote an R-based scraper that leveraged advanced search features on the GPO website. The script applied a customized dictionary of “climate change” or “global warming” to identify and download applicable Congressional hearings across both chambers. We considered all archived transcripts of Congressional Committee Hearings found through the GPO from 104-114 Congressional sessions (1995-2018). Of the 26,383 hearings, we found 4,285 matches to create the “Climate Related Dataset.”

Although the GPO website publishes .txt-based versions of the hearings, the scraper found the first-available version of the hearing (whether it be PDF, .html, or .txt) and downloaded that. We utilized a function to convert PDFs to text, but it still made parsing particularly difficult in later steps. In future iterations of the scraper, we plan to collect .txt versions of all the hearings to ease parsing-compatibility.

Step 3: Identify and Parse Metadata

From the identified hearings in Step 2, we extracted the text and metadata saving the observations as .rds files. When we aggregated the applicable hearings together, each row observation was a single instance of a Congressional Hearing that included the title, subtitle, Congress session, committee, MOCs, witnesses, and text. We did not fully parse the witnesses or MOCs at this stage, only separated them from the body. The output file looks very similar to networkdata.xls, however, we modified it slightly using Microsoft Excel.

Aggregating all the scraped Congressional Hearings become very cumbersome and hard to handle. At this point of the analysis, the body text was not useful, and the file size become unmanageable to work with on our local machines. I tried using a SQL Database with another modified scraper I wrote in Python, but failed making it functional. We housed the text in a separate .csv file for later usage.

Step 4a: Narrowly classify the extent to which a hearing is on climate change

Assumption 1 gave our team an initial population of interest to study; however, we decided that the mere mention of “climate change” or “global warming” was insufficient to say that the entire hearing was about climate change. We needed to decide on a more granular measurement of classification. Hearings are relevant if they involve substantive testimony concerning climate change, defined as the witness discussing climate change or global warming and not just mentioning it in passing or in relation to a different topic. We added an additional assumption:

Assumption 2: The more the times “climate change” or “global warming” are mentioned, the more likely the hearing will involve substantive testimony.

Our initial plan was to define a mentions threshold and then apply a supervised method to classify documents as substantively relevant, or not. We wrote a script to count the frequencies of occurrences across all documents that we could normalize. We were then going to create a sample of the documents and hand-code whether those documents were relevant or not.

This classification strategy turned out not to work. First, the hearing text was significantly longer and more complex than what we originally thought it would be making it difficult and time costly to hand-code the documents. We then turned to topic modeling as a different method to classify documents. But again, the documents were so long and complex, we could not run any topic models with any sort of confidence. We modified Assumption 2 to read:

Hearings that contain climate change or global warming related words are classified as substantive climate hearings.⁷¹

Modifying and narrowing Assumption 2 made data management and analysis clearer. While Congressional Hearings can cover a multitude of topics, those which have climate change related words in the title make them a substantive testimony. When expert

⁷¹ Refer to appendices for the dull dictionary

witnesses are called to testify before a committee on a named subject, it sends a clear signal as to who the MOCs most care about testifying.

The military, for example, testifies in Congress about budgetary and national defense issues often which can include climate change sub-topics, but what about when climate change is the main subject of the hearing? Because climate change is a highly politicized issue, or at least thought of as mainly an environmental issue, the military may be shielded from testimony.

I implemented another script (`climate_related_words_parser.R`) with a custom dictionary and regularized expressions to find all the substantive climate hearings. I piped `networkdata.xls` into the `climate_parser.R` script to output the `climate_subset.csv` (“Military Title Dataset”) that adds an additional column with a dummy variable on whether the hearing is a substantive climate classification or not. The “Climate Title Dataset” is created when this indicator variable = 1, creating 214 substantive classifications.

Step 4b: Auto-code National Security and the Military

Separately, I added additional modifications to the “Climate Related Dataset” to further investigate the role of the military in climate change and climate change as a national security issue. I made the following assumption:

Assumption 3: Security focused climate change hearings are substantively relevant if they include a security-based word in the title

To implement Assumption 3, I created separate security dictionary that included the words: *Military, National Security, Energy Security, Security Challenges, Homeland Security, Climate Security, and Global Security*.

I applied this new dictionary to the full “Climate Related Dataset” to auto-code all instances where a security word was in the title of the hearing. Using another customized dictionary that consisted of military ranks, titles and services, I searched across all witnesses. An indicator variable kept track of all hearings in which there was a security word in the title or at least one DoD or military witness.

Step 4c: Merging count frequencies

From the initial scrape and parsing script, we collected the frequencies and counts of the bigrams “climate change” and “global warming.” I performed an inner join on the “Climate Title Dataset” to add additional descriptors and classifications of the data.

Step 5: Parse and Classify Witnesses

From these 214 substantive classifications in “Climate Title Dataset”, we further parsed the MOCs and witnesses and began our final classifications of 883 distinct witnesses. We transformed the data to where each observation row became an individual witness, hand coding each witness based on their official titles and stated organization. We assumed that the title accompanying the witness was the most restrictive classification and would therefore find similarities across witnesses to pool them into categories. We grouped witnesses into the following major categories: Business, Charity, Corporation, Government, Museum, Non-Profit, Politician, Professional Organization, Religious Organization, Supra-Governmental, Trade Union, University Individual and Military. We further classified witnesses into sub-organizations (refer to the appendices for the full classification list).

Step 6: Network Analysis, Training Sets, Expanding Population of Interest

While the “Climate Title Dataset” is extremely informative in its present state, we are still working hard to enhance it. Our immediate plan is to treat the witness classifications as a training set that can be applied to a new measure of what constitutes a substantive climate change hearing (i.e. threshold measurements). The “Climate Title Dataset” includes the frequency and counts of “global warming” and “climate change.” I would like to use these frequencies and counts as a next cut to determine if non-titled climate change hearings share similar language and content characteristics. Additionally, we are still in the process of parsing the witness language from the hearing text. This will allow us to perform textual analysis on what the witnesses are saying and what kind of

questions are being asked. It is very important for me to have a more granular understanding of what military witnesses are talking about.

Summary of dataset construction and augmentation

In the end, our team created two datasets that can effectively measure 1) who is being called to testify in climate change Congressional Hearings, 2) what organization or sector each witness belongs to, 3) whether or not a climate change hearing included discussion on the national security implications, and 4) what proportion of all hearings that discuss climate change include at least one DoD or military official.

To build these measurements, we utilized 1) automated scraping techniques, 2) parsing scripts, 3) regularized expression commands, 4) custom dictionaries, 5) grouping/transform/join methods from the dplyr package in R and built-In Microsoft features in Excel and Word, and 6) hand-coding techniques.

Findings

The most common types of witness in a climate change hearing is one affiliated with a University, the Government, Professional Organization and non-profit. Of the University witnesses, 80% were Natural Science experts (**Error! Reference source not found.**). Of the Professional Organization witnesses, 33% were from advocacy groups and 20% were from environmental groups. Of the Non-Profit witnesses, 41% were from advocacy groups, 31% from research organizations, and 15% from environmental groups (Figure A.2).

Figure A.2 Number of Witnesses Called to Testify About Climate Change (by organization)

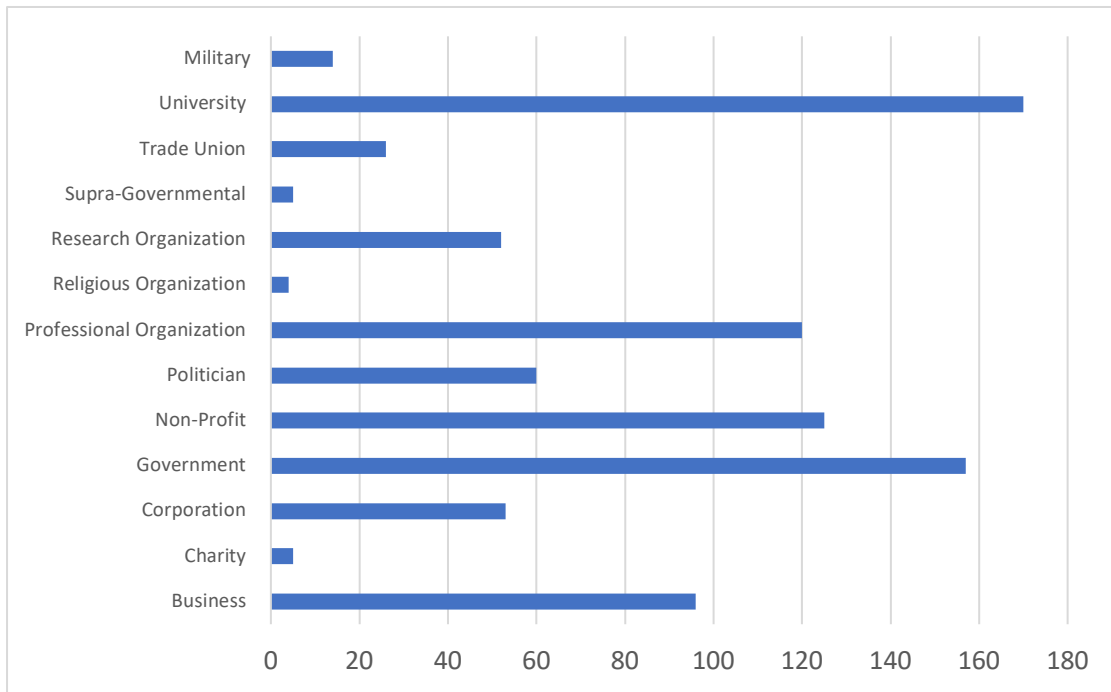
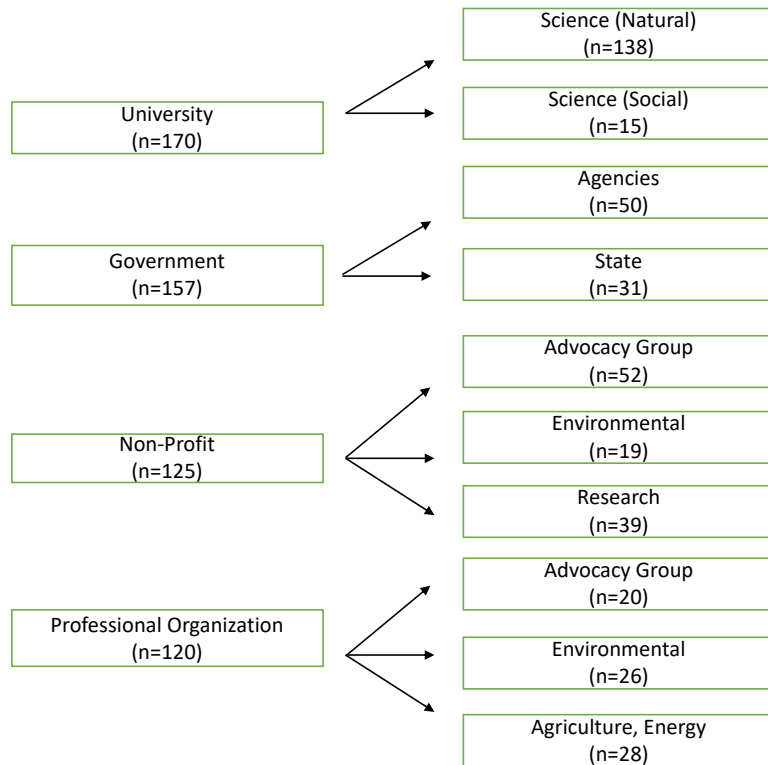


Figure A.3 Top Categories of Witnesses (Broken down by sub-categorization)

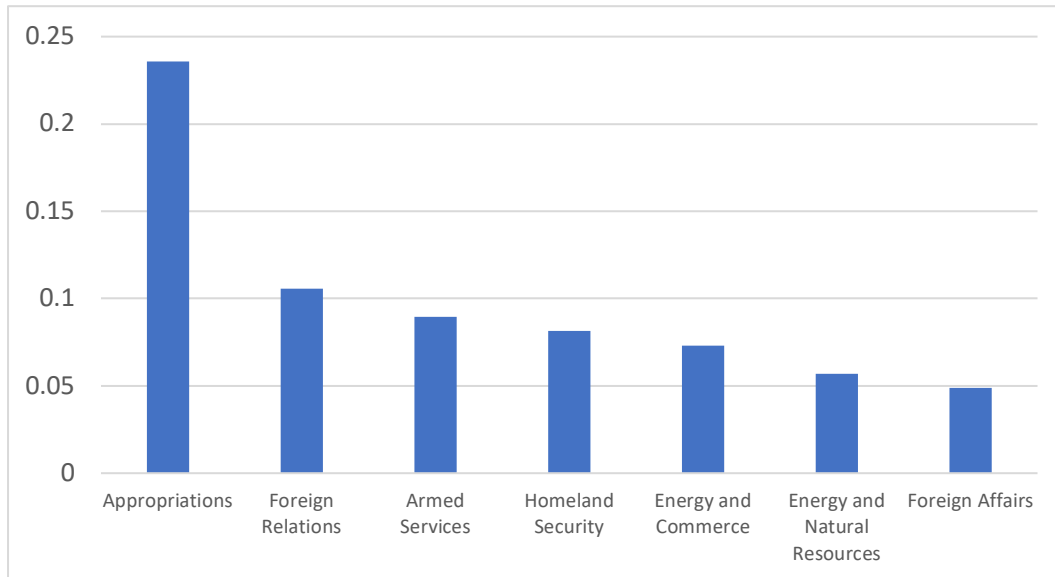


Across all Congressional Hearings that include climate related words in the title, there was not a single instance in which an Active Duty military member or high-ranking DoD official was called to testify in Congress. There were only 14 witnesses out of 883 witnesses that had a military background, however, none of them appear to be speaking on behalf of the US military or the DoD. This supports H1: The military is not being called to testify about climate change.

The generalizability of this finding deserves scrutiny. For this project, we defined a substantive climate change hearing as one that has a climate related word in the title. It may be the case that military members are talking about climate change in Congressional Hearings, but in a different forum, i.e. budget or appropriation hearings. To deal with this potential limitation, I do assess the frequency across all hearings that contain the bigram “climate change” or global warming.” Having said that, the fact that the military is not being called at all to testify about climate change when the hearing is clearly about climate change is very telling. As the nation’s leading authority on national security issues, the military appears to be relatively silent on climate change in committee hearings.

Of all Congressional Hearings that mention “climate change” or “global warming” only about 3% (n=123) of them appear to discuss the national security implications of climate change. Of committees that discuss the security implications of climate change, the Committee on Appropriations discusses it the most. However, the Armed Services, Foreign Relations and Homeland Security Committees collectively talk about it the most. These findings support H2: Congress is treating climate change as an environmental issue and not as a security issue.

Figure A.4 Congressional Committees that Discuss Climate Change Security Implications (proportion of all security related hearings)



Of all Congressional Hearings that mention “climate change” or “global warming”, only about 7% (n=289) of them include a witness from the DoD or who are Active Duty or Retired military. Surprisingly, the Committee on Commerce, Science, and Transportation calls the most military or DoD witnesses, but is still very small. However, these findings do not discriminate against Active and Retired members and I need to further adjust the witness dictionary to reflect these differences.

Off all Congressional Hearings that mention “climate change” or “global warming”, less than 1% (n=16) of them appear to discuss the national security implications of climate change and have at least one DoD of Active Duty/Retired military member serve as a witness.

I was also interested to find the rate of the “climate change” and “global warming” bigrams in 1) hearings that include climate change in the title, 2) hearings that have a

military witness, and 3) hearings that talk about the national security implications of climate change. I used OLS to estimate this with indicator variables for each of the conditions (**Error! Reference source not found.**). This is purely descriptive but illustrates a large difference between the different subsets of data. Hearings that have climate related words in the title have more usage of the bigrams than those that contain only the bigrams in the text. This gives me more confidence that our initial decision to only look at hearings that have climate related words in the title was a good first step in building the datasets. I caution, these are aggregate usages of the terms not normalized to have a better cross-measurement. My next step is to normalize the terms.

Table A.1 OLS Output of Bigram Usage

Regression on Bigram Count	
	<i>Dependent variable:</i>
	Total usage of "Climate Change" Or "Global Warming"
Climate relate word in title	104.661*** (3.590)
The hearing includes a military witness	-0.737 (3.120)
The hearing talks about national security Implications of climate change	-1.163 (4.686)
Constant	15.069*** (0.849)
Observations	4,182
R ²	0.169
Adjusted R ²	0.169
Residual Std. Error	51.131 (df = 4178)
F Statistic	283.512*** (df = 3; 4178)
Note:	*p<0.05 **p<0.01 ***p<0.001

Conclusion

To understand the patterns of expert testimony concerning climate change in Congress, we created a new dataset of all Congressional Committee Hearings from 1995-2018. Through web-scraping, text analysis, dictionary, and hand-coding methods, we found a novel way to classify hearings and witnesses to illustrate which committees are speaking more about climate change, what organizations or professionals have higher or

lower propensities to be called on to testify, and the extent to which climate change is being talked about as a national security concern.

Although we are still growing our dataset and refining our classification techniques, we have made three significant findings thus far. First, current members of the military are not being called to testify about climate change. Second, Congress does not appear to talk about climate change as a threat to national security. Third, university and academic professionals have the highest occurrence to called to testify about climate change.

The biggest limitation to our data currently is in our classification techniques as to what constitutes a substantive climate change hearing. For this first stage of analysis, and while forming a witness training set, we were forced to cast a very narrow net. For a climate change hearing to be considered substantive, it had to include climate related words in the title. We are fairly confident that this assumption is overly restrictive, which we consider a good thing. Our immediate next steps are to determine a proper threshold of mentions. Additionally, we are close, but still unsuccessful, at parsing the witness language from the testimonies. Currently, we lack a method to measure what witnesses are saying or how they are being used.

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