## **Keeping Your Friends Close, But Acquaintances Closer: Why Weakly Allied States Make Committed Coalition Partners**

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November 14, 2020

#### **Abstract**

Why do states join wartime coalitions despite the absence of a salient threat or strong ties to the coalition leader? We argue states make unexpectedly high contributions to coalition warfare as a costly signal of their desire for a stronger relationship with the coalition leader. Conventional theories insufficiently explain why states without immediate security interests or strong ties to the lead state over-contribute relative to their capacity. Using newly compiled data on troop contributions to the war in Afghanistan (2001-2014), we find states are most likely to contribute a higher share of their armed forces when their relationship with the US has unrealized alliance potential. States with under-performing alignments leave substantial room for subsequent gains to be had from signaling their commitment to the leading coalition actor. Our finding helps explain why states risk the costs of war – casualties and domestic accountability – by participating in coalition warfare.

Word Count:

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We thank Rex Douglass, Erik Gartzke, Kendrick Kuo, Alexandra Lange, Matthew Millard, Theo Milonopoulos, Sara Plana, Michael Rubin, Thomas Scherer, Sanne Verschuren, and Camber Warren for their comments and suggestions. Erin Ling, Amanda Madany, Cole Reynolds, Effie Sun, Alex Vignau, Erin Werner, and Lisa Yen provided excellent research assistance. Previous versions of this paper were presented at the APSA 2018 and PolNet 2018 conferences. This research was sponsored by Office of Naval Research Grant N00014-14-1-0071 and the Department of Defense Minerva Research Initiative. Any opinions, findings, and conclusions or recommendations expressed in this publication are those of the authors and do not necessarily reflect the view of the Office of Naval Research. Data and code for the empirical analysis can be found at https://github.com/CenterForPeaceAndSecurityStudies/ISAF.

#### 1 Introduction

In 2001 the United States launched the war in Afghanistan with the goal of overthrowing the Taliban and dismantling Al-Qaeda. But it did not do so alone; instead it led a coalition of 50 other states that fought alongside the United States until the war formally ended in 2014. Every state's contribution differed. While the United States sent thousands of troops annually, some contributed only a handful to fulfill contractual alliance obligations under NATO. Yet others that lacked formal alliance obligations incurred significant costs by sending troops. New Zealand, for example, experienced almost a dozen casualties – a difficult thing for a state leader to justify to their public when neither the threat nor existing alliance contracts obligate it.

This is exemplary of a broader trend in coalition warfare (von Hlatky 2010). Some states contribute forces to coalitions because they care about the war's material outcome and hope to influence it in some significant way. Others contribute forces because alliance expectations create a cost to free riding. But neither of those theories explain contributions like that of New Zealand to the war in Afghanistan: states that willingly risk high costs from their participation despite being unaffected by the outcome of the conflict, having no notable ability to influence the outcome of the war, and experiencing no reputational cost from refusing to participate.

Many of those contributing the highest share of their armed forces to ISAF were not those anticipated by conventional theories. Of the 10 states that committed the largest share of their military forces to the theater at the start of the war, only Turkey is geographically proximate and only 5 of the 9 non-US countries were NATO members. And although every NATO member participated in at least some capacity, over a half dozen had no physical presence in Afghanistan until more than halfway through the mission.

This paper explains such contributions by developing a new theory about coalition warfare participation by states whose primary objective in fighting is not influencing the outcome of the conflict nor fulfilling the expectations of close, reliable allies. Instead, states contribute forces to coalition warfare in order to *become* close allies by developing a reputation for reliability and

effort. These states make costly contributions not because they already have close relationships with the coalition leader, but because their relationship has *unrealized alliance potential*. In other words, states that wish to increase the strength of their relationship with states leading a coalition do so by sending a larger and more costly portion of their armed forces than states whose participation was expected given formal obligations or a highly salient threat. We find that if state military contributions are measured as a share of what they theoretically could have contributed – the percent of a state's armed forces that are deployed – then the highest contributions come from states with an interest in developing a stronger relationship with coalition leaders.

We test our theory using new data on each country's relative annual contribution to the Afghanistan war as well as each country's latent relationship strength with the United States. Unlike prior analyses that focus on absolute troop contributions, we consider the cost of each state's contribution as a ratio of troops deployed relative to the size of a country's armed forces. If a small state is trying to signal to the coalition leader that it is willing to overexert itself on behalf of that coalition leader, then relative contributions matter most. Rather than being a function of one's current relationship to the coalition leader, the cost of one's contributions are instead shaped by the discrepancy between the closeness of their current relationship and the relationship they could have, but that has not yet been realized. This better identifies the group of states that, like New Zealand, may over-contribute in order to improve the closeness of the current relationship. Our analysis confirms that states whose security relationship with the US is weaker than it should be, given the alignment of their respective security interests, contributed a larger share of their armed forces to the US-led war in Afghanistan (ISAF).

This finding has important implications for understanding not only how states fight, but also the costly means by which states seek to re-align themselves in international alliance networks. Simply put, war can be a good excuse for improving ties with like-minded states. States are willing to incur costs in an institutional context not when they are already well-embedded in those institutions, but when they have the most to gain from further institutionalization.

In the sections that follow, we first explore existing explanations for coalition warfare. Part three then develops a theory of coalition contributions as signals of unrealized alliance potential. We then assess our argument in empirically by examining coalition contributions during the war in Afghanistan (2001-2014). Section five includes a discussion of the generalizability of our results for the broader theory, explaining how states seek to alter and leverage their position within the network of capable international actors. Section six concludes.

#### 2 Existing Theories of Coalition Warfare Contributions

An alliance between two actors constitutes a promise to take a certain action in the event of a particular contingency (Altfeld 1984, 526). In the international context, an alliance is thus often a promise to defend the other actor in the event of a threat to their security (Waltz 1979; Walt 1987) or to facilitate mutually beneficial cooperation when states have common objectives (Keohane 1984; Wolford 2014). Although the importance of theorizing differing contributions has been recognized in the context of US-led coalition efforts, this work has focused on single-dyad case studies. Scholars have recognized that these efforts would benefit from broader analysis that tests the generalizability of their findings (Mello and Saideman 2018, 4-5). Attempts to explain why countries contribute to alliances to varying degrees can be divided into four different categories; theories of collective action, the balance of threat, alliance dependence, and domestic politics (Bennett, Lepgold and Unger 1994; Haesebrouck 2018).

The *collective action hypothesis* introduced by Olson and Zeckhauser (1966) posits that dominant states will end up making the largest contributions to alliances because smaller states can simply free ride while continuing to garner the benefits of the alliance relationship writ large. These dominant states, with larger economies and militaries, end up paying a disproportionate burden to secure goods even when the public benefits of those goods are reaped by states that made little contribution themselves. The *balance of threat hypothesis* argues that state contri-

butions should be proportional to the gravity of the threat an issue presents to a state. When faced with a larger threat, a state will contribute more to an alliance coalition that they expect can mitigate that threat (Walt 1987; Baltrusaitis 2010; Sandler and Shimizu 2014). The alliance dependence hypothesis argues that states in an alliance must balance two competing fears; the fear of abandonment and the fear of entrapment (Snyder 1984). Problematically, reducing one of these risks necessitates an increase in the risk of the other. Allied support is thus explained by how a state feels about these relative risks; states will contribute to an alliance when the fear of abandonment exceeds the fear of entrapment. States that most fear abandonment will be those that are most dependent on the other partner in the alliance because the military and economic payoffs of the alliance relationship would be difficult to replace. This theory has been expanded by scholars who note that "alliance value" explains contributions by states who believe they can leverage relationships with current allies in their favor (Davidson 2011b). Domestic hypotheses of alliance contributions take multiple forms (Tago 2009; Ashraf 2011; Pilster 2011; Wolford and Ritter 2016; Mello 2020). Theories of state autonomy and domestic society predict that leaders that can insulate themselves from external constraints on their decision-making about alliance contributions are consequently able to do so even when these leaders' preferences regarding contributions differ from those of the public (Saideman 2016; von Hlatky and Massie 2018). Theories of bureaucratic politics instead examine the relationship within the government. Bureaucratic decision-making requires negotiations and bargaining among relevant actors and as such state contributions are the outcome of these bargaining decisions and the environment shaping the bargaining framework (Rathbun 2004; Mello 2014, 2020). It is not just about the ideological position of a state leader, but how that interacts with the ideological position of the opposition party and the way state leaders navigate that as the domestic situation changes (Mello 2020).<sup>2</sup>

Other literature on state contributions to joint efforts have examined distinct, but related multilateral efforts like UN peacekeeping where state contributions are influenced by network centrality (Dorussen, Gartzke and Westerwinter 2016), international factors (Mullen-

bach 2005), geostrategic interests (Baltrusaitis 2008), regime type (Lebovic 2004), and side payments and issue-linkages (Henke 2019b). While theoretically important, these findings do not explain the cost of contributions nor whether contributions are used as a signal to improve existing ties. Rather, network positions are assumed to be static. The costliness of UN peace-keeping contributions as a signal is also harder to measure since they are comparatively less salient to domestic audiences (Lehmann 1995).

## 3 A Theory of Joint Coalition Warfare as a Costly Signal

Why do states cooperate with one another on security issues and how do states shore up and maintain that cooperation? Though there is extensive literature on the ways in which states aggregate their capabilities to bolster their security against foreign threats (Waltz 1979; Walt 1987; Morrow 1991; Conybeare 1992), the security benefits of an alliance do not precisely map onto the security benefits of joining a wartime coalition because coalitions and alliances are not synonymous. Coalitions can be a manifestation of an alliance promise or be an ad hoc relationship oriented toward an immediate goal rather than a broader security arrangement (Weitsman 2010, 115). Scholars have argued that because alliances are public goods, the benefits of the alliance can be reaped even if a member does not participate in an alliance's coalition efforts (Olson and Zeckhauser 1966). And yet, national defense is a club good, not a pure public good, because the protection benefits of an alliance can be excludable and rival (Sandler and Tschirhart 1997, 336). After the end of the Cold War, the US leveraged NATO's security benefits via threats of exclusion to encourage risk-sharing and minimize free riding (Ringsmose 2010, 324-325). As a result, states within security alliances must avoid the temptation to free ride because doing so risks losing the benefits of alliance membership. States thus have to devote resources to maintain the receipt of these club goods and can do so by demonstrating what they bring to the table. For example, President Trump's rhetoric regarding NATO burden-sharing has resulted in conversations within Canada about how to avoid the perception

that they are free-riding on US security commitments (McKay 2018, 143). So paradoxically, although the public good view of alliance holds that their benefits can still be accrued without participating in coalitions, the club good view identifies how participating in coalition efforts can increase the benefits of an alliance for any one member.

This highlights the importance of identifying and theorizing the relationship between alliances and coalition efforts. In coalition efforts, unlike alliance more broadly, there are more clear private benefits to participating states. Advocates of the balance of threat perspective point to private incentives actors have to ensure that the aggregate contributions to defense are sufficient to deal with the threat (Bennett, Lepgold and Unger 1997; Baltrusaitis 2010; Davidson 2011b). This private goods theory of coalition conflict, as distinct from alliances, explains why states would vary in the *degree* of their contribution. Acquaintances make a costly contribution when they could have chosen to free ride not because their interest is in the public good of security achieved via victory in the conflict but rather because of their private interests vis-a-vis the state to whom they sent a costly signal of support like a security umbrella down the road or closer economic or diplomatic ties (Long 2003). Previous literature has noted that you should get a payoff from signaling that you honored an alliance commitment and states that do so get more allies in the future because they are seen as reliable (Gibler 2008, 427-428). This is consistent with our logic where you hope that your signal of strongly valuing the relationship causes the other actor to later take actions that recognize that.

Our theory thus lies at the intersection of research on coalitions and alliances to explain why states contribute more or less to coalitions than we would expect (Saideman 2016). States get private goods from coalition war-fighting. For some states, that private good is a desirable war outcome. For others, the private good to be gained from coalition war-fighting is improving the quality of your relationship with the central actors leading that conflict. Participating in the war efforts of similarly aligned states is one way states can signal that they are not free riding on the relationship and are instead participating in burden sharing because they value the reciprocal and mutually-beneficial alliance commitments (Maskaliūnaitė 2014, 225-227).

This costly signal is conveyed when a state has over-contributed relative to the contribution that would be expected given their military capacity. Since alliances are a costly signal of one's intention to cooperate, it should also be true that fulfilling alliance-like obligations even when you are not bound by those alliance obligations would also be a signal of your desire to cooperate more in the future (Warren 2010, 704).

# 3.1 New Conceptions of Contribution Cost and Dynamic Interstate Alliances

We depart from current explanations of state contributions to coalition war efforts in how we conceptualize and empirically identify that contribution. The extent to which a country participates in a coalition war effort is distinct from whether they participate at all. The foundational literature on theories of collective action, the balance of threat, and alliance dependence typically examine whether a country participated; only domestic explanations focus on constraints regarding the *extent* of contribution (Bennett, Lepgold and Unger 1994; Bogers and Beeres 2013; Mello 2020).

Contrasting findings among the first three theories are explained by examining the extent of state contributions rather than just whether they contributed (Cranmer and Menninga 2018, 4). Yet previous work examining the extent of state contributions still suffers from a biased conceptualization. Almost all prior analysis has measured a state's contribution in absolute terms; the number of troops, financial contributions, foreign aid, or peacekeepers sent to a particular operation (Mello 2014; Haesebrouck 2016). This measure makes sense for theories interested in explaining who contributes the most, since absolute terms describe the highest contributors (Bogers and Beeres 2013, 40-41). But absolute contributions do not tell us whether a state's contributions were more or less than expected nor does it tell us the relative cost of that contribution for the state in question (Kreps 2010). It is less costly for Great Britain to send 1,000 forces into a conflict theater than for Poland to do the same since Poland's comparatively small military force makes that mobilization an unusually large undertaking. Great

Britain has a substantially larger military force and thus experiences a lower national cost in terms of the burden such a contribution places on its military forces and the zero-sum trade-off of this contribution relative to other security or financial needs. Absolute contributions thus do not reflect the cost of contributing; they instead represent the size of the state. Figure 1 shows that a measure of a state's absolute contribution (here the percent of *all states*' troops that are deployed in Afghanistan) provides different rankings of costliness than the percent of a state's relative contribution (the percent of *that state's* troops that are deployed in Afghanistan). Just because a country has a large military – France, for example – does not mean it contributes a large percentage of its troops. Indeed, measuring contributions as the percent of a state's armed forces demonstrates that countries like Denmark, Estonia, Canada, and New Zealand participated in the conflict to a surprising extent. Measuring troops contributed as a ratio of other baselines like population size or GDP yield similar results (Bogers and Beeres 2013, 41).

The second problem is how current theories think about alliances. Conventional explanations anticipate the highest contributions coming from states that are dependent on the security guarantee of the central coalition actor and those that believe they have a special relationship with the United States (Græger and Haugevik 2009; Biehl, Giegerich and Jonas 2013; Howorth 2014; Haesebrouck 2018). However, this views the alliance relationship as static and oriented towards maintaining continuity in the current relationship rather than being forward-looking and seeking change. The conclusion is that countries that fight together do so because of their closely aligned interests.<sup>3</sup> This misses how fighting together can be a method for *altering* the perceived alignment of interests rather than simply reflecting it (Weitsman 2013).

## 3.2 Benefits of Over-contributing Forces

The most costly contributions do not come from those with the strongest ties to the coalition leader (Ringsmose 2010; Wolford 2014), those who care about their broader international reputation (Pedersen 2018), or those who are capitulating to demands from the coalition leader (Schweller 1997). Rather, over-contributing is a way to send a separating signal that even

#### **Comparison of Country Ranks by Measure**

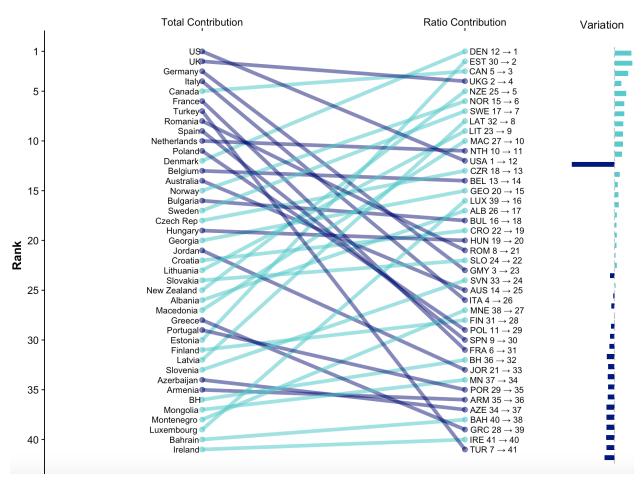


Figure 1: Each column represents the ordinal rank of country contributions to the war in Afghanistan by number of troops. Dark blue lines indicate a country that is ranked higher in absolute contribution (left) than relative contribution (right). Light blue lines indicate the inverse. The change in rankings per state are provided as well as the variation in rank change across the two measures. We hypothesize that states with unrealized alliance potential will have higher relative contributions irrespective of their absolute contribution.

though a state is not closely aligned with the central actor prior to or at the outset of the conflict, it is willing to incur costs for the sake of the central actor in the hopes that it will realize that yet-untapped closer alignment. That closer alignment may be valued inherently, for unspecified reasons, or to help the state acquire side payments or policy concessions on unrelated issues.

Costly over-contributions are an alliance signaling function under two conditions. First, the over-contributing state must have unrealized alliance potential, meaning the current depth of their alliance commitments does not adequately reflect the depth the alliance *should* have given the alignment of the states' interests. While the conventional alliance hypotheses argue that the highest contributions will come from states that have a special relationship with the United States or those that are currently dependent on the security guarantee, we argue instead that a different set of states – those that could have a more tightly linked relationship with the United States – will make more costly contributions. States that already have a special relationship or a reliable security guarantee do not need to over-contribute because their relationship is, in a sense, locked-in. These states have some flexibility in their expected contributions and are unlikely to lose their special relationship status simply because they did not go above and beyond in contributing to the coalition effort. They just need to contribute enough that they are not seen as free riding.

We use a latent measure of alliance depth in order to identify the current depth of a state's alliance with the United States. By identifying this latent measure, we are able to differentiate correctly predicted alliance ties from those that are unanticipated. Given the close similarity in foreign policy preferences, the deep alliance relationship between the US and the UK is not surprising. The non-existence of any US-Venezuela security alliance is similarly predictable if a hunch was made based on the misalignment of those states' foreign policy preferences. We would not expect either the UK or Venezuela to be dissatisfied with the current state of their security alliance with the US even though one relationship is "special" while the other is nonexistent. Our focus is thus states like New Zealand that don't fit this category. New Zealand –

despite historically consistent interests with the US regarding intelligence and security threats – has a weak, informal, and largely ad-hoc security relationship with the United States (Frühling 2018). In statistical terms, our theory concerns the residual – the gap between the expected alliance strength and observed alliance strength. States with a high residual between the predicted alliance depth and observed alliance depth are more likely to over-contribute troops as a signal of their interest and commitment to reducing that residual.

Second, the leading state must perceive the contributing state's effort as occurring for the leading state's benefit. For an over-contribution to be a costly signal of one's commitment to their ally, the private incentives to contribute cannot just be egoistic security (Davidson 2011a). If the contributing partner garners substantial private security benefits from participating in the war effort, the central coalition actor will be less likely to interpret the over-contribution as a signal of good will and may instead interpret it as a self-interested intervention that would have occurred irrespective of its benefits to the coalition leader (Tago 2007; Lake 2009; Chapman 2011). Because the value of the signal is determined by its cost, not by its effect, it does not matter if the signaling state sends forces that can materially influence the outcome of the conflict (Davidson 2011a). It only matters that the signal is interpreted as one that was costly for the sender irrespective of its impact on the war's outcome. In most cases, the powerful state not only does not need support from smaller states in order to win the conflict, it may actually want to maintain control of the forces that will determine the conflict outcome. As a result, smaller states do not want to make contributions that are too influential in the conflict's outcome because of the risk of intruding upon the powerful state's decision-making. Importantly, this differs from other perspectives like Bennett, Lepgold and Unger (1994, 72-75) and Henke (2019a) since the US is not exercising leverage over smaller states to induce their contributions; instead the momentum comes from the smaller initiative-taking states whose contribution does more to serve their long-term interests than the immediate interests of the coalition leader.

Based on this theory of costly contributions, what predicts what states will over-contribute troops to a coalition war effort because of the signal they hope to send to the coalition leader?

Suppose one knew the degree of interest alignment between two actors and used that information to estimate the true depth of their relationship. In some cases, that estimate would be highly accurate; actors with highly aligned interests have deep relationships while those with misaligned interests have shallow or non-existent relationships. That estimate could err in two directions. First, the error could represent cases where a shallow alignment relationship is predicted, but the two actors are in reality quite close. Second, the error could represent cases where a deep alliance relationship is predicted but is not present. This error represents our independent variable. Cases where a close relationship is predicted but not observed represent unrealized alliance potential.

**Hypothesis 1** A state with unrealized alliance potential with a coalition leader will make more costly contributions to that state's coalition conflicts than a state that is satisfied with its current security alliance.

Our theory thus predicts a positive relationship between a state's latent alliance potential with the central coalition actor and that state's expected cost of contributing to the coalition war effort. The allies already optimally aligned with the central coalition actor are not the states that make the highest relative contributions since they have no incentive to incur the unnecessary costs that high relative contributions entail. Instead, those that have an opportunity to become closer allies, relatively speaking, contribute the most.

## 4 Research Design

#### **4.1** Data

Our dependent variable is a state's annual contribution to the war in Afghanistan. Rather than relying on a raw measure of the number of troops deployed, we identify the share of a state's armed forces that they deployed to Afghanistan in a given year. By measuring a state's contribution as the *percent* of its total troops rather than the *number* of troops, we are

better able to measure the costliness of a state's contribution. Data on each country's annual troop contributions and their overall military personnel were collected from the International Institute for Strategic Studies (IISS) Military Balance reports from 2002 – 2015 (International Institute for Strategic Studies N.d.).<sup>4</sup> Military personnel and deployment data from IISS has been used widely by previous scholars (e.g. Walter 2006; Rovner and Talmadge 2014; Beckley 2017; Henke 2017) and unlike other sources covering the war in Afghanistan, benefits from full temporal coverage. We also conducted our analysis using the official "NATO placements" providing data on military contributions at monthly intervals, but they are not our primary data source since they only cover 2007–2014 and are published irregularly. Nonetheless, the NATO placement and IISS data correlate at 0.86 for the time period they both cover, validating the quality of our data.

There are a variety of ways to measure burden sharing, including the number of troops as a share of population, armed forces, coalition troops, and GDP (Hartley and Sandler 1999, 668-669). The costliness of a state's contribution is measured as a share of the size of their armed forces as opposed to GDP or military spending since the risk of casualties and collateral damage are two costs unique to personnel contributions that states are attentive to when deciding whether and to what extent they should participate in coalition warfare (Ringsmose 2010; Chivvis 2014; von Hlatky and Darden 2015; Haesebrouck 2017). This measure thus best captures the security burden a country has willingly undertaken to fight in another state's war. Furthermore, difficulties calculating the financial cost of conflict make an analogous measure of military spending in Afghanistan as a ratio of total military spending unreliable (Brück, de Groot and Schneider 2011; Stiglitz and Bilmes 2012). Nonetheless, troop contributions and the financial cost of a country's participation should be sufficiently correlated because ISAF operated under NATO's principle of "costs lie where they fall" meaning each state was responsible for the cost of their own troops. We do not distinguish between the type of troop or whether they were in an active combat zone because of the unreliable or classified nature of that data (Bogers and Beeres 2013, 44-45).<sup>5</sup> States may have only imprecise ex ante estimates about whether their troops are in a combat zone. Furthermore, countries like Canada tried to disguise whether their troops in Afghanistan were fulfilling only logistical support missions to mitigate domestic backlash from the public and from legislators (*Report on Progress Toward Security and Stability in Afghanistan* 2010). While military tacticians may interpret troops sent to a combat zone as a more costly contribution than those sent elsewhere, national politicians – the intended recipients of that signal – are less likely to meaningfully make that distinction.

Our independent variable is unrealized alliance potential with the United States. A state's alliance potential is measured by its preference similarity with the United States in United Nations voting patterns (Gartzke 2000). We operationalize the current strength of a state's alliance by replicating, temporally extending, and standardizing the Benson and Clinton (2016) measure of alliance depth. This refers to the extent to which the alliance induces costs beyond wartime commitments. This results in a composite measure of whether an alliance requires: peacetime military contact, coordination of a common defense policy, integrated military command, military aid, military basing, stipulations about specific contributions, the creation of stand-alone organizations, economic aid, or secret provisions. In order to produce these measurements, we re-run Benson and Clinton's model on the newest Alliance Treaty and Provisions Project (ATOP) data set, which covers up to 2016 (Leeds et al. 2002). This framework improves upon binary measures of alliance presence by providing a continuous measure of an alliance's overall value. The subsequent estimates – which are latent values – give us a sense of the strength of a state's alliance with the United States in a given year.

We then estimate the alliance strength two states should have, given how closely aligned their security interests seem to be based on UN voting data. This is consistent with operationalizations used in previous work on coalition warfare (Wolford 2015). We assume that states with similar security interests should have a formal alliance relationship that reflects this alignment. Of course, that is not always the case. Our "unrealized alliance potential" variable is thus the difference between predicted alliance depth and actual alliance depth. By understanding this dynamic nature of alliances, important strategic considerations emerge. Figure 2

describes variation in the independent variable. States that score high on our new index have an alliance relationship that does not reflect the true, close nature of their interest alignment with the United States.

We predict that states with a weaker relationship with the US than they desire are more likely to choose costly contributions to signal that dissatisfaction to the United States in the hopes that such a signal will curry favor and thus "realize" the relationship's alliance potential. The earlier example comparing the UK, Venezuela, and New Zealand is illustrative of this concept. New Zealand represents an example of a state with security-based reasons for desiring a much stronger relationship with the United States, but one whose actual formal ties fall short. Unsurprisingly, New Zealand in turn makes incredibly costly contributions to the coalition. In contrast, contributions from states that are satisfied with their current relationship with the US (e.g. the UK or Venezuela) should be proportional to the strength of their current relationship rather than unexpectedly costly.

#### 4.2 Model and Results

Our unit of analysis for these models is the country-year, spanning from 2001-2014. Our dependent variable for each model is the percent of a state's total troops contributed to Afghanistan annually. The primary predictor of interest operationalizes "unrealized alliance potential" – the difference between a country's United Nations voting similarity with the United States and the depth of its alliance with the United States. Because our theory is linear and our outcome is continuous we estimate a series of linear regressions. We also run a fixed effects model to check if the estimated effect of interest holds once we account for time-invariant unobserved confounders.

We identify a battery of proper control variables informed by existing explanations for coalition warfare contribution – collective action, balance of threat, alliance dependence, and domestic politics – as well as variables that could account for the independent variable – unrealized alliance potential. Existing theories suggest observable indicators of these variables

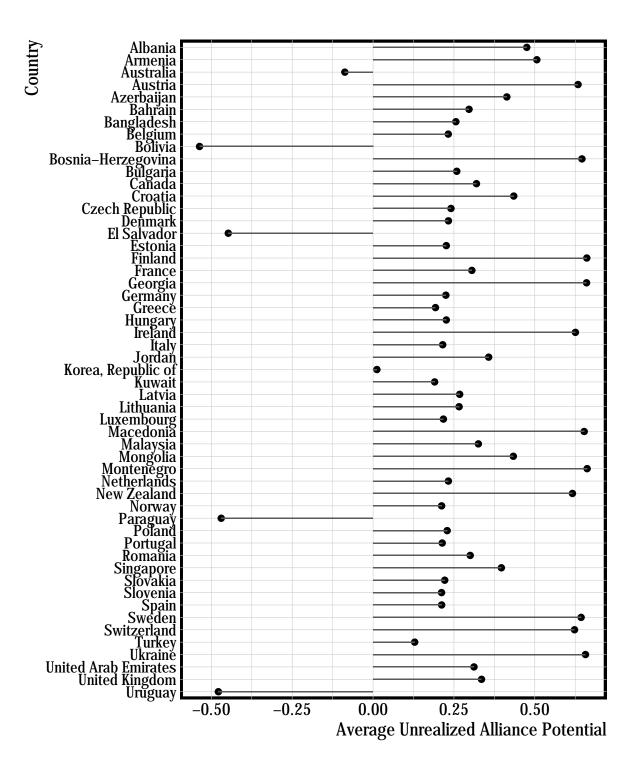


Figure 2: Unrealized alliance potential by countries that contributed troops. Unrealized alliance potential is our predictor of interest and represents whether a country's alliance with the United States is stronger or weaker than preferential estimates would suggest. The higher the value, then the more a state's alliance with the US is "unrealized" relative to what would be expected given their preference alignment with the US.

are causally related and prior to the dependent and independent variables of interest. These control variables guard against a spurious association between our predictor and outcome of interest by blocking potential backdoor paths. We limit our model to these control variables in line with recommendations against "garbage can" regressions (Ray 2003; Bleek and Lorber 2014).

To differentiate our explanatory variable from existing explanations of alliance dependence, we include variables for UN voting similarity and presence of an alliance with the United States (Bailey, Strezhnev and Voeten 2017). Current theories argue that troop contributions are most likely from a state's existing allies because you can leverage your relationship with allies to encourage contributions (Davidson 2011b). We expect these variables to have positive coefficients, but that unrealized alliance potential has explanatory power above and beyond when it comes to the amount of troops that states contributed. Similarly, we include a control for whether a country is already a U.S. ally, because formal alliances are the baseline necessity for producing the strategic bonds necessary to eliminate unrealized alliance potential.

Since other domestic explanations are more broadly concerned with regime type, we include a control variable for whether a state is a democracy. For example, Gartzke (2001) and Gartzke and Gleditsch (2004) argue that democracies may be less reliable allies because high information costs and short leader tenure make commitments less guaranteed. On the other hand, there is a higher chance that alliance potential is already realized" in states that share the same regime type as the United States (Simon and Gartzke 1996; Gibler and Wolford 2006).

To account for changes in the perceived threat during the course of the conflict, we include lagged casualties since states experiencing casualties may consequently scale down their contributions. Because casualty aversion is closely associated with domestic explanations of coalition participation, this measure also accounts for theories about domestic determinants (Koch and Gartner 2005; Jakobsen and Ringsmose 2015).

We include a measure of the Composite Index of National Capabilities (CINC) as well as economic measures of logged GDP and logged GDP per capita in line with the collective action hypothesis that the highest contributions should come from states with larger military and economic capacity because alliances are public goods (Olson and Zeckhauser 1966; Singer, Bremer and Stuckey 1972). Aggregated capabilities and economic capacity could also influence unrealized alliance potential because national capability impacts the ability of a potential partner to deter (Walt 1987), because asymmetrical alliances are longer lasting (Morrow 1991; Blankenship 2017), and because economic capacity impacts how much a state can contribute and whether they seek economic payoffs from troops contributions (Bove and Elia 2011; Henke 2019*a*).

Because the balance of threat hypothesis posits state contributions should be proportional to the gravity of the threat, we include a variable for geographic distance from Afghanistan to proxy for how likely a country is to be affected by instability and conflict in the region (Weidmann, Kuse and Gleditsch 2010). There is also well-established evidence that proximity to areas of strategic interest influences alliance decisions because of factors like deterrence credibility, alliance reliability, and base location (Joyce and Braithwaite 2013; Bak 2018; Nieman et al. 2020).

	Baseline	Political Controls	All Controls	Fixed Effects
Intercept	0.002*	-0.004*	0.005	
	[0.001; 0.002]	[-0.004; -0.003]	[-0.000; 0.009]	
Alliance Potential	$0.002^{*}$	$0.010^{*}$	$0.005^{*}$	$0.006^{*}$
	[0.001; 0.003]	[0.008; 0.012]	[0.003; 0.008]	[0.001; 0.011]
UN Voting		$0.005^{*}$	0.001	
		[0.003; 0.008]	[-0.002; 0.005]	
Democracy		-0.000	0.000	0.001
		[-0.001; 0.000]	[-0.001; 0.001]	[-0.001; 0.002]
Casualties		$0.000^*$	$0.001^{*}$	$0.000^{*}$
		[0.000; 0.000]	[0.001; 0.001]	[0.000; 0.000]
U.S. Ally		$0.008^{*}$	$0.007^{*}$	$0.015^{*}$
		[0.007; 0.009]	[0.005; 0.008]	[0.012; 0.018]
CINC Score		$-0.019^*$	0.003	-0.071
		[-0.034; -0.004]	[-0.014; 0.020]	[-0.187; 0.046]
Log GDP			$-0.001^*$	
			[-0.001; -0.000]	
Log GDPPC			$0.001^{*}$	
			[0.001; 0.001]	
Distance			$-0.000^{*}$	
			[-0.000; -0.000]	
AIC	-15787.895	-13344.774	-6385.674	
BIC	-15770.792	-13300.926	-6334.048	
Log Likelihood	7896.947	6680.387	3203.837	
Deviance	0.102	0.056	0.017	
Num. obs.	2210	1774	807	1774
$R^2$				0.127
Adj. R <sup>2</sup>				0.043

<sup>\* 0</sup> outside the confidence interval

Table 1: Statistical Models. For all models the dependent variable is the percent of a total's total troops that are contributed to Afghanistan. Because the dependent variable is continuous, all models are linear regressions, but model 4 includes fixed effects. As a robustness check, replication scripts include the same models, but with two different DVs: troops/gdp and troops/population. Across model specifications the association between unrealized alliance potential and the DV maintains a positive and significant relationship.

As Table 1 demonstrates, regardless of model specification we find that the coefficient for potential gain with the United States is positive and statistically significant. Moreover, when these estimates are considered in terms of predicted contributions, then we see that a substantial amount of variation occurs. Expanding on the substantive meaning of this relationship, in figure 3 we hold all covariates at their central values and then calculate how much a country's predicted troop contribution varies when the average unrealized alliance potential value (0.25) is shifted by one standard deviation in either direction. For the average-sized military - 111,976 troops - a one standard deviation change in unrealized alliance potential corresponds with a predicted difference of roughly 200 troops contributed to the ISAF coalition each year. This expected change becomes much greater for larger militaries and, inversely, lower for smaller militaries. If one considers the political costs of sending troops abroad, where even one casualty in another state's war can be politically disastrous, then it becomes apparent that these coefficient estimates are not just statistically significant, but politically meaningful. As mentioned, the 21 Dutch casualties in Afghanistan were sufficiently consequential that public outcry resulted in a vote that collapsed the government. The new government was forced to pull out of the war early, and as a result the broader coalition war efforts suffered a serious setback (Massie 2016, 95-100).

These statistical results are supported by qualitative evidence demonstrating the salience of the cost of partner contributions in the minds of policymakers. US Secretary of Defense Gates noted during the war in Afghanistan that there was a "two-tiered alliance" that made a distinction between "allies willing to fight and die to protect people's security and others who are not" (Ringsmose 2010, 328). New Zealand's prominence as an exemplary case is intentional. Their relationship with the United States began to sour in 1984 after disagreements over the effects of a nuclear weapon free zone on US ship movements caused a split in ANZUS (Catalinac 2010). The relationship continued to decline after New Zealand Prime Minister Helen Clark publicly opposed the Iraq War, a stance that kept New Zealand on the sidelines while the US negotiated new trade talks with Australia (Armstrong 2003). New Zealand's

## Predicted Change in Contributed Troops By Change in Unrealized Alliance Potential With the United States

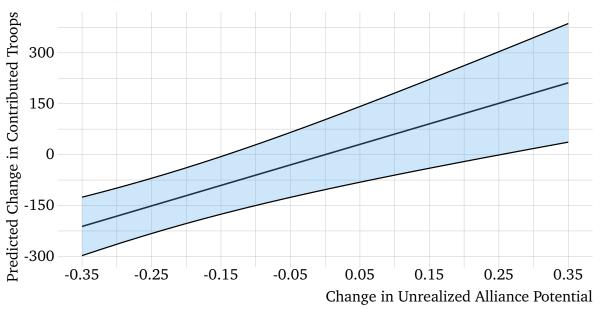


Figure 3: Predicted change in the number of contributed troops by change in unrealized alliance potential with the United States. The x-axis covers one standard deviation (0.35) in the observed unrealized alliance potential estimates, spanning from a country's alliance strengthening with the United States (negative values) to its alliance weakening (positive values). The y-axis is the predicted number of troops contributed for the average country with 95% confidence intervals. For a single standard deviation change in a country's unrealized alliance potential we estimate an average increase or decrease of 200 contributed troops, with the expected magnitude increasing by a substantial amount for larger militaries.

decision to over-contribute to US efforts in Afghanistan may have been a way to shore up relations that New Zealand felt should be strong given the two states see eye to eye on most international affairs. Interviews of New Zealand government and military officials conducted by Wellings et al. (2018) noted participation in Afghanistan was a way for New Zealand to "punch above its weight" militarily. Almost all New Zealand's Provincial Reconstruction Teams (PRTs) were deployed in Regional Command-East which was headed by the United States (Auerswald and Saideman 2014, 49), allowing them to "rub shoulders with countries that we couldn't normally" (Wellings et al. 2018). New Zealand believed an improved relationship with the US would have longer term geopolitical pay-offs, with one former defense official noting "we all had those credentials of working with the US...After a while they plugged in that the Americans trust us" (Wellings et al. 2018, 31). They thus saw participation in the war as a way of sending a costly signal; a way to "rejuvenate" their security relationship with the US (Burton 2018, 128).

Similar evidence has been observed regarding Nordic states believing a stronger relationship with the United States would improve their international status (Pedersen 2018). Norway justified their contributions to Afghanistan based on the potential benefits of unrealized alliance improvements (Oma 2014). While initially asked to simply contribute peacekeepers to the UN humanitarian mission, Norway's Ministry of Defence felt that was not a sufficient demonstration of their support for the US-led operation (Ministry of Defence II (security policy) 2001a). The Ministry of Defence wrote a memorandum to the Norwegian government expressing its concern that the absence of a noteworthy military contribution would "pose problems for Norway's security relations with the US" and that the nation would benefit from showing it is "able and willing to make relevant contributions" (Ministry of Defence II (security policy) 2001b). Not only was an improved relationship with the United States an explicit motivation for Norway's participation in Afghanistan, it justified a military troop contribution because of the signal Norway felt that would send to the United States. In the Ministry of Defence's official public report on Norway's participation in Afghanistan, they noted that "the US

authorities saw participation in the military operations as the most important means by which other countries could demonstrate their support for the 'war on terror' and for promoting a stable Afghanistan...Demonstrating to Washington and Brussels that Norway was a capable contributor was more important in Norwegian decision-making than assessments of the potential effects Norway's relatively small contributions would have in Afghanistan" (Godal 2016, 214-216).

We take caution in noting that alliance considerations are clearly not the sole factor motivating a state's decision about how much to contribute to coalition conflicts. Although Mello (2020) considers a different situation – looking at a state's contribution over the course of a conflict and their decision to withdraw support based on domestic considerations – the salience of domestic factors in motivating decisions about how much to contribute is noteworthy. Situations like the domestic backlash that forced Latvian withdrawal from Iraq after the death of two soldiers identifies why over-contributions can be costly signals of a state's desire for a stronger alliance relationship; these contributions carry domestic political risks that also factor prominently in calculations about how many troops to contribute to coalition efforts.

## 5 Implications

Because alliance membership is a club good, not a pure public good, worries about being excluded from the security benefits of an alliance can incentivize a state to try to shore up the alliance by sending a costly signal of their commitment to their alliance partners. "Today, we should expect the European allies to find that the best way to strengthen (or avoid weakening) their bonds with the United States is to contribute to out-of-area operations like ISAF. According to this line of reasoning, the allies who put the highest premium on NATO's traditional products should be the ones – together with the United States – shouldering the heaviest burdens in Afghanistan" (Ringsmose 2010, 331). Yet the Afghanistan case demonstrates this is not just a story about club goods in formal alliances, but security cooperation more generally. States

may use war efforts as a signal of their willingness to accept large costs in the hopes that this will improve their relationship with the coalition leader in the future. States use conflicts that are not of immediate strategic importance to – hopefully – gain the attention and respect of important international players.

Closer alignments may be valued inherently, for unspecified reasons, or to help the state acquire side payments or policy concessions on unrelated issues. Henke (2019a) argues that states contribute to coalition conflicts when the "pivotal state" – what we call the coalition leader – provides side payments as incentives to contribute. This highlights our broader logic about variation in club goods and public goods in alliances and coalitions. States contribute to coalition warfare when there are benefits to contributing troops that fall outside the traditionally understood alliance mandates or security concerns. In US-led conflicts since the Korean War, Henke (2019a) find that future benefits offered by pivotal states can induce coalition participation. We extend upon this finding by arguing that states with unrealized alliance potential are most likely to be moved by that logic. Furthermore, they will go above and beyond in their coalition participation to try to secure future benefits – whether side payments or unrelated payments – that extend from a closer relationship with the coalition leader.

Our findings run counter to predictions from theories concerning the balance of threats (Walt 1987). When contributions are measured as internal costs relative to the contributions a state could have made, the highest contributions are from states that appear to be opting into a war in which they have no material stake rather than those most concerned about a security threat (Haesebrouck 2018). Denmark, New Zealand, and Romania, 3 of the top 4 contributors to ISAF in 2001 by our measure, are not the states that are most concerned about the security threat posed by the Taliban and Al-Qaeda presence in Afghanistan. Previous theories described under the rubric of the alliance hypothesis also fail to explain this finding. For previous theories, ally support is expected when you can leverage your allies' power in your favor and is thus positively associated with closeness (Davidson 2011b; Massie and Bloomfield 2016). Yet the closest US allies did not make the most costly contributions. States whose existing alliance is

strong and stable have fewer incentives to over-contribute because they don't get any additional payoff from doing so. There is little risk of fallout from a normal or small contribution if the alliance is already strong (Davidson 2014).

Rather, it is the states that *want* the United States to be their best protector or that *want* the ability to influence international relations with the United States that are most likely to over-contribute (von Hlatky 2010). Although Keohane (1971) argues that this phenomenon explains free riding, it also explains its potential resolution because acquaintances that do benefit from signaling a change in their desired alignment tie will undertake more intense participation (Gibler and Rider 2004; Gartzke 2012). Canada, for example, was concerned about accusations of free riding on the US alliance and thus intensified their participation in Afghanistan to elevate their status in the eyes of American policymakers (Massie and Zyla 2018). If the US-Canada relationship had already been sufficiently strong, there would have been a reduced need to signal their value to the relationship. It is also not the case that the US coerced its closest allies into participating as argued by Kupchan (1988) because those are not the states that ended up doing the most participating relative to what they could have contributed.

This points to the importance of understanding who joins military coalitions and why (Wolford 2015; Moller 2016). The quality of a coalition impacts factors like military skill, coordination, and legitimacy (Kreps 2011; Auerswald and Saideman 2014; Saideman 2016; Cranmer and Menninga 2018; Cappella Zielinski and Grauer 2020). But having more eager partners is not always an obvious gain. Receiving coalition support from acquaintances rather than close allies could reduce the ease of coordination and increase the cost of side payments (Morrow 1991; Papayoanou 1997; Wolford 2015; Henke 2019a). During the Korean War, for example, the United States turned down Pakistan's offer of coalition forces due to fears of operational inefficiency and a loss of US control over battlefield decisions (Stueck 1997). Unanticipated defection by partners that initially joined Operation Iraqi Freedom similarly increased expenses for those that remained (McInnis 2019, 12-13). It can also prove costly for the participat-

ing countries since engagement in overseas conflict impacts factors like public opinion and, ultimately, whether a politician remains in office (Chiozza and Goemans 2011; Wolford and Ritter 2016; Mello 2020). It bears repeating that the Netherlands' participation in the war in Afghanistan – and its attendant 21 casualties – is widely regarded as the primary reason for the government's collapse in 2010 (Auerswald and Saideman 2014, 152-156).

Our theory concerns only whether an interest in a stronger relationship with the coalition leader influences the nature of a state's participation in a conflict; it does not seek to explain why a state may want a stronger relationship. Consequently, theories about the domestic determinants of coalition contributions are not competing explanations with the theory proposed here. Domestic factors could be the reason a state wants to establish itself as a closer ally with a powerful country (Tago 2009; Pilster 2011; Wolford and Ritter 2016) or otherwise impact coalition warfare participation (Baum 2013). The domestic origins of alliance-motivated coalition contributions have been witnessed in Egypt in the 1960's (Barnett and Levy 1991), the United Kingdom during the Iraq War (Davidson 2011a), and Canada since the war in Afghanistan (Massie and Zyla 2018; McKay 2018). In these cases, political leaders who fear domestic opposition from bureaucrats and non-partisans or voters and interest groups may use international alliances to demonstrate competent policymaking. The motivation for signaling one's interest in a closer interstate relationship represents an important area of future research.

Does the costly signal of over-contribution result in a closer alliance relationship? Our findings do not present a clear answer, but that is not our goal. We argue only that states are making a strategic bet based on their belief that an over-contribution increases the probability of a stronger alliance. Whether this strategic bet pays off concerns the consequences of coalition warfare contributions; our theory is about its causes. While our finding suggests that state behavior is consistent with this calculated bet, the outcome of that bet is a different question. A dominant state, in this case the United States, need not strengthen their relationship with a state that over-contributed its armed forces. Evidence exists about contemporary instances of over-contributions helping states secure deeper security (Slavin 2003) and economic ties

(Whitmore 2003), but more skeptical research about the ability to secure future benefits (Porter 2010) provides an avenue for future work investigating whether this strategic logic pays off.

Nonetheless, the Afghanistan case provides suggestive evidence that states do reward overcontributions, possibly hoping that doing so will incentivize future over-contributions by other states. US Secretary of Defense Robert Gates (2011) commended Denmark for its costly contribution to the conflict when he publicly noted that Denmark "... with their constrained resources, found ways to do the training, buy the equipment, and field the platforms necessary to make a credible military contribution." Importantly, it was not just that Denmark participated, but that they participated in a costly manner given their limited resources, that gained them accolades. A high-ranking Danish official noted "Danish market value in Washington soared as a result of Iraq and Afghanistan" (Henriksen and Ringsmose 2012). The head of the British effort in southern Afghanistan, Brig. Cowan, similarly noted "Denmark and Estonia are small countries but they're doing great things for the coalition. Estonia has been a staunch ally of America and Britain and they have sacrificed a lot of soldiers in this campaign" (Druzin 2009). Countries with unexpectedly high contributions to the Iraq war - eg. Australia, Poland, and Singapore – received similar praise from the United States. US President George W. Bush described Australian Prime Minister John Howard as "kind of like a Texan" during his invitation to Bush's Texas ranch; an invitation (also extended to Poland) that former national security adviser James Steinberg argued is reserved for "the first rank of America's friends" (Sanger 2003).

But the rewards of over-contributions are not just limited to verbal praise and ranch visits. The relationship between coalition contributions and policy concessions on economic cooperation has also been systematically documented (Long and Leeds 2006). At the outset of the Iraq War, both Chile and Singapore were engaged in initial discussion with the US over new bilateral free trade pacts. Singapore contributed troops to the Iraq War while Chile openly opposed it. At the signing of the new trade pact with Singapore, President Bush described Singapore as "a strong partner in the war on terrorism and a member of the coalition on Iraq"

(Armstrong 2003). Chile, on the other hand, had their free trade pact delayed, with US Trade Representative Zoellick noting "I'm disappointed... We worked very closely with our Chilean partners. We hoped for their support in a time we felt was very important". While Zoellick did not explicit in linking a lack of support in Iraq with the delay of closer trade relations, Chilean ambassador Andres Bianchi did, saying "[t]o be absolutely honest, the signing of the agreement has been influenced by our decision at the Security Council" (Armstrong 2003). In this case, the benefits extended beyond side payments and instead concerned seeking policy concessions on unrelated issues.

While our statistical analysis is limited to an examination of the war in Afghanistan, there is suggestive evidence that the theory holds for other coalition conflicts like US-led operations in Libya and Iraq, as well as less similar cases like the Crimean War. Norway's relationship with the US had soured since its early withdrawal from the Iraq war, resulting in an 8 year drought in bilateral meetings between the two heads of state (Jakobsen 2018). During the later war in Libya, Norway made concerted efforts to over-contribute forces, particularly in the aerial bombing campaign, in order to demonstrate their "relevance and trustworthiness to its great power allies in NATO, especially the United States" (Jakobsen and Møller 2012, 109).

Even as far back as the 1850's, Sardinia's participation in the Crimean War exemplifies the logic of coalition contributions to improve alliance relationships (Blumberg 1990, 17-25). Knowing it could not defeat the Austrian Empire single-handed, Sardinia sought to curry favor with Napoleon III of France with the hopes it would gain support for expansion. To do so, Sardinia joined the French side during the Crimean War despite facing high domestic costs from the resulting casualties and increased taxation (Gorce 1902, 326). Sardinia's gamble was successful, as their participation in France's war against the Russian Empire was recognized with Napoleon III writing to Sardinian King Victor Emmanuel "[y]our Majesty can also surely count on me as a true friend" (Napoleon III to Victor Emmanuel II, 24 December 1855 1926, 1). Historians have noted "there is no doubt that Piedmont's diplomatic profile grew as a result of her involvement in the Crimean War and the seeds were sown for the deal agreed between

Cavour and Napoleon III at Plombières on 20 July 1858." (Rathbone 2008).

#### 6 Conclusion

A state's closest allies will not be the states most invested in fighting alongside that state. Rather, weakly aligned states that desire a closer relationship are most likely to over-contribute forces to coalition warfare. The study of state contributions to coalition warfare provides unique insights if those contributions are measured relative to the cost they impose onto the contributor rather than the utility they provide regarding the conflict outcome. Not every state contributes to a war effort in order to influence the outcome of the war as theories of balance of threats predict. But it is also not the case, as predicted by the collective action hypothesis that states simply free ride when the conflict outcome is immaterial or, as predicted by the alliance dependence hypothesis, that the stronger your alliance, the more you contribute.

Rather, because war is costly, it can serve as a signaling function for states that want to convey their desire to improve their relationship with other states in the international system. By accepting comparatively large costs in fighting alongside another state, especially when such fighting is not self-interested, states can signal how much they value an alliance relationship in a way that they anticipate will generate reciprocity and future payoffs. Future work should examine whether states are making a smart bet in anticipating future payoffs from costly overcontributions; it is possible their gamble is incorrect. But for now, it suffices to say that states with the most interest in future payoffs from a better alliance relationship are the same states most likely to separate themselves from the rest of the coalition pact by over-contributing to wartime coalitions in the hopes that doing so signals their reliability.

#### **Notes**

<sup>1</sup>Operation Enduring Freedom (OEF) and International Security Assistance Force (ISAF) were two simultaneous missions in Afghanistan. The former was the initial US operation undertaken as part of the War on Terror. ISAF refers to the coalition operation under NATO command.

<sup>2</sup>Mello (2020) looks at the domestic causes of a state's decision to *withdraw* from a coalition conflict, rather than whether to contribute in the first place.

<sup>3</sup>Previous work by Kreps (2008) and Henke (2017) has examined this issue from the perspective of the coalition leader.

<sup>4</sup>The reports publish data on the prior calendar year's activities.

<sup>5</sup>An explanation of the origins of these national caveats in the Afghanistan mission is provided by Saideman and Auerswald (2012).

<sup>6</sup>A detailed account of Denmark during the war in Libya is provided by Dicke et al. (2013) and Jakobsen, Ringsmose and Saxi (2018).

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