

Allying to Win

Regime Type, Alliance Size, and Victory

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Abstract

Studies of regime type and war reveal that democracies tend to win the wars they fight, but questions remain about why this is the case. A simple, if underappreciated, explanation for democratic victory is that democracies fight in larger coalitions. Allies bring additional material capabilities and may provide intangible benefits to the war effort, such as increased legitimacy or confidence. Democracies may also find coalitions less costly or constraining, even as democratic war aims may be easier to apportion among the victors without diluting the spoils. Evaluating our hypotheses in a sample of all wars (and alternatively in a sample of all militarized disputes) during the period 1816-2000, we find that democracies have more allies when they fight, and that states fighting with more allies are more likely to win major contests. Autocracies also gain a likelihood-of-victory benefit with additional allies, but they appear less willing or able to form large military coalitions. Finally, we show that the indirect effect of democracy on success in war through alliance ties subsumes the direct effect of regime type on victory.

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1 Introduction

Studies of regime type and war reveal that democracies tend to win the wars they fight, and particularly the wars they initiate. The effect is large – democracies win almost all the wars they start and about two-thirds of the wars in which they are targeted (Reiter and Stam 2002). While the finding that democracies tend to win at war has approached conventional wisdom in the field,¹ questions remain about why democracies are so successful militarily, and what this implies for world affairs.

We propose a simple, if largely overlooked causal mechanism linking democracy with victory. Democracies win because they get more help, fighting alongside a larger number of allies. States ally to make themselves less attractive targets for foreign aggression and to increase the prospects of victory when and if they fight (Gartner and Siverson, 1996). Larger coalitions also distribute the costs of war preparation and fighting across participating states and increase the aggregate resources, technology and personnel available to commanders. We link the incentives that confront political leaders domestically with the benefits associated with joining in an alliance to prosecute a war. We then demonstrate empirically that democracies tend to go to war with more allies than do non-democracies, that states fighting with more allies tend to be more successful militarily, and that the penchant for democracies to collect more allies actually accounts for the apparent effect of regime type on military success. In addition to counting the number of alliance partners, we also analyze alliance size as the total military capabilities for a given set of alliance participants. Our results are robust to a variety of confounding effects and alternative explanations. After a brief review of relevant literature, we expand on each of these items, concluding with a discussion of key implications.

¹For countervailing views, see Michael Desch (2002, 2003, 2008) and Alexander Downes (2009).

2 Democracy and Victory

The existing literature proposes a range of mechanisms linking regime type to military victory, with the bulk of contemporary scholarship arguing that democracies are more cautious in their selection of contests, more committed or adept on the battlefield, or both. Democratic leaders are held accountable for their policy choices by popular pluralities, and elections can potentially serve to discipline the foreign policy choices of democratic leaders (Fearon, 1994; Schultz, 2001).² Democratic leaders are more likely to be removed from office after poor performance in a contest than are their contemporaries who are able to avoid costly conflicts (Bueno De Mesquita and Siverson, 1995; Bueno de Mesquita et al., 2003; Croco, 2011).³ Therefore, democratic leaders should be careful to avoid conflicts that they are unlikely to win. Selection into contests could also be bolstered by better access to strategic information in democracies than in non-democracies (Reiter and Stam, 1998).

In addition to electoral accountability, democratic norms might also serve to constrain the behavior of liberal leaders (Russett, 1993; Doyle, 1997). Officials in democracies are said to respect the rights and freedoms of the citizens that must participate in war, thereby limiting unnecessary loss of life or resources (Reiter and Stam, 2008).⁴ Democratic leaders may be forced to choose their conflicts carefully, emphasizing those where victory appears assured. Alternatively, a reluctance to incur casualties could force democratic leaders to make more concessions to avoid fighting, so that the contests that occur are those in which the democracy is resolved.

²Recent research challenges a growing consensus in international relations about the role of domestic political audiences. Downes and Sechser (2010) find no evidence that leaders are responding to “audience costs” in choosing contests. Similarly, Gibler and Hutchinson (2011) find no reason to believe that democratic audiences were salient in the resolution of territorial conflicts. At the same time, the contrast between effects of democratic and autocratic audiences may be overstated. Weeks (2008) argues that autocracies are also subject to domestic public approval, and indeed that autocratic leaders can sometimes use public opinion to their benefit in negotiating with democracies.

³These results are disputed (Clarke and Stone, 2008). See also, Goemans and Chiozza (2011).

⁴Kant (1772(1795)) relies on a similar framework to conclude that republics are generally peaceful.

While arguments that democracies do a better job of “picking winners” are plausible, they have been challenged by the evidence. Democracies are not just more likely to win the wars they select and start, they are also more likely to win the wars in which they are targets (Reiter and Stam, 2002). This suggests that selection of conflicts cannot tell the whole story. Reiter and Stam (1998) argue that democracies exhibit a superior capacity to fight because democratic political culture produces more skilled and dedicated soldiers who exhibit greater leadership and take more initiative. Democracies may have a greater ability to marshal resources for the war effort and demonstrate a greater will to win given citizens with more at stake (Lake, 1992; Valentino, Huth and Croco, 2010). Democratic leaders afraid of losing office could also devote more resources to a contest, increasing their chances of victory (Bueno de Mesquita et al., 2003; Croco, 2011; Valentino, Huth and Croco, 2010).⁵

Controversy continues, with researchers naturally looking to refine existing theories or identify additional implications of arguments that are capable of facilitating critical tests. Rather than confront contending claims directly, we propose and then evaluate a simpler mechanism to explain the same outcome. Theories of accountability, risk aversion, and the superior abilities of democratic soldiers are all motivated by the puzzle of democratic victory. While democracies may, at the margin, demonstrate these advantages, there may not be much of a puzzle in need of explanation if in fact democracies simply show up to the battlefield as part of coalitions with superior aggregate capabilities. If democracies fight wars and militarized disputes with more allies, it should surprise no one that they are often victorious.

Choi (2003*b*, 2004) most nearly anticipates our own perspective in arguing that the puzzle of democratic victory can be explained by a tendency for democracies

⁵The related notions of “wag the dog” and “gambling for resurrection,” while intuitively appealing and logically coherent in both popular and sophisticated variants (Downs and Rocke, 1995), has failed to achieve much support in terms of empirical validity (Leeds and Davis, 1997; Levy, 1993; Meernik and Waterman, 1996).

to co-ally, and because democracies are more effective allies. Democratic political systems have more veto players, and hence more stable policy preferences, leading democratic alliance commitments to become more reliable.⁶ Democracies also benefit from more open political systems, allowing for more effective war-time communication with allies, thereby increasing the military effectiveness of the alliance. Democracies also prefer one another as allies because they can better coordinate.

It is important to note that both elements of this alliance quality argument must be present for the theory to function: democracies must be both better allies and more likely to ally with other democracies. If democracies make better allies, but are no more likely to ally with other democracies than with non-democracies, then the increased wartime effectiveness of democratic partners would not be associated with other democracies and therefore would not explain democratic victory. Similarly, if democracies are not more effective allies, then a tendency for democracies to co-ally would not lead democracies to be more successful combatants. Interestingly, neither claim is nearly as well supported in the literature as the relationship they seek to explain.

Research on democratic alliance preferences initially indicated that democracies are most likely to co-ally (Siverson and Emmons, 1991), but this relationship is not robust to refinements in analysis and sample size (Simon and Gartzke, 1996; Lai and Reiter, 2000; Gartzke and Weisiger, 2012). Current thinking is that democracies are not significantly more likely to co-ally than are autocracies. The empirical evidence on regime type and the reliability of alliance commitments is also mixed: Leeds (2003) finds evidence that democracies are less likely than autocracies to violate

⁶Though Choi is certainly not unique in making the claim that democratic preferences are more stable, it should come as a considerable surprise to democratic theorists. Presumably, representation does not work without re-selection, and re-selection invites volatility in social preference aggregation (Arrow, 1951; Downs, 1957). Madison (1961) rested his appeal to federalism on the assertion that democracy was ever-changing and therefore immune to tyranny by a stable majority.

their alliance commitments, while Gartzke and Gleditsch (2004) find that democracies are less reliable allies when alliance commitments require actual intervention.⁷

Choi (2004) references two unpublished sources on democratic alliance reliability (Choi, 2001, 2003*a*), but does not reference Leeds (2003) or Gartzke and Gleditsch (2004). We further explore and contrast the evidence for the democratic alliance “quality” argument and our own “quantity” perspective in a portion of the empirical analysis section that follows the evaluation of our hypotheses. We conclude, along with the existing literature, that democracies are not more likely to co-ally and that the quality of democratic alliances, if present, is not sufficient to account for the apparent success of alliances that include democratic allies. First, however, we delineate a set of explanations consistent with the claim that democracies tend to have more allies of all regime type, and that it is this larger number of alliance partners (and the consequent larger aggregate capabilities of democratic alliances) that can be credited with the observed democratic tendency to win in war.

3 Allying to Win: More May be Better

States ally to make themselves less attractive targets for foreign aggression or to increase the prospects of victory when and if they fight (Gartner and Siverson, 1996). Having more allies increases the material capabilities available to a given side, reducing the costs of fighting and raising the likelihood of military success.

There are several complementary reasons to expect that democracies fight with the benefit of more alliance partners than autocracies, and that this benefit is critical

⁷More recently, Leeds, Mattes and Vogel (2009) find that changes in domestic coalitions in non-democratic states are associated with the premature abrogation of military alliances, but not for democracies. However, this study does not consider commitments to intervene and actual intervention on the part of the ally. Also, Benson (2011) demonstrates that alliance type is associated with the initiation of conflict but also does not consider intervention behavior of alliance members once a conflict has begun.

in explaining democratic victory. Each of these explanations provides a plausible account of why the relative success of democracies in war may be tied to external relationships, rather than, or in addition to, innate internal characteristics of liberal domestic politics. Much like the democratic peace itself, it is extremely difficult to handicap alternative variants of the basic account at present, so the focus here is on detailing these logics and then on substantiating the general relationship between regime type, alliance ties, and victory. Future research will address the difficult task of determining which among eligible variants of the basic argument (each presented below) is most nearly correct as a micro-foundational logic for democratic victory.

First, democracies may prefer to diffuse the costs of costly contests. Filson and Werner (2004) demonstrate formally that democracies should be more likely than autocracies to make concessions in order to avoid war costs. Filson and Werner also show that belligerents recognize this democratic willingness to grant concessions and, consequently, that opponents increase the demands they make against democratic defenders. By allying, democratic states spread war costs across alliance members. Each additional member in an alliance coalition promises to increase the war costs that must be paid by the belligerent in order to achieve its war objectives and decreases the costs associated with military readiness and war fighting across coalition participants. If democracies are better able to fashion capable alliances, then they should be more likely to emerge victorious from military contests.

Second, the participation of allies may increase the legitimacy of a side or faction in a war. Heightened legitimacy may lower the costs of fighting by lowering the resistance to fighting by both domestic and international audiences (Tago, 2005). Research on international institutions finds tangible evidence that support for the use of force from the international community makes it easier for a democratic leader to obtain domestic approval (Martin and Simmons, 1998; Hurd, 1999; Voeten,

2005; Chapman, 2007). Fighting alongside allies may have an effect analogous to receiving support from the international community more broadly. Constituents who see the conflict as legitimate are more likely to aid the war effort. Opponents may also find it harder to resist as effectively. Baghdad was bolstered, for example, and Washington delayed, when most U.S. NATO allies failed to support the U.S. invasion of Iraq.

Third, democratic leaders face incentives to bear the (possibly lower) costs of recruiting allies. Alliances diversify risk, reducing the upper bound for war costs. Having allies lowers war costs, and also the variance in war costs. More democratic states face additional incentives to adopt minimax strategies when it comes to war costs. For example, Russett, argues that “governments lose popularity in proportion to the war’s cost in blood and money” (46, 1990) and Gartzke (2001) notes that “war contrasts with citizens’ interests in survival so that citizens have incentives to use their political influence to attempt to avert casualty-causing contests” (481).⁸ Thus, spreading the war costs across alliance participants helps to placate domestic populations sensitive to the costs of war (Gartzke, 2001; Koch and Gartner, 2005).

Fourth, while democracies may find coalitions useful in reducing costs, they may also find allies less constraining than do other types of states. Democracies are accountable to larger constituencies than are autocracies, and so must provide benefits to a larger constituency. This should logically lead to higher public goods spending in democracies, and higher private goods spending in autocracies (Buono de Mesquita, et al. 1999, 2003; Lake, 1992). It could be that democracies are more likely to participate in wars with public-goods objectives, while autocratic states are more disposed to initiate or join in wars where private-goods are up for grabs.

A state fighting for a private good – for example control of territory or resources

⁸However, Gartzke (2001) finds that democracies do not protect citizens disproportionately by substituting capital for labor in military force structures, once development is taken into account.

– faces incentives to prosecute a contest with as few allies as possible. The larger the number of allies involved in achieving victory, the smaller the portions of territory and plunder available for each participant. States may be willing to accept a marginally higher risk of failure in exchange for a larger share of any resulting spoils. Conversely, when a state is fighting for an objective that is non-rival, such as in a war to reinforce the norm of the integrity of international borders, then initial participants face few disincentives in the recruitment of as many allies as possible (Conybeare 1992, 1994b). Therefore, states fighting for non-rival objectives should seek, and more often obtain, a larger number of allies than states motivated to fight in the pursuit of private goods.

Finally, the type of demand made against democracies by opponents should affect the response made by the democratic defender. Sullivan and Gartner (2006) demonstrate empirically that democratic states are less likely to grant concessions when the belligerent state's war objectives include a change in the status quo, especially a demand for a revision of the territorial status quo or a change in regime. Democracies tend to unite against demands by revisionist states (Lake, 1992).

Though varied in their details, the arguments above are consistent in anticipating an indirect causal relationship between democracy and military victory, one in which alliances play a critical intervening role. Figure 1 helps to clarify the proposed relationships. If the conventional wisdom in international relations is that democracy leads to an increased likelihood of victory (solid line in Figure 1), our perspective suggests that democracy more vigorously affects alliance status (dashed line), and that alliances then affect whether states win wars or disputes (dotted line).

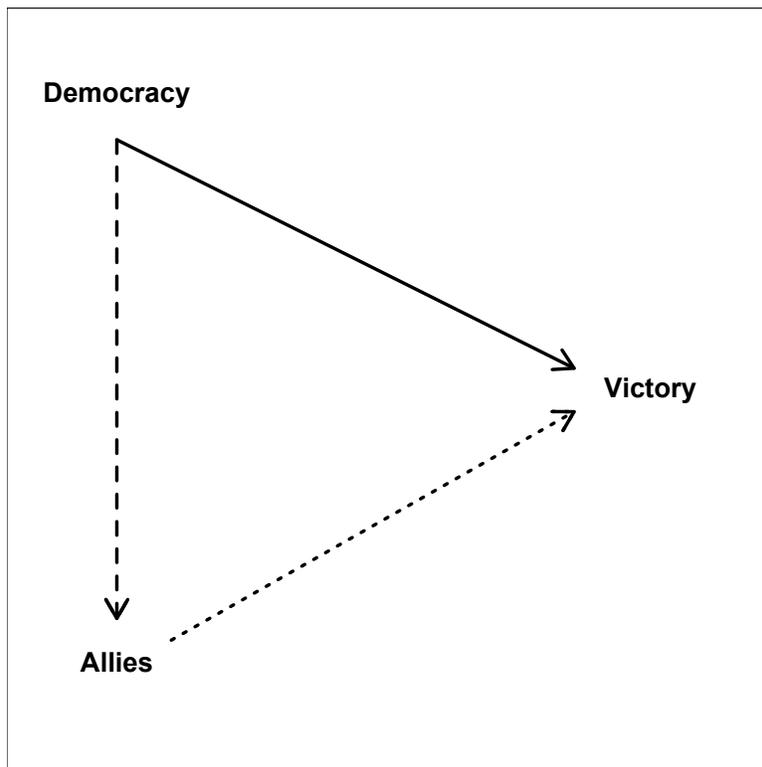


Figure 1: Direct and indirect relationships between democracy and military victory.

The relative impact of these direct and indirect effects of regime type and alliance partnerships must be determined empirically, not theoretically. We can use the intervening variable argument made above to offer some simple predictions. First, democracies are likely to have more allies when they experience militarized conflict.

Hypothesis 1 Democracies experiencing disputes/wars tend to have more allies than non-democracies experiencing disputes/wars.

Second, our claim of an indirect link between democracy and victory suggests that democracies tend to win their disputes and wars *because* they have more allies. An adequate test of the motivating puzzle of the democratic propensity for victory requires that we establish not only that democracies are assisted in wars and disputes by more allies, but also that states fighting with more allies tend to win.

Hypothesis 2 States with a greater number of allies tend to win disputes/wars.

Hypotheses 1 and 2 delineate the broad outlines of our argument. However, while necessary, each component is not sufficient separately to demonstrate our claim that alliances account for democratic victory. To do this, we need to assess a third hypothesis that combines attributes of both of the other two hypotheses.

Hypothesis 3 Democracies win because they contest disputes/wars alongside more allies.

In the section that follows, we test these hypotheses using samples of all wars, and also of Militarized Interstate Disputes (level 3 to 5), between 1816 and 2000. We omit the lowest intensity MIDs because these often result from accidents and other processes that do not directly reflect leader decision making (and thus do not relate to the arguments posed above). The coding of minor fishing disputes, for example,

might overrepresent contests between democratic nations (Weeks and Cohen, 2007). We also establish the robustness of our results to the replacement of "more allies," measured as the number of allies, with "more powerful sets of alliance partners," measured as the aggregate military capabilities of a country's alliance partners.

We find strong support for all three hypotheses and thus for our argument. States that are assisted by more allies (or more powerful alliances) are more likely to win major contests, while democracies tend to have more allies (and more powerful sets of alliance partners). Taken together, the indirect effect of democracy on victory, mediated through alliances, accounts for the apparent direct effect of regime type on military success. We detail our research design and results below.

4 Research Design

4.1 Dependent Variables and Sample

For data on interstate conflict, we examine MIDs involving displays or uses of force (level 3 to 5) from 1816-2000, drawn from the Dyadic MID dataset (DYMID) (Maoz, 2005). To parallel existing studies we limit the sample to wars only in some of the models presented below (disputes in which one side suffers at least 1000 fatalities).

The dispute-participant is used as the unit of analysis, which means that one observation per participant in each dispute enters each statistical regression model. Errors are clustered on the dispute-side, a unique identifier that captures both the dispute number and whether the state in question is on side 1 or side 2 in the data.

The first dependent variable is *number of allies*, or the number of allies on a given state's side.⁹ We also use an alternative binary version of this variable that is

⁹We also tested the hypotheses using the summed CINC scores of a state's allies as a measure of coalition size.

measured as 1 if the state side has more than two allies (i.e., a coalition not just a partnership) and 0 otherwise. We label this dichotomous variable as simply *allies*.

The second dependent variable, *victory*, is an ordinal variable that measures dispute outcome. The *victory* variable takes a value of 2 if side 1 achieves military victory or if side 2 concedes; it takes a value of 0 if side 2 achieves a military victory or side 1 concedes. Stalemates and compromises are assigned a value of 1.¹⁰ There is one observation per dispute-side, and side 1 always refers to the side in question — side 1 and side 2 are different than the originally defined sideA and sideB in the Maoz MID dataset. Again, we also use an alternative binary version of this variable (*win*) in which stalemates and compromises are coded as 0 (i.e. not victory).

4.2 Other Data

The extent of political liberalization for each dispute-participant, *level of democracy*, is drawn from the Polity IV dataset and ranges in value from -10 to 10 with higher scores representing more democratic states. Cases of “interruption,” “interregnum” and “transition” are dropped. The polity score used for each observation is the score as of December 31 of the year preceding the advent of the conflict.¹¹

The material capabilities of a given country, *CINC Score*, and the summed capabilities of all of the states on side 2 of the conflict, *opponent(s)' CINC score*, are measured using the Composite Indicators of National Capabilities data from the Correlates of War dataset. CINC scores are composed of a state’s share of the total population, urban population, consumption of energy, iron and steel production, number of military personnel, and military expenditures in the system. Finally,

¹⁰“Released” is treated as a missing outcome in this study because it is not possible to determine whether side 1 or side 2 in the dispute was holding the material and/or personnel in question. We also treated “Unknown” and “Joined ongoing war” as missing given similar attribution problems.

¹¹See (Marshall, Jaggers and Gurr, 2003) and (Marshall and Jaggers, 2007).

states are likely to vary in their dispute propensity in ways that impact their interest in allying. We control for the propensity of the dyad in our analysis to engage in a MID (level 3 to 5).¹² This dispute propensity control variable is then included in our directed-dyad and dyad level analyses discussed in the next section.¹³

5 Results

5.1 More Democratic States Fight with More Allies

Recall that Hypothesis 1 makes a prediction about the relationship between the level of democracy in a state and the number of allies alongside which the state fights. In tests of this hypothesis, the unit of analysis is the dispute-participant. Therefore, there can be multiple observations for each dispute in the MID dataset.

We use a negative binomial regression to assess the relationship between the level of democracy and the number of allies. This is necessary because the dependent variable, *number of allies*, has a disproportionate number of 0s — many states fight with no allies at all. We follow King (1989) and use this model over the poisson regression, which assumes that the mean number of allies equals the variance in the number of allies. Figure 2 shows the distribution in the number of allies for the sample of all wars, 1816-2000. The mean number of allies for non-democracies ($\text{polity} < 7$) and for democracies ($\text{polity} \geq 7$) appear as dashed vertical lines.

¹²The MID propensity score is constructed using a logistic regression equation that models the probability of a MID for all directed dyads in the international system each year as a function of the time since the last MID in that dyad. Time since last MID is modeled as a count variable through the use of three natural cubic splines (Beck, Katz and Tucker, 1998).

¹³Statistical analyses were conducted using *Stata 11.0*. (2010). Figures were generated using *R* (R Development Core Team, 2009).

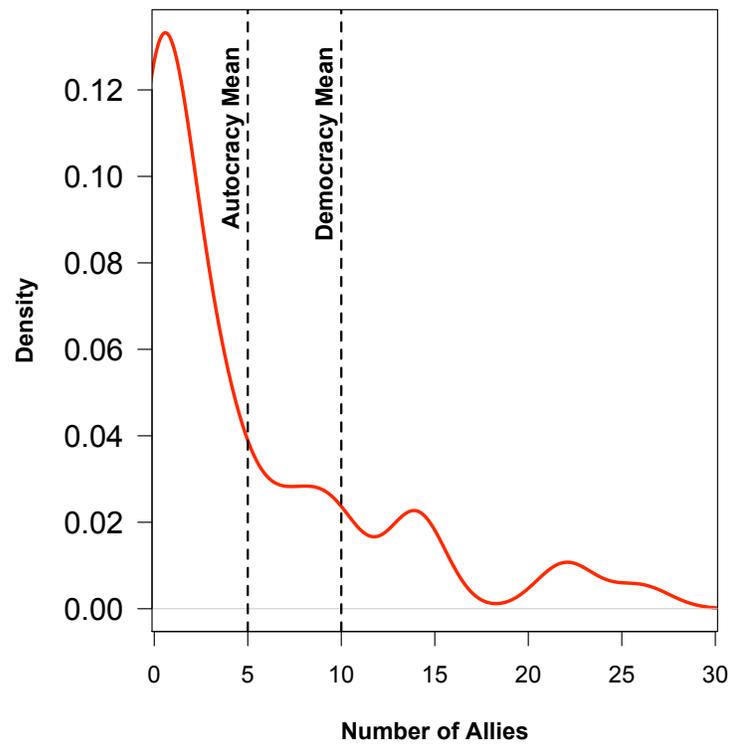


Figure 2: Distribution of the number of allies in the sample of all wars, 1816-2000.

To identify and assess the statistical significance of any relationship between *level of democracy* and *number of allies*, we use a negative binomial equation on the count of the number of allies. The linear component of the model is as follows:

$$\text{number of allies} = \alpha + \beta_1 * \text{democracy} + \beta_2 * \text{CINC} + \epsilon$$

Where α is the intercept, β_j are parameters to be estimated, and ϵ is the error term. Errors are clustered on dispute-side, which, as mentioned previously, captures both the dispute number and whether the state in question is on side 1 or side 2. Table 1 presents the results of this estimation in both the sample of all wars 1816-2000 and in the sample of MIDs (level 3 to 5) during the same time period.

It is necessary to control for the material capabilities of the state in question because the democracies in the sample are often stronger (or at least wealthier) than their autocratic counterparts (Przeworski and Limongi, 1997; Epstein et al., 2006), and more powerful/richer states may prove more attractive to allies.

Table 1: Count of the Number of Allies

	Wars Only	Wars Only	MIDs (3-5)	MIDs (3-5)
Polity IV Democracy	0.041*** (0.010)	0.039*** (0.011)	0.053*** (0.014)	0.053*** (0.015)
CINC score		1.25 (1.34)		-0.40 (1.69)
Constant	1.73*** (0.20)	1.67*** (0.21)	0.33 (0.21)	0.35 (0.24)
ln(alpha)	0.52** (0.22)	0.52** (0.22)	2.12*** (0.092)	2.12*** (0.091)
Observations	396	396	5011	5011

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < .01$

Specification: Negative Binomial regression with errors clustered on country code

Table 1 demonstrates the robust empirical association between the number of allies and the level of democracy of the state involved in a dispute or war. Figure 3 depicts the substantive effect of an increase in the level of democracy on a state's expected number of allies in a dispute. This evidence supports the first link in our argument. More democratic states enter disputes with a greater number of allies.

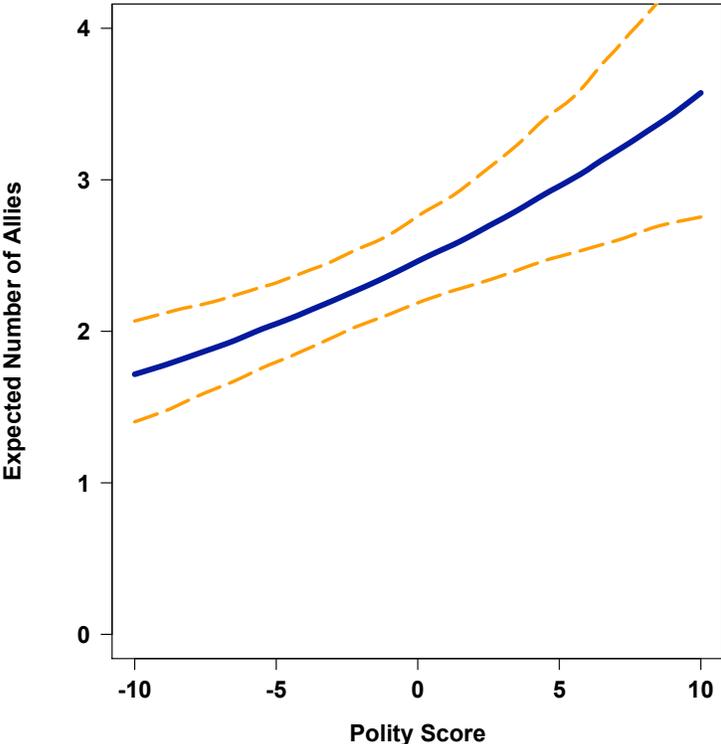


Figure 3: Expected number of allies as a function of the polity score for MID events (3-5).

5.2 Number of Allies and Victory

The second link of our argument (Hypothesis 2) posits that states that are accompanied by more allies are more likely to prevail in both wars and MIDs more generally. To test this hypothesis, we estimate the probability of victory using ordered probit regression. The linear component of the model is specified as follows:

$$victory = \alpha + \beta_1 * \text{number of allies} + \beta_2 * CINC + \beta_3 * \text{opponent(s)' CINC} \\ + \beta_4 * \text{MID propensity} + \epsilon$$

We control for both the capabilities of side 1 (*CINC Score*) and the summed material capabilities of its opponents (*Opponent(s)' CINC score*) in the dispute (side 2) in order to set aside any impact on the likelihood of victory that is attributable to the correlation between the number of allies on side 1 and the strength of side 2.

Table 2: Probability of Victory

	(1)	(2)	(3)	(4)
	Wars Only	Wars Only	MIDs (3-5)	MIDs (3-5)
Number of Allies	0.042** (0.019)	0.057** (0.023)	0.053*** (0.012)	0.066*** (0.013)
CINC score		4.61*** (1.64)		3.71*** (0.70)
Opponent(s)' CINC score		-0.62** (0.24)		-0.56*** (0.19)
Dyad MID Propensity		5.15 (11.3)		3.23 (3.23)
Cut 1	0.19 (0.21)	0.30 (0.43)	0.17** (0.071)	0.32*** (0.12)
Observations	344	344	1443	1443

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

The results presented in Table 2 are consistent with Hypothesis 2. The number of allies is positively and significantly correlated with the likelihood of victory. Though the effect is not large, it is certainly far from trivial. In wars, a one standard-deviation increase in the number of allies (a 6.6 ally increase) is associated with an 8% increase in the probability of outright victory and a 5% decrease in the probability of outright defeat. In MIDs, a one standard deviation increase in the number of allies (a 4.2 ally increase) is associated with a 6% increase in the probability of outright victory and a 4% decrease in the probability of outright defeat.

Figure 4 details the substantive effect of increasing the number of allies on the predicted probability of winning a dispute. This evidence supports the second link in our argument. States with more allies are more likely to win disputes or wars.

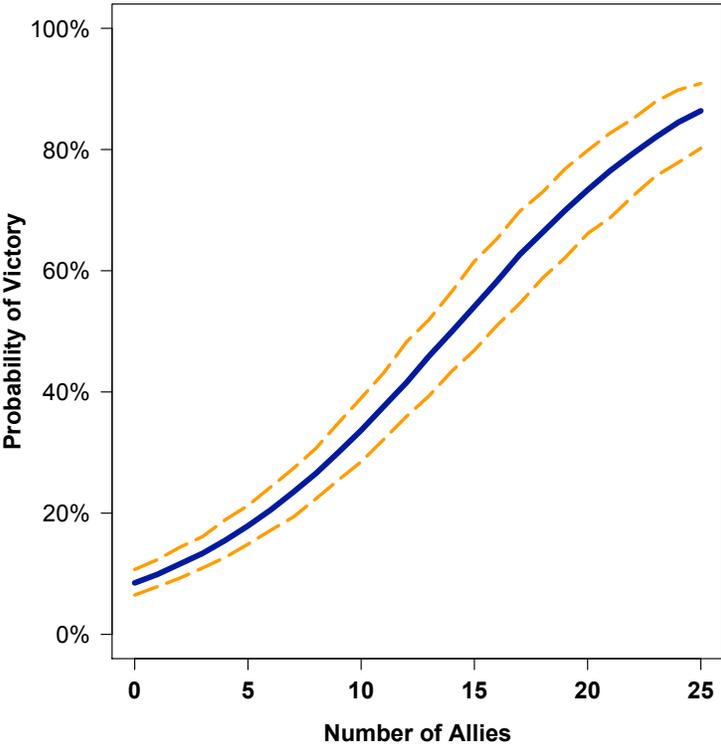


Figure 4: Predicted probability of the victory with a given number of allies for MIDS (3-5).

5.3 An Alternative Measure of Alliance Size

Above, we measure the size of the coalition in which a state contests disputes as the number of allies the state has as co-participants in the conflict. An alternative measure of the same construct is the total power of the allies a state has as co-participants, which we measure as the summed CINC scores of those allies. Tables 3 and 4 recreate the results from Tables 1 and 2 with the use of this alternative measure. The results remain equally strong as with the previous measure. More democratic states tend to fight with more powerful coalitions (Table 3), and states with more powerful collections of allies are more likely to prevail (Table 4).

Table 3: Allies' Summed CINC Scores

	Wars Only	Wars Only	MIDs (3-5)	MIDs (3-5)
Polity IV Democracy	0.0077*** (0.0022)	0.0075*** (0.0021)	0.0016*** (0.00041)	0.0014*** (0.00043)
CINC score		0.15 (0.17)		0.095*** (0.035)
Constant	0.098*** (0.019)	0.092*** (0.022)	0.030*** (0.0038)	0.026*** (0.0041)
Observations	397	397	5012	5012
R^2	0.142	0.146	0.0176	0.0225

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < .01$

Specification: OLS with errors clustered on dispute-side.

As with number of allies, more democratic states are more likely to fight in more capable coalitions. This result is robust to controlling for the power (CINC score) of the state in question, which is also positively correlated with the power of the coalition. More democratic and more powerful states contest disputes alongside partners that are not only more numerous, but that are cumulatively more powerful.

Table 4: Probability of Victory

	(1)	(2)	(3)	(4)
	Wars Only	Wars Only	MIDs (3-5)	MIDs (3-5)
Allies' CINC score	2.93** (1.21)	4.70*** (1.55)	2.89*** (0.74)	2.82*** (0.75)
CINC score		5.25*** (1.68)		2.81*** (0.72)
Opponent(s)' CINC score		-4.42*** (0.91)		-2.70*** (0.57)
Dyad MID Propensity		5.23 (11.0)		1.97 (3.16)
Cut1	0.20 (0.17)	0.054 (0.43)	0.16** (0.069)	0.028 (0.14)
Observations	345	345	1445	1445

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Specification: Ordered Probit with errors clustered on dispute-side.

As with more numerous coalition partners, more powerful coalitions are also associated with a higher probability of victory. Consistent with results presented in Table 2, we also find that more powerful states are more likely to prevail, while states facing more powerful opponents or coalitions are less likely to do so.

5.4 Jointly Modeling Allies and Victory

While democracies have more allies and states with more allies tend to win disputes and wars, we have not yet shown directly that democracies win wars *because* they have more allies. Therefore, we next combine the two equations evaluated above into a single two-stage regression. This multivariate setup allows us to directly model the joint relationship depicted in Figure 1. Specially, we estimate a bivariate probit in order to model joint outcomes with correlated errors.¹⁴ For this model we collapse the count variable of the number of allies into the first binary variable, *allies*. Recall that this collapsed outcome variable is coded as 1 if the side in question has more than two allies and 0 otherwise.¹⁵ The second dependent variable for this model is the binary variable *win*, in which stalemates and compromises are coded 0 (i.e. not winning). The same controls used above enter the two equations of this model and errors are clustered on dispute-side. The original *number of allies* variable enters the second equation.¹⁶ The linear components of the model are:

$$\begin{aligned} \textit{allies} &= \alpha_1 + \beta_{1,1} * \textit{democracy} + \beta_{1,2} * \textit{CINC} + \beta_{1,3} * \textit{opponents CINC} \\ &\quad + \beta_{1,4} * \textit{MID propensity} + \beta_{1,5} * \textit{number of allies} + \epsilon_1 \\ \textit{win} &= \alpha_2 + \beta_{2,1} * \textit{democracy} + \beta_{2,2} * \textit{CINC} + \beta_{2,3} * \textit{opponents CINC} \\ &\quad + \beta_{2,4} * \textit{MID propensity} + \epsilon_2 \end{aligned}$$

Table 5 displays results that corroborate the findings from the first two mod-

¹⁴Stata refers to this model as a “seemingly unrelated bivariate probit regression” because the specification of the two equations differs by the inclusion of at least one independent variable. Stata refers to a model as a “bivariate probit regression” if the two equations are specified with the same independent variables. The two equations of our model differ by one variable.

¹⁵Dichotomizing this variable is a practical necessity, but it likely under-estimates the effect of differences in the number of allies (biasing against Hypothesis 3) by reducing variance in the variable.

¹⁶There is no reason to collapse this variable when it enters the right side of the second equation. To do so would only destroy information contained within the variable.

Table 5: Joint Probability of Allies and Victory

	(1)	(2)	(3)	(4)
	Wars Only	Wars Only	MIDs (3-5)	MIDs (3-5)
DV = Allies				
Polity IV Democracy	0.047*** (0.016)	0.052*** (0.016)	0.026*** (0.0068)	0.032*** (0.0077)
CINC score		0.056 (1.41)		-0.35 (0.63)
Opponent(s)' CINC score		0.47 (0.29)		0.96*** (0.22)
Dyad MID Propensity		8.39 (9.23)		-0.86 (2.93)
Constant	0.095 (0.19)	-0.40 (0.32)	-1.18*** (0.083)	-1.32*** (0.11)
DV= Win				
Number of Allies	0.052** (0.025)	0.059** (0.026)	0.086*** (0.017)	0.086*** (0.016)
Polity IV Democracy	0.022 (0.020)	0.014 (0.019)	0.0079* (0.0047)	0.0013 (0.0048)
CINC score		5.17*** (1.30)		3.16*** (0.38)
Opponent(s)' CINC score		-0.41* (0.24)		0.086 (0.20)
Dyad MID Propensity		-4.49 (8.87)		3.51* (1.99)
Constant	-0.62*** (0.22)	-0.54* (0.28)	-1.33*** (0.044)	-1.59*** (0.067)
Athrho	-0.32 (0.29)	-0.30 (0.27)	0.071 (0.11)	0.070 (0.11)
Observations	396	396	5011	5011

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

els and therefore lends additional support for both links in our argument. This provides direct support for Hypothesis 3, that democracies tend to win the wars that they fight, not for internal reasons, but because they fight with more allies. Note that no statistically significant relationship exists between the probability of victory and level of democracy when the number of allies is accounted for, while the number of allies variable is significant in each of the models in Table 5.¹⁷

5.5 Disaggregating the Data

It is often helpful in analyzing regression results to disaggregate the data to show the strength of relationships across the full range of values. For example, it could be that democracies attract more allies *because they win*. If democracies are more effective or charismatic alliance partners, then we again return to characteristics of regimes as an explanation for democratic victory in war. We thus want to be clear that the relationship between alliances and victory is broadly consistent in all regions of the data. Figure 5 reports differences in the probability of victory for democracies and autocracies for every possible number of alliances. As such, the figure allows us to compare the probability of victory for democracies with two allies to the probability of victory for autocracies with two allies, and to compare democracies to autocracies again when they each have three allies, and so on.

Evaluating the effects of regime type and alliance ties at different thresholds is somewhat complex. Figure 5 helps to make sense of different combinations of democracy and alliances by displaying the distributions for the probability of victory estimated from 14 probit regression models. Each regression is estimated on

¹⁷Estimation of the joint model in bivariate probit necessitates that we collapse the number of allies measure into a binary dependent variable. Since the chosen cut point is arbitrary, we ran several versions of the binary *allies* variable. Table 5 reports results when the number of allies is greater than 2 and 0 otherwise. Results are robust if the cut point is raised to greater than 3, 4 or 5.

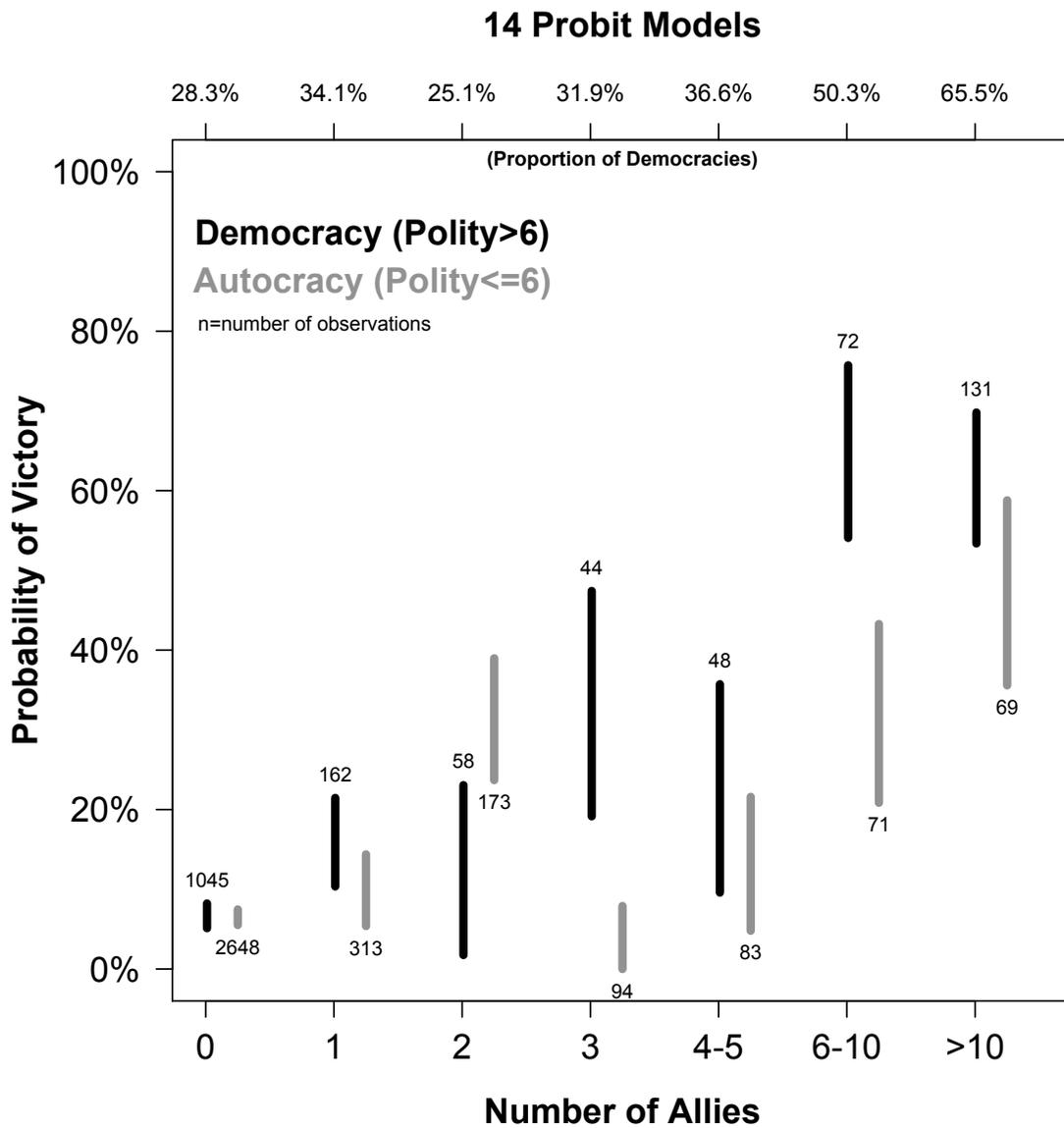


Figure 5: The Probability of Victory by Regime Type as as the # of Allies Varies

observations that are all of the same regime type and have the same number of allies. Some observations were consolidated in order to ensure that each model has at least 100 observations. For example, observations were included in the same model if they had 4 or 5 allies. These models also include the controls as outlined previously in the text. The percentages displayed along the top horizontal axis of the figure represent the proportion of democracies in each separate “bin” of alliance counts. The number of observations in each model is displayed above the democracy probability distributions and under the autocracy probability distributions.

Disaggregation of the relationship between regime type and the probability of victory by number of alliance ties confirms the basic picture provided by the previous regression analysis. Democracies are *not* generally more likely to win wars and disputes independent of the count of allies. Fighting with more allies increases the probability of victory for both democracies and autocracies. The results also show that, for most values of alliances, democracies have a higher probability of victory than autocracies, which is consistent with the small positive, but statistically insignificant, effect of democracy on victory as reported in the bottom half of Table 5. The effect of the number of allies on victory is clearly much stronger than the effect of regime type. When fighting without allies, a democracy is no more likely to win wars or disputes than an autocracy, while an autocracy fighting with more than six allies is far more likely to achieve outright victory than a non-allied democracy.

Not only is a larger number of allies associated with a higher probability of victory, but consistent with Hypothesis 1, more democratic participants fight with more allies. This is apparent in the proportion of democracies figures reported above each “bin” which generally increase with the number of allies. The ratio of democracies to non-democracies increases as we move from left to right on the

chart, reflecting the fact that democracies tend to have more alliance ties.¹⁸

Finally, disaggregation also casts considerable doubt on the assertion that better democratic war fighting leads more states to seek out alliances with democracies. While democracies have more allies on average, many democracies possess no allies or few alliance ties. A theory in which superior democratic war fighting leads democracies to attract more allies must thus grapple with the fact that democracies vary to a considerable degree in their apparent attractiveness and therefore must vary in (perceived) battlefield effectiveness. One must thus either conclude that some democracies are less effective than autocracies at war fighting, or that variation in alliance ties is associated with other factors besides wartime effectiveness. We prefer to view the success of democracies in war as attributable to the fact that democracies have more allies, since the evidence from Figure 5 is that a greater number of security partners unambiguously increases the probability of victory.

5.6 Quantity versus Quality in Democratic Alliance Ties

To win on the battlefield because of their allies, democracies must have more alliance partners (our argument), better quality allies (Choi's argument), or some combination of the two. Even if democracies are more effective allies, the democratic reliability argument might still suffer from an individual fallacy; the source of democratic victory could be the size of their alliance structures, *even if* democracies happen to be better allies.¹⁹ Choi (2004) recognizes the need to address the direct effects of alliance size on war-fighting, but while her research design assumes

¹⁸We find consistent, statistically significant differences in proportion when comparing the proportion of democracies in the "high" number of ally bins with those in the "low" number of ally bins. Recall that Table 5 reports results when the number of allies is greater than 2 and 0 otherwise. The proportion of democracies in this high category is 48.20% and the low category is 28.76%. The difference in proportion for this cut point is -19.45% ($p < 0.001$).

¹⁹Autocracies of equal capability are less effective at aiding an ally (Choi 2004, Figure 1), but the fact that autocracies have a positive marginal impact implies a tradeoff between quantity and quality.

that reliability (measured as regime type) is uncorrelated with the size of alliance coalitions, her theory must assume in effect that this is not the case. If democracies are better allies, then democratic alliance ties are likely to differ from those of their autocratic counterparts. Democracies should be more sought after as alliance partners. At the same time, democracies have less need to form large coalitions to protect themselves, given the reliability of democratic allies. It is essential to determine the net effect of these contrasting supply and demand effects in order to assess whether it is quantity or quality driving democratic battlefield performance. This is extremely difficult to accomplish theoretically (Conybeare, 1994a). Fortunately, however, we can eliminate one set of circumstances in light of available evidence.

High democratic reliability could substitute for coalition size; if allies are more reliable, a state needs fewer of them. Were democracies to tend to ally together, this would lead to the expectation that democracies don't need large alliances. However, this is not consistent with our finding that democracies have larger alliance coalitions. It is also inconsistent with Choi (2004)[Table 1, page 671 and 676], who finds no significant relationship for an interaction term between the regime type of a state at war and the number of democracies in its coalition. This indicates that democracies do not win because they are more likely than autocracies to have democracies as their alliance partners. Thus, in addition to ruling out the possibility that alliance quality is a substitute for quantity, these findings significantly cloud the first logical connection between democratic alliance efficacy and battlefield victory required for the alliance quality argument to function; democracies are not showing a clear preference for other democracies in forming alliances. If the effect of partnerships with democratic allies on battlefield victory is not uniquely tied to democratic states, then the tendency of democracies to win contests cannot be attributed to the unique interactions within democracy-dominated alliance structures.

The remaining pathway for the “quality” argument is to assert the dominance of the demand-side. If democratic allies are more desirable than autocratic partners, then democracies should be sought out more often as allies and therefore enter into conflicts in larger alliances. This implies that, in a given dyad, the likelihood of an alliance being formed is increased when either or both states are democratic. As we have already noted, the literature in this area suggest that democracies do not form significantly more partnerships than non-democracies. Given the demand-side version of the reliability argument, however, we would expect to see that the lowest propensity to ally would be in autocratic-autocratic dyads, and that an intermediate propensity to ally would occur in mixed democratic-autocratic dyads. We assess each of these relationships below.

Table 6 displays the probability that an alliance exists in any given dyad-year. Alliance data are from Gibler and Sarkees (2004), as first created by Singer and Small (1966). We utilize a dummy variable for the existence of any alliance in the dyad year, but the substantive results are unchanged if we restrict the analysis to alliances with mutual-defense pact guarantees. We use the *level of democracy* data drawn from the Polity IV dataset to determine which dyads are made of two democracies, one democracy or no democracies. We take the polity coding, which ranges in value from -10 to 10 with higher scores representing more democratic states to create a dummy variable coded 1 if both states receive a score greater than 6 on this variable and 0 otherwise. We create another dummy variable coded 1 if at least one state in the dyad receives a score greater than 6 and 0 otherwise. Last, we create a dummy variable coded 1 if neither state in the dyad received a score greater than 6 and 0 otherwise. We use logistic regression to determine the probability that an alliance exists in a dyad conditional on the dyad type in addition to controls for temporal dependence and military capabilities. Confidence intervals are generated

from standard errors, clustered by a dyad number based on COW country codes.

Table 6: Probability of Alliance

	Probability	95% CI
Democracy-Democracy Dyads	9.40%	[9.26%, 9.54%]
Democracy-Autocracy Dyads	3.00%	[2.96%, 3.05%]
Autocracy-Autocracy Dyads	7.73%	[7.65%, 7.82%]

The results in Table 6 are inconsistent with a universal preference for democratic, as opposed to autocratic, allies. Instead, we see evidence that regimes ally with like regimes: democracies with democracies and autocracies with autocracies. This result has been demonstrated elsewhere and should not be considered controversial (Siverson and Emmons, 1991; Simon and Gartzke, 1996; Lai and Reiter, 2000).

While it remains possible that democracies are, in fact, superior allies, the results in Table 6 demonstrate that it is not the superior performance of democratic allies that drives the tendency of democracies to go to war in large coalitions. Nor is it the case that the putatively superior effects of democracies in war fighting are uniquely, or even significantly, associated with other democracies. If democracies tend to win contests because they are allied with other democracies, then this must occur through channels that neither favor democratic combatants, nor lead democracies to economize with their alliance ties. While we cannot rule out the possibility that Choi may be right that democracies obtain victory by associating with high-quality allies rather than many allies, democracies are not behaving as if this is the case, and we cannot come up with a way of supporting this claim in light of existing evidence and the logic of the reliability argument. It thus appears most probable that it is the number of alliance partners democracies possess, rather than the “democraticness” of these partners, that is responsible for democratic success on the battlefield.

6 Conclusion

The theory and results presented here provide a simple and intuitive link between regime type and war-fighting success: democracies win the wars they fight because they are joined in disputes and warfare by more allies. We show that democracies fight with more allies than non-democracies, that states with more allies are more likely to prevail, and that the indirect effect of democracy on war-fighting success through alliance size subsumes the direct effect of regime type on victory. These results are robust to the specification of alliance size in terms of allies' aggregate capabilities instead of number of allies, and the core relationships are consistent across the full range of the data. We also present theoretical and empirical reasons for favoring our "quantity" argument regarding democratic alliances over the "quality" argument made elsewhere.

Theoretically, we have attempted to link the incentive to fight alongside additional allies with the differential domestic incentives faced by democratic and non-democratic political leaders. Specifically, each ally brings additional material capabilities to the war effort. That is, additional allies lower war costs, and also reduce the variance in war costs paid by each state. This reduction in war costs is of direct benefit to the citizens of each democracy paying for and participating in the conflict. Moreover, war over issues that democracies seem to care about more often — public goods such as stability or policy goals — requires no significant division of the spoils, encouraging initial participants to maximize coalition size. In contrast, additional allies dilute the payoffs of conflicts over private goods, such as territory and tangible resources, which seem less often to motivate democracies to fight.

Definitive tests of the mechanism(s) linking regime type to alliance size require more precise data that are able to distinguish between war aims with primarily

public goods components and war aims with primarily private goods components. Similarly, information about the costs born by publics in terms of both troop deployments and casualties in addition to the financial and material resources allocated by each state within an alliance would allow us to further test implications derived from our argument. Future research will attempt to provide more direct evidence regarding these mechanisms. However, the results presented here make a strong empirical case for our central assertion: democracies win the wars they fight because they fight with more allies.

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