Democracy, Elections, and Alliance Treaty Depth

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Abstract

Why do states form deep alliance treaties, which reinforce military support promises with commitments of defense coordination and cooperation? I argue that democratic alliance leaders use treaty depth to make more credible alliance commitments in the face of leadership turnover. Electoral democracy can replace incumbents with new leaders who are less committed to an alliance. Such leadership turnover threatens credible alliance commitments by democracies, so incumbent leaders use treaty depth to make reducing alliance commitment more difficult and costly. Thus, electoral democracy encourages leading alliance members form deep alliances. I test this claim on offensive and defensive alliances from 1816 to 2012 and illustrate the theoretical mechanisms by examining NATO. I find that greater electoral democracy in the most capable alliance member increases treaty depth. The argument and findings provide insight into the connection between domestic politics and the design of international institutions.

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1 Introduction

Why do states make deep alliance treaties? Deep alliances formalize extensive defense cooperation by using additional military policy coordination and cooperation in to supplement promises of military intervention. While shallow alliances offer arms-length military support, deep treaties lead to closer ties between alliance members. Key sources of depth include an integrated military command, military aid, a common defense policy, basing rights, international organizations, and companion military agreements, and half of all offensive and defensive alliances[1] include at least one such obgligation (Leeds et al., 2002). Despite the prevalence of alliance treaty depth, we have little idea when states add depth to their alliances.

Understanding the sources of deep alliances is worthwhile for two reasons. First, depth shapes alliance credibility and the distribution of military spending among alliance members. Costly commitments in deep alliances increase the credibility of military support promises (Morrow, 1994), which then encourages non-major power members of deep alliances to reduce military spending (Alley, 2020). Second, the process behind alliance treaty depth may provide more general insights into international institution design. Members of international organizations often use costly commitments to support cooperation. For example, some trade agreements use third-party dispute settlement mechanisms to enforce agreements (Smith, 2000), or institutionalize formal monitoring arrangements (Dur, Baccini and Elsig, 2013). Understanding when and why states employ close or arms-length cooperative commitments is therefore worthwhile.

In this paper, I argue that democratic alliance leaders use treaty depth to increase the durability of their alliance commitments in the face of leadership turnover. Although the leader negotiating an alliance is likely committed to upholding their treaty obligations, elections could empower less committed leaders and threaten credible commitments (Gartzke and Gleditsch, 2004; Leeds and Savun, 2007; Leeds, Mattes and Vogel, 2009). In anticipation of this turnover threat, incumbent

[1] Treaties that promise active military support.

leaders can use treaty depth to give their successors opportunities to signal alliance reliability and make unpicking an alliance commitment more difficult and costly. Therefore, I expect that electoral democracy in the most capable alliance member leads to deep alliance treaties.

I test the argument with a statistical analysis of offensive and defensive alliances from 1816 to 2012 and then examine the theoretical mechanisms in the context of NATO treaty design. I find consistent evidence that greater electoral democracy in the alliance leader increases treaty depth. The results are robust to different model specifications and samples, including a model that accounts for non-random selection into alliances.

This paper contributes to knowledge of alliance treaty design and how domestic politics affects alliance choices. Democracy affects alliance politics in many ways (Lai and Reiter, 2000; Gibler and Wolford, 2006; Mattes, 2012*a*; Warren, 2016; McManus and Yarhi-Milo, 2017). Connecting domestic electoral institutions and treaty depth adds to this scholarship and addresses an important gap. The process of alliance treaty negotiation and design is understudied (Poast, 2019), and there is little research on treaty depth because the nascent alliance treaty design literature emphasizes conditions on military support. Existing research identifies entrapment concerns (Kim, 2011; Benson, 2012) and democratic alliance membership (Mattes, 2012*b*; Chiba, Johnson and Leeds, 2015) as two sources of conditional obligations.[2]

Two studies of alliance treaty design examine similar concepts to treaty depth, but both have important limitations. First, Mattes (2012*b*) finds that members of symmetric bilateral alliances where one partner has history of violation are more likely to use military institutionalization to increase treaty reliability. This paper makes an important contribution, but it only analyzes bilateral alliances and uses an ordinal military institutionalization measure by Leeds and Anac (2005) that understates variation in treaty depth. Second, while checking the validity of a latent measure of costly alliance obligations, Benson and Clinton (2016) find that foreign policy agreement, major

[2]Fjelstul and Reiter (2019) supplement research on support conditions by arguing that democracies use incomplete alliance contracts to limit audience costs.

power involvement and treaty scope increase depth. Benson and Clinton define depth as how costly alliance obligations are in general, so their latent measure of depth includes secrecy and issue linkages and captures a broader concept than defense cooperation.

Therefore, we still do not understand why alliance members employ treaty depth. To address this lacuna, I consider how domestic political institutions and potential leadership turnover shape institutional design. Democratic leaders add depth to alliances to maintain credible commitment by future leaders with different constituencies. This reflects how leaders strategically employ different foreign policy tools within their institutional context (Hyde and Saunders, 2020).

There are two primary implications of my argument and findings. First, they add important nuance to existing claims that democracies prefer limited alliance commitments (Mattes, 2012*b*; Chiba, Johnson and Leeds, 2015; Fjelstul and Reiter, 2019). Even as democracies screen the breadth of conditions on military support, they form deeper alliances in other ways. Furthermore, the findings add to the rich literature on domestic politics and international cooperation e.g. (Downs and Rocke, 1995; Fearon, 1998; Leeds, 1999; Mattes and Rodríguez, 2014). Just as democracies reassure partners with deep alliance commitments, electoral politics may push democracies to undertake strong international commitments with conditional primary obligations.[3]

The paper proceeds as follows. In the next section, I lay out the argument and hypotheses. Then I summarize the data and research design. After this, I describe the results and detail treaty depth considerations in NATO negotiations. In the final section I summarize the results and offer concluding thoughts.

2 Argument

In this argument, I first consider role of domestic politics in alliance negotiations. I then explain how leadership turnover in alliances threatens treaty credibility. Last, I consider how depth

[3]For example, in environmental agreements, democracies may prefer soft law commitments (Böhmelt and Butkutė, 2018), but other aspects of these agreements may be deep and less salient.

addresses credibility concerns from regular leadership turnover.

Alliances are self-enforcing contracts or institutions where states promise military intervention (Leeds et al., 2002; Morrow, 2000). When faced with external threats in an anarchic international system, states form alliances to aggregate military capability and secure their foreign policy interests (Altfield, 1984; Smith, 1995; Snyder, 1997; Fordham and Poast, 2014). Alliance participation has several costs and benefits. Beyond the benefit of possible military support, alliances also clarify international alignments (Snyder, 1990) and support economic ties (Gowa, 1995; Li, 2003; Long, 2003; Fordham, 2010; Wolford and Kim, 2017). The costs of alliance participation include opportunism and lost foreign policy autonomy (Altfield, 1984; Morrow, 2000; Johnson, 2015). Opportunism in alliances has three forms; abandonment of military intervention promises (Leeds, 2003; Berkemeier and Fuhrmann, 2018), entrapment in unwanted conflicts (Snyder, 1984), and free-riding (Morrow, 2000).

To form an alliance, states must have similar foreign policy interests (Morrow, 1991; Smith, 1995; Fordham and Poast, 2014). Poast (2019) notes that agreement over a treaty in alliance negotiations depends on outside options and compatible war plans. Alliance treaties formalizing promises of military support take many forms (Leeds et al., 2002; Benson and Clinton, 2016). Treaty design shapes the costs and benefits of treaty participation and addresses potential opportunism. In the face of abandonment concerns, alliance members use formal commitments to increase the credibility of military intervention promises, as the costs of the alliance commitment provide indications of reliability (Morrow, 2000).

Most studies of alliance treaty design focus on negotiations between states, but as in other foreign policy domains, leaders in alliance negotiations are playing a two-level game (Putnam, 1988). Alliance agreements reflect both international and domestic political constraints on leaders. To give two examples, audience costs concerns shape conditions on military support in alliances between democracies (Chiba, Johnson and Leeds, 2015; Fjelstul and Reiter, 2019), and whether democratic dyads form consultation or defense pacts depends on the risk of the current leader

losing office (Mattes, 2012*a*).

Given the importance of domestic politics, there are four key actors in this explanation of the sources of alliance treaty depth. First, incumbent leaders seek to form an alliance that offers a credible and durable promise of military support. Potential allies consider the credibility and durability of the alliance— whether it will increase their security and for how long. In domestic politics, voters and opposition elites could check the foreign policy goals of the incumbent. I assume that opposition elites are more likely to oppose alliance formation, but vary in the strength of their objection to an alliance. I also assume that voters focus on whether to extend an alliance or not, and pay less attention to treaty design when they support alliance formation.

This argument focuses on domestic politics in the most capable alliance member. Highly capable states use alliances to increase their influence abroad, often by protecting smaller partners (Morrow, 1994). To do so, these states must design credible alliance treaties with sufficient domestic political support. Furthermore, capable states have greater influence on alliance negotiations (Mattes, 2012*b*), because their partners lose out on foreign policy benefits without their participation. The most capable state is often the alliance "leader," and their preferences have substantial weight. Therefore, the domestic institutions of the most capable alliance member are a crucial determinant of alliance treaty design.[4]

2.1 Leadership Turnover and Alliance Credibility

Leaders must account for domestic politics in their efforts to establish credible treaty commitments. When an alliance is invoked, leaders decide whether to honor or violate the treaty obligations. That decision depends in part on domestic concerns, as leaders consider and respond to the views of the coalition that put them in office. The leader behind alliance formation likely has the domestic backing to honor alliance obligations, but future leaders may not.

[4]Emphasizing the influence of the largest state is further supported by evidence that the preferences of powerful capital-exporting states drive the design of bilateral investment treaties (Allee and Peinhardt, 2014).

Leadership turnover can therefore threaten alliance reliability. New ruling coalitions often implement a different foreign policy (Lobell, 2004; Narizny, 2007). Changes in political regimes (Leeds and Savun, 2007), or the coalitions backing a leader (Leeds, Mattes and Vogel, 2009) both increase the risk of alliance treaty abrogation. Even as the incumbent negotiating an alliance supports treaty participation, if leadership change empowers an alliance skeptic, the state will be more likely to leave or violate an alliance.

Domestic political institutions shape the frequency and regularity of leadership turnover by structuring how leaders are selected and replaced. Some institutions formalize frequent leadership changes, by regularly providing opportunities to select new leaders within a consistent institutional framework. Other selection processes make leadership change without regime change difficult at best.

Electoral democracy often generates leadership turnover. Competitive elections for leadership are perhaps the defining feature of democracies, and elections often create different ruling coalitions. At a minimum, competitive elections with a viable opposition, multiple candidates and more than one legal party have potential for leadership change (Hyde and Marinov, 2012). As the franchise expands, opposition leaders have more potential coalitions they can use to unseat the incumbent. Thus, electoral democracy raises the prospect of cycling between different coalitions, which could have different material and ideological foreign policy interests. Such cycling may reduce the reliability of democratic alliance commitments (Gartzke and Gleditsch, 2004).[5]

Potential democratic allies understand and can anticipate the risk of leadership turnover for treaty reliability. Although the leader they are negotiating with supports an alliance, future leaders may not. For states seeking a durable alliance commitment, new leaders in a democracy are a potential concern. If the treaty is to provide support over the long run, democratic alliance leaders need to address potential leadership changes.

Thus, when democratic leaders negotiate an alliance treaty, they must consider what will hap-

[5]See Gaubatz (1996) for a skeptical take on the problem of cycling for democratic reliability.

pen when they leave office. Given the stakes of an alliance, verbal assurances that future leaders will honor the treaty are likely inadequate. Allies will require greater reassurance that leadership changes will not undo the alliance.

2.2 Credible Commitment through Deep Alliances

Democracies can use treaty depth to address the problem of leadership turnover for treaty reliability and durability. Depth increases alliance credibility through sunk costs. Regular sunk costs in deep alliances specifically address the time-inconsistency concerns at the heart of potential leadership changes.

Sunk costs in treaty depth help alliance members establish credible commitments. In a deep alliance, states supplement military support promises with commitments of peacetime cooperation like bases, military aid, policy coordination and formal institutions. For example, Treaty of Lisbon between European Union members reinforces defensive support promises with commitments to a common defense policy and funding a European Defense Agency. Depth adds to the perceived reliability of an alliance by providing opportunities for states to fulfill peacetime treaty obligations (Morrow, 1994). Implementing deep treaty obligations is a sunk cost signal of commitment. Observing that alliance members adhere to peacetime promises suggests that they will also honor promises of military support.[6]

Depth addresses leadership turnover concerns in two ways. First, maintaining a deep alliance often requires ongoing sunk costs. Upholding aid, defense cooperation, and basing rights means allies must continue to invest in defense cooperation throughout the life of an alliance. When new

[6]Leeds and Anac (2005) find that alliances with high military institutionalization are less likely to be honored in war, which contradicts this claim that depth increases credibility. This finding has two limitations, however. First, observed challenges to an alliance may indicate lower credibility (Smith, 1995), so there is a selection problem with these estimates, which Leeds and Anac acknowledge. Second, their inferences depend on an ordinal measure of alliance treaty depth that limits variation in depth. When I employ a continuous latent depth measure in Leeds and Anac's model of alliance fulfillment in offense and defensive alliances, the depth coefficient is positive. I find similar results with another model of alliance fulfillment in war using data from Berkemeier and Fuhrmann (2018). See the appendix for details.

leaders uphold deep alliance provisions, they send the same reassuring commitment signals as their predecessors.

Second, depth makes adjusting or reducing an alliance commitment more costly for new leaders. Formalizing defense cooperation means that leaders break treaty obligations if they reduce defense cooperation. This is in turn exposes those leaders to public and elite disapproval for violating international obligations, so long as the public is paying attention (Slantchev, 2006; Potter and Baum, 2014) and prefers compliance (Chaudoin, 2014; Kertzer and Brutger, 2016).

Legalizing international treaty obligations also makes walking back a deep alliance commitment difficult. Democracies often incorporate international obligations into domestic law when they ratify treaties. Such legal force makes policy change more difficult (Gaubatz, 1996; Leeds, Mattes and Vogel, 2009), especially if an alliance stipulates regular peacetime cooperation. To give another example of strong legalization in the face of leadership turnover, Blake (2013) finds that governments with long time horizons are less likely to tie their hands in designing bilateral investment treaties as they anticipate the policy restraints of legalization.

These mechanisms can help maintain credibility even if a leader expresses rhetorical skepticism about an alliance. Relative to continued costly cooperation on the deep provisions of an alliance, talk is cheap. So long as a leader honors deep alliance obligations, their rhetoric will have a more limited impact.

2.3 Domestic Constraints on Depth

Like all other alliance components, depth is subject to domestic political constraints. The ability of a leader to form a deep alliance depends on opposition and voter preferences. Voters have less specific alliance policy preferences than elites, however. When voters support alliance formation, they are unlikely to check treaty depth. Opposition elites may agree with the incumbent, disagree about treaty design, or oppose alliance formation altogether.

A shared perceived threat, foreign policy consensus, or other factors may lead opposition elites

to agree with incumbents on alliance treaty design. In this case, opposition elites will have few concerns with treaty depth, and may even welcome depth as a check on future coalitions that empower alliance opponents. Provided voters also approve, leaders face few domestic constraints on treaty depth when the opposition backs alliance formation.

Other elites may agree about alliance formation, but prefer more limited commitments. These elites may fear excessive entrapment or entanglement in foreign affairs. When their support is necessary to form an alliance, such elites have some influence over treaty design, but they must balance the goal of alliance formation with limiting commitment depth. This tension and related bargaining will often produce alliances with some depth, but less than incumbent leaders would prefer, all else equal.

Full alliance opponents have incentives to check treaty depth, however. These elites can anticipate the consequences of treaty depth for their foreign policy flexibility should they win office. When elites oppose an alliance, they will not support a deep alliance treaty. Executive constraints, which are a key factor in democratic foreign policy, increase the potential influence of alliance opponents over treaty design. In addition to competitive elections, many democracies check the power of the executive with coequal branches of government, especially courts or legislatures. For example, legislative ratification of alliance treaties gives other branches of government treaty design input.

Although executive constraints increase the potential influence of alliance skeptics, they are unlikely to restrict treaty depth. So long as the incumbent has enough support for alliance formation from voters, alliance opponents will have limited influence. When the incumbent has popular support, opponents have limited power to use the threat of electoral punishment as a check on treaty depth. Essentially, popular support provides the incumbent with a winning coalition that blocks alliance skeptics.

Moreover, when voters support alliance formation, they are unlikely to disapprove of treaty depth. In fact, voters may see close cooperation with allies as appropriate. Leaders can also make

the case that defense cooperation in an alliance will reduce their country's defense burdens through specialization and more efficient defense spending. Therefore, voters are unlikely to restrain treaty depth, conditional on approval of the alliance itself. If a leader has enough public support to negotiate and form an alliance, public opinion is unlikely to check treaty depth.

Domestic constraints clearly suggest that observed alliance treaties are the result of a selection process.[7] When an incumbent has domestic support for alliance formation, they can also offer a deep alliance treaty. The domestic coalition behind an alliance could reflect agreement between the opposition and leading elites, or limited opposition power to offset voter support. Limited voter concerns over the specifics of alliance treaty design attenuate the ability of opposition elites to restrict depth and alliance commitments. If opposition elites cannot mobilize a coalition to block alliance formation, they will be unable to hold the incumbent to a shallow treaty.

2.4 Predictions

Democratic institutions lead to deeper alliances as leaders seek to manage the problem of cycling. Election democracy encourage incumbent leaders to form deep alliances so that their alliance commitments will endure. Selecting leaders through elections raises the prospect of leadership turnover and cycling that limits the ability of a democracy to sustain credible commitments. Elections are therefore the key characteristic of democracy for understanding treaty depth. As noted earlier in the argument, I conceptualize democratic influence in terms of the political institutions of the most capable alliance member.

The extent of electoral democracy in an alliance leader depends on the presence of elections, meaningful electoral competition, and enfranchisement. Elections and competition raise the potential of regular leadership turnover. Full enfranchisement creates the possibility of greater cycling, as elections may empower different coalitions under a broad franchise.

Because depth helps address cycling concerns from leadership changes, democracies will often

[7] I account for selection in one statistical model in the empirical section.

design deep alliance treaties. Therefore, greater electoral democracy in the most capable alliance member at the time of treaty formation will increase treaty depth.

> ELECTORAL DEMOCRACY HYPOTHESIS: GREATER ELECTORAL DEMOCRACY IN THE MOST CAPABLE ALLIANCE MEMBER AT THE TIME OF FORMATION WILL INCREASE ALLIANCE TREATY DEPTH.

This argument is slightly different from existing arguments linking democracy and alliance treaty design, which rely on the audience costs of future treaty violations. Mattes (2012*b*) and Chiba, Johnson and Leeds (2015) attribute democratic states' preference for conditional military support to careful audience costs management. In this argument, democratic leaders make limited commitments that are easier to fulfill in anticipation of removal from office from violating international commitments.[8] Limiting alliance commitments through conditional military support reduces audience costs because it is easier for democratic leaders to claim that the conditions for intervention were unmet (Fjelstul and Reiter, 2019), or that new information eliminates intervention obligations (Levendusky and Horowitz, 2012).

The electoral democracy and audience costs arguments have important similarities and differences. One reason treaty depth limits cycling in alliance commitments is that leaders may pay audience costs for violating deep alliance provisions. Rather than restrict audience costs to specific future contingencies, however, depth raises potential audience costs for future leaders with different interests. Depth allows leaders to make costly alliance commitments that precommit their successors to the alliance (Mattes, 2012*a*). In an audience costs argument, leaders fear that future treaty violations will weaken their electoral support, and reason backwards from this to alliance treaty design. Electoral politics relies on incumbents anticipating a change in the ruling coalition, and seeking to maintain credible alliance commitments.[9]

[8] See Hyde and Saunders (2020) for a more general framework of domestic constraints on foreign policy.

[9] Leadership turnover might factor into democracies' tendency to offer conditional support. Leaders may use conditional support to ensure that their successors will fulfill alliance obligations.

My argument uses electoral competition to explain why democracies often form deep alliances. What about autocracies? Autocracies select leaders in many ways. For example, in single-party states, leaders rely on support from domestic elites, which affects their foreign policy decisions (Weeks, 2014). Elite turnover in single party states usually keeps the same coalition in power, however. Leadership change in personalist regimes is more likely to be irregular and include regime change. Treaty depth is unlikely to sustain an alliance after regime change. In general, no autocracy has the same concern of regular cycling between different coalitions as democracies. Therefore, assuming that all autocracies are equivalent, relative to democracies is sufficient for testing the electoral politics argument.[10]

I expect that democratic alliance leadership will increase treaty depth through elections. In the next section, I describe my test of the association between democratic alliance leadership and alliance treaty design. I first describe the key variables in the analysis, then provide more detail on the estimation strategy.

3 Research Design

To examine whether democracies are more likely to form alliances, I employ data from the Alliance Treaty Obligations and Provisions (ATOP) project (Leeds et al., 2002). The analysis focuses on the design of 289 alliances with either offensive or defensive obligations. First, I measure treaty depth in these alliances with active military support.

I measure treaty depth with a semiparametric mixed factor analysis of eight ATOP variables (Murray et al., 2013). This measurement strategy has two advantages. First, unlike other measures, this approach captures the full spectrum of variation in defense cooperation across alliances. This latent variable approach is more flexible than an ordinal measure (Leeds and Anac, 2005) and more

[10]Examining heterogeneity among autocracies in alliance treaty design is an interesting subject for future research, however.

focused on defense cooperation than another latent measure (Benson and Clinton, 2016).[11] Besides matching my conceptualization of treaty depth, the estimator relaxes distributional assumptions about the correlation between the factors and latent variable, making it more flexible and robust than other factor analytic models. Added flexibility from the semiparametric component aside, this model is a standard mixed Bayesian factor analysis. Based on the argument, I fit the model with a single latent factor, and the results corroborate this expectation.[12] An eigenvalue decomposition of the posterior mean correlations between the observed variables suggests that one latent factor explains most of the observed variation in the different sources of treaty depth.[13]

My depth measure is essentially a weighted combination of ATOP's defense policy coordination, military aid, peacetime integrated military command, formal organization, companion military agreement, specific contribution, wartime subordination and basing rights variables. The weight of each variable is estimated by the measurement model, so it is driven by the data. All eight variables increase alliance treaty depth, but defense policy coordination and an integrated command add the most to depth, as shown in the top panel of Figure 1. Thus, policy coordination and formal organizational ties are the primary sources of treaty depth.

These factor loadings are sensible. Defense policy coordination, peacetime integrated command structures and formal organizations all draw alliance members into closer peacetime defense cooperation. The other variables do not require as much direct cooperation, with the potential exception of bases. Although bases are costly, they also serve multiple functions and may not require as much direct cooperation. In addition to deterrence and increasing alliance credibility, states often use basing obligations to project power, so bases are used for other purposes besides promoting cooperation between allies, while the other factors provide for more direct cooperation.

The measurement model predicts the treaty depth of each alliance using the factor loadings.

[11] See the appendix for results with measures by Leeds and Anac (2005) and Benson and Clinton (2016), which lead to similar inferences. I also discuss the relative advantages of my measure in more detail.

[12] This is a confirmatory factor analysis, not an exploratory analysis.

[13] Also, a model with one latent factor converges, while a model with two factors does not converge. Such model-fitting difficulties can indicate misspecification.

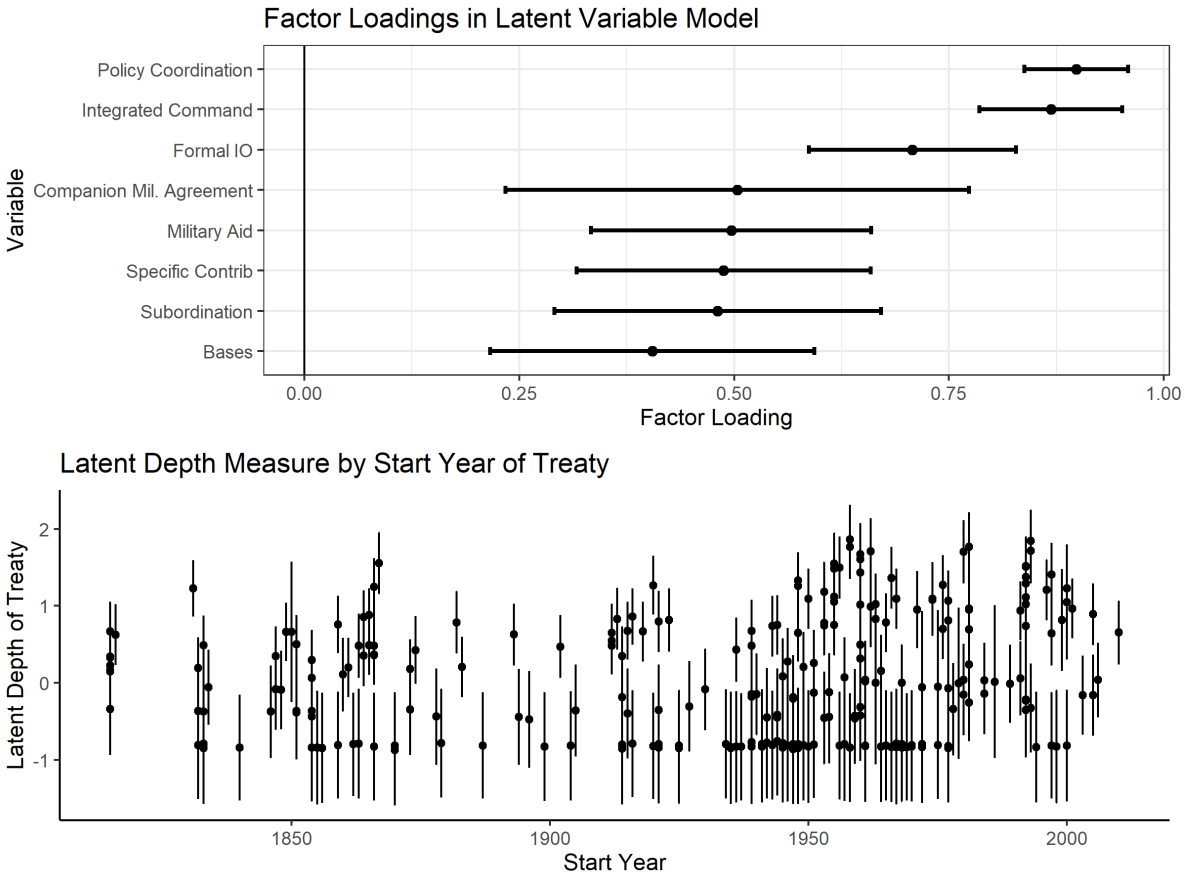

Figure 1: Factor loadings and posterior distributions of the latent alliance treaty depth measure. Estimates from a semiparametic mixed factor analysis of offensive and defensive ATOP alliances from 1816 to 2016.

The bottom panel of Figure 1 summarizes the posterior distributions of the latent treaty depth measure for every alliance in the data. There is substantial variation in alliance treaty depth. Around half of all alliance treaties have some depth, and depth varies widely across alliances. In the analysis, I measure treaty depth using the mean of the latent depth posterior for each alliance. The posterior mean captures the central tendency of latent treaty depth, and I show in the appendix that results are robust to accounting for uncertainty in the latent measure.

The key independent variable is an ordinal indicator of electoral democracy in the most capable alliance member during the year of alliance formation. I use the the Lexical Index of Electoral Democracy (LIED) (Skaaning, Gerring and Bartusevičius, 2015) to measure electoral democracy. This ordinal measure assesses the extent of electoral democracy in a country based on six components and ranges from zero to six. States with no elections of any kind have an index score of zero, while single-party elections receive score a one. Multiparty elections for legislature or executive roles that fall short of a minimum competition threshold score a two or three. States with minimally competitive multiparty elections for executive and legislative roles have an index score of four, and scores of five and six come from an expanded franchise.

I retain the full range of the electoral index of democracy for two reasons.[14] First, unlike some measures of democracy, the LIED scale isolates the key concept of my argument. Furthermore, the order of the scale places competitive elections before full suffrage, in contrast to other measures of electoral democracy, which give participation and electoral institutions equal weight. Widespread participation is only meaningful if leaders face some risk of removal through elections.

After measuring the lexical index for each country in an alliance, I identify the alliance leader. I code the alliance leader as the state with the largest composite index of national capabilities (CINC) score (Singer, 1988), and measure their LIED score in the year the alliance formed. The LIED of the most capable state therefore emphasizes the influence of the most capable alliance

[14] In the appendix, I report findings with a dummy indicator of full electoral democracy, which produces similar inferences.

member and the prevalence of electoral democracy in that state.

I also measure executive constraints to examine whether it allows the opposition to check treaty depth. Furthermore, constraints are positively associated with electoral democracy. I set an executive constraints dummy equal to one if the executive constraints concept in the Polity data codes a state as having executive parity or subordination to other branches of government. 85 of the 289 alliances have such executive constraints on the leader of the most capable state.

3.1 Estimation Strategy

I use several statistical models to estimate the association between democratic political institutions and treaty depth, including a two-stage hurdle model to account for selection into alliances. Modeling depth is complicated because the latent measure is skewed. To facilitate model fitting, I rescaled latent depth to range between zero and one and modeled it with a beta distribution.[15] The flexibility of the beta distribution helps predict mean latent depth.[16] The alliance leader democracy measures are the key independent variables in all these model specifications.

In the regression models, I control for several correlates of treaty design and democratic institutions of the alliance leader. Key controls include dummy indicators of asymmetric alliances between non-major and major powers and symmetric alliances between major powers (Mattes, 2012*b*)[17] as well as the average threat among alliance members at the time of treaty formation (Leeds and Savun, 2007). I also control for foreign policy similarity using the minimum value of Cohen's κ in the alliance (Häge, 2011). I draw on the ATOP data (Leeds et al., 2002), to adjust for for asymmetric treaty obligations, the number of alliance members and whether any alliance members were at war. To capture the role of issue linkages in facilitating alliance agreements and

[15] I also considered log-logistic, Dagum and inverse Gaussian distributions for the outcome, but AIC and residuals showed that the beta distribution gave the best model fit.

[16] Using a beta distribution for the depth outcome also facilitates fitting models that account for uncertainty in the latent measure, which I include in the appendix. I also fit OLS and robust regression models of treaty depth without any rescaling, which lead to similar inferences. Results in the appendix.

[17] This leaves symmetric alliances between major powers as the base category for these two binary variables.

credible commitment (Poast, 2012, 2013), I include a dummy indicator of whether the alliance made any economic commitments. I also include an indicator of unconditional military support, which is correlated with democracy (Chiba, Johnson and Leeds, 2015) and perhaps treaty depth. I adjust for a count of foreign policy concessions in the treaty, because concessions facilitate agreement in alliance negotiations (Johnson, 2015). Last, the model accounts for the role of time and the international context by with a dummy indicator of alliance formation after 1945 and estimating the model in samples before and after 1945.[18]

4 Results

I find that electoral democracy in the most capable alliance member leads to deep alliance treaties. This pattern is apparent first in the raw data. Alliances where the leading alliance member had full electoral democracy were deeper on average, as the top panel of Figure 2 shows. Many alliances with a democratic leader and treaty depth formed after 1945, but there are alliances before World War II that also fit this pattern.

The data in Figure 2 does not adjust for potential confounding factors, however. Table 1 presents coefficient estimates from a series of beta regression models. In the first model, the most capable alliance member's polity score is the key independent variable. The second model divides democratic institutions into the lexical index of electoral democracy and executive constraints dummy. The third model estimates the same model on alliances before 1945. The final model estimates the association between electoral democracy, executive constraints, and treaty depth among alliances after 1945.

These estimates are broadly consistent with the argument. The net effect of more democratic institutions is increased treaty depth, per the alliance leader polity estimate in Model 1. Model 2 then suggests that this positive association is the result of electoral democracy, as increasing

[18]I also check whether findings about democracy are driven the United States. See the appendix for results with an additional control for U.S. membership, which are similar to the inferences below.

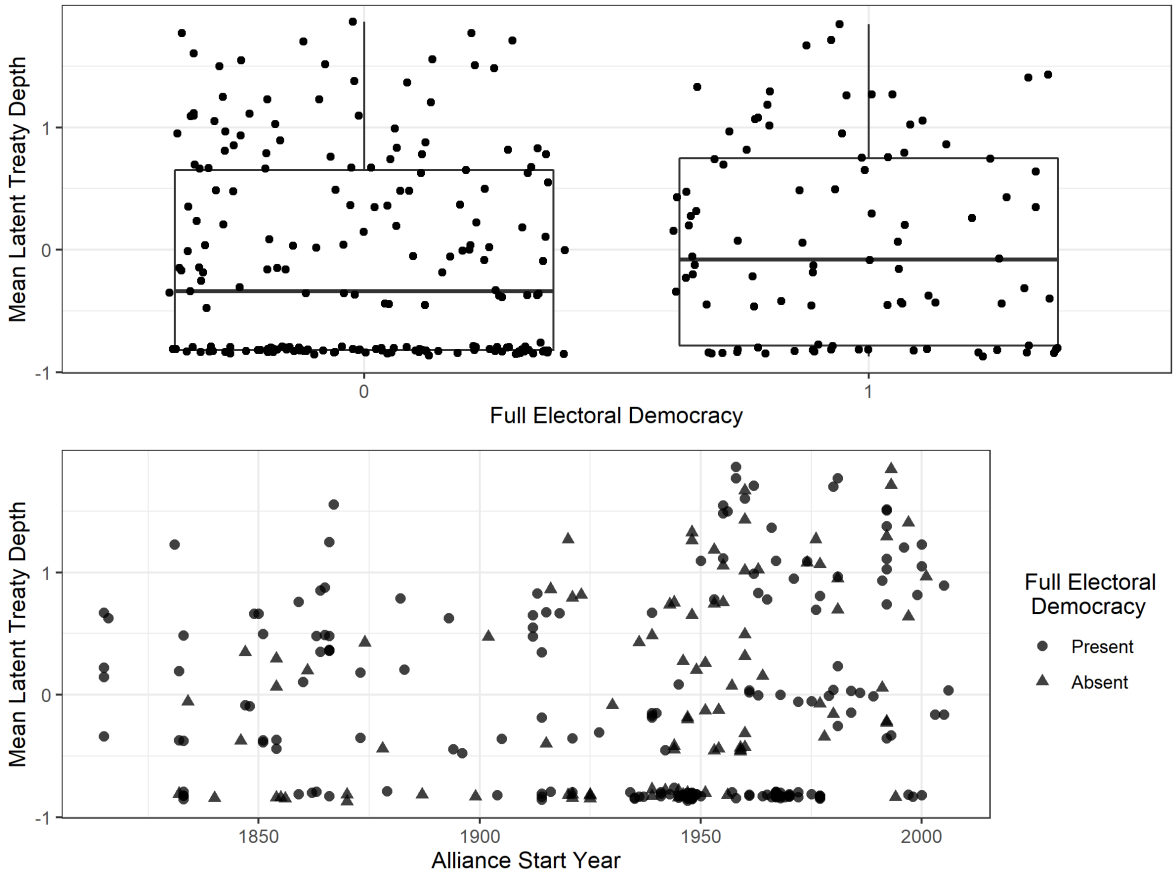

Figure 2: Summary of raw data for alliance treaty depth and competitive elections. The top panel shows a boxplot with the distribution of mean latent treaty depth under alliances where the most capable member high electoral democracy, and alliances where the leader does not have electoral competition. The bottom panel plots mean latent treaty depth over time, and marks alliances with competitive elections in the most capable state with triangular points.

electoral democracy encourages alliance leaders to form deep alliances. Executive constraints has the opposite effect on alliance treaty design and reduces treaty depth. Although the effects are in the expected direction among alliances before 1945, the association is weaker and more uncertain.[19] Model 4 shows that the pattern of electoral democracy, executive constraints and treaty depth is more pronounced after 1945.

Inferences about the control variables are also interesting. More alliance members and asymmetric capability both increase depth, as does external threat. The association between threat and depth is stronger before World War II, while multilateral alliances after 1945 are usually deeper. Unconditional military support and treaty depth are positively correlated, especially after 1945.

To assess the substantive impact of elections, I estimated the marginal effect of electoral democracy. In the scenarios, I held all other variables at their mode or median, varied the lexical index of electoral democracy across its full range and altered the presence or absence of electoral constraints. Figure 3 plots the estimated marginal effect of electoral democracy across 14 combinations of executive constraints and electoral democracy, holding all else equal.

Electoral democracy has a clear substantive impact on alliance treaty depth. The marginal effect of full electoral democracy in the alliance leader ranges between .29 and .45 more latent depth when executive constraints are also present. I focus on this estimate because most states with full electoral democracy also have executive constraints. As rescaled depth ranges between zero and one, these are large substantive effects.

Figure 3 shows that the extent of electoral democracy affects alliance treaty design. When alliance leaders face electoral scrutiny, they are more inclined to form deep alliances. Executive constraints attenuate this relationship, but do not eliminate the positive marginal effect of electoral democracy on alliance treaty depth.

My argument implies that a selection process is present, however. Observed treaty depth reflects situations where leaders have voter approval to form an alliance. But observed alliances

[19]The increased uncertainty is partially the result of a smaller sample.

	Dependent variable:			
	Latent Depth (rescaled)			
	(1)	(2)	(3)	(4)
Alliance Leader Polity	0.025			
	(0.004, 0.046)			
Lexical Index of Democracy		0.209	0.113	0.229
		(0.115, 0.303)	(−0.065, 0.291)	(0.110, 0.348)
Executive Constraints		−0.797	−0.416	−0.987
		(−1.241, −0.353)	(−1.137, 0.306)	(−1.635, −0.339)
Economic Issue Linkage	−0.187	−0.214	0.286	−0.344
	(−0.510, 0.137)	(−0.533, 0.104)	(−0.175, 0.747)	(−0.781, 0.093)
Unconditional Support	0.439	0.424	0.064	0.516
	(0.133, 0.746)	(0.120, 0.729)	(−0.450, 0.578)	(0.139, 0.893)
Foreign Policy Concessions	−0.012	−0.069	0.109	−0.200
	(−0.176, 0.153)	(−0.233, 0.094)	(−0.118, 0.336)	(−0.439, 0.038)
Number of Members	0.017	0.034	−0.012	0.068
	(−0.010, 0.044)	(0.007, 0.061)	(−0.056, 0.031)	(0.030, 0.106)
Wartime Alliance	−0.187	−0.017	−0.069	−0.134
	(−0.566, 0.192)	(−0.394, 0.360)	(−0.468, 0.331)	(−1.117, 0.850)
Asymmetric Obligations	0.153	0.241	0.066	0.345
	(−0.194, 0.500)	(−0.104, 0.586)	(−0.335, 0.468)	(−0.252, 0.941)
Asymmetric Capability	0.393	0.333	0.558	0.121
	(−0.077, 0.863)	(−0.134, 0.800)	(0.092, 1.024)	(−0.343, 0.586)
Non-Major Only	0.160	0.138	0.252	
	(−0.358, 0.677)	(−0.376, 0.651)	(−0.330, 0.834)	
Average Threat	0.874	0.965	1.643	0.653
	(0.038, 1.710)	(0.132, 1.798)	(0.419, 2.867)	(−0.487, 1.793)
Foreign Policy Disagreement	0.295	0.215	0.440	0.043
	(−0.186, 0.775)	(−0.256, 0.686)	(−0.163, 1.044)	(−0.712, 0.798)
Post 1945	0.208	0.196		
	(−0.169, 0.584)	(−0.175, 0.566)		
Constant	−1.658	−1.956	−2.536	−1.347
	(−2.399, −0.916)	(−2.741, −1.170)	(−3.511, −1.562)	(−2.374, −0.320)
Observations	276	276	118	158
Log Likelihood	56.692	63.188	44.319	35.603
Note:				95% Confidence Intervals in Parentheses.

Table 1: Beta regression estimates of the association between alliance leader democracy and treaty depth from 1816 to 2012.

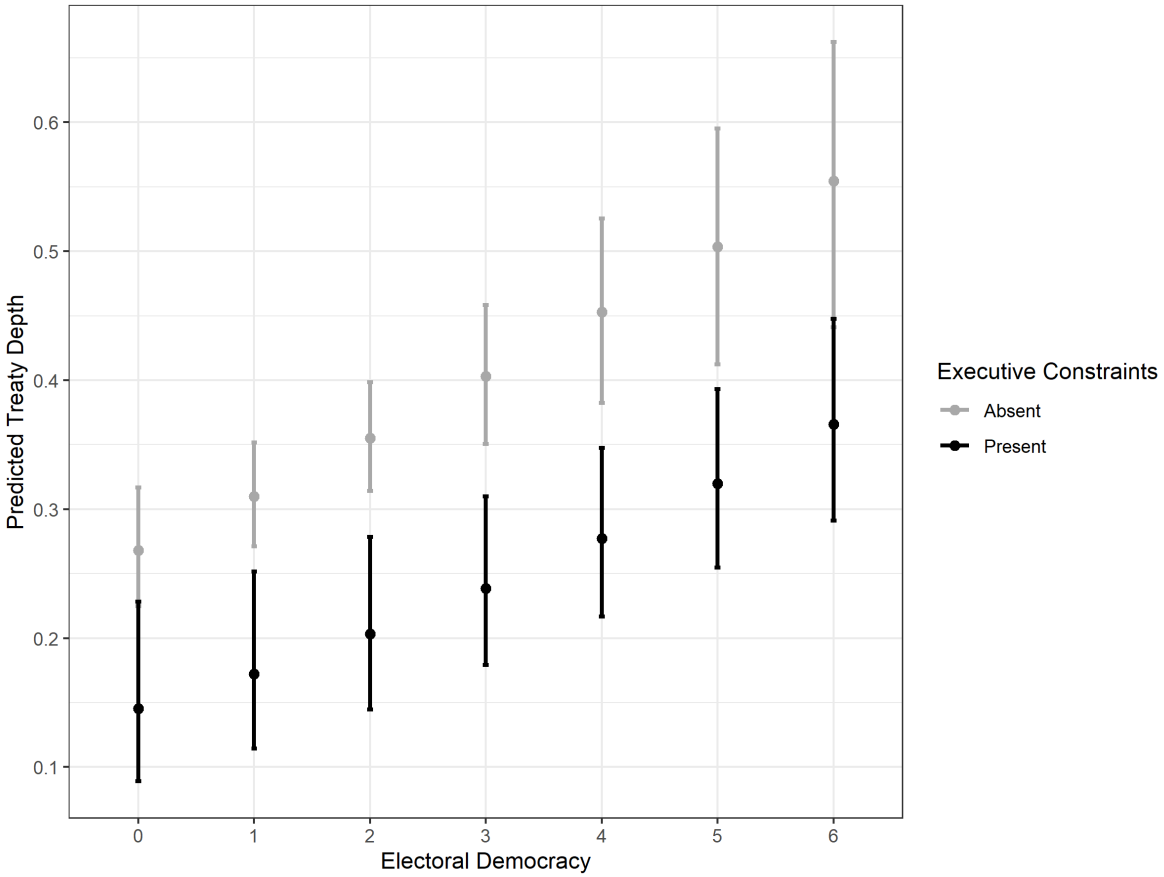

Figure 3: Predicted difference in treaty depth and the probability of unconditional military support relative to a hypothetical alliance where the most capable state has no electoral democracy. Each scenario plots the estimated difference in treaty depth. All other variables held at their mean or median, expect for executive constraints, which varies between zero and one.

are not a random sample— they are the result of successful negotiations (Poast, 2019). In the next section, I check the robustness of these results by accounting for non-random selection into alliances.

4.1 Hurdle Model of Treaty Depth

Observed alliances are the result of negotiations between potential members, so the set of observed alliances is not a random sample. Rather, alliance members overcame the many obstacles to treaty formation (Poast, 2019). In this section, I account for non-random alliance formation by fitting a hurdle model to data that combines a stratified random sample of non-allied groups of states with observed alliances. This research design produces similar inferences: electoral democracy in the most capable alliance member increases treaty depth. I also find a weaker association between executive constraints and treaty depth.

My research design for this robustness check follows established procedures for dealing with selection into alliances and treaty design. I followed the suggestions of Poast (2010) for k-adic data, because some alliances have more than two members. First I constructed a random sample of groups of states that could have formed an alliance in each year, but did not (Fordham and Poast, 2014). Then I took a stratified sample of the non-allied k-ads to include five times as many non-allied observations as alliance observations for each observed value of alliance size. For example, there are 215 bilateral alliances, so I sampled 1075 non-allied bilateral groups. There is only one alliance with 34 members, so I added five non-alled k-ads with 34 members. Finally, I summarized key characteristics of these non-allied k-ads, including average Polity score, the electoral democracy of the most capable member, the number of members, mean threat, asymmetric capability, and wartime, and merged the non-allied data with the observed alliance data.

To model alliance treaty alliance design, I emulated the research design of Chiba, Johnson and Leeds (2015), who estimated a hurdle model to assess whether democracies were more likely to offer conditional obligations. Hurdle models have two stages or parts which account for non-

random selection into alliances. A first stage model predicts which observations clear the hurdle to a second stage with non-zero outcome values. Observed alliances are the set of observations that cleared the hurdle and have an alliance treaty. Unlike a sample selection model, the second stage in a hurdle model is logically undefined, which is how alliance treaty design works.[20] Unless states overcome the barriers to alliance formation, no agreed treaty content exists.

Unlike Chiba, Johnson and Leeds (2015), however, I examine a continuous measure of alliance treaty design with latent depth. Therefore, I estimate a Bayesian gamma hurdle model using the BRMS package for R, which employs STAN for fully Bayesian inference (Bürkner, 2017). To have zero values for the outcome at the hurdle stage and positive values for the gamma-distributed outcome, I adjusted the scale of the latent depth measure by adding one, which shifted the distribution onto uniformly positive values. K-ads without an observed alliance then had a depth score of zero.

In both models, I use average democracy, alliance leader executive constraints and electoral democracy, mean threat, asymmetric capability, wartime, group size and year varying intercepts to predict whether each group of states clears the alliance formation hurdle. In the second stage, electoral competition and executive constraints in the most capable alliance member, the number of members, mean threat, dummy indicators of asymmetric capability wartime and year varying intercepts model treaty depth in observed alliances.

After accounting for non-random alliance formation with the hurdle model, I find partially similar results about democratic institutions. Figure 4 plots the marginal effect of the two democratic institution measures based on the hurdle model estimates. This figure shows the predicted marginal effect of electoral democracy and executive constraints in the alliance leader on shifted treaty depth, along with 95% credible intervals. Electoral democracy in the most capable alliance member increases treaty depth, but the effect of executive constraints is weaker than the single-equation results.

[20] Hurdle models also do not require an exclusion restriction for identification.

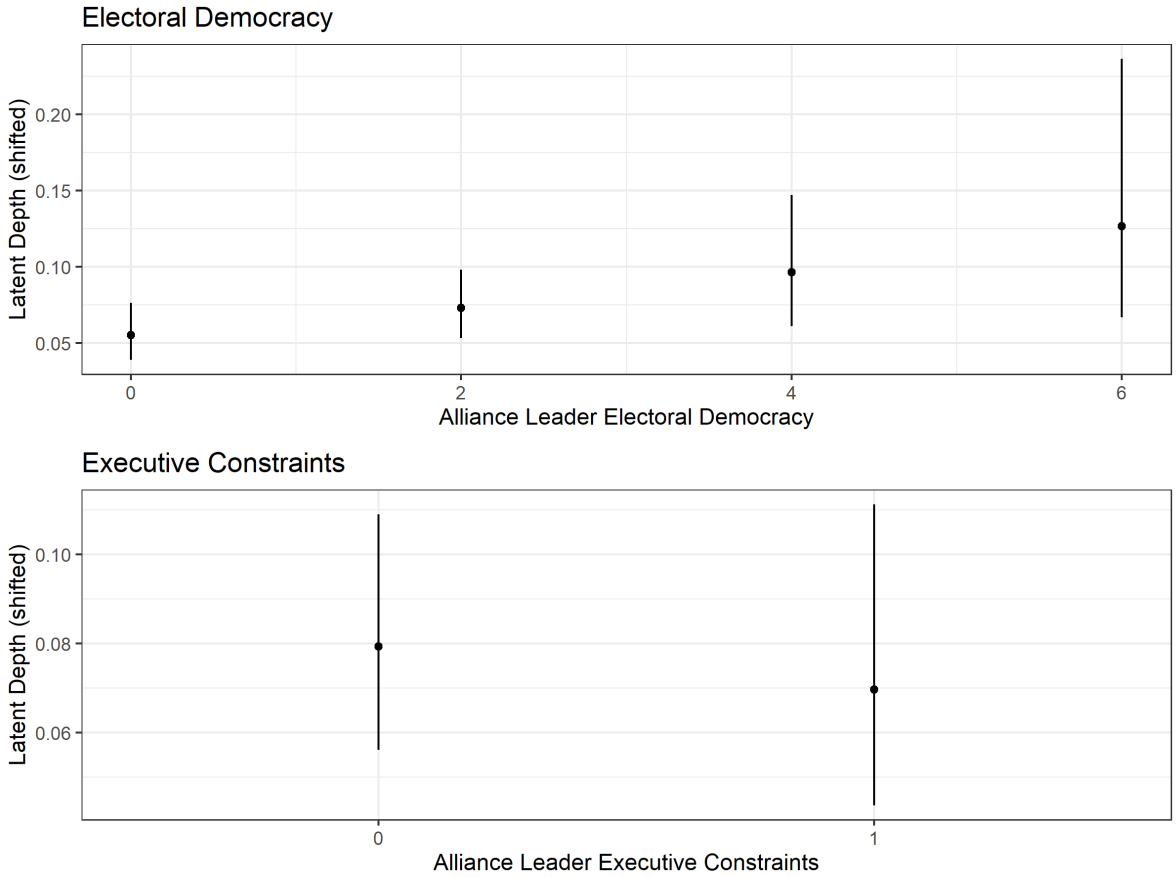

Figure 4: Predicted treaty depth by electoral democracy and executive constraints in the most capable alliance member when the treaty formed. Estimates are based on a hurdle model of alliance treaty depth. The line marks predicted values, and the shaded areas encapsulate the 95% credible interval. Predictions hold all other variables constant.

Even after considering non-random alliance formation, electoral democracy encourages deep alliances. When democratic leaders successfully pursue an alliance agreement, they then try to buttress the alliance against leadership turnover through depth. After accounting for non-random selection into alliances, executive constraints are not associated with shallower alliances. When the opposition cannot or does not check alliance formation, they have limited influence over treaty depth.

The results of these statistical models imply that democratic institutions impact alliance treaty design. Electoral democracy pushes alliance leaders to form deep alliances. After accounting for non-random selection into observed alliances, executive constraints do not check treaty depth. To illustrate the theoretical process more directly, I now examine the North Atlantic Treaty Organization (NATO).

4.2 NATO Treaty Design

I use NATO to show the theoretical mechanisms for two reasons. First, the process behind NATO applies to multiple alliances, as other US alliance treaties have similar designs. Second, NATO is the most important alliance in international politics, as it has a crucial role in the structure of international relations by tying the United States to Europe. Because NATO is an exceptionally durable and consequential alliance, understanding how the treaty formed is worthwhile. In this brief discussion, I do not offer a comprehensive picture of NATO negotiations.[21] Instead, I highlight the rationale behind alliance treaty depth in NATO, which includes the Atlantic Council and basing rights.

After World War II, the United States sought to protect Europe from the USSR. Although the United States and Europe both perceived a serious threat, establishing a credible promise of military intervention was difficult. The United States had to overcome European fear of transient U.S. commitment. Sayle (2019, pg. 14) highlights the importance of U.S. domestic political

[21] See Kaplan (2007) and Poast (2019) for useful overviews of the NATO negotiations.

change by noting that, "the future allies of the United States knew how easily presidents, and their commitments, could change. They wanted an agreement that would survive the transition from one president to the next."

To increase the credibility and perceived durability of NATO, the United States used treaty depth. A 1949 State Department telegram explicitly connected costly cooperation and reassurance, by noting the view of two ambassadors that "Delay in the aid program would resurrect doubts as to the dependability and consistency of US policy" (Department of State, 1949). A 1951 presentation by Dean Acheson to Dwight Eisenhower argued that European allies "fear the inconstancy of United States purpose in Europe. ... These European fears and apprehensions can only be overcome if we move forward with determination and if we make the necessary full and active contribution in terms of both military forces and economic aid" (Acheson, 1951, pg. 3).

To start, the US supported the Atlantic Council, an international organization and the main source of depth in the NATO treaty. The United States used the Atlantic Council to coordinate collective defense and increase the perceived reliability of the alliance. Investing in the Atlantic Council and related joint military planning helped assuage European fears. For example, US officials thought that the British Foreign Minister viewed US provision of a supreme commander in Europe as "a stimulus to European action" in NATO (Acheson, 1950). The "organization and integrated military command ... helped alleviate European concerns about the less-than-rock-solid article 5" (Sayle, 2019, pg. 26).

NATO also added formal approval of basing rights for U.S in a 1951 additional protocol. Bilateral agreements on troop deployments thus became another instrument of reassurance. In 1950 the Germans formally requested clarification on whether an attack on US forces in Germany would be treated as an armed attack on the United States- and US policymakers said that it would (Acheson, 1969, pg. 395). Many European members saw troop deployments as a guarantor of stable U.S. commitment. U.S. troop deployments also assured other allies that German militarism would not threaten Europe. Even after World War II, a continued U.S. presence in Europe was not a given, as

many Congressmen pushed for U.S. troops to leave Europe, and the United States regularly stated aspirations that Europeans would eventually provide all of their security (Sayle, 2019, pg. 20).

There is also evidence that U.S. leaders thought depth could be used to "sell" NATO to the public. Policymakers justified NATO participation in part by arguing that it would facilitate more efficient defense spending. In an interview with NBC on March 29, Ambassador at Large Philip Jessup argued that "One defense program is cheaper and more effective than a dozen national programs. It entails the pooling of information, a joint defense strategy and a pooling of military resources for defense." This claim was meant to assuage concerns that NATO would reduce the US "peace dividend" after World War II.

In NATO, allied concerns with leadership change encouraged deep military cooperation, which reassured European allies of U.S. commitment. This suggests that the theoretical mechanisms are plausible. In the next section, I summarize some implications of the results from this case discussion and the statistical models and offer concluding thoughts.

5 Discussion and Conclusion

The statistical models generate consistent evidence for the depth and democracy hypothesis, and the NATO illustration suggests that the theoretical mechanisms are plausible. Electoral democracy is positively correlated with treaty depth across several models, including one that accounts for selection into alliances. This reflects efforts to limit the impact of cycling and leadership changes on alliance credibility.

The above argument and evidence have two limitations. First, I only examine variation in formal treaty design. This omits treaty implementation, which can diverge from the formal commitment. Formal treaty depth often reflects practical depth, but it may understate some differences between alliances. Changes in realized alliance depth are a useful subject for future inquiry, but will require extensive data collection. Second, I examine 280 alliances, so the sample size is lim-

ited. Inferences from small samples can be more sensitive to model and data changes.

Shortcomings aside, this paper has three implications for scholarship. First, alliance treaty design is often driven by domestic political considerations as well as international high politics. Attempts to ensure commitment by successors who represent different coalitions encourages democratic leaders to design deep alliance treaties.

Second, democracies do not make fully limited alliance commitments. Even if democracies impose conditions on military support, treaty depth adds costly obligations. As a result, democracies make robust alliance commitments in one way, and limited commitments in another.

Last, some of the lessons from this work might apply to the design on international institutions in general (Downs and Rocke, 1995; Martin and Simmons, 1998; Koremenos, Lipson and Snidal, 2001; Thompson, 2010). In the same way that democracies use depth to support allies while managing electoral politics, democracies may undertake deep international commitments in other ways. The same mix of limited core obligations and deep cooperation may characterize other international institutions with democratic leadership.

The findings raise several questions for future research. For one, they address debates about whether democracies make more credible commitments. The net effect of democracy on alliance credibility includes conditions on military support, treaty depth, and the direct effect of democratic institutions and domestic politics. These three mechanisms may have competing or conditional effects, which could explain mixed findings about the credibility of democratic commitments (Schultz, 1999; Leeds, 1999; Thyne, 2012; Downes and Sechser, 2012; Potter and Baum, 2014). Future research should combine the components of democracy and democratic alliances to asses the net effect of democracy on credible commitment in international relations.

Scholars should also consider how alliance treaty design varies across different types of autocracies. The extent and sources of political competition in autocracies varies widely. Differences in who selects leaders and what information those actors have about foreign policy (Weeks, 2008) may help explain alliance treaty design. For example, personalist leaders with few public or elite

constraints on their foreign policy may design alliances with depth and unconditional military support. Single party states where leaders face an informed elite may prefer fully limited commitments with shallow and conditional obligations.

Furthermore, scholars might consider how different aspects of alliance treaty design are related (Fjelstul and Reiter, 2019). As states attempt to make credible alliance commitments, they employ a variety of treaty obligations. Scholars should examine how conditions on support, depth and issue linkages are related in alliance treaty design.

In conclusion, electoral democracy encourages democracies to use treaty depth to increase the credibility of their alliances. Deep alliances reassure democracies' alliance partners in the face of potential leadership turnover. By shaping leaders' path to and from office, domestic political institutions influence how states build credibility in alliance treaties.

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