TRUSTING A DICTATOR:

The Effects of Institutional Variation among Autocracies on Signing and Complying with International Treaties

Olga Chyzh

University of Iowa

olga-chyzh@uiowa.edu

Abstract

Institutional variation among dictatorial regimes (civilian vs military, personalist vs oligarchic) helps explain why some dictators are more likely than others to sign and uphold treaties. In this paper, signing treaties and compliance are modeled as a two-stage process. The two outcomes—signing and complying—are related, yet distinct, processes influenced by regime institutions in different ways. I draw on two causal mechanisms identified in the literature on democratic regimes: the audience costs and the "checks and balances." I examine the interplay of these two mechanisms to explain authoritarian regimes' tendencies to sign and comply with agreements. *Oligarchic* dictators are more likely to make agreements, because they strategically use them as side-payments to the members of their winning coalition. While attractive, this strategy is less available to *party-based* dictators, constrained by domestic institutions. *Military* regimes also sign more agreements, but for different reasons: first, they are simply less constrained to do so, due to greater hierarchy; second, they are less worried about facing audience costs for possible non-compliance, because of shorter expected terms in office. The above reasons also result in lower levels of compliance on the part of *military* dictators. In view of their audience costs, both *oligarchic* and *party-based* regimes take compliance with agreements more seriously. *Personalist* regimes, on the other hand, are less likely to comply. I test my hypotheses with a two-stage Heckman probit estimator, using Issue Correlates of War (ICOW) data on contentious territorial, maritime, and river claims (1945 to 2001).

Introduction

Even a brief survey of international relations (IR) literature demonstrates the breadth of scholarly knowledge on democratic participation in international agreements (Keohane and Nye 1977; Kegley and Raymond 1990; Cowhey 1993; Slaughter 1995; Gaubatz 1996; Simmons 1999; Dixon and Senese 2001; Gartzke and Gleditch 2004; Leeds et al 2009; Ellis, Mitchell and Prins 2010). The subject of authoritarian[1] involvement in such agreements, on the other hand, has been breached by few scholars. From purely empirical observation, we know that some dictators honor their international commitments, even in the face of serious domestic discontent, while others do not. For example, the military dictatorship of Thailand upheld the 1941 Thai-Japanese Alliance called into effect by the Allied declaration of war on Japan, even in the view of a substantial anti-Japanese resistance movement (Kratoshka 2002; Chaloemtiarana 2007). On the other hand, Turkey's dictator violated its 1939 alliance with the United Kingdom, by hedging his bets on the coming war and signing a non-aggression pact with Nazi Germanyin June 1941 (Leitz 2000, 92). Can we explain this variation?

The goal of this paper is to improve our knowledge of whether and when nondemocracies sign agreements and uphold them. Since nearly half of the world's states are governed by authoritarian leaders[2], better understanding of their participation in international treaties will make a worthy contribution to the study of IR.

---

[1] Note that the terms "authoritarian", "autocratic", and "nondemocracies" are used interchangeably.

[2] In Polity IV Project dataset, 497% (79 out of 159) of states for which data is available for 2006 are coded as nondemocracies (Marshall et al 2007).

Uncertainty about other states' intentions is a significant obstacle to international cooperation (Jervis 1976; Fearon 1994a; Weeks 2008). In conditions of anarchy, failure to rightfully predict other states' behaviors creates a "security dilemma" and makes conflict more likely. One needs to understand states' intentions in order to predict how intense the "security dilemma" will be (Kydd 2000; Schweller 2010). Information on authoritarian states' trustworthiness as negotiation partners can help alleviate the security dilemma and promote more effective foreign policies towards such states. This knowledge is important not only for its theoretical implications, but also for its practical implications for policymakers.

This paper employs a novel typology of authoritarian regimes (Slater 2003; Lai and Slater 2006). This typology aligns authoritarian regimes along two dimensions: despotic power (personalist vs. oligarchy) and the type of infrastructural power (military vs. party). As shown in Table 1, the four distinct regime types that are generated by this typology are strongman, bossism, junta, and machine. Strongman is a regime type with high power concentration (a personalist regime) that depends on military for enforcement. Though also characterized by high power concentration, bosses rely for enforcement on party infrastructure. The two types of oligarchic regimes are junta and machine. While deriving their power from the military, similar to strongmen, juntas are characterized by greater power-sharing. Finally, machines are represented by a power-sharing arrangement among ruling elites and derives political support from a party.

[Table 1 here]

I employ a rationalist framework to demonstrate that this institutional variation among dictatorial regimes helps explain why some dictators are more likely to sign and/or uphold international treaties. I model these two outcomes—signing and complying with treaties—as

endogenous to each other. At the same time, I argue that each outcome is influenced by regime institutions in different ways. The two dimensions of authoritarian regimes' typology (civilian/military and high/low power concentration) create different cost-benefit structures at the signing and the compliance stages of the process.

This paper proceeds as follows. The first section highlights the contribution of the paper, by pointing to the gap in the knowledge on authoritarian participation in international treaties. I then present my theoretical arguments, followed by empirical tests that employ the Issue Correlates of War (ICOW) data on contentious territorial, maritime, and river claims[3] (Hensel et al 2008). I use a two-stage Heckman probit model to account for the endogeneity between reaching agreements and compliance. Using democracies as a reference category, I show that *military dictatorships* are more likely to sign international agreements. Yet only a subset of *military* dictatorships—*juntas*—are likely to honor international agreements that they sign, their compliance rates being even greater than that of democracies. Meanwhile, the other kind of military dictators—*strongmen*—are less likely to comply with agreements. Along the second dimension—power concentration, I find that *oligarchic* regimes are more likely to sign agreements and generally comply (compliance rate is not different from democracies). *Personalist* dictators, on the other hand, have the same signing rate as democracies, but are less likely to comply. I conclude by discussing the results, the contributions, and the broader implications of this research agenda for the study of IR.

Literature on International Agreements

This literature generally focuses on two broad issues: why states choose to make international commitments in the first place (Dixon and Senese 2002, Morrow 1993; Schweller

[3] The ICOW data and documentation are available at http://www.icow.org.

1993; Sorokin 1994), and what determines whether a state is going to honor or break its commitment (Sabrosky 1980; Chayes and Chayes 1993; Leeds et al 2000). This paper argues that agreement-making and compliance are two inter-dependent processes: states consider their ability to comply when making agreements. Hence, instead of focusing on one of these decisions at a time, we should model them simultaneously (Fearon 1998).

There seems to be a general agreement in the literature on the more cooperative tendencies of jointly democratic disputants. Specifically, jointly democratic dyads are found to have higher probability of reaching agreements (Bueno de Mesquita et al 1999, Dixon and Senese 2002; Ellis, Mitchell, and Prins 2010; Alee and Huth 2006a, b). The literature, however, provides no insights beyond the simple democratic/non-democratic dichotomy, thus ignoring the possible effects of the variation among authoritarian regimes. This paper takes on the task of filling this gap.

A similar void in the literature is observed on the subject of linking regime type and compliance with international agreements. Here too the predominant argument is that democracies are more capable of credible commitments than states that lack democratic characteristics (Smith and McGillivay 2000; Cohwey 1993; Gaubatz 1996; Fearon 1994a; Smith 1996; Leeds 1999; Leeds 2003b; Leeds 2009; but see Gartzke and Gleditch 2004 for a counter-argument). In explaining the effects of joint democracy on both reaching agreements and subsequent compliance, the literature draws on two types of institutional mechanisms: the audience costs (Fearon 1994a, 1997), and the "checks and balances" mechanism (Lipson 2003, Cowhey 1993; Tsebelis and Money 1997).

The proponents of the audience costs argument suggest that democratic institutions promote international credibility by giving a state an important signaling advantage. Democratic

leaders, responsible to large winning coalitions[4], are highly vulnerable to electoral punishment. Therefore, they have a direct interest in honoring international commitments, because in the eyes of domestic support groups, violating international agreements is often linked to "national honor." In other words, failure to uphold international commitments may result in domestic audience costs, such as erosion of support or even removal from power. Thus, fear of domestic audience costs provides democratic leaders with a strong incentive (1) to only make commitments that they are likely to honor and (2) to subsequently uphold these commitments. On the other hand, autocratic regimes are commonly viewed as less susceptible to audience costs and more prone to breaking international agreements (Fearon 1994a, 1997).

The proponents of the "checks and balances" argument contend that democratic institutions are set up to maintain the status quo. Changing the status quo is costly for the leader, because it requires the consent of multiple veto players (e.g., the median voter in each chamber of the parliament, the courts). Democratic leaders should be unlikely to expend time and resources on signing agreements that they cannot uphold, for they will be hard-pressed to get the approval of the relevant domestic veto players. Multiple veto players also make it more difficult for democratic leaders to renege on agreements. The implication is that democracies are more likely to uphold their international commitments, if simply because such commitments are harder to reverse (Lipson 2003, Cowhey 1993; Tsebelis and Money 1997).

In what follows, I explore how these two mechanisms interact with different authoritarian regimes' types to make predictions about authoritarian participation and compliance with

---

[4] A winning coalition is the number of supporters that a leader needs to stay in office (Bueno de Mesquita et al 2003).

international treaties. But first, it is worth spending some time on explaining the difference in authoritarian regimes missed by the democracy/non-democracy typology.

Classification of Authoritarian Institutions: Infrastructural vs. Despotic Power

One of the primary explanations for the gap in the literature on authoritarian compliance is that, until recently, there did not exist a clear classification of nondemocracies. In identifying regime types, most quantitative studies have relied on Polity scores (Marshall et al 2007) that simply do not allow for a nuanced differentiation among regime types (see, for example, Leeds 1999; Lai and Reiter 2000; Gartzke and Gleditch 2004). In such studies, regime type is operationalized either dichotomously (democracy or nondemocracy) or on a unidimentional scale (from less to more democratic).

As many scholars agree (Geddes 1999; Reiter and Tillman 2002; Peceny et al 2002), such a simplified conceptualization of regime type introduces important limitations. One such limitation is that authoritarian regimes are treated as a residual category. As a result, regimes that have very little similarity are often coded as the same authoritarian type. For example, according to the Polity scores, Kim-Il-sung's Communist North Korea and Park Chung-hee's military dictatorship of South Korea are coded as similar regimes. The two regimes, though, had very little in common beyond their nondemocratic nature. North Korea was a single-party state deriving legitimacy from its leader's strong cult of personality, while Park Chung-hee was a personalist dictator whose support stemmed primarily from the military.

An alternative and more realistic categorization of regimes has been developed by Bueno de Mesquita et al (2003). In their model, regimes are categorized in accordance with the size of

the ruler's selectorate[5] and the winning coalition needed to stay in office. For instance, in the United States and other democracies, the size of the winning coalition is large, since the selectorate includes almost the entire population. On the contrary, in military juntas (e.g., Burma, Algeria), the power of the dictator is derived from the support of a small number of top officers. Similarly, despite universal suffrage "on paper", the rulers of Communist countries are often elected by a small number of top party officials (e.g. China 1976-present).

However, this operationalization also fails to provide a clear distinction among different types of nondemocracies. Although it distinguishes between democracies and nondemocracies by the degree of power concentration, this typology still misses other sources of variation among autocracies (e.g., the military/ civilian dimension). For example, the personalist military dictatorship of General Pinochet in Chile is completely different institutionally from the party-based dictatorship of the Communist China.

Recent attempts at further reification of the regime type measure resulted in classifying authoritarian regimes in accordance to the main locus of power, or "despotic power" (Mann 1988). This criterion typically generates categorization of authoritarian regimes into personalist, single-party, and military (Geddes 1999; Brooker 2000; Peceny et al 2002; Weeks 2008). The weakness of this measure is its treatment of the locus of power as the only meaningful difference among authoritarian regimes (Lai and Slater 2006). Such a unidimensional approach overlooks another important source of variation among authoritarian regime—the infrastructure that is relied upon to enforce leaders' decisions (Lai and Slater 2006).

---

[5] The selectorate refers to all the citizens that can take part in leader's selection (Bueno de Mesquita et al 2003).

The infrastructural dimension may be an important source of variation in authoritarian behavior. Military and civilian regimes differ sharply in terms of their decision-making mechanisms. While decision-making in military regimes is likely to follow the chain of command, civilian regimes usually have explicit rules and provisions that a leader must follow to maintain legitimacy (even if that just means simply going through the motions).

Slater's (2003) regime typology captures this variation, by arranging authoritarian regimes along two dimensions: despotic power and infrastructural power (Table 1). Personalist regimes that depend on military enforcement are strongman regimes, while personalist regimes that rest on party support represent bosses. Regimes that exercise more collectivized rule are juntas if they rely on military power, or machines if they derive their political support from a party.

The Argument

In this section, I extend the logic from the literature on democratic participation in international agreements to explain the behavior of authoritarian regimes. As already mentioned, this literature invokes two causal mechanisms: audience costs and the institutional "checks and balances." In what follows, I discuss how each of these mechanisms functions in authoritarian regimes.

Authoritarian Regimes and Audience Costs

Although dictatorships are often stereotyped as one-man rule, in actuality no leader rules entirely by himself (Franz 2008, 8). While all dictators experience few or no constraints on the part of the general electorate, scholars agree that most autocratic leaders depend on the support of domestic actors no less than their democratic counterparts (Weeks 2008; Bueno de Mesquita

et al 2003). The difference is that in authoritarian regimes, the domestic base is much smaller and usually represents fewer societal interests.

Yet the size of this base is not unimportant in explaining dictatorial behavior. The size of a leader's base determines the degree of her control over the three key domestic institutions used to prevent or offset audience costs: intelligence, the military, and political appointments. Control over the intelligence provides access to information about opposition, control over the military secures the means to suppress opposition, and control over political appointments allows for preventing the rise of opposition in the first place. For example, Chilean personalist leader Augusto Pinochet was known for rotating elites from one office to another to prevent them from building an independent power base (Weeks 2008). Dictators with small winning coalitions--personalist dictators--have greater control over these key institutions than dictators with larger winning coalitions--oligarchic dictators.

Breaking international commitments is generally disapproved of by leader's domestic base and may result in audience costs for several reasons. Reneging on agreements involves reputation costs and impairs a leader's ability to negotiate successfully in the future (Sartori 2005, Weeks 2008). A leader who lacks international credibility is undesirable for both domestic elites and international community and faces high risks of electoral punishment. Even elites who support a leader's decision to renege *ex ante* may find such a leader undesirable *ex post*, since reneging may decrease the effectiveness of future negotiations (Weeks 2008: 42). In addition, reneging on one's word conveys information about a leader's competence in general, thus decreasing her attractiveness to her supporters (Weeks 2008).

I argue that leaders take audience costs into consideration both in their decision to enter in and comply with international agreements. At the compliance stage, the logic is rather

straightforward: leaders expecting high audience costs put forth a greater effort to uphold their agreements. *Oligarchic regimes* will be more likely to comply with international agreements than *personalist regimes*, because the former face greater audience costs for non-compliance.

Hypothesis 1a: Leaders with larger winning coalitions--oligarchic dictators—are more likely to comply with international agreements than leaders with small winning coalitions—personalist dictators.

The expectations are less clear, however, when it comes to the agreement stage. On one hand, we might expect that leaders with larger winning coalitions will be less likely to enter agreements out of a fear of punishment in case of future non-compliance. That is, if we assume that each additional agreement raises the risk of future non-compliance, we should expect that dictators with high audience costs will be less likely to sign agreements.

However, if the dictator has control over whether to comply (which seems like a reasonable assumption), then each additional agreement does not affect the probability of audience costs at the compliance stage. Each additional agreement, however, can be used to appease a subset of the winning coalition. For example, securing a favorable settlement in a maritime dispute related to oil pollution might appease the oil industry (whose representatives often make up a part of dictators' winning coalitions). And securing access to a navigation area might win the dictator support of the ship-owners. In other words, dictators may use international agreements as side-payments to their winning coalitions, thus improving their security in office. *Oligarchic* dictators face greater threat of audience costs, and as a result are likely to sign a larger number of agreements. *Personalist* dictators, on the other hand, are less dependent on their winning coalitions and have less need to make side-payments of this kind. Hence, *personalist* regimes will sign fewer agreements.

Hypothesis 1b: Leaders with larger winning coalitions--oligarchic dictators—are more likely to enter into international agreements than leaders with smaller winning coalitions--personalist regimes.

Note that, although it is common in the literature to associate audience costs with a removal from office, weaker forms of audience costs, such as a decline in approval, might be a strong enough deterrent against pursuing unpopular policies. Any leader would think twice before engaging in policies that might risk domestic base's disapproval, for any weakening in support might play to a challenger's advantage. Leaders might be even more wary of "rocking the boat" by implementing unpopular policies under authoritarian regimes, in which removal from power might be associated with additional severe punishments, such as an exile, an imprisonment or an execution (Goemans 2000, 2008).

Authoritarian Regimes and "Checks and Balances"

While autocrats might not face the same checks and balances as democratic leaders, claiming that authoritarian leaders are completely unconstrained by their domestic institutions would also be a stretch. Many authoritarian leaders operate within "curtain" democratic institutions, such as "rubber-stamp" parliaments, "yes-men" coalitions, and "paper-only" constitutions. While these institutions may not pose real constraints on dictators' decision-making, working within them imposes some costs nonetheless. In civilian regimes, that commonly operate under such institutions, signing international agreements is a lengthier and more complicated process than in military regimes. This process, even if it adds up to little more than creating an appearance of constitutionality, still requires a leader to "jump through some hoops" and invest time and energy. Hence, dictators operating within such institutions (party-

based dictators) might be more selective in what agreements they choose to spend their time and resources on.

None or few of such institutional constraints, on the other hand, apply to military dictators. Moreover, in making international agreements, military dictators are also less constrained by the audience costs considerations. Since military regimes are usually short-lived (Geddes 1999), leaders of such regimes are less likely to remain in power long enough to pay the possible audience costs for reneging.[6] In view of such short shadow of the future, military dictators may purposefully negotiate agreements that they do not intend to keep, in exchange for some favorable concessions of the other party.

Hypothesis 2a: On average, party-based dictatorships will be less likely to enter in agreements than military regimes.

The "checks and balances" mechanism will work similarly at the compliance stage. While "curtain" democratic institutions might be less successful at deterring a leader from non-compliance than institutions in a democracy, legal provisions and requirements may still have a moderating effect on treaty reneging. Military leaders, on the other hand, are usually not subject to the civilian provisions. In such regimes, the general's unilateral decision to renege will rarely be questioned before being passed on through the chain of command.

Hypothesis 2b: On average, party-based dictatorships will be more likely to comply with agreements than military regimes.

Data and Methods

---

[6] Geddes (1999) argues that military regimes usually only intend to stay in power until the situation is stable enough to transfer the power back under civilian control.

I test my hypotheses using data from the Issue Correlates of War (ICOW) project. The ICOW project includes data on contentious territorial, maritime, and river issues, currently available for the Western Hemisphere, Latin America, and the Middle East. The dataset includes observations on which there is explicit evidence that "official representatives of at least one state make explicit statements claiming sovereignty over a piece of territory (land or water) that is claimed or administered by another state" (for a more detailed description, see www.icow.org; Hensel et al 2008, 16). Territorial claims are related to questions of sovereignty over a specific land or island territory, maritime claims concern disagreements over the ownership or usage of a maritime zone, and river claims involve the usage and/or navigation rights of a river crossing states boundaries. Territorial claims coded by the ICOW project include data from 1816 to 2001, whereas maritime and river claims are limited to 1900 to 2001 (Hensel 2001; Hensel et al 2008).[7] Yet, since the data on my primary independent variable (Slater's 2003 regime data) is only available for the time period between 1945 and 2001, this paper's analysis is limited to these years.

The ICOW project collects data on all ratified bilateral and multilateral treaties related to management of the issues in a claim. Each observation includes information on whether each party subsequently complied with the agreement, as well as data on the salience of the issue at stake, whether the settlement involved equal division of the resource, and what types of negotiations took place (bilateral, or with the involvement of a third party (a state or an IO).

[7] The advantage of using data on issue-based agreements (the ICOW data) rather than military alliances (e.g., Alliance Treaties Obligations and Provisions) is in the substantially larger number of cases as well as in a broader range of issues.

The unit of analysis in this study is a directed-dyad-settlement-attempt-year in the first estimation stage (making an agreement) and directed-dyad-year for the second stage (compliance).[8] Overall, the ICOW dataset codes a total of 976 peaceful agreements over 204 different claims that have been ratified by both parties. Each agreement enters my dataset twice (once for each state that signed it), which results in 2127 observations for the time period between 1945 and 2001.

In the primary analysis, the hypotheses are tested employing a sample of all states with democracies as a reference category. This allows comparison of the effects of authoritarian institutions to those of democratic institutions. Taking into account the large body of research related to the effects of democratic institutions, including democracies in the dataset provides for a good reference against which we can evaluate the behavior of authoritarian regimes. Including democracies is common in studies that compare the effects of domestic institutions on international behavior (Lai and Slater 2006; Peceny et al 2002). For the purpose of robustness checks, I ran additional analyses on the subsample that excludes democraices (not presented here, but available upon request). The results are robust to this specification.

I use a Heckman two-stage probit model as the primary method of analysis. Possible dependence across cases is captured by clustering of standard errors by claim number.[9] The Heckman probit employs a two-stage estimation approach that allows to control for non-random selection processes (Heckman 1979; Reed 2000). It first calculates the effect of each covariate

---

[8] If a dyad has multiple settlement attempts per year, all of these enter into the dataset as separate observations. The results, however, are robust to alternative specifications of keeping only one observation per year.

[9] ICOW assigns each claim a unique number.

on the first-stage outcome (agreement), and then the second outcome (compliance), given the observation was selection into the second stage (agreement was made).

Heckman probit also estimates the correlation, *rho*, between the two outcomes' disturbances. In the context of this study, it might be useful to think of *rho* as the leader's latent tendency to comply with treaties, caused by audience costs and "checks and balances." If we find this term to be positive, this would mean that the unobserved factors that increase the likelihood of signing a treaty also make states more likely to comply. If *rho* is negative, this would mean that the factors that make states more likely to sign a treaty also make them less likely to subsequently comply. According to the theory of this paper, this would be the case for *military regimes*, who are more likely to sign and less likely to comply, in the absence of institutional veto-players. It is worth noting, however, that since the estimator produces *rho* as a single average, we cannot directly test hypotheses about regime-specific intent to comply in the confines of this paper.

Dependent Variables

The dependent variable for the first stage equals 1 if a settlement attempt results in an agreement (976 out of 2127, or 82%). The dependent variable for the second stage, designed to capture compliance, equals 1 if the agreement is complied with (774 of 909, or 87%).[10] More

[10] The ICOW codebook (pp 38-39) points out that the measure of state-level compliance is not always precise. Namely, in many cases, non-compliance by one state leads to non-compliance on the part of the other. However, I do not view this as a serious problem for this study. If anything, it will bias the results towards the null hypotheses, since violations by non-compliant types of regimes will trigger violation on the part of the more compliant ones.

specifically, compliance equals "1" if the terms of the agreement, such as transferring the territory, or recognizing the rights of the other state over a given maritime area, have been upheld for the time period specified in the agreement. If no time period is specified, *Compliance* is coded as "1" if the terms have been complied with for at least five years. Otherwise, *Compliance* is coded as "0." For example, a US-Mexico 2001 agreement over the use of the Rio Grande is coded as complied with, since it has been abided by both claimants. An example of non-compliance is the 1991 agreement between Belize and Guatemala over the use of territorial waters, reneged on by the Guatemalan government.

Independent Variables

The primary independent variable is a state's *Regime Type,* measured using Lai and Slater's (2006) data. These variables are coded for the time period 1945-2001. Lai and Slater first code states as either democratic or nondemocratic using "5" on the *Polity2* score of the Polity data as the cut-off value (Marshall et al 2007).[11] The despotic power dimension of Slater's (2003) typology is coded using the *Executive Constraints* variable from the Polity data, while the infrastructural power is measured using the *Regime Type* variable from the Banks' Cross National Time Series Archive. Nondemocratic regimes are coded as *Personalist* if they scored 1 or 2 on the *Executive Constraints* score, and as *Oligarchic* (collective) otherwise.

Banks' Cross National Time Series Archive codes whether a government is controlled by civil or military institutions for the time period between 1945 and 2001. A nondemocracy is coded as a *Party-based* regime if the Banks data refers to it as a "government controlled by a nonmilitary component of the nation's population" (Cross-National Time Series Data Archive 1997). A regime is coded as *Military* if it is (1) under direct military control or is (2) effectively

[11] The analysis is robust to changing this threshold.

under military control. All states are then coded on whether they are *Democracies, Machines (Party*Collective), Bossism (Party*Personalist), Junta (Military*Collective), or Strongman (Military*Personalist).*

I include a number of control variables that are common to the research on compliance. To account for the realist explanation of compliance in terms of power, I construct a measure of relative capabilities between the two states This measure uses states' Composite Index of National Capabilities (*CINC*) scores from the COW project, and is created by dividing the *CINC score* of the more powerful state in the dyad by that of the less powerful state. I expect that greater CINC ratios will be associated with fewer agreements in the first stage of the model, and less compliance in the second stage.

The literature argues that compliance is likely to decline as the issue salience increases (Mitchell and Hensel 2007, Hensel et al 2008). Therefore, I include the variable *Issue Salience* from the ICOW project (Hensel et al 2008). The measure is based on six indicators (e.g., valuable raw materials, ethnic populations, strategic value) for each type of issue, each contributing one point for each claimant. This results in *Salience* ranging from 0 to 12, with higher values corresponding to greater salience.

It is also necessary to control for the type of agreement reached. ICOW differentiates between three types of agreements: substantive, functional, and procedural. Substantive agreements include settlement of ownership of part or all of the disputed area. Functional agreements involve formulating rules on management of the issue in question (e.g., establishment of demilitarized zones, guarantees of free commerce, or navigation through the territory). Finally, procedural agreements relate to establishing future procedures to settle the claim (e.g., negotiations on submitting the claim to the World Court or some other body) (Hensel

2005, 2). Since substantive agreements typically place more requirements on the parties, I expect that substantive agreements will be more difficult to reach and will be characterized by lower compliance rates. I include two dummy variables--*Substantive Issue* and *Functional Issue,* leaving out *Procedural Issue* as the reference category.

Mitchell and Hensel (2007) have demonstrated that states are more likely to comply with binding agreements than with ones that have no binding power. I include a variable that codes whether an agreement was characterized by such binding power (*Binding Agreement),* in order to account for this effect. Finally, current settlement may be altered depending on previous history of the claim. Failure to reach an agreement in the past might decrease probability of agreeing in the future. The converse is also possible: current settlements may be characterized by higher success rate, since they are likely to address the shortcomings of previous agreements. Therefore, it is necessary to control for the number of previous settlement attempts on the claim. This variable (*Previous Settlement Attempts)* is a count of previous peaceful and military attempts to settle the issue.

Empirical Analysis

The results of the analysis are presented in Table 2. Model 1 examines the effects of the despotic power dimension of the authoritarian typology (Hypotheses 1a and b), Model 2 shows the effects of the infrastructural power dimension (Hypotheses 2a and b), and Model 3 splits regimes into four resulting subtypes. First, note that the *rho* coefficient is negative and statistically significant in all three models. This lends credence to the use of a heckman probit estimator and indicates that the unobserved factors, that make agreements less likely to be reached in the first place (e.g., audience costs or "checks and balances"), increase the likelihood of compliance.

[Table 2 here]

Hypotheses 1a and b are tested in Model 1. *Oligarchic Regime* is positive and statistically significant in predicting agreement (selection stage), indicating that *oligarchic* regimes are more likely to enter into international agreements than democracies. *Personalist Regime,* on the other hand, is not statistically significant at the agreement stage, suggesting that *personalist* regimes are not more likely to sign international agreements than democracies. These results provide support for Hypothesis 1b that posited that *oligarchic* dictators will be more likely to sign agreements as a way to appease their winning coalitions.

Personalist Regime is negative and statistically significant in predicting compliance (outcome equation), implying that *personalist* dictators are less likely than democracies to comply with international agreements. *Oligarchic Regime,* on the other hand, is not statistically different from democracies. This supports Hypothesis 1a, which argued that *oligarchic* dictators will be more likely to comply with international treaties, in view of greater domestic audience costs.

The substantive significance of these results can be gleaned from Figure 1 that shows predicted probabilities of signing agreements and complying for each regime type. First, it is worth pointing out that, consistent with previous literature, democracies have the highest rate of compliance with international agreements-- around 81%. We can also see that the rates of signing agreements and compliance vary quite a bit among different authoritarian regimes. Specifically, *oligarchic* regimes are approximately 8% more likely than democracies to enter into agreements, which provides substantive support for hypothesis 1b. Finally, *personalist regimes* are about 6% less likely than democracies to comply.

[Figure 1 here]

Hypotheses 2a and b are tested in Model 2 of Table 2. We see that *Military Regime* is positive and statistically significant in predicting agreement, which suggests that *military* regimes are more likely than democracies to enter into international agreements. The effect of *Single-Party Regime* on agreement, on the other hand, is not significant, which implies that *single-party* or *civilian* dictators are less likely than democracies to enter into international agreements. This provides support for Hypothesis 1a, that expected *military* dictators to form more agreements as a result of being unconstrained by institutional "checks and balances."

The effect of *Military Regime* on compliance is negative and statistically significant, which indicates that *military* dictators are less likely than democracies to comply with international agreements. The effect of *Single-Party* regime, in the meantime, is not statistically different from that of democracies. This provides support for Hypothesis 2b that maintained that *military* dictators will be less compliant with international commitments, due to the lack of domestic institutional "checks and balances." Hypotheses 2a and b are further substantiated in Figure 1. We see that *military* dictators are approximately 11% more likely to sign agreements and about 7% less likely to comply than democracies.

In Model 3, I combine the two dimensions of authoritarian typology to create four regime types (Strongman, Bossism, Junta, Machine) and estimate the effects of each of these regimes. Figure 2 shows the predicted probabilities for these four regime types. We can see that both *Junta* and *Machine* are positive and statistically significant at the agreement stage. This provides further support for Hypothesis 1b, which posited that *oligarchic* dictators will be more likely to make agreements to appease their winning coalitions. The predicted probabilities are approximately 15% and 7% greater than that of democracies, respectively.

[Figure 2 here]

We also see that *Strongman* is negative and statistically significant in the compliance equation, which implies that *strongmen* are less likely to comply with treaties than democracies. This finding is consistent with Hypotheses 1a and 2b. Figure 2 shows that *strongmen* have an approximately 10% lower compliance rate than democracies. In real word terms, this means that when the Guatemalan government transformed from a machine to a strongman in 1982, the probability of its compliance with the Heads of Agreement of 1981 with the United Kingdom decreased by 10%, assuming all else stayed equal. *Junta* is positive and statistically significant in predicting compliance, which implies that *juntas* are more likely than democracies to comply with international agreements. While this supports Hypotheses 1a and 2b, this result should be taken with a grain of salt, as in my dataset *juntas* entered into an agreement in only four observations and complied in each case (see Table 1).

Breaking up the two dimensions into four regime types allows us to assess the relative significance of each dimension in predicting each of the outcomes. Since neither *Strongman* nor *Bossism* are statistically significant in predicting agreement, while the other relevant regime types are (*Junta* and *Machine*), we can conclude that the despotic power dimension is more important than the infrastructural power in explaining why states reach agreements. This reverses at the compliance stage, where *Strongman* and *Junta* have significant coefficients, while *Bossism* and *Machine* do not. This suggests that the infrastructural power dimension might be more important in predicting compliance with agreements.

Most of the control variables are statistically significant at the agreement stage of the model and act in the expected directions. *Capabilities' Ratio* has a negative coefficient, suggesting states with high power differential will be less likely to come to an agreement. *Binding Agreement* has a positive effect, which means that states are more likely to reach

binding agreements than non-binding ones (Ellis, Mitchell and Prins 2010). *Number of Previous Settlements* is negative and statistically significant, indicating that states are less likely to come to an agreement if previous attempts have failed. *Functional Agreement* is characterized by a positive sign, which signifies that states are more likely to reach functional agreements than procedural ones (the reference category). Finally, the effect of *Substantive Agreement* is negative, which means that states are less likely to reach substantive agreements.

Note, that while most of the control variables are significant in the agreement equation (selection), this is no longer true in the compliance equation. This suggests that the effects of these control variables take place at the stage of reaching an agreement. If any of these variables are important to compliance, leaders take them into the account by looking down the game-theoretic "tree" when making agreements. This result provides support for the general theoretical approach of this paper to model agreement and compliance endogenously.

Discussion

This paper makes two important contributions to the literature on regime types and participation in international treaties. First, it moves nondemocracies from being a mere reference category into the spotlight of analysis, aligning them along a two-dimensional typology. I use the insights from the existing literature to build a sound and comprehensive theory of variation in international treaties' participation among autocracies. Specifically, I point to two causal mechanisms that lead to this variation: the presence of audience costs and "checks and balances." I argue that dictators facing greater audience costs (*oligarchies*) will be more likely to enter into international agreements, for making agreements can be used as a strategy to appease their relatively large winning coalition . *Oligarchic* leaders will also be more likely to comply with international agreements, because non-compliance leads to audience costs. None of

these effects, however, will be observed in *personalist* regimes, whose leaders have a relatively small winning coalition and face little audience costs.

I also argue that domestic institutional "checks and balances," such as legislatures and constitutions (even if effective only on paper) increase the costs of both making and breaking agreements. Hence, leaders of party-based regimes will be less likely to make agreements and more likely to comply than military regimes. I find sound empirical support for all of my predictions using the ICOW dataset on territorial, maritime, and river disputes between 1945 and 2001. The broader implication is that, in line with other recent studies, I show that the study of IR can gain insights by employing a more nuanced typology of authoritarian regimes (Weeks 2008, Lai and Slater 2006, Savun and Cook 2011).

This paper demonstrates the importance of looking at both dimensions of Slater's (2003) authoritarian typology. While infrastructural power has been previously shown to be a significant source of variation in foreign policies of authoritarian states (Lai and Slater 2006), this paper shows that the despotic power is also important. Slater's typology approach provides a theoretically driven understanding of the regime incentives in autocracies that are supported empirically in this paper. While other typologies of autocratic regimes can provide an understanding of their behavior, the findings presented here continue to demonstrate the importance of using a two-dimensional typology.

The second important contribution of this paper is in its modeling approach. Specifically, I argue that future compliance is an important consideration that leaders take into account when they sign treaties. In other words, signing treaties and complying with them are two related parts of the same process and need to be modeled endogenously. I do this by employing a Heckman two-stage probit model that uses the error term from the selection equation (agreement) in

estimating the outcome equation (compliance). I find that, as expected, the error correlation between the two equations is negative and statistically significant, which indicates that factors that make compliance more likely (e.g, audience costs or "checks and balances") may also make agreements less likely to be reached. The larger contribution here is in line with other recent appeal to build more nuanced theoretical models (Fearon 1994, Smith 1996, Reed 2000, Lemke and Reed 2001, Danilovic 2001, Schultz 2001, Reed and Clark 2002). By building a unified model of reaching agreements and compliance, I am able to avoid selection bias that arises as a result of a failure to include all the relevant cases in the analysis.

BIBLIOGRAPHY

Allee, Todd L, and Paul K Huth. 2006a. The Pursuit of Legal Settlements to Territorial Disputes. *Conflict Management and Peace Science* 23 (4): 285–307

Allee, Todd L, and Paul K Huth 2006b. "Legitimizing Dispute Settlement: International Legal Rulings as Domestic Political Cover." *American Political Science Review* 100 (2): 219–234

Brooker, Paul. 2000. *Nondemocratic Regimes: Theory, Government,and Politics.* New York: St Martin's Press

Bueno de Mesquita, Bruce, James D Morrow, Randolph M Siverson, and Alastair Smith. 2003. *The Logic of Political Survival.* MIT Press

Chaloemtiarana, Thak. 2007. *Thailand: The Politics of Despotic Paternalism.* SEAP Publications

Chayes, Abram, and Antonia Handler Chayes. 1993. "On Compliance," *International Organization 47(2)*: 175-205

Cowhey, Peter F. 1993. "Domestic Institutions and the Credibility of International Commitments: Japan and the United States." *International Organization 47 (2)*: 299-326

Cross-National Time Series Data Archive. 1997. http://www.databanksinternational.com/

Danilovic, Vesna. 2001. "Conceptual and Selection Bias Issues in Deterrence." Journal of Conflict Resolution 45(1):97-125.

Dixon, William J. and Paul D. Senese. 2002. "Democracy, Disputes, and Negotiated Settlements." *Journal of Conflict Resolution* 46 (4): 547-71

Downs, George W., David M. Rocke, and Peter N. Barsoom. "Is the Good News About Compliance Good News About Cooperation?" *International Organization 50 (3)*, 1996: 379-406

Ellis, Glynn, Sara McLaughlin Mitchell, and Brandon C. Prins. 2010. "How Democracies Keep the Peace: Contextual Factors That Influence Conflict Management Strategies." *Foreign Policy Analysis* 6(4): 373-398

Fearon, James D. 1998. "Bargaining, Enforcement, and International Cooperation." *International Organization*, 269-305

Fearon, James D. 1994a. "Domestic Political Audiences and the Escalation of International Disputes." *American Political Science Review* 88 (3): 577-92

Fearon, James. 1994b. "Signaling versus the Balance of Power and Interests: An Empirical Test of a Crisis Bargaining Model." Journal of Conflict Resolution. 38(2):236-269

Fearon, James D. 1997. " Signaling Foreign Policy Interests: Tying Hands versus Sinking Costs." *The Journal of Conflict Resolution* 41(1): 68-90

Franz, Erica. 2008. "Tying the Dictator's Hands: Leadership Survival in Authoritarian Regimes." *working paper*

Gartzke, Erik, and Skrede Gleditsch. 2004. "Why Democracies May Actually Be Less Reliable Allies." *American Journal of Political Science 48 (4)*: 775-795

Gaubatz, Kurt Taylor. 1996. "Democratic States and Commitment in International Relations." *International Organization 50 (1)*: 109-39

Geddes, Barbara. 1999. "Authoritarian Breakdown: Empirical test of a Game Theoretic Argument." Presented at the 95th Annual Meeting of the American Political Science Association, Atlanta

Goemans, Hein Erich. 2000. *War and Punishment.* Princeton University Press.

Goemans, Hein Erich. 2008. "Which Way Out?: The Manner and Consequences of Losing Office." *Journal of Conflict Resolution* 52(6): 771-794

Heckman, James D. 1979. "Sample Selection Bias as a Specification Error." *Econometrica 47*: 153-162

Hensel, Paul R. 2001. "Contentious Issues and World Politics: The Management of Territorial Claims in the Americas, 1816-1992." *International Studies Quarterly 45 (1)*: 81-109

Hensel, Paul R. "Issue Correlates of War (ICOW) Project." *Available at http://dataicow.org*

Hensel, Paul R. "Codebook for Territorial Claims Data." *Last updated 24 February 2005. Available at http://dataicoworg*

Hensel, Paul R., Michael E. Allison, and John Tures. 2007. "Credible Commitements and Negotiations over Territory." *Unpublished paper. Florida State University*

Hensel, Paul R., Sara McLaughlin Mitchell, Thomas E. Sowers II, and Clayton L. Thyne. 2008. "Bones of Contention: Comparing Territorial, Maritime, and River Issues." *Journal of Conflict Resolution 52(1)*: 117-143

Jervis, Robert. 1976. *Perception and Misperception in International Politics.* Princeton: Princeton University Press

Kebschull, Harvey G. 1994. "Operation "Just Missed": Lessons from Failed Coup Attemps." *Armed Forces and Society 20 (4)*: 565-579

Kegley, Charles W., and Gregory A. Raymond. 1990. *When Trust Breaks Down: Alliance Norms and World Politics.* Columbia: University of South Carolina Press

Keohane, Robert, and Joseph Nye. 1977. *Power and Interdependence: World Politics in Transition.* Boston: Little, Brown and Company

Kratoshka, Paul H. 2002. *Southeast Asian Minorities in the Wartime Japanese Empire* Routledge

Kydd, Andrew. 2000. "Trust, Reassurance, and Cooperation." *International Organization 54(2):* 325-257

Lai, Brian, and Dan Reiter. 2000. "Democracy, Political Similarity, and International Alliances, 1916-1992." *Journal of Conflict Resolution 44 (2)*: 203-227

Lai, Brian, and Dan Slater. 2006. "Institutions of the Offensive: Domestic Sources of Dispute Initiation in Authoritarian regimes, 1950-1992." *American Journal of Political Science 50 (1)*: 113-126

Leeds, Brett Ashley. 2003a. "Alliance Reliability in Times of War: Explaining State Decisions to Violate Treaties." *Intrenational Organization 57 (4)*: 801-827

Leeds, Brett Ashley.. 2003b. "Do Alliances Deter Aggression? The Influence of Military Alliances on the Initiation of Militarized Interstate Disputes." *American Journal of Political Science 47 (3)*: 427-439

Leeds, Brett Ashley. 1999. "Domestic Political Institutions, Credible Commitments, and International Cooperation." *American Journal of Political Science 43 (4)*: 979-1002

Leeds, Brett Ashley, Andrew G. Long, and Sara McLaughlin Mitchell. 2000. "Reevaluating Alliance Reliability: Specific Threats, Specific Promises." *The Journal of Conflict Resolution 44 (5)*: 686-699

Leeds, Brett Ashley, Jeffrey M. Ritter, and Sara McLaughlin Mitchell. 2002 "Alliance Treaty Obligations and Provisions, 1915-1944." *International Interactions 28 (3)*: 237-60

Leeds, Brett Ashley, Michaela Mattes, and Jeremy S. Vogel. 2009. "Interests, Institutions, and the Reliability of International Commitments." *American Journal of Political Science.*

Lemke, Douglas, and William Reed. 2001. "War and Rivalry among Great Powers." American Journal of Political Science 45(2):457-469

Leitz, Christian. 2000. *Nazi Germany and Neutral Europe During the Second World War: Sympathy for the Devil?* Manchester University Press.

Lipson, Charles. 2003. *Reliable Partners: How Democracies Have Made a Separate Peace.* Princeton University Press.

Mann, Michael. 1988. *States, War, and Capitalism: Studies in Political Sociology.* New York: Basil Blackwell.

Marshall, Monty G., Keith Jaggers, and Ted Robert Gurr. 2007. *Polity IV project political regime characteristics and transitions, 1800-2007.*

Mitchell, Sara McLaughlin, and Paul R. Hensel. 2007. "International Institutions and Compliance with Agreements." *American Journal of Political Science*: 721-737.

Morrow, James D. 1993. "Arms Versus Allies: Trade-Offs in the Search for Security." *International Organization 47 (2)*: 207-233

Peceny, Mark, Caroline C. Beer, and Shannon Sanchez-Terry. 2002. "Dictatorial Peace?" *American Political Science Review 96 (1)*: 15-26

Reed, William, and David H. Clark 2002. “Toward a Multiprocess Model of Rivalry and the Democratic Peace." International Interactions 28(1):77–92

Reed, William. 2000. “A Unified Statistical Model of Conflict Onset and Escalation.” *American Journal of Political Science 44(1)*: 84-93

Reiter, Dan, and Erik Tillman. 2002. "Public, Legislative, and Executive Constraints on the Democratic Initiation of Conflict." *The Journal of Politics 64 (3)*: 810-826

Sabrosky, Alan Ned. 1980. "Interstate Alliances: Their Reliability and the Expansion of War." In *The Correlates of War II: Testing Some Realpolitik Models*, by J David Singer, 161-98 New York: Free Press

Sartori, Anne E. 2005. *Deterrence by Diplomacy.* Princeton University Press

Savun, Burcu, and Scott Cook. 2011. "Authoritarian Regimes, Democratization, and Civil Conflict." Presented at the Peace Science Society Annual Meeting. Los Angeles, CA

Schultz, Kenneth. 2001. “Looking for Audience Costs." Journal of Conflict Resolution 45(1):32-60

Schweller, Randall. 2010. “The Logic and Illogic of the Security Dilemma and Contemporary Realism: A Response to Wagner’s Critique.” *International Theory 2(2): 288-305*

Simmons, Beth. 1998. "Compliance with International Agreements." *The Annual Review of Political Science 1*: 75-93

Slater, Dan. 2003. "Iron Cage in an Iron Fist: Authoritarian Institutions and the Personalizations of Power in Malaysia." *Comparative Politics 36 (1)*: 81-101

Slaughter, Anne Marie. 1995. "International Law in a World of Liberal States." *European Journal of International Law 6*: 503-38

Smith, Alastair. 1996. "To Intervene or Not to Intervene: A Biased Decision." *Journal of Conflict Resolution 40 (1)*: 16-40

Smith, Alastair and Fiona McGillivray. 2000. “Trust and Cooperation Trough Agent-Specific Punishments.” *International Organization* 54 (4): 809-824

Sorokin, Gerald L. 1994. "Arms, Alliances, and Security Trade-offs in Enduring Rivalries." *International Studies Quarterly*: 421-46

Tsebelis, George, and Jeannette Money. 1997. *Bicameralism (Political Economy of Institutions and Decisions).* Cambridge University Press

Weeks, Jessica L. 2008. "Autocratic Audience Costs: Regime Type and Signaling Resolve." *International Organization 62 (1)*: 35-64

TABLES

Table 1 Slater's (2003) Institutional Typology of Authoritarian Regimes

		Despotic Power (Who Decides?)	
		Oligarchic	Personalist
	Party	Machine 275 (153/133)	Bossism 117 (62/51)
Infrastructural Power (Who Executes?)			
	Military	Junta 7 (5/5)	Strongman 139 (85/71)

Numbers in Parentheses are 1) Total number of nondemocratic state years from 1945-2001 in each category, with number of total agreements they entered in and the number they complied with in parentheses. The dataset also includes 1,198 (663/560) democracies used as a reference category.

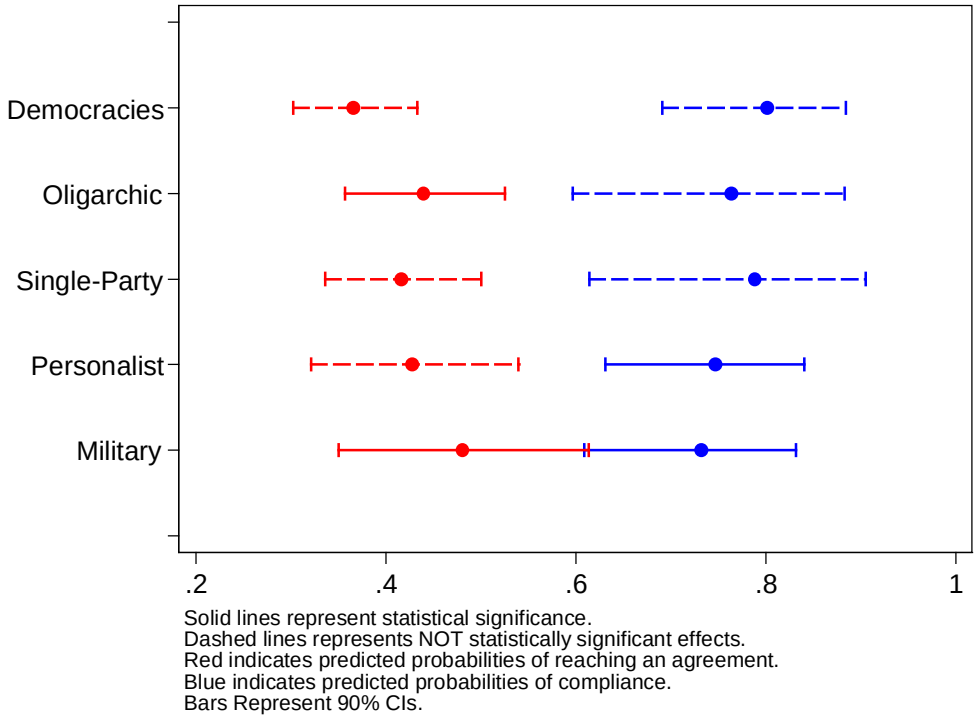
Examples from each category:
Machine: China (1976-present), Taiwan (pre-1996), Tunisia, Senegal (pre-2000).
Bossism: North Korea (Kim), China (Mao), Zimbabwe (Mugabe), Malaysia (Mahathir).
Junta: Burma, Algeria, Greece (pre-1974), Argentina (pre-1983).
Strongman: Chile (Pinochet), Pakistan (Zia), Zaire (Mobutu), Panama (Noriega).

Table 2: Selection Model of Reaching Agreements and Compliance

Outcome Equation: Compliance	*Model 1*		*Model 2*		*Model 3*	
Personalist Regime	-0.26*	(0.13)				
Oligarchic Regime	-0.21	(0.15)				
Military Regime			-0.39***	(0.14)		
Single-Party Regime			-0.15	(0.13)		
Strongman					-0.42***	(0.14)
Bossism					0.02	(0.19)
Junta					5.56***	(0.26)
Machine					-0.22	(0.15)
Capabilities Ratio	0.04	(0.03)	0.03	(0.03)	0.04	(0.03)
Issue Salience	-0.00	(0.02)	0.01	(0.02)	0.01	(0.02)
Binding Agreement	-0.03	(0.23)	-0.03	(0.23)	-0.02	(0.24)
Functional Agreement	0.05	(0.18)	0.04	(0.18)	0.04	(0.18)
Substantive Agreement	-0.08	(0.14)	-0.08	(0.15)	-0.09	(0.15)
Constant	1.50***	(0.22)	1.44***	(0.22)	1.43***	(0.22)
Selection Equation: Agreement						
Personalist Regime	0.16	(0.14)				
Oligarchic Regime	0.19*	(0.11)				
Military Regime			0.28*	(0.17)		
Single-Party Regime			0.13	(0.10)		
Strongman					0.27	(0.18)
Bossism					0.02	(0.17)
Junta					0.39**	(0.20)
Machine					0.19*	(0.11)
Capabilities Ratio	-0.08**	(0.03)	-0.08**	(0.03)	-0.08**	(0.03)
Issue Salience	0.02	(0.03)	0.02	(0.03)	0.02	(0.03)
Binding Agreement	1.13***	(0.39)	1.12***	(0.40)	1.13***	(0.40)
Num of Prev Settlement	-0.01*	(0.00)	-0.01**	(0.00)	-0.01**	(0.00)
Functional Agreement	0.33*	(0.19)	0.35*	(0.19)	0.35*	(0.19)
Substantive Agreement	-0.51***	(0.16)	-0.51***	(0.16)	-0.51***	(0.16)
Constant	0.20	(0.29)	0.23	(0.29)	0.22	(0.29)
Rho:	-0.92**		-0.90**		-0.87*	
Log Likelihood:	-1267.27		-1270.08		-1260.90	
N (2^{nd} Stage):	1498(759)		1503(762)		1493(756)	

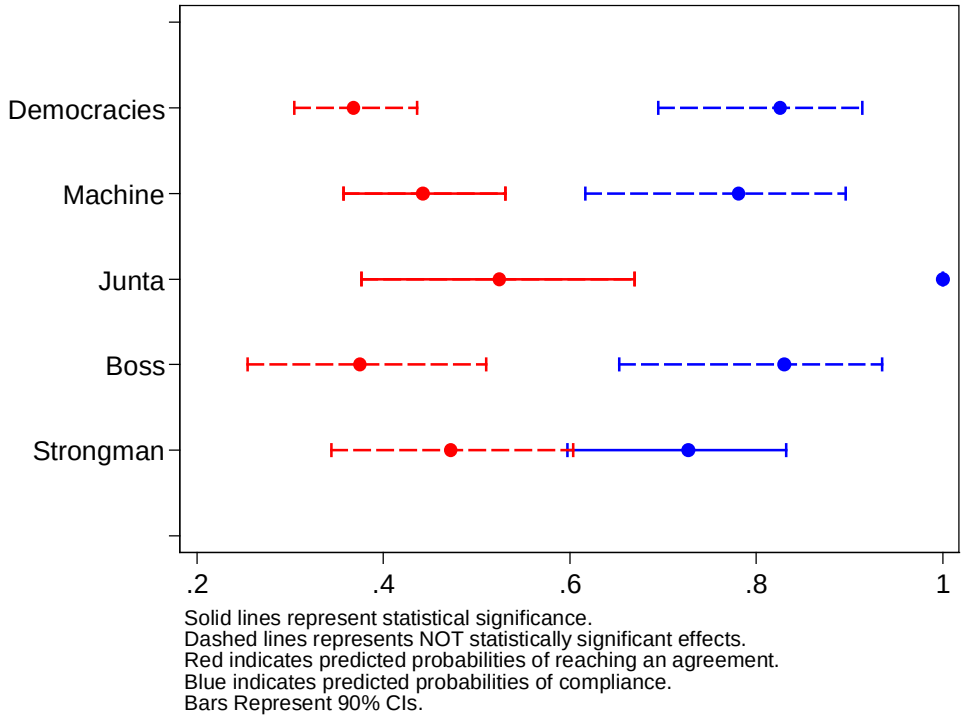
Two-tailed: * $p \leq 0.10$, ** $p \leq 0.05$, *** $p \leq 0.01$. Democracy is used as the reference category.

Figure 1: Predicted Probabilities of Compliance by Regime Type (by Dimension)



Note: This graph was created using Monte Carlo simulations, by varying regime type while holding all other variables at their mean and modal values. Whiskers represent 90 % Confidence Intervals.

Figure 2: Predicted Probabilities of Agreement and Compliance by Regime Type (Four Types)



Note: This graph was created using Monte Carlo simulations, by varying regime type while holding all other variables at their mean and modal values. Whiskers represent 90 % Confidence Intervals.