DOMESTIC POLITICAL INSTITUTIONS AND THE EVOLUTION OF INTERNATIONAL CONFLICT

1 December 1996

by

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ABSTRACT

This paper addresses two issues which have emerged from the democratic peace literature: the consequences of selection effects and the proposition that constraint rather than democracy inhibits the use of force. In their analysis of international crises, Rousseau et al. (1996) speculated that a selection effect may explain why democracies are only less conflictual when facing other democracies. If democratic polities are less likely to become involved in militarized crises or wars, then an analysis restricted to a set of crises or wars may understate the constraining power of democratic institutions. This paper assesses this proposition and examines an alternative constraint model using a newly created data set which includes a broader set of conflicts -- international disputes from 1960 to 1988. The major finding of the paper is a confirmation of the selection argument -- in the broader dispute data set democracies are less likely to use military force regardless of the regime type of its adversary.

1. INTRODUCTION

Do domestic political institutions significantly influence foreign policy decisions regarding the use of force to resolve international conflicts? Neo-realists have argued that domestic institutions are irrelevant; decision makers facing an external threat will react similarly regardless of their particular domestic political or economic structures.[1] However, proponents of the democratic peace have demonstrated that, under specific conditions, institutions do in fact influence outcomes. Namely, democratic polities are less conflictual, but only when facing a democratic opponent. In the literature, strong empirical support has been found for this conditional or "dyadic" relationship.[2]

In their analysis of international crises, Rousseau et al.. (1996) test both a dyadic (i.e., democracies are only less conflictual when facing other democracies) and a monadic (i.e., democracies are less conflictual regardless of the opponent) explanation of the democratic peace. While their findings *within crises* only support the dyadic argument, they found preliminary evidence that the purely dyadic findings may be the result of a selection process. If democratic polities are less likely to become involved in militarized crises or wars, then an analysis restricted to a set of crises or wars may understate the constraining power of democratic institutions. This paper assesses this proposition by examining the constraining power of institutions using a broader set of conflicts -- international disputes. The dispute data set includes conflicts which have not escalated to the crisis phase, in which one or both sides contemplates using military force.[3] Therefore, the newly created data set is ideal for examining for potential selection effects which may have limited the generalizability of previous research.

The paper also examines an alternative explanation for the relationship between institutional structure and the propensity to use force abroad. The "institutional constraint model" contends that the existence of domestic opposition constrains decision makers from using force. While conceding that democratic leaders tend to face higher levels of domestic opposition, the institutional constraint model proposes that political opposition can be found in a wide variety of regimes, including many autocratic regimes. This implies that the observed peace between democracies is potentially just a sub-set of a

broader phenomenon in which constrained regimes are less likely to initiate violence.[4]

The remainder of the paper is divided into six sections. The next two sections describe the democratic peace and the institutional constraint models. The third examines how the evolution of conflict can lead to selection effects. In the fourth section I present the international dispute data set constructed to test the competing models and the operationalization of the key variables. In the fifth section I examine empirical results based on the behavior of states involved in international disputes from 1960 to 1988. Contrary to the conclusions of many previous studies, I find both a monadic and dyadic effect of democratic institutions. While democracies are less conflictual in general, they are particularly so when facing a democratic opponent. Moreover, the results support both the constraint and the democratic peace model, implying that certain types of autocratic regimes are also constrained from initiating force. The final section summarizes the findings.

2. THE DEMOCRATIC PEACE MODEL

As describe in detail in Rousseau et al.. (1996), explanations of democratic peace generally fall within two school -- one focusing on political norms and the other emphasizing institutional structures. The political norms argument hypothesizes that democratic leaders, who are socialized in a domestic political environment which emphasizes compromise and non-violent resolution of political conflicts, externalize these peaceful norms of conflict resolution which makes them less likely to initiate armed conflict. In contrast, the institutional structure school predicts that the existence of domestic opposition, which can punish a leader for foreign policy failures or even costly successes, will restrain democratic leaders from initiating military force.

Both the normative and structural explanations, in their most basic forms, predict that democracies should be less likely to initiate violence regardless of the regime type of the external opponent; that is, both support a monadic explanation of the relationship between regime type and propensity of use force. In order to account for the dyadic empirical findings, researchers have adopted an additional dyadic assumption: the expectation that their non-democratic opponents will often resort to force and/or will refuse

to negotiate in good faith leads democratic decision makers to adopt more coercive foreign policies which include the first use of force in international conflicts. Proponents of normative arguments propose that the fear of exploitation by autocratic regimes leads democratic leaders to drop their peaceful norms of conflict resolution. Conversely, proponents of structural arguments contend that democratic leaders circumvent constraining domestic institutions when facing a non-democratic opponent. Either dyadic explanation can account for the fact that democracies often initiate violence against autocracies, but rarely if ever initiate against democracies.[5]

3. THE INSTITUTIONAL CONSTRAINT MODEL

The institutional constraint model is built on the premise that domestic political opposition exists in all political systems. However, the extent to which this opposition is allowed to express itself varies significantly across political systems. While democratic institutions facilitate the emergence of opposition, many autocratic rulers also face political opposition which has the power to punish, or even remove, the decision maker (Gowa 1995; Hagan 1993; Morgan and Campbell 1991; Salamore and Salamore 1978). King Hussein of Jordan has long confronted both latent and actual opposition from his Palestinian subjects. Siad Barre, the military dictator of Somalia after 1969, was initially confronted by opposition within the military junta and continually forced to balance competing clan interests. Even within a more institutionalized regime, Nikita Khrushchev faced intense opposition at least until his purge of the politburo in 1957. In much of the democratic peace literature, the great variation among autocratic regimes is obscured by the use of dichotomous variables which compels researchers to group many very different types of regimes into a single category. In order to more fully comprehend the relationship between external violence and regime type, we need a more careful disaggregation of the broad categories of democracy and authoritarianism.

The predictions of the institutional constraint model are derived from four basic assumptions.

Assumption One: A central goal of state leaders is to retain their position of domestic political power. In order to remain in power, state leaders must rely on a supporting constituency.

Assumption Two: Domestic political opposition operates, to various degrees, in all political systems. Domestic opponents of a regime will attempt to mobilize political opposition when domestic and foreign policies pursued by the regime have failed to achieve stated policy goals.

Assumption Three: Leaders of states with institutional structures which encourage the emergence and expression of domestic opposition in the executive, legislature, ruling party, and/or society-at-large are more likely to be punished for foreign policy failures.

Assumption Four: In all political systems, state leaders believe that a foreign policy setback for their country, stemming from a diplomatic retreat or military defeat, could pose a threat to their domestic political position.

The assumptions lead to the central hypothesis of the institutional constraint model: leaders of constrained states will be less likely to initiated armed violence to resolve international conflicts. The logic directly parallels that of the structural explanation of the democratic peace, with one important exception: the level of domestic opposition can vary across both democracies and autocracies. Some democracies have a great deal of political opposition throughout the executive and legislature; conversely, some autocratic leaders are very constrained from initiating violence on a large scale. The strength of the constraint model is two-fold. First, the model allows a differentiation of the broad and diverse category of states traditionally lumped in a "non-democracy" category. Second, the framework facilitates the identification of situations in which we can expect to find relatively unconstrained and belligerent democracies. This paper focuses on the first of these issues.[6]

How does one define "constraint"? Given that foreign policy decisions are primarily made by the executive branch, this paper focuses on how other groups and institutions in society influence executive decisions. For the purposes of this study, executives are considered constrained to the degree that they must take the preferences of other groups into account during the decision making process. This implies that constraint only occurs if there are differences in preferences between key groups. If all groups in society have the same preferences and the executive acts according to those preferences, the idea of constraint has no real meaning. Decision makers are considered unconstrained if they are able to act without any regard for the preferences of other societal actors. For example, suppose society consists of two actors: an executive decision maker with preferences of A>B>C (i.e., A is preferred to B, etc.) and a

legislature with preferences C>B>A. If the decision maker is able to choose policy A without any costs, he or she is considered unconstrained. The higher the costs imposed on the decision maker for choosing a policy which deviates from the preferences of other actors, the greater the constraints on the decision maker. Institutional structures play a vital role in this process because structures create *channels* through which other actors impose costs on decision makers; that is, institutions influence the probability that the decision maker will be punished for failure.[7]

Figure 1 displays how institutional structures create channels which can be used by opposition groups to impose costs on decision makers. The Figure identifies three institutions through which societal groups can potentially have important influences on foreign policy decision making: the legislature, the executive, and the ruling party. In a fully constrained regime, channels (a) through (c) are open. In less constrained regimes, these three institutional channels either do not exist or fail to function properly. For example, in an unconstrained regime, the legislature cannot impose costs on the executive for choosing policies which deviate from their preferences (i.e., channel (a2) does not exist). Similarly, if political parties are so weak that populist leaders can ignore them with impunity, the chief executive is not constrained through this channel (i.e., channel (c) does not exist).

[Figure 1 about here]

The legislative institutional channels connect mass society directly to the chief executive through the legislature. The openness of these channels determines the degree of inclusiveness of the political system. Inclusiveness measures the extent to which societal groups are included in the political process (Dahl 1971). In a completely inclusive regime, all societal groups are incorporated into the political process. A partially inclusive regime may incorporate some economic classes but exclude the working class, or incorporate some ideological groups but exclude communists. A totally exclusive regime has no links from mass society to the chief executive or the legislature. The degree of inclusiveness varies across democracies and authoritarian regimes as well as over time within any particular regime. In the U.K., the expansion of the vote in 1832, 1867, 1884, and 1918 increased the inclusiveness of the regime as the

propertied middle class, and then working class, were incorporated into the political process. The addition of these groups into the process constrained the executive because the preferences of the newly included groups had to be considered in any foreign policy decision. After 1884, the working class had a channel to impose costs on decision makers who acted contrary to its interests.

The legislative channel can be regulated through a variety of institutional mechanisms which allow political systems to escape an "included versus excluded" dichotomy. In some regimes, votes are openly weighted in the aggregation process. These regimes explicitly reject the one-person-one-vote philosophy. A historical example of weighted voting is the three-tiered voting system used in Prussia before 1918. All voters were divided into three classes based on taxes paid to the government. Each group then elected one third of the legislature. The system resulted in the wealthiest segment of the population having much larger voting weights (Koch 1984). Another common technique for weighting votes is multiple or plural voting rights. Obviously, the more votes one is given, the greater the weight of that voter in the aggregation process. For example, in the U.K. the landed aristocracy (and university professors) maintained the right to multiple votes. Plural voting rights in the U.K. were very important through 1918 and not completely eliminated until 1948 (Therborn 1977, 8). Similarly, in Belgium from 1893 until 1918, middle-aged males of propertied families received three votes while others received only a single vote (Therborn 1977, 12). In all three examples, institutional rules regulated the openness of the channels from mass society to the government.

The legislative channel also runs from the legislature to the chief executive. This link is the cornerstone of democratic theory. The greater the power of the legislature, the easier it is to punish the executive for selecting policies which diverge from the preferences of the legislature. It is clear that both society-legislature and legislature-executive links are required for the legislature to be a highly constraining institution. If the legislature has no ability to regulate executive behavior, then universal suffrage in legislative elections will have no political impact. Conversely, political systems that severely restrict participation are unlikely to elect a legislature which has preferences radically different from the chief

executive.

Historically, the openness of channel (a2) has varied greatly across both authoritarian and weakly democratic regimes. A historical example of a weak legislature in the area of foreign policy is Imperial Germany. The Kaiser, an unelected executive, was only weakly constrained in the area of foreign policy and possessed almost total control over the military. Imperial Germany is especially interesting because legislative power varied greatly across issue areas, from relatively strong for domestic political issues to almost non-existent for foreign policy issues. A second example comes from Japan in the 1930's. The strength of the legislature rose after World War I with the emergence of the truly competitive two-party system. However, following the assassination of the Prime Minister in 1932, the legislature lost the power to appoint both the Prime Minister and the Cabinet (Beasley 1990).

The second major institutional channel focuses on intra-executive competition, a dimension along which political systems differ enormously. Some political systems, such as presidential systems, severely curtail or eliminate competition within the executive. American Presidents are very unlikely to confront individuals or coalitions with sharply divergent preferences actively competing for control of foreign policy. Unlike many parliamentary systems, American Presidents are not forced to confront opposition parties in the cabinet. Although the President's Cabinet appointments are approved by the Senate, the candidates must be nominated by the President. Moreover, should opposition emerge over time, the President is free to remove the individual.[8]

In contrast to the case of extremely weak intra-executive competition found in presidential systems, stands the very constrained chief executive found in Switzerland. According to the Swiss model, the chief executive position is rotated among the seven members of the Federal Council on a yearly basis. In this collegial system, the current chief executive has no ability to dictate policy over the wishes of the remaining six members of the council. Falling between these extremes are systems which allow factions to compete for authority within the executive. An informal case would be the Politburo in the Soviet Union after the death of Stalin. Leaders such as Nikita Khrushchev were very conscious of the ability of opposition

factions in the Politburo to inflict costs following policy failures. A more formal system of intra-executive competition can be found in Lebanon. According to the 1943 unwritten "national pact," a Christian Maronite always serves as President while a Sunni Muslim always serves as Prime Minister. Although the President appoints the Prime Minister, the fact that the two individuals represent societal groups with very divergent preferences implies that all Presidents can expect competition within the Lebanese Cabinet.[9]

The third major institutional channel focuses on the relationship between the ruling party and the chief executive. As with the intra-executive channel, this channel is potentially most important for measuring the degree of constraint across authoritarian regimes. Strong political parties limit the probability that opposition to the chief executive policies will emerge. In contrast, political parties that have formal or informal factions facilitate the development of opposition. The formal split in the Afghanistan communist party, which included the Khalq and Parcham wings, increased the probability of opposition to the chief executive. Similarly, the coalitional National Opposition Party (UNO) headed by Violeta Chamorro in Nicaragua lacked the political power to constrain virtually independent parties within the umbrella organization. The variance in party power also occurs within more consolidated democratic political systems. The strong party system in the U.K. severely constrains party members from openly opposing party leaders. Renegade members of the Tory party can find themselves assigned to very difficult districts in subsequent elections (or even excluded from nomination entirely). Conversely, in the U.S. political parties have very few instruments which can be used against deviant members. The existence of weak parties implies that within party opposition can easily develop.

In summary, the institutional constraint model hypothesizes that the presence of domestic opposition within the executive, legislature, or ruling party raises the potential costs of using force for decision makers, and therefore reduces the probability the leader will initiate violence to resolve an international dispute.

4. EVOLUTION OF CONFLICT AND SELECTION EFFECTS

Most of the democratic peace literature neglects the fact that political conflicts evolve over time.[10]

Explicitly examining this evolutionary process is important because normative and structural constraints could have different influences at different stages of the conflict. In this project, a "dispute" is a political-security conflict between two independent states. Disputes can be triggered by a variety of issues, ranging from disagreements over territorial boundaries to clashes over ideology. As Figure 2 depicts, disputes can evolve in a number of ways. A dispute can be permanently resolved through negotiation or third party mediation. Alternatively, a dispute can be on-going in the sense that the underlying conflict is never resolved to the liking of both parties, yet neither party chooses to escalate the dispute. Finally, a dispute can escalate into a "crisis" which is defined as a confrontation in which a least one party actively contemplates using military force to resolve the dispute. Some crises are resolved without either party resorting to force; in others one or both sides might use low or high levels of force with the aim of permanently and favorably resolving the dispute.

Previous research has demonstrated that selection effects may have a powerful impact on the relationship between regime type and the use of external violence (XXXX 19XX). Selection effects occur when individuals, such as foreign policy leaders, can choose whether or not to be in a sample. Whether or not to enter a dispute or escalate a dispute into a crisis is a choice. If democratic or constrained leaders systematically choose not to escalate disputes, then an analysis of a "crisis" data set that does not control for the self-selection process can lead to a misinterpretation of the relationship between regime type and the use of force. For example, conceivably we could discover a strong monadic effect of democracy at the dispute level but only a dyadic effect at the crisis level. An analysis of crises would incorrectly conclude there is no monadic effect of institutions. Conversely, we may find that while norms and structures have powerful effects at the dispute level, only structural constraints remain at the crisis level. The research design described below allows an investigation of both the structure/norms and monadic/dyadic questions within the context of a selection process.

[Figure 2 about here]

5. THE DATA SET, HYPOTHESES, AND MEASUREMENT OF VARIABLES

The hypotheses described below are tested using the set of international disputes from 1960 to 1988. The failure to test hypotheses on the broader set of international disputes simply reflects the fact that, until now, no such data set has been constructed. The Correlates of War data sets of wars (Small and Singer 1982) and militarized interstate disputes (Gochman and Maoz 1984) as well as International Crisis Behavior data set (Brecher, Wilkenfeld, and Moser 1988) only include cases in which force is used or threatened. The universe of international disputes, which includes cases such as the U.S.-Mexican dispute over territory along the Rio Grande, is much broader. In part, this reflects the cumulative progress of the field. The early tests (Small and Singer 1976; Doyle 1986) were restricted to wars while the latter tests (Maoz and Russett 1993) expanded the analysis to include international crises and militarized disputes. This paper represents the next logical step: the identification and analysis of the population of international disputes.[11]

The primary source for the identification of international disputes is a data set developed by Sherman (1994) which identifies all domestic quarrels and international disputes from 1945-1988.[12] I have adapted the Sherman data set in a number of ways. First, due to the scope of the effort involved, I have restricted my analysis of disputes to the 1960-88 period. As I will discuss below, even with this restriction the final dispute data set contains 223 disputes and almost 6000 country-dispute years.

Second, I removed all “domestic quarrels” because my theoretical framework is designed to examine the impact of institutions and norms on the use of force externally (as opposed to governmental force against one's own citizens). Any domestic quarrel which escalates into an international dispute due to third party intervention is included in the data set. For example, Indonesian repression of its ethnic Chinese citizens during the 1960's triggered a China-Indonesia international dispute which is included in the dispute data set.

Third, I have eliminated several categories of dispute cases, including: human rights cases, maritime boundary cases, purely economic conflicts, colonial cases, and non-state sponsored terrorism. In essence, I hope to focus on political-security conflicts that have some probability of escalating to military

conflict between internationally recognized sovereign states. Although the U.S.-China conflict springing from Chinese human rights violations at Tiananmen Square constitutes an international dispute in a broad sense, no decision maker in the U.S. seriously contemplated using military force to resolve the dispute. The vast number of maritime boundary cases, unlike territorial disputes, very rarely escalate to the point in which one or both parties contemplates using force. Most of these cases are, in fact, tied to economic conflicts (e.g., fishing disputes and undersea mineral rights disputes). Economic conflicts, while important, are qualitatively different from political-security disputes because threats and use of military force rarely play a central role.[13] Colonial cases have been removed because the theoretical framework for this study applies to the bargaining norms and political structures of independent state actors. Independence movements typically lack formal political institutional structures; in addition, it is unclear just what sort of conflict resolution norms are established under colonial rule. Finally, while state-sponsored terrorism is clearly a use of force by one government versus another and therefore included in the data set, general terrorist attacks by internal groups aimed at altering governmental policies are not incorporated into the data set.

Fourth, I have aggregated disputes into "country conflicts," resulting in a pooled time series data set. For example, rather than treat the U.S. opposition to Castro and the Cuban challenge to the U.S. control of Guantanamo as independent events as Sherman does, I have created a single U.S.-Cuba dispute from 1960 to 1988 which tracks the number and types of issues under dispute in any given year. Another example comes from India and Pakistan. Rather than treating each disputed piece of territory as an independent conflict, I have consolidated the disputes into a single India-Pakistan dispute which has multiple territorial disputes, as well as conflicts over other issues such as nuclear weapons.

The net result of the effort has produced a dispute data set consisting of 223 international disputes from 1960-1988. A list of the cases appears in Appendix A. The disputes range in length from a single year to twenty-nine years (i.e., all years under investigation); the average territorial dispute is twenty-one years and the average anti-regime dispute just over ten years. The 223 international disputes correspond to

2880 dispute years. For example, India and Pakistan are in a dispute from 1960 to 1988 which corresponds to twenty-nine dispute years in the data set.[14] I collected data on both the challenger and defender states because political leaders in both countries face decisions regarding the timing and extent of military force. As a result, the final dispute data set consists of 5760 country-dispute observations (i.e., 2880 decisions by the challenger whether to use force and 2880 decisions by the defender whether to use force).

From a theoretical standpoint, the initiation of violence represents the ideal dependent variable for testing the democratic peace and constraint models. As described in Rousseau et al.. (1996), the logic of the normative and structural variants of the democratic peace argument implies that democratic polities should be less likely to *initiate* military conflict. The most commonly used dependent variable in the literature, involvement in conflict, is inappropriate because it fails to distinguish the initiators of violence from the targets of violence. Self defense is quite compatible with norms of peaceful conflict resolution. Moreover, domestic opposition groups are unlikely to punish decision makers for defending a state's interests when attacked by external forces.

However, using initiation of force as a dependent variable for the dispute data set is difficult because the use of force is a relatively rare event; in the full dispute data set of 5760 country-years only about 12% of the cases involved a use of military force. If one were to examine only years in which force was initiated, only about 1% of cases would be coded above zero for the dependent variable. The skewness of the dependent variable makes estimating a probit or logit model relatively uninformative. In order to estimate the model, I developed an alternative dependent variable, *Aggressive Use of Force*, which, while being relatively frequent, had closer ties to the initiation of force than mere involvement in a dispute.

Aggressive Use of Force: An aggressive use of force is defined as the use of military force on the territory of another sovereign state. The variable is superior to simply measuring mere conflict involvement because defending oneself within one's own territory does not constitute a use of force. A conflict involvement variable would code both Belgium and Germany as having used force in 1914 and 1940.

However, the aggressive use of force variable (just like an initiation of force variable) would only code Germany as having used force. Belgian troops do not enter Germany in force during either conflict.[15]

The dependent variable includes state support of non-state actors, such as independence movements. For example, Algerian support of the Polisario independence movement in the Spanish Sahara makes Algeria an aggressive user of force against Morocco. The expanded definition addresses, in part, Cohen's (1995) concern that the failure to include the use of surrogate forces in previous empirical research has led to a systematic underestimation of the use of force by democracies.

The primary drawback of the aggressive use of force variable is the fact that states often retaliate across the border. The normative and structural explanations of the democratic peace, which are compatible with the notion of reciprocity (i.e., tit-for-tat), would conceivably permit the retaliatory use of force. Having said this, in the minds of decision makers the crossing of international borders represents a salient threshold in terms of the use of force. In the Korean War, the U.S. and the United Nations wrestled with the decision of whether or not to cross the 38th parallel into North Korea (Foot 1985). Although the North Koreans had clearly initiated the large-scale attack in June 1950, crossing the border into North Korea in the hopes of toppling the Communist regime and reuniting the peninsula clearly was seen by all parties as a more aggressive use of force than merely defending South Korea. In sum, while the aggressive use of force dependent variable is in some respects inferior to an initiation variable, its relative frequency coupled with its superiority to traditional measures such as conflict involvement make it the best choice for the pooled time series analysis of international disputes.

The normative and structural variants of the democratic peace model can be used to derive the two central hypothesis of the democratic peace model.

Hypothesis 1 (Monadic Argument): The more democratic a state, the less likely it is to initiate the use of force regardless of the regime type of the adversary.

Hypothesis 2 (Dyadic Argument): The more democratic a state, the less likely it is to initiate the use of force against other democracies.

An important component of the dyadic explanation is the assumption that democracies may preemptively

initiate the use of force against authoritarian states because they fear exploitation. The argument posits that authoritarian leaders believe that democracies are more likely to capitulate; this belief leads the authoritarian leaders to attempt to exploit democracies by demanding concession or attacking first (Bueno de Mesquita and Lalman 1992, 155-160).[16] If this is true, we should expect that non-democratic states are more likely to initiate the use of force against democracies. While not testing the dyadic assumption directly, the hypothesis allows us to probe the underlying logic of the argument.[17]

Hypothesis 3: Non-democracies are more likely to initiate the use of force against democracies than they are against non-democracies.

The three democratic peace hypotheses are tested using aggregate level institutional measures found in the Polity II data set (Gurr et al. 1989). An *Actor's Democracy* variable was constructed for each state in the conflict by subtracting the Polity II autocracy index from the democracy index to produce a variable which ranges from -10 to +10. In order to ease the interpretation of the statistical results this variable was rescaled from 0 to 20.

In order to isolate the impact of level of democracy when facing a democratic opponent, I introduce an interactive term, which I label *Actor's Democracy with Democratic Opponent*, composed of the *Actor's Democracy* score multiplied by a dummy variable indicating whether or not the opponent is a democratic state. If a state's opponent scores 17 or greater on the democracy scale, the dummy variable is coded 1. Otherwise the variable is coded 0. Thus when the opposing state is not democratic this variable takes on a value of 0. When the opposing state is a democracy, however, this variable is equal to the *Actor's Democracy* score.

Finally, in order to test Hypothesis 3, an *Opponent's Democracy* variable was coded on the same basis as the *Actor's Democracy* score and therefore ranges from 0 to 20. The use of a dummy variable for the opponent's democracy in the interactive term and a continuous variable to test Hypothesis 3 was consciously chosen. The interactive term must incorporate a dummy variable in order to compare the effect of an actor's democracy when facing non-democracies with the actor's democracy when facing

democracies. While the use of an identical dummy variable for Hypothesis 3 would be stylistically consistent, it would involve throwing away valuable information. While the results are slightly stronger in both a statistical and substantive sense using the continuous variable, the same pattern of results holds using the dummy operationalization to test Hypothesis 3.

The institutional constraint argument is tested using four hypotheses.[18]

Hypothesis 4: States with coalitional executives are less likely to use aggressive force.

Hypothesis 5: States with collective decision making bodies within the executive are less likely to use aggressive force.

Hypothesis 6: The larger the size of the ruling coalition, the more likely a state is to use aggressive force.

Hypothesis 7: States with factional or coalitional ruling parties are less likely to use aggressive force.

The dichotomous *Coalitional Executives* is coded "1" if the chief executive depends on the support of formally independent parties to remain in office and these parties are officially represented within the cabinet. Representation in the cabinet allows the opposition forces, in theory, to directly participate in major foreign policies decisions. Although political parties often declare that they support the Prime Minister, unless the party in question holds cabinet seats it is not considered a member of the ruling coalition. An example of a coalition government is Belgium during the Eyskens Administration (Christian Socialists and Liberal Party) which held office during the "Congo I: Katanga Crisis" in 1961. States without coalitional executives would include United States (all years), parliamentary systems such as the United Kingdom when a single party controls the cabinet, and a military regime under a single ruler such as Pinochet in Chile from 1973-1988.

Hypothesis 5 is tested using a dichotomous *Collective Decision Making Executive* variable. Many states possess institutions which allow multiple individuals to participate in executive decision making. The constraint model hypothesizes that the inclusion of multiple actors in the decision making process creates an institutional channel which facilitates the punishment of decision makers for policy failures. Collective decision making institutions typically take one to two forms: collective decision making bodies or

factions within the executive branch. In regimes with collective leadership, executive power is formally or informally dispersed among individuals. No single executive can dominate proceedings; all executives have some veto power over proposals. An example of formal collective leadership is Switzerland's rotating presidency. An example of informal collective leadership is Argentina under the military junta from 1976-1982. In regimes with factional divisions, executive is formally or informally divided into competing factions. The decision maker must secure approval of the competing factions before implementing a policy. The factions tend to be fluid and the chief executive faces the threat of removal at any time. An example of informal factional divisions is the Khrushchev administration in the Soviet Union. An example of a more formal factional division is the People's Democratic Party of Afghanistan (PDPA) government in Afghanistan after the 1978 coup and before the purging of the Parcham members in 1979.

Decision makers can also be constrained by presence of opposition groups in the legislature. In theory, legislatures in which chief executives are support by only a minority of members should be more constraining than legislatures dominated or completely controlled by a single party. The *Size of the Ruling Coalition* variable used to test Hypothesis 6 is calculated by dividing the number of seats held by the ruling party and its supporters by the total number of elective seats in the legislature. Once again, the supporting parties must be formally represented in the cabinet in order to be added to the seats controlled by the ruling party. In cases in which the legislature is divided into two chambers, the lower chamber, which is typically the more powerful of the two, was selected for coding. In instances in which the chief executive did not belong to a political party, I estimate the size of the consistently "pro-government" forces. If the chamber contained non-elective seats (e.g., tribal chiefs or functional representation of societal groups such as "professionals"), these seats were excluded from the total number of seats unless it was clear whether the representatives were pro-government or anti-government.

Two examples illustrate coding of this variable. In Israel in 1960, while Ben Gurion's Mapai Party possessed only 47 of the 120 seats in the Knesset, the ruling coalition held a slight majority in the chamber with 69 seats. A second example comes from the U.S. in 1970 where President Nixon's ruling Republican

Party controlled only 192 of the 435 seats in the House of Representatives; no ruling coalition existed.

Ruling parties vary in terms of cohesion. The constraint model predicts that the degree of cohesion influences decisions to use force. The more cohesive the ruling party the less likely opposition is to develop from within the party itself. In cases of coalitional or factionalized parties, much of the opposition to the chief executive's policy often emerges from within the party itself. The presence of opposition should reduce the likelihood that a chief executive will initiate a risky foreign policy. Regimes in which the chief executive leads a coalitional party or a factional party are coded as "1" on the *Factional Ruling Party* variable. A coalitional party implies that the regime is actually comprised of a coalition of independent parties. These parties have independent headquarters, membership lists, and organizational hierarchies. An example of a coalitional party is the National Opposition Party (UNO) headed by Violeta Chamorro which came to power in Nicaragua in 1990. Conversely, a factional party is one with formal or clearly recognized divisions. Factionalized parties can exist in both democratic and authoritarian regimes. The Liberal Democratic Party in Japan and the Congress Party in India are coded as factionalized parties, as is the communist PDPA party in Afghanistan prior to 1979 with its Khalq and Parcham wings.

In addition to the analysis of the democratic peace and constraint variables, the model includes three important control variables.

Hypothesis 8: The more the balance of military forces tends to favor a state, the more likely it will initiate the use of force.

Hypothesis 9: States challenging the status quo are more likely to initiate the use of force.

Hypothesis 10: States which share a military alliance tie with their opponent are less likely to initiate the use of force.

The *Balance of Forces* variable measures each state's military capabilities relative to its opponent. A state's military capability is the average of three elements: number of troops, military expenditures, and military expenditures per soldier. The variable is created in four steps. First, the raw data are converted to a percentage relative to the global total of the element (e.g., actor A's troops in 1919/global total number of troops in 1919). Second, totals are discounted to reflect the distance between the actor and the location of

the conflict when necessary. The method used to discount power projection capability can be found in Bueno de Mesquita (1981:103).[19] Third, for each element, the actor's capabilities are calculated as a proportion of the combined capabilities of both actors (e.g., actor A's troops/(actor A's troops + actor B's troops)). Finally, I average the three elements (troops, expenditures, expenditures per soldier). The final variable ranges from 0 to 1. A value over 0.50 indicates that the state's military capability is superior to that of its opponent; a value approaching 1 reflects the fact that a state then enjoys an overwhelming military advantage. The source of the troop and expenditure data was the Correlates of War Project data set entitled "National Capabilities of States, 1816-1990."

A second control variable included in the analysis codes for the existence of alliance ties between the challenger and defender. This variable has been included because it indirectly measures the degree to which the two parties have shared interests (Bueno de Mesquita 1981; Farber and Gowa 1995:5). Realists would expect that common security interests, signaled by alliance ties against a common adversary, should reduce the likelihood of conflict between two states. The inclusion of this variable is important because critics of previous democratic peace analyses have argued that statistical findings are spurious if alliance ties are not explicitly included. They argue, for example, that the post-World War II peace between Germany and France is a function of a common Soviet threat rather than any constraining feature of democracy. *Alliance Ties* is a dummy variable which takes a value of "1" when the two states share a defense pact, a neutrality pact, or an entente; otherwise the variable is coded "0." For example, both Greece and Turkey are coded "1" during the 1967 Cyprus crisis because both were members of the North Atlantic Treaty Organization at the time of the crisis.

A third control variable included in the analyses measures whether or not a state is satisfied with the status quo. Rousseau et al.. (1996) have demonstrated that states dissatisfied with the status quo are much more likely to initiate the use of force in crises. For example, if one state in a territorial dispute occupies the entire piece of contested territory, this state would not be expected to initiate violence. Rather, the state which is not satisfied with the status quo (i.e., does not control the territory) is much more likely to

be the first to resort to violence. Controlling for this variable is important because in many cases democratic states are satisfied with the status quo. One might reasonably infer that the reason the democratic state did not initiate the use of force was due to satisfaction rather than political structure or norms. The *Satisfaction with the Status Quo* control variable is coded "1" if the state would be satisfied with the status quo with regard to the issue at stake in the conflict at the time that the conflict begins. Otherwise the variable is coded 0. In general, the challenging state is coded as being dissatisfied with the status quo. However, there are a number of cases in which both states are coded as dissatisfied, such as the India-China territorial conflict.

6. ANALYSIS OF INTERNATIONAL DISPUTES

The multivariate results for both models using the set of international disputes from 1960 to 1988 are presented in Table 1.[20] The hypotheses are tested using a probit model and the *Aggressive Use of Force* dependent variable. In Model 1, the dichotomous dependent variable is distributed as follows: (1) no use of force in 88 percent of the cases; and (2) use of force in 12 percent of the cases (N=5512).[21] The marginal impacts of the estimated coefficients in Model 1 are shown in Table 2.

[Table 1 about here]

[Table 2 about here]

In a probit model, the substantive significance of variables cannot be determined by simply comparing the size of coefficients in the equation. Marginal analysis is required to isolate the effect of a change in an independent variable on the probability of using aggressive force. The marginal impact of each independent variable is calculated while holding constant all other independent variables at either their modes (for categorical variables) or means (for continuous variables). For the constraint model, the baseline categories are as follows: the chief executive does not rule through a coalition or collective body, the ruling coalition controls 84% of the seats in the legislature, the ruling party is unified, the two antagonists are evenly match in terms of military forces, the state is dissatisfied with the status quo, and no alliance tie exists between the two states.

Throughout the discussion of the marginal analysis, the reader should keep in mind the skewed distribution of the dependent variable in the dispute data set: the use of force by any state is a relatively rare event. This rareness depresses the marginal impact of the variables. While a shift in an independent variable may double the probability of using force, the associated shift in the predicted probability may only be from 10 to 20 percent. However, while a 10 percentage point shift may appear slight in other contexts, I believe that given the rareness of the use of force, the doubling in the probability of using force implies a substantively important finding.

The first two variables in the institutional constraint model shown in Model 1 measure the amount of opposition found within the executive branch. The dichotomous *Coalitional Executive* variable identifies regimes with coalitional governments in which multiple parties are represented in the cabinet. The second variable identifies regimes which have some form of joint or collective decision making body within the executive (e.g., a politburo or multi-member junta). Although the model predicts that both variables will be negative and significant, the results in Model 1 indicate that only the *Coalitional Executive* variable conforms to expectations. The marginal analysis for the estimated coefficients in Table 2 indicate that shifting from a non-coalitional government to a coalition government decreases the probability of using force by 6 percentage points.[22] Specifically, the predicted probability of using force falls from 19% to 13%. In contrast, the existence of joint decision making bodies in the executive has virtually no effect on the probability of using aggressive force. While the variable is negative as expected, it is not statistically or substantively significant.

The third variable in Model 1, *Size of the Ruling Coalition*, examines legislative constraint on the executive. As predicted, the larger the size of the ruling coalition the more likely a state is to use force. The statistically significant variable also has an important substantive effect. A shift in the size of the ruling party from 50 percent (a typical democracy) to 100 percent (a typical autocracy) increases the probability of using force by 10 percentage points (4 + 6). A shift from the lowest to the highest category increases the predicted probability of using force from 9% to 23%.

The fourth variable in the constraint model identifies states which have no legislatures during the year of dispute or at the moment in which violence is initiated by the state. The *No Legislature* variable implies that either no legislature has ever existed in the polity (e.g., Saudi Arabia all years) or the legislature was currently suspended during the year (e.g., Argentina 1976-82). The variable must be included in the model to distinguish between two types of states in the data set; those countries in which the legislative exists but does not constrain chief executives and those countries which place no legislative constraint on the executive precisely because no legislature exists. States without legislatures cannot be coded as "0" for the *Size of Ruling Coalition* variable because this would imply that they are more constrained than democratic regimes. Therefore, this distinction is made introducing an interactive term which multiplies the *Size of Ruling Party* variable by the *No Legislature* variable. An example is given in Table 3. Given that the interactive term is perfectly correlated with the *No Legislature* term, I simply refer to this variable as the *No Legislature* term. Although the operationalization is somewhat awkward, it allows me to estimate the model using all available observations; the model can be used to simultaneously compare autocratic regimes that have a legislature with those that lack such an institution.

[Table 3 about here]

The logic of the constraint argument would predict that those states without a parliament should be less constrained than those with a parliament. However, the results in Table 1 clearly indicate the opposite; the *No Legislature* variable is negative and strongly significant. The marginal analysis shown in Table 2 indicates that the lack of a legislature decreases the probability of using force by 6 percentage points.

An examination of the data provides some insight into this unexpected finding. In general, there are two types of regimes which do not possess legislatures: monarchies and military regimes. Of the 1205 country-dispute years in the data set in which no parliament exists, monarchies account for 287 observations while military regimes account for another 758 observations. Typically, these military regimes have seized power in times of instability. Such regimes are unlikely to possess the capacity or will to extract the resources from society required for a prolonged conflict. Similarly, it appears that

monarchies are either small weak states (e.g., Qatar and Bahrain) or lack the capability to mobilize resources (e.g., Libya during King Idris' reign). While there are obvious exceptions, such as the military regimes in Turkey and the monarchy in Saudi Arabia, instability and lack of capacity appear to explain the unexpected finding.

The fifth variable in the constraint model is *Factional Ruling Party*. The framework predicts that factional parties encourage within-regime opposition, which in turn should lower the probability of using aggressive force. While the estimated coefficient is negative and statisitically significant at the 0.05 level, the marginal impact of the variable is quite limited. The predicted probability of using any force only falls from 19% to 16% with a shift from unified to factional.

Model 1 indicates that the *Balance of Forces* variable is positive and strongly significant. Consistent with realists' predictions, the more the military balance favors a state the more likely it is to use force. A change from the most unfavorable to the most favorable balance of forces results in a 7 percentage point increase in the probability of using force aggressively. What is interesting to note here is that contrary to the expectations of some realists, domestic political institutions such as the size of the ruling coalition play just as an important a role as a traditional realist power-oriented variable. Clearly, both systemic and state level variables shape decisions to use military force.

The *Shared Alliance Ties* variable, another realist variable incorporated to control for the existence of shared interests, is neither statistically nor substantively significant. The estimated coefficient is overwhelmed by its standard error and the variable has only a small marginal impact.

The final variable in the constraint model is *Satisfaction with the Status Quo*. In each dispute, one or both parties are challenging the status quo in terms of the primary issue (e.g., territorial boundaries, anti-regime, treaty disputes, etc.). The hypothesis predicts that the state challenging the status quo is more likely to use military force. The results in Model 1 strongly support this contention: the *Satisfaction with the Status Quo* variable is negative and statistically significant at better than the .001 level. The marginal impact analysis shows that the predicted probability of using force falls from 19% for a dissatisfied state to

5% for a satisfied state.

The results of the democratic peace model are presented as Model 2 in Table 1. Hypothesis 1 (a purely monadic argument) predicts that the coefficient on the *Actor's Net Democracy* score will be negative and that the interaction term which isolates the effect of the actor's democracy when facing a democratic opponent will be insignificant. Hypothesis 2 (a purely dyadic argument), on the other hand, predicts that the coefficient on the *Actor's Net Democracy* score will be insignificant, and the coefficient on the interaction term will be negative.

The results in Model 2 indicate both a monadic and dyadic effect of democratic institutions. Both the *Actor's Net Democracy* variable and the interaction term (*Actor's Net Democracy with a Democratic Opponent*) are negative and statistically significant at better than the .001 level. The more democratic a state, the less likely it is to initiate a military conflict; when the opponent is a democratic state, this conflict-dampening effect of institutions is even stronger. In addition, the *Opponent's Net Democracy* variable is positive and significant as predicted by Bueno de Mesquita and Lalman (1992). For autocratic states, the more democratic an opponent, the more likely the state is to use force. Autocracies appear to believe that democratic institutions are a sign of weakness and easily exploitable.[23]

The marginal impacts of the coefficients estimated in the Model 2 are shown in Table 4.[24] The *Actor's Democracy* portion of the Table indicates that shifting from a totally autocratic state (0) to a totally democratic state (20) cuts the probability a state uses force almost in half. The predicted probability of using force falls from 23% to 13%, or a net decrease of 10 percentage points.

[Table 4 about here]

The marginal impact of the interactive dyadic variable, *Actor's Democracy with a Democratic Opponent*, is even more powerful. A shift in the independent variable from the minimum of 0 to a maximum of 20 results in a 28 percentage point decline in the probability of using force. While there is a substantive monadic effect of democratic institutions and norms, the marginal analysis clearly indicates a powerful dyadic effect above and beyond the monadic effect.

In addition, two of the three control variables have a powerful influence on the probability of using force aggressively. The *Balance of Forces* variable is positive and statistically significant at the .001 level; the more the balance of military forces favors a state, the more likely it is to use force to resolve an international dispute. The marginal analysis indicates that increasing the *Balance of Forces* from a very unfavorable 1:9 ratio to a very favorable 9:1 ratio increases by 6 percentage points the probability of using aggressive force to resolve the dispute.

In contrast, alliance ties once again do not appear to strongly influence decisions to use force in disputes. While the variable is weakly significant in a statistically sense, a shift from "no alliance" to "shared alliance" only results in a 2 percentage point decline in the probability of using force. Finally, states that reject that status quo in a dispute are, as expected, much more likely to use aggressive force. A shift from "dissatisfied" to "satisfied" decreases the probability of using of using aggressive force from 18% to 6% -- a decline of 12 percentage points.

Is the institutional constraint model superior to the democratic peace model which relies on the aggregate Polity II data? One method used to test the relative strength of each model involves placing the variables from both explanations into a single equation (i.e., nesting the models). The statistical results of the full model are shown in Model 3 of Table 1; the marginal impacts of the variables are shown in Table 5.

Using a log-likelihood ratio test, we can determine if the democratic peace model, the constraint model, or the full model best describes the data. The formula utilized to determine significance levels of the log-likelihood ratio test is as follows:

$$v = -2[\text{log-likelihood function value } x_1 - \text{log-likelihood function value } x_2],$$

with x_2-x_1 degrees of freedom and where x_1 represents the restricted model and x_2 represents the full model.[25] The significance level is calculated using a chi-square distribution. The log-likelihood ratio test demonstrates that the full model provides a significantly better fit to the data than either the democratic

peace model (v=232, df=3, p<.001) or the constraint model (v=92, df=5, p<.001) by themselves.

An examination of the results of the full model indicates that the coefficients for the three democratic peace variables are extremely stable; the statistical and substantive significance of the variables in the restricted democratic peace model are almost identical to those found in the full model. The constraint model, on the other hand, produces much weaker results in the full model. The *Coalitional Executive* and *Size of the Ruling Coalition* variables, both statistically significant in the restricted constraint model, no longer differ from zero in the full model. The estimated coefficients are much smaller in the full model and the marginal impacts are now virtually zero. . Specifically, the estimated coefficient of the *Size of the Ruling Coalition* shifts from a positive as anticipated 0.780 in the restricted model to a weak and unexpectedly negative value of -0.047 in the full model. Similarly, the *Coalitional Executive* coefficient, which is also statistically significant at the 0.01 level in the constraint model, falls by two-thirds from -0.268 to a mere -0.072. Only the *No Legislature* and *Factional Ruling Party* variables remain substantively and statistically significant across both models. The absence of a functioning legislature and the presence of a factional ruling party decrease the probability of using force by 6 and 5 percentage points, respectively.

The instability of some of the constraint variables appears to be due to the fact that some of the variables in the constraint model are measuring underlying components of the aggregate indices employed in the democratic peace model. For example, the *Size of the Ruling Coalition* variable is closely related to the Legislative Constraint on the Executive component of the aggregate Polity II index.[26] However, this is not simply a multicollinearity problem introduced by including highly correlated independent variables in the same model. If multicollinearity were the culprit, the coefficients would have been stable across specification; any statistical insignificance of the variables in the full model would be due to an increase in the size of the standard errors. Rather, the problem appears to stem from the fact that the model estimates the impact of the variable while holding the other independent variables constant. This means that a change in *the Size of the Ruling Coalition* variable from 25% to 75% is estimated while holding the *Actor's Net*

Democracy constant at a value such as 10 on the 0-20 scale. This is a very demanding test of the *Size of the Ruling Coalition* variable because one would expect that a shift from 25% to 75% in the size of the ruling coalition would be associated with some movement along the aggregate index.

For this reason, a nested model may not be appropriate for determining the relative power of two explanations. As an alternative test, I employ the non-nested "J-test" which involves four regressions.[27] First, the constraint model is run and the predicted values are saved. Second, the democratic peace model is run with the predicted values from the constraint model inserted as independent variables. If the estimated coefficient of the predicted values is not statistically significant, we can conclude that the constraint model does not add any information above and beyond that provided by the democratic peace model. The process is then reversed and repeated (i.e., the predicted values from the democratic peace model are placed in the constraint model). The results of the J-test indicate that neither model can be discarded. In both cases the estimated coefficients of the predicted values are positive and statistically significant (t-ratios of 2.73 and 7.65 for the constraint and democratic peace predicted values, respectively). In sum, while the results strongly support the democratic peace model, no firm conclusions about the utility of the institutional constraint model can be drawn without further investigation.

The robustness of the full model was tested using a number of alternative variables and model specifications. The full model was re-estimated with the following changes: varying the cutoff for the opponent's democracy from 16 to 19; employing dummy operationalizations for all three democracy variables; setting the use of force threshold for the dependent variable at 1000 troops; adding issue variables (e.g., territorial and anti-regime dummy variables) to the equation; and removing great powers from the data set. In **all cases** the monadic and dyadic effects of democracy remained substantively and statistically significant.

A second set of sensitivity analysis explored the implications of using a pooled cross-sectional time series. A reader may, quite justifiably, worry that the statistical significance of the coefficients is an artificial by-product of increasing the number of observations from 223 disputes to 5760 country-dispute

years. This concern can be addressed in three ways. First, the marginal analysis has shown that results are not simply statistically significant, which is often a relatively simple feat with a very large number of observations. The dyadic democracy variable was, for example, the most powerful coefficient in the model. Second, the full model was reestimated with a random selection of 50 percent of the observations. The marginal impacts and statistical significance of the monadic and dyadic variables remained constant. Third, the Full Model was estimated was estimated using the "regime" rather than the "national state" as the unit of observation.

The regime data set is created by compressing the time series. If the democracy index for both states in the dispute remains constant for the entire time period, the multi-year dispute is compressed into a single observation. The dependent and independent variables are calculated by simply averaging values across the years which have been compressed. In cases in which either country experienced a change of at least two points on the 0-20 democracy index, a new observation was created.[28] For instance, the Chile-Argentina dispute contains 6 observations in the regime data set, reflecting the numerous regime changes experienced by both countries between 1960 and 1988. From 1976 until 1982, for example, represents a single observation because both states are highly autocratic. The fall of the military in Argentina after the disastrous Falklands War triggers a new observation which pits a fairly democratic Argentina regime against Pinochet's autocratic Chilean state. The creation of a regime data set reduced the number of observations from 5760 to 777 and virtually eliminates any chance that the results are the by-product of the pooled cross-sectional time series design. I should stress that the regime unit of observation is *not* the best test of the hypotheses because it involves the discarding of valuable information; the test is only included to ensure the results of the full model are robust.

The results of the regime level analysis are presented in Model 4 shown in Table 6. An ordinary least squares regression is estimated because the dependent variable is now the average number of years the state uses aggressive force. The coefficients for the democracy model remain substantively and statistically significant. The *Balance of Forces* and *Satisfaction with the Status Quo* variables are again significant in

the expected direction; alliances, as in previous analyses, do not seem to reduce the likelihood a state resorts to violence. As Table 6 shows, the results for the institutional constraint model are slightly stronger using the regime data set. As with prior results, the absence of a legislature and the presence of factions in the ruling party both inhibit the use of force. Unlike previous analysis of the full model, the *Size of the Ruling Coalition* variable is positive and significant as hypothesized. In contrast, the *Collective Decision Making* variable is statistically significant, but in the wrong direction. Contrary to the hypothesis proposed, states with collective bodies in the executive are more likely to resort to military force to resolve an international dispute. However, overall Model 4 strongly supports the major finding of this paper: democracy has both a monadic and dyadic effect on the use of force in international disputes.

A final sensitivity analysis concerns the skewness of the distribution of the dependent variable. The fact that states rarely resort to force to resolve international disputes means that the dependent variable, the *Aggressive Use of Force*, is highly skewed. Military force, in fact, is only used in 12 percent of the observations in the pooled time series data set. Gates and McLaughlin (1996) argue that probit and logit models assume an underlying symmetric distribution: "With a substantially skewed distribution, any symmetric statistical model can produce inefficient and biased results" (1996, 4). Gates and McLaughlin suggest using a gompertz curve as an alternative link function to the cumulative normal density function used in traditional probit analysis. They refer to this alternative estimation technique as Gompit. The two link functions are as follows:

Gompit: $\pi = e^{-e^{-XB}}$
Probit: $\pi = \Phi(XB)$

The results of the full model using the Gompit estimation method are shown in Model 5 of Table 6.[29] The results are very similar to those from the probit estimation of the full model shown in Table 1. Although the standard errors are smaller in the gompit model as Gates and McLaughlin predict, the substantive findings of the analysis do not change. All variables which were statistically significant in the probit model remain so in the gompit model. Similarly, insignificant variables in the probit model, such as the

Coalitional Executive and *Shared Alliance Ties*, remain insignificant in the gompit model. In terms of marginal impact, the results are very similar as well. A shift in the monadic Actor's Net Democracy variable 0 to 20 causes a 9 percentage point decline in the probability of using of force (versus a 10 percentage point decline in the probit analysis); a shift in the Actor's Net Democracy with a Democratic Opponent variable from 0 to 20 causes a 44 percentage point decline in the probability of using aggressive force (versus a 28 percentage point decline in the probit analysis). The democracy variables and satisfaction with the status quo remain the most powerful predictors of the use of force in both models. In sum, while the skewed dependent variable in theory can lead to inefficient and biased results, in this instance employing the more traditional probit model does not alter the basic findings of the paper.

7. CONCLUSIONS

In their test of the democratic peace model *within crises*, Rousseau et al.. (1996) only found evidence of a dyadic effect. However, they speculated that democratic institutions may inhibit the emergence of crises in the first place. This paper formally tests this proposition using a set of international disputes from 1960 to 1988. The results indicate that both a monadic and dyadic effect of institutions are present at the dispute phase. Democracies are less likely to use force, but particularly so when facing a democratic opponent.

How can we explain the shifting power of institutional constraint? An investigation of twenty-one crises (XXX 19XX) in which democratic states chose to use high levels of force indicates that the evolution of the conflict shapes domestic opinion within democracies. In many cases the behavior of the opponent lessened or eliminated domestic opposition to the use of force; if the domestic opposition supports the use of force, decision makers no longer fear being punished for choosing a coercive option. For example, Turkish Prime Minister Ecevit faced no opposition to the use of force in the 1974 Cyprus dispute because of prior uses of force and treaty violations by Greece. Similarly, in India during the Bangladesh crisis of 1971 and in El Salvador during the Honduran crisis in 1969, the opposition strongly supported the use of force to halt alleged abuse of human and political rights.

Finally, the paper provides some support for the constraint model. In some models, constrained autocracies were shown to be less likely to use force to resolve international disputes. However, weakness of the results in the full model preclude the formation of any firm conclusions concerning the constraint hypotheses at this point. Moreover, the results clearly indicate that the constraint model should be viewed as supplementing the democratic peace model rather than replacing it.

BIBLIOGRAPHY

Alker, Hayward R. and Frank L. Sherman. 1986. *International Conflict Episodes.* Ann Arbor: Inter-university Consortium for Political and Social Research.

Allison, Graham T. 1971. *The Essence of Decision: Explaining the Cuban Missile Crisis.* Boston: Little, Brown and Company.

Art, Robert J. 1973. "Bureaucratic Politics and American Foreign Policy: A Critique." *Policy Studies* 4():467-490.

Bachrach, Peter and Morton S. Barats. 1962. “Two Faces of Power.” *American Political Science Revie*w 56(December):947-952.

_____. 1963. “Decisions and Nondecisions: An Analytical Framework.” *American Political Science Revie*w 57(September):632-642.

Beasley, William G. 1990. *The Rise of Modern Japan*. New York, NY: St. Martin's Press.

Benoit, Kenneth. 1994. "Reexamining Democracy and War Involvement: Democracies Really Are More Pacific." Working Paper 94-5, Center for International Affairs, Harvard University.

Bloomfield, Lincoln P. and Amelia C. Leiss. 1969. *Controlling Small Wars: A Strategy for the 1970's*. New York: Knopf.

Brecher, Michael, Jonathan Wilkenfeld, and Sheila Moser. *Crises in the Twentieth Century: Volume I, Handbook of International Crises.* New York: Pergamon Press.

Bremer, Stuart A. 1992. "Dangerous Dyads: Conditions Affecting the Likelihood of Interstate War, 1816-1965." *Journal of Conflict Resolution* 36(June):309-41.

_____. 1993. "Democracy and Militarized Interstate Conflict, 1816-1965." *International Interactions* 18(3):231-49.

Bueno de Mesquita, Bruce. 1981. *The War Trap*. New Haven, CT: Yale University Press.

Bueno de Mesquita, Bruce, and David Lalman. 1992. *War and Reason*. New Haven, CT: Yale University Press.

Bueno de Mesquita, Bruce, and Randolph Siverson. 1995. “War and the Survival of Political Leaders: A Comparative Analysis of Regime Type and Accountability.” *American Political Science Revie*w 89(December):841-55.

Bueno de Mesquita, Bruce, Randolph Siverson, and Gary Woller. 1992. "War and the Fate of Regimes." *American Political Science Review* 86(September):638-46.

Cohen, Raymond. 1995. "Pacific Unions: A Reappraisal of the Theory that Democracies Do Not Go to War With Each Other." *Review of International Studies* 20 (July):207-23.

Dahl, Robert A. 1971. *Polyarchy: Participation and Opposition*. New Haven: Yale University Press.

Dawisha, Karen. 1980. "The Limits of the Bureaucratic Politics Model: Observations on the Soviet Case." *Studies in Comparative Communism* 13(Winter):300-346.

Dixon, William J. 1993. "Democracy and the Management of International Conflict." *Journal of Conflict Resolution* 37(March):42-68.

Dixon, William J. 1994. "Democracy and the Peaceful Settlement of International Conflict." *American Political Science Review* 88(March):14-32.

Doyle, Michael W. 1986. "Liberalism and World Politics." *American Political Science Review* 80(December):1151-69.

Farber, Henry S., and Joanne Gowa. 1995. "Common Interests or Common Polities? Reinterpreting the Democratic Peace." National Bureau of Economic Research Working Paper No. 5005, Cambridge, MA.

Foot, Rosemary. 1985. *The Wrong War: American Policy and the Dimensions of the Korean Conflict, 1950-53*. Ithaca, NY: Cornell University Press.

Gates, Scott and Sara McLaughlin. 1996. "Rare Events, Relevent Dyads, and the Democratic Peace." Paper Presented at the Annual Meeting of the International Studies Association, San Diego, CA.

Gochman, Charles S. and Zeev Maoz. 1984. "Militarized Interstate Disputes, 1816-1976." *Journal of Conflict Resolution* 28(December):585-617.

Gowa, Joanne. 1995. "Democratic States and International Disputes." *International Organization* 49(Summer):511-522.

Greene, William H. 1990. *Econometric Analysis*. New York: MacMillan.

Gurr, Ted Robert, Keith Jaggers and Will H. Moore. 1989. "Polity II Codebook." Center for Comparative Politics, Department of Political Science, University of Colorado.

Hagan, Joe D. 1993. *Political Opposition and Foreign Policy*. Boulder, CO: Westview Press.

Hewitt, J. Joseph, and Jonathan Wilkenfeld. 1995. "Democracies in International Crisis." Paper Presented at the Annual Meeting of the International Studies Association, Chicago IL.

Huth, Paul K. 1996. *Standing Your Ground*. Ann Arbor, MI: University of Michigan Press.

Kacowicz, Arie M. 1995. “Explaining Zones of Peace: Democracies as Satisfied Powers?” Journal of Peace Research 32(August):265-76.

Koch, H. W. 1984. *A Constitutional History of Germany*. London: Longman.

Krasner, Stephen D. 1972. "Are Bureaucracies Important? (Or Allision Wonderland)" *Foreign Policy* 7(Summer):159-179.

Leng, Russell. 1993. "Reciprocating Influence Strategies in Interstate Crisis Bargaining." *Journal of Conflict Resolution* 37(March):3-41.

Lukes, Steven. 1974. *Power: A Radical View*. London: Macmillan.

Maoz, Zeev, and Nasrin Abdolali. 1989. "Regime Type and International Conflict." *Journal of Conflict Resolution* 33(March):3-35.

Maoz, Zeev and Bruce Russett. 1993. "Normative and Structural Causes of Democratic Peace, 1946-1986." *American Political Science Review* 87(September):624-38.

Morgan, T. Clifton and Sally H. Campbell. 1991. "Domestic Structure, Decisional Constraints, and War" *Journal of Conflict Resolution* 35(June):187-211.

Organski, A.F.K. 1958. *World Politics*. New York: Alfred A. Knopf.

Ramsey, James B. 1974. "Classical Model Selection through Specification Error Tests." In *Frontiers in Econometrics*, ed. Paul Zarembka. New York: Academic Press.

Reiter, Dan. 1995. "Exploding the Powderkeg Myth: Preemptive Wars Almost Never Happen." *International Security* 20(Fall):5-34.

Russett, Bruce M. 1993. *Grasping the Democratic Peace: Principles for a Post-Cold War World*. Princeton, NJ: Princeton University Press.

Russett, Bruce M., and Thomas Graham. 1989. "Public Opinion and National Security Policy." In *Handbook of War Studies*, ed., Manus Midlarsky. Boston, MA: Unwin Hyman.

Salamore, Barbara G. and Stephen A. Salamore. 1978. "Political Regimes and Foreign Policy." In *Why Nations Act: Theoretical Perspectives for Comparative Foreign Policy Studies*, eds. Maurice A. East, Stephen A. Salamore, and Charles F. Hermann. Beverly Hills: Sage Publications.

Schweller, Randall L. 1992. "Domestic Structure and Preventive War: Are Democracies More Pacific?" *World Politics* 44(January):235-69.

Sherman, Frank. 1994. "SHERFACS: A Cross-Paradigm, Hierarchical and Contextually Sensitive Conflict Management Data Set." *International Interactions* 20(1-2):79-100.

Small, Melvin, and J. David Singer. 1976. "The War Proneness of Democratic Regimes." *Jerusalem Journal of International Relations* 1(1):50-69.

Snyder, Jack, and Edward Mansfield. 1995. "Democratization and War." *Foreign Affairs* 74(May-June):79-97.

Therborn, Goran. 1977. "The Rule of Capital and the Rise of Capitalism." *New Left Review* 103():3-41.

Valenta, Jiri. 1975. "Soviet Decisionmaking on Czechoslovakia, 1968." *Studies in Comparative Communism* 8(Spring/Summer):147-173.

Waltz, Kenneth N. 1979. *Theory of International Politics*. Reading, MA: Addison-Wesley.

Figure 1. Potential Constraint Channels.

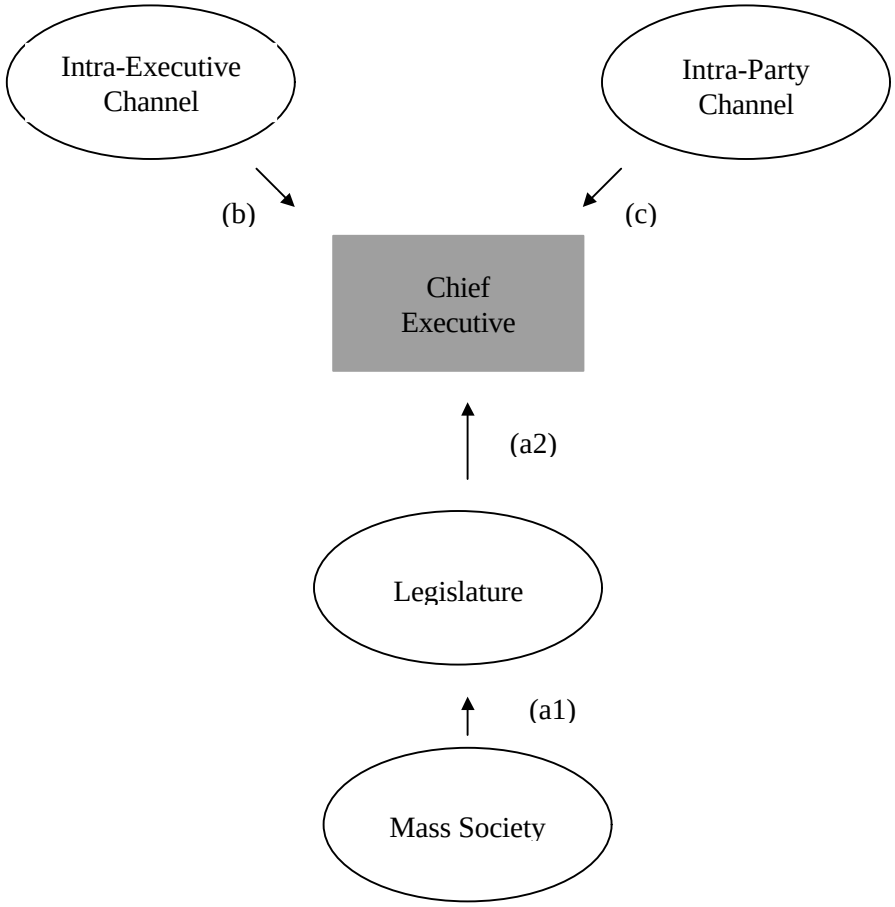

Figure 2. Evolution of Disputes into Crises

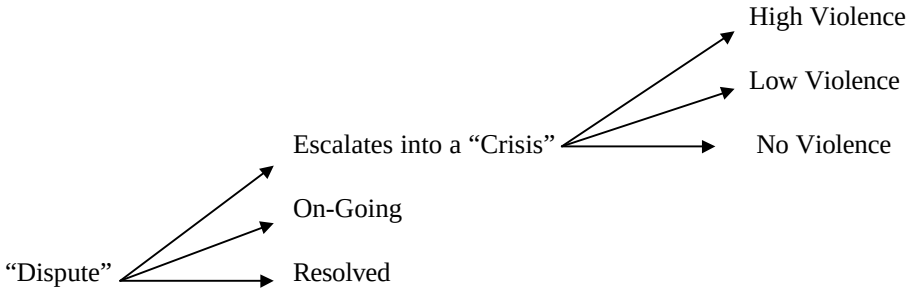

Table 1. Probit Analysis using the Aggressive Use of Force Dependent Variable and the International Dispute Data Set, 1960-88.

Independent Variable	Model 1	Model 2	Model 3
Institutional Constraint Model			
Coalitional Executive	-0.268	-----	-0.072
	(0.097)**		(0.107)
Collective Decision Making	-0.043	-----	-0.043
	(0.054)		(0.057)
Size of Ruling Coalition	0.780	-----	0.047
	(0.140)***		(0.190)
No Legislature	-0.247	-----	-0.241
	(0.061)***		(0.063)***
Factional Ruling Party	-0.124	-----	-0.183
	(0.066)*		(0.073)**
Democratic Peace Model			
Actor's Net Democracy (Monadic)	-----	-0.019	-0.023
		(0.003)***	(0.006)***
Actor's Net Democracy with Democratic Opponent (Dyadic)	-----	-0.076	-0.084
		(0.012)***	(0.014)***
Opponent's Net Democracy	-----	0.016	0.016
		(0.004)***	(0.004)***
Balance of Forces	0.338	0.276	0.228
	(0.078)***	(0.081)***	(0.086)***
Shared Alliance Ties	-0.064	-0.105	-0.094
	(0.058)	(0.060)*	(0.061)
Satisfaction with the Status Quo	-0.731	-0.683	-0.701
	(0.058)***	(0.057)***	(0.060)***
Constant	-2.436	-1.696	-1.517
	(0.139)***	(0.081)***	(0.199)***
Number of Observations =	5512	5536	5386
Percent Correctly Predicted =	88%	89%	89%
Log Likelihood at Convergence =	-1833	-1787	-1717

Notes: Standard errors appear in parentheses below the coefficient estimates. All significance tests are one-tailed. *p<.05, **p<.01, ***p<.001.

Table 2. Marginal Effects of the Estimated Coefficients from the Institutional Constraint Model (Model 1).

	Probability No Force	Probability Force	Net Change in Probability
Coalitional Executive			
No	81	19	**-6**
Yes	87	13	
Collective Executive			
No	81	19	**-1**
Yes	82	18	
Size of Ruling Coalition			
25%	91	9	**4**
50%	87	13	**4**
75%	83	17	**6**
100%	77	23	
Total			**14**
No Legislature			
No	81	19	**-6**
Yes	87	13	
Factional Ruling Party			
No	81	19	**-3**
Yes	84	16	
Balance of Forces			
1:9	84	16	**1**
1:3	83	17	**2**
1:1	81	19	**2**
3:1	79	21	**2**
9:1	77	23	
Total			**7**
Shared Alliance Ties			
No	81	19	**-2**
Yes	79	17	
Satisfaction w/ Status Quo			
No	81	19	**14**
Yes	95	5	

Notes: Predicted probabilities may not sum to 100 due to rounding. Marginal effects were calculated by generating predicted values from the probit model while changing the values of selected independent variables and holding the others at their means or modes. The predicted values were transformed into probabilities that the outcome would fall into each category by summing the area underneath the cumulative normal distribution between the predicted value and each of the category thresholds

Table 3. Example of Interactive No Legislature Term.

Country	Year	Ruling Coalition	No Legislature	Interactive Term
Soviet Union	1960	1.00	0	0
Saudi Arabia	1960	1.00	1	1
United States	1960	0.55	0	0

Table 4. Marginal Effects of the Estimated Coefficients from the Democracy Model (Model 2).

	Probability No Force	Probability Force	Net Change in Probability
Actor's Democracy			
0	77	23	**-5**
10	82	18	**-5**
20	87	13	
Total			**-10**
Actor's Democracy w/ Democratic Opponent			
0	71	29	**-23**
10	94	6	**-5**
20	99	1	
Total			**-28**
Opponent's Democracy w/ For Fully Autocratic State			
0	81	19	**5**
10	76	24	**5**
20	71	29	
Total			**10**
Balance of Forces			
1:9	85	15	**1**
1:3	84	16	**2**
1:1	82	18	**2**
3:1	80	20	**1**
9:1	79	21	
Total			**6**
Shared Alliance Ties			
No	82	18	**-2**
Yes	84	16	
Satisfaction w/ Status Quo			
No	82	18	**12**
Yes	94	6	

Notes: See Table 2 for description of methodology.

Table 5. Marginal Effects of the Estimated Coefficients from the Full Model (Model 3).

	Probability No Force	Probability Force	Net Change in Probability
Institutional Constraint Model			
Coalitional Executive			
No	79	21	**-2**
Yes	81	19	
Collective Executive			
No	79	21	**-1**
Yes	80	20	
Size of Ruling Coalition			
25%	78	22	**0**
50%	78	22	**1**
75%	79	21	**0**
100%	79	21	
Total			**1**
No Legislature			
No	79	21	**-6**
Yes	85	15	
Factional Ruling Party			
No	79	21	**-5**
Yes	84	16	

Democratic Peace Model			
Actor's Democracy			
0	72	28	**-7**
10	79	21	**-6**
20	85	15	
Total			**-13**
Actor's Democracy w/ Democratic Opponent			
0	66	34	**-27**
10	93	7	**-6**
20	99	1	
Total			**-33**
Opponent's Democracy w/ For Fully Autocratic State			
0	77	23	**5**
10	72	28	**6**
20	66	34	
Total			**11**

Table 2 continued.

	Probability No Force	Probability Force	Net Change in Probability
Balance of Forces			
1:9	81	19	**1**
1:3	80	20	**1**
1:1	79	21	**2**
3:1	77	23	**1**
9:1	76	24	
Total			**5**
Shared Alliance Ties			
No	79	21	**-2**
Yes	81	19	
Satisfaction w/ Status Quo			
No	93	7	**-14**
Yes	79	21	

Notes: See Table 2 for description of methodology.

Table 6. Assessing Robustness Through Alternative Model Specifications.

Unit of Observation	**Regime**	**State**
Method of Estimation	**OLS**	**Gompit**
Independent Variable	**Model 4**	**Model 5**
Institutional Constraint Model		
Coalitional Executive	0.049	-0.065
	(0.035)	(0.077)
Collective Decision Making	0.061	-0.001
	(0.031)*	(0.044)
Size of Ruling Coalition	0.039	-0.029
	(0.140)***	(0.140)
No Legislature	-0.247	-0.182
	(0.061)***	(0.049)***
Factional Ruling Party	-0.124	-0.119
	(0.066)*	(0.052)*
Democratic Peace Model		
Actor's Net Democracy (Monadic)	-0.019	-0.017
	(0.003)***	(0.005)***
Actor's Net Democracy with Democratic Opponent (Dyadic)	-0.076	-0.054
	(0.012)***	(0.008)***
Opponent's Net Democracy	0.016	0.011
	(0.004)***	(0.004)**
Balance of Forces	0.338	0.181
	(0.078)***	(0.070)**
Shared Alliance Ties	-0.064	-0.048
	(0.058)	(0.047)
Satisfaction with the Status Quo	-0.731	-0.514
	(0.058)***	(0.043)***
Constant	-2.436	-1.008
	(0.139)***	(0.153)***
Number of Observations =	777	5386
Log Likelihood at Convergence =	-1833	-1724

Notes: Standard errors appear in parentheses below the coefficient estimates. All significance tests are one-tailed. *p<.05, **p<.01, ***p<.001.

APPENDIX A: 223 INTERNATIONAL DISPUTES 1960-1988

EUROPE:

Albania v. Yugoslavia 1960-88
Austria v. Italy 1960-71
East Germany v. West Germany 1960-88
Greece v. Albania 1960-71
Greece v. Cyprus 1971-74
Greece v. Turkey 1960-88
Hungary v. Romania 1960-88
Ireland v. U.K. 1960-88
Turkey v. Bulgaria 1960-72
Turkey v. Cyprus 1974-88
Soviet Union v. Czechoslovakia 1968-69
Soviet Union v. Norway 1960-88
Soviet Union v. Poland 1979-82
Soviet Union v. Sweden 1980-85
Soviet Union v. U.S. 1960-72
Spain v. U.K. 1960-88
West Germany v. Netherlands 1962
Yugoslavia v. Austria 1974-78
Yugoslavia v. Italy 1960-75

AFRICA:

Algeria v. France 1977
Algeria v. Mauritania 1975-79
Algeria v. Spain 1964-88
Angola v. Rhodesia 1975-79
Belgium v. Zaire 1960-70
Botswana v. South Africa 1969-88
Botswana v. Rhodesia 1969-79
Burundi v. Rwanda 1962-88
Cameroon v. Nigeria 1981-88
Cameroon v. U.K. 1960-64
Chad v. Nigeria 1960-88
Chard v. Sudan 1965-68
Dahomey v. Nigeria 1960-65
Comoros v. France 1975-88
Ethiopia v. U.K. 1960-62
--- Ethiopia v. Kenya 1963-70
Ethiopia v. France 1960-77
Ethiopia v. Sudan 1983
Gabon v. Congo 1960-64
Gabon v. Equatorial Guinea. 1972-75
Gabon v. Nigeria 1967-69
Ghana vs. Nigeria 1965-67
Ghana vs. Upper Volta 1963-67
Guinea v. Portugal 1965-75
Italy v. Ethiopia 1960
Ivory Coast v. Ghana 1981-82
Ivory Coast v. Guinea 1965-67
Lesotho v. South Africa 1966-88
Liberia v. Sierra Leone 1983
Liberia v. U.K. 1960-61
Libya v. Gambia 1980
Libya v. Senegal 1981-83
Madagascar v. France 1960-88
Malawi v. Portugal 1964-75
Malawi v. Mozambique 1982-86
Mali v. Mauritania 1960-65
Mali v. Upper Volta 1960-88
Mauritania v. Spain 1960-76
Mauritius v. U.K. 1980-88
Morocco v. Algeria 1962-88
Morocco v. Mauritania 1960-70
Morocco v. Spain 1960-88
Mozambique v. Rhodesia 1975-79
Mozambique v. South Africa 1975-88
Portugal v. Zaire 1966-68
Senegal v. Portugal 1965-75
Somalia v. Ethiopia 1960-88
Somalia v. France 1960-77
Somalia v. U.K. 1960-62
--- Somalia v. Kenya 1963-81
South Africa v. Angola 1975-88
South Africa v. Swaziland 1977-88
South Yemen v. Saudi Arabia 1969-78
Spain v. Equatorial Guinea 1968-79
Sudan v. Uganda 1979-86
Tanzania v. Kenya 1977-83
Tanzania v. Malawi 1964-69
Tanzania v. Portugal 1965-75
Togo v. Benin 1975-78
Togo v. Ghana 1960-88
Tunisia v. Algeria 1962-70
Tunisia v. France 1960-63
Uganda v. Israel 1976
Uganda v. Kenya 1976, 1987
Uganda v. Tanzania 1971-79
Zaire v. Angola 1975-88
Zaire v. Burundi 1964-66
Zaire v. Congo 1964-66
Zaire v. Rwanda 1967-68
Zaire v. Zambia 1979-88
Zambia v. Malawi 1981-88
Zambia v. Portugal 1965-75
Zambia v. Rhodesia 1964-79
Zambia v. South Africa 1972-88
Zimbabwe v. Botswana 1980-88
Zimbabwe v. South Africa 1979-88

AMERICA:

Argentina v. Chile 1960-88
Argentina v. Paraguay 1960-62
Argentina v. U.K. 1960-88
Brazil v. Paraguay 1973-79
Canada v. Denmark 1973-88
Chile v. Bolivia 1962-88
Colombia v. Panama 1962
Costa Rica v. Nicaragua 1960, 1978-81
Cuba v. Bolivia 1966-70
Cuba v. Dominican Republic 1960,1973-75
Cuba v. Guatemala 1960-66
Cuba v. Haiti 1960
Cuba v. Mexico 1961-62
Cuba v. Venezuela 1960-69
Dominican Republic v. Peru 1962-63
Dominican Republic v. Venezuela 1960
Ecuador v. Peru 1960-88
El Salvador v. Honduras 1960-80
Guatemala v. U.K. 1960-81
--- Guatemala v. Belize 1982-88
Guatemala v. Mexico 1961-62
Haiti v. Dominican Republic 1963
Honduras v. U.S. 1960-71
Mexico v. U.S. 1962-70
Nicaragua v. Colombia 1979-88
Nicaragua v. El Salvador 1980-88
Nicaragua v. Honduras 1960-61, 1980-88
Panama v. U.S. 1960-77
U.K. v. Netherlands 1960-65
--- Guyana v. Netherlands 1966-75
--- Guyana v. Surinam 1976-79
U.S. v. Chile 1971-74
U.S. v. Cuba 1960-88
U.S. v. Grenada 1981-83
U.S. v. Haiti 1967-68
U.S. v. Jamaica 1973-81
U.S. v. Nicaragua 1980-88
Uruguay v. Argentina 1960-73
Venezuela v. U.K. 1960-66
--- Venezuela v. Guyana 1967-88

ASIA:

Afghanistan v. Pakistan 1960-88
Australia v. Indonesia 1973-74
Burma v. Pakistan 1960-66
China v. Afghanistan 1960-63, 1980-88
China v. Burma 1960, 1967-71
China v. India 1960-88
China v. Indonesia 1960-65
China v. Mongolia 1960-87
China v. Nepal 1960-61
China v. Pakistan 1960-63
China v. Philippines 1960-88
China v. Portugal 1960-88
China v. South Vietnam 1960-75
China v. Soviet Union 1960-88
China v. Taiwan 1960-88
China v. U.K. 1960-88
China v. Vietnam 1976-88
India v. Bangladesh 1973-88
India v. France 1960-62
India v. Nepal 1960-64
India v. Pakistan 1960-88
India v. Portugal 1960-74
India v. Sri Lanka 1983-84, 1988
Indonesia v. Malaysia 1960-66, 1979-82
Indonesia v. Netherlands 1960-62
Indonesia v. Portugal 1974-88
Japan v. China 1960-88
Japan v. Soviet Union 1960-88
Malaysia v. China 1975-88
Malaysia v. Singapore 1965-66
Malaysia v. Thailand 1979-88
North Korea v. South Korea 1960-88
North Vietnam v. Cambodia 1960-74
--- Vietnam v. Cambodia 1975-88
North Vietnam v. Laos 1960-75
North Vietnam v. South Vietnam 1960-75
North Vietnam v. Thailand 1961-88
Papau New Guinea. v. Indonesia 1983-88
Philippines v. Malaysia 1961-88
Soviet Union v. Afghan. 1978-88
Taiwan v. Burma 1960-61
Thailand v. Cambodia 1960-82
Thailand v. Laos 1975-88
Vietnam v. Malaysia 1979-88
U.S. v. Afghanistan 1980-88
U.S. v. Cambodia 1975
U.S. v. New Zealand 1979-81
U.S. v. North Korea 1960-88
U.S. v. North Vietnam 1962-75

MIDDLE EAST:

Egypt v. Jordan 1960-65
Libya v. Sudan 1972-85

Egypt v. Israel 1960-88
Egypt v. Sudan 1960-88
Egypt v. Syria 1961
Iran v. Bahrain 1979-88
Iran v. Kuwait 1980-88
Iran v. Saudi Arabia 1980-88
Iran v. U.K. 1960-70
Iran v. U.S. 1979-81
Iraq v. Iran 1960-88
Iraq v. Israel 1978-88
Iraq v. U.K. 1960
--- Iraq v. Kuwait 1961-88
Israel v. Lebanon 1969-1988
Jordan v. Israel 1960-88
Jordan v. Saudi Arabia 1960-65
Libya v. Chad 1969-88
Libya v. Egypt 1974-88
Libya v. Israel 1969-88
Libya v. Jordan 1984-88
Libya v. Tunisia 1970-88
North Yemen v. U.K. 1960-66
--- North Yemen v. South Yemen 1967-88
Oman v. United Arab Emirates 1974-88
Qatar v. Bahrain 1971-88
Saudi Arabia v. Israel 1960-88
Saudi Arabia v. United Arab Emirates 1971-85
Saudi .Arabia v. U.K. 1960-70
--- Saudi Arabia v. Oman 1971-75
Saudi Arabia v. North Yemen 1962-68
South Yemen v. U.K. 1969-70
--- South Yemen v. Oman 1971-80
Syria v. Jordan 1966-73,1980-88
Syria v. Iraq 1961-63,1975-80
Syria v. Israel 1961-88
Syria v. Lebanon 1969-88
Syria v. Saudi Arabia 1970-71
Turkey v. Iraq 1960-74
U.S. v. Libya 1973-88

Appendix B: Descriptive Statistics

	Mean	Standard Deviation	Min	Max
Dependent Variable				
Aggressive Use of Force	1.11	0.31	1	2
Constraint Model				
Coalitional Executive	0.12	0.32	0	1
Collective Decision Making	0.31	0.46	0	1
Size of Ruling Coalition	0.84	0.22	0	1
No Legislature	0.23	0.41	0	1
Factional Ruling Party	0.21	0.41	0	1
Democratic Peace Model				
Actor's Net Democracy (Monadic)	8.87	7.27	0	20
Actor's Net Democracy with Democratic Opponent (Dyadic)	2.17	5.05	0	20
Opponent's Net Democracy	8.94	7.24	0	20
Control Variables				
Balance of Forces	0.50	0.29	0	1
Shared Alliance Ties	0.22	0.42	0	1
Satisfaction with the Status Quo	0.62	0.49	0	1

[1] The neo-realist position is presented by Waltz (1979). Many classical realists do not support Waltz's purely systemic view.

[2] Studies which support a purely dyadic finding include Russett 1993; Maoz and Russett 1993; Bremer 1993; Bueno de Mesquita and Lalman 1992; Maoz and Abdolali 1989; and Doyle 1986. Some recent studies have found at least limited support for a monadic explanation: Huth 1996; Hewitt and Wilkenfeld 1995; Benoit 1994; Leng 1993; Dixon 1993; Bremer 1992; and Schweller 1992.

[3] The distinction between disputes and crises is explained below. My use of the term dispute is not related to the Correlates of War Militiarized Interstate Dispute (MID) data set (Gochman and Maoz 1984). While the MID data set only includes cases in which force is threatened or used, my dispute data set includes many conflicts which never reach this level of hostility.

[4] The constraint argument has been proposed by Morgan and Campbell (1991). My test differs from theirs in many ways, including the unit of analysis, the set of international conflicts, the dependent variable, and the measurement of constraint. Morgan and Campbell results only weakly supported their constraint hypotheses.

[5] For a complete description of the variants of the democratic peace model (norms versus structures and monadic versus dyadic) and a review of the relevant literature see ROUSSEAU ET AL. (1996).

[6] For a discussion of unconstrained democracies, including a series of twenty-one case studies in which democracies initiated large scale uses of force, see ROUSSEAU (1996).

[7] The model implicitly assumes that the costs are constant across regimes. If autocratic rulers are expected to pay higher costs (e.g., death), the situation becomes more complex. Empirical support for the relationship between failure in war and the loss of political power for wartime leaders is presented in Bueno de Mesquita and Siverson (1995); Bueno de Mesquita, Siverson, and Woller (1992); and Russett and

Graham (1989). Bueno de Mesquita and Siverson provide some evidence that democratic leaders are more likely to be punished for costly military adventures.

[8]This argument explicitly rejects the extreme form of Allison's (1971) bureaucratic politics model which assumes that the President is simply first among equals. As Art (1973) and Krasner (1972) emphasize, the utility of the bureaucratic politics model declines as the importance of the decision grows. Decisions to use military force are almost always very important decisions. In terms of these decisions, bureaucratic politics and organizational models are most useful in explaining the flow of information to decision makers and the implementation of the decisions.

[9] Allison's model which describes politics as a tug-of-war between executive decision makers may, in fact, be most applicable to non-U.S. cases. For an example involving the Soviet decision to invade Czechoslovakia see Valenta (1975). For a critique of the application of Allison to this case, see Dawisha (1980).

[10]The primary exception to this statement is the work by Dixon (1993; 1994). Dixon tests propositions drawn from the democratic peace literature using the Alker and Sherman (1986) data set which explicitly divides disputes into multiple phases as defined by Bloomfield and Leiss (1969). However, Dixon does not address the consequences of a selection process.

[11] The final logical step would involve an analysis of the origins of disputes. This would involve randomly selecting pairs of contiguous states which did not become involved in a dispute and combining the new observations with the dispute data set. Huth (1996) uses this approach in his analysis of territorial disputes. Some have argued that there is a second selection process at this level; democratic states are more satisfied and therefore less likely to become involved in disputes in the first place (Kacowicz 1995). I contend that constrained and democratic states, like all states, become involved in conflicts with neighbors and others for a wide variety of reasons. However, these states attempt to resolve these conflicts in very

different manners. Therefore, the most significant, and potentially most biasing, selection effect should be between the dispute and crisis phases.

[12] Due to the death of Frank Sherman, this data set has not been completed and made generally available. Although Sherman completed his identification of disputes, he did not complete the codings for all the variables in his study. I am able to utilize his data set because I am relying only on his list of international disputes; all variables used in the following analysis were developed by myself or drawn from a third source.

[13] The crisis data set used by ROUSSEAU ET AL. (1996) covering the years 1918 to 1988 contains only three purely economic or maritime boundary disputes: the 1980 Libyan threat to Malta, and the 1973 and 1975 Cod Wars between Iceland and the United Kingdom. The Libya-Malta case involved Libyan naval forces boarding a commercial oil exploration platform. The Iceland-U.K. cases, mislabeled wars, involved a fishing dispute triggered by the British failure to recognize Iceland's unilateral extension of its territorial waters. In this case both sides made a show of force by sending warships to patrol the waters; Iceland technically initiated violence when one of its patrol boats fired over the bow of a British fishing boat.

[14] While the dispute runs from independence in 1947 to the present, only the years 1960 to 1988 fall within the scope of this study.

[15] Troops entering a state immediately following a conflict in accordance with armistices and treaties would not be coded as aggressive force.

[16] Bueno de Mesquita and Lalman (1992) have an existence proof which identifies the possibility of defensive preemption by democratic states in this situation. Reiter (1995), however, finds that preemptive strikes rarely happen.

[17] If democratic leaders can be shown to fear exploitation, even if no empirical evidence exists to support this belief, the logic of the dyadic argument remains in tact. A direct test of the dyadic argument would

involve assessing decision makers expectations as to the use of force by an opponent and coding for preemptive uses of force; this direct test is beyond the scope of this analysis.

[18] A fifth hypothesis which tests the impact of having no legislature is discussed below. While this variable is required to test the constraint model, it is not directly derived from the logic of the model.

[19] Adjusted Capabilities = Composite Capabilities$^{\log(\text{miles/miles per day}) + (10-e)}$. The results remain stable using the undiscounted variable.

[20] Descriptive statistics for all variables can be found in Appendix B.

[21] The slight differences between the four models with respect to total observations is due to missing data. Due to the small number of missing observations, the distribution of the dependent variable is virtually identical across the four models. Ordered probit models separating major uses of force from minor uses of force produced virtually identical results.

[22] For the sake of clarity, predicted probabilities will be referred to using a percent sign (%) while a change in the predicted probability from X to Y will be referred to as a "Z percentage point change."

[23] The marginal analysis indicates that the relationship only holds for autocratic states. Again, this evidence in support found of Hypothesis 3 does not prove that democratic leaders, fearing exploitation, alter their norms or circumvent institutions.

[24] In the democratic peace model, the baseline categories for the marginal analysis are as follows: the state is mildly autocratic, its opponent is mildly autocratic, the two antagonists are evenly match in terms of military forces, the state is dissatisfied with the status quo, and no alliance tie exists between the two states.

[25] For a full explanation of the log-likelihood test see Greene (1990:356).

[26] The Legislative Constraint component receives the heaviest weight (0.40) in the Polity II democracy index. The bivariate correlation between the two variables is +0.74. However, auxiliary regressions on the independent variables did not indicate the presence of severe multicollinearity; the highest R^2 produced in these regressions was only 0.65.

[27] See Greene (1990:231).

[28] Using a five point change rather than a two point change in the democracy index produces similar results.

[29] I would like to thank Scott Gates and Sara McLaughlin for providing me with the information required to test the gompit model.