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**Constrained Democracies:  
The Effects of Institutional Constraints on  
International Cooperation over  
Security and Economic Issues<sup>\*</sup>**

By

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## I. Introduction

In examining the forces that shape a state's propensity to cooperate internationally, scholars typically focus on empirically observable forces such as major power status, military capabilities, and regime type (Leeds 1999; Mansfield and Bronson 1997) or more abstract forces such as joint gains and transparency (Axelrod and Keohane 1985; Martin 2000). Many of these studies assume that the differences between democracies and autocracies are significant in determining whether or not states will cooperate. While these differences are important, analyzing only the differences between autocrats and democrats can be problematic since there is a large amount of heterogeneity among democracies. Assuming homogeneity among democracies can be problematic because research suggests that there are not only structural differences among democracies (because of the differing visions of democratic governance) but there are also differences within the various groups of democracies in terms of the extent to which decision making is confined to a unitary actor. In fact, I intend to show that these differences among democracies have implications for a state's ability to credibly form international commitments and generate international cooperation.

The observation that institutions constrain actors is not new to the political science literature. However, there have been few empirical analyses that examine how different types of institutions across democracies constrain democratic leaders from attaining foreign policy goals, even though both theoretical and case study research suggest these constraints that leaders face matter (Putnam 1988; Milner 1997; Martin 2000). Most research has concentrated on if the legislature makes a difference in foreign policy making, while little has tried to discover the differences between legislative institutions cross-nationally to determine how the structure of the legislature impacts foreign policy. The purpose of this paper is to examine how institutional

constraints on democracies cross-nationally affect the amount of cooperation between them annually. In particular, the focus of this paper is on the amount of cooperation over two types of issues, economic issues and military-security issues. I focus on economic vs. military-security issues because the costs (both expected and potential) and benefits of cooperation over these issues vary in important ways that have particular consequences for the ability and likelihood for democratic states to cooperate. The next sections of the paper will detail the differences among democratic government types and why these domestic differences are significant to cooperative endeavors. Then, I will detail why I choose to examine military and economic issues. Finally, I develop hypotheses and test them using cross-national data on 37 democracies from 1948-1978 and discuss the results.

## II. Literature Review

This paper draws on several different areas of study to accomplish its purpose. First, it examines the extant research on parliamentary governments and the differences between majoritarian versus coalition government.<sup>1</sup> It also draws from the foreign policy literature and discusses, in brief, the roles of the executive and the legislature in policy-making. Second, this paper refers to the literature on international cooperation and the effects of domestic institutions on cooperation. And third, this paper draws from the literature on international bargaining over issues and why issues matter in bargaining. After the literature review, hypotheses are drawn and evidence is presented in the form of an analysis of democratic-dyad annual cooperative counts based on data collected by the Cooperation and Peace Databank from 1948 to 1978 (Azar 1993) and by Dan Reiter and Eric Tillman (2002).

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<sup>1</sup> Government in this paper refers to the cabinet composition on individual governments and the impact of having government ruled by one party versus power shared by several parties on government decisions.

## Parliamentary Governments: Majoritarian versus Coalition

Different types of electoral systems facilitate various governments in forming. Though a large amount of heterogeneity between legislatures exists cross-nationally, there are some underlying factors that can increase our understanding of legislatures and their functions, as well as their relationship to the executive. The classic view of the government and the parliament sees the two institutions as vying for power within the policy making world. It makes more sense however to see the “parliament as wielding power *through* the government that it has elected than to see it as seeking to *check* a government that has come into being independently of it” (Gallagher, Laver, & Mair 2001, 69). This paper is interested in the relationship of the government to the executive over foreign policy matters and how legislative structures influence foreign policy outcomes.

Electoral systems influence the structure and composition of government. First-past-the-post systems facilitate two party competition, while proportional list systems encourage multiparty competition (Norton 1998). In two party systems, there is a government majority party and a minority party. Though it is rare for a clear majority winner to be announced after an election in the sense that a party wins at least 51% of the votes, in practice, the party that receives a plurality of the votes usually obtains a seat bonus that creates a majority (Gallagher, Laver, & Mair 2001, 325). “Coalitions may claim a mandate if they control a majority of seats but a single party with a majority of the seats may claim that it has a more direct mandate to implement the program it put before voters” (Norton 1998, 193). The important characteristic of the majoritarian system is that there is a general unity of policy preference between the legislature and the executive because the executive derives his power from the legislature. That unity of policy preference helps to create an atmosphere of disciplined party voting. “The

individual chief executive is chosen by and simply accountable to the national legislature... (is) subject at all times to removal by the legislature if (he) cannot maintain majority support” (Powell 1982, 55).

Since majoritarian systems tend to limit the number of parties and thus the number of choices available to the voters, some people criticize majoritarian governments for being unable to adequately reflect the public’s preferences because much of the decision making power of the government is held by the majority party. Thus, majoritarian governments may be held accountable by the public for poor decision making, but the government is only responsive to its electorate. Nevertheless, majoritarian governments are more likely to experience policy harmony with the executive because the executive is from the majority party. When there is legislative-executive policy preference unity, we would expect the executive to be granted more latitude in foreign policy making (Martin 2000). When there is some preference accord between the branches of government the legislative will find it easier to delegate power to the executive. “Models of delegation tell us something intuitively obvious: legislators should be most willing to delegate to an agent who has preferences similar to their own” (Martin 2000, 32). This paper simply argues that delegation should be more frequent in majoritarian systems as compared to proportional representation systems because the executive is a member of the majority party in the legislature.<sup>2</sup> Finally, institutions provide limits to the power that the majority party can wield in these systems.

Proportional representation systems influence the creation of multiparty governments.

“Seats are allocated to parties within each constituency in broad proportion to the votes each

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<sup>2</sup> There have been cases where the majority party has changed executives when the executive may have been acting more independently than the party would have preferred; for example, the Thatcher-Major Prime Minister change in the UK because of Thatcher’s hawkish policies. For simplicity, I assume that majority parties prefer not to change Prime Ministers because they have vested confidence in the Prime Minister’s ability to represent the party and the government.

receives” (Gallagher, Laver, & Mair 2001, 308). The result is a legislature that can more evenly reflect the policy preferences of the individual district because several parties may represent the same district. While the seat distribution may be more representative of constituency preferences, the main critique of the proportional representation system is that thresholds for participation discriminate against extremist and small parties and that because of the need for coalitions the larger parties tend to populate the ideological center creating a bias in terms of electoral size against the smaller parties on the ends of the spectrum (Powell 1982, 185). In addition, as more parties join the coalition government, the ability of the executive to act in a unitary and unilateral manner is constrained because the integrity of the coalition must be maintained for policy to be instituted. Furthermore, increasing the number of effective parties in the legislature can have a negative impact on policy making efficiency since the notion of effective parties includes opposition parties (i.e. those not in the government) that have incentives to delay legislation to make the government in power appear to be incompetent.

“To the extent that voters are able to perceive differences between parties on a range of policy-related matters, the choices made between parties in elections may translate themselves into real policies if and when those parties assume a role in government” (LeDuc et al. 1996, 353). As the number of parties that can influence the government increases the heterogeneity in policy preferences also increases. “Fragmentation of the political system leads to the forced sharing of governmental power and resources among competitive political parties with distinct policy positions” (Kaarbo 1996, 504). When parties form coalition governments “each one of them is a collective player whose agreement is necessary for a change in the status quo” (Tsebelis 1995a, 89). However, agreement among the partisan veto players<sup>3</sup> is neither necessary

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<sup>3</sup> “A veto player is an individual or collective actor whose agreement (by majority rule for collective actors) is required for a change in policy” (Tsebelis 1995b: 301).

nor sufficient for policy change since legislative approval is required as well (Tsebelis 1995b). Coalition governments are formed because one party does not have a sufficient majority to control the legislature alone. Parties that receive the most votes are expected to be in the government, provided they can find coalesable parties; their primary decision is which parties to coalesce with out of all of the possible effective political parties.

One would expect parties to coalesce in one of two ways. First, parties might find a coalition partner with whom they can gain the amount of seats needed to get a minimum winning coalition in the legislature. Since they are looking for the minimum number of seats, the party will coalesce with the smallest number of parties to obtain the necessary quantity of votes (Riker 1962; Dodd 1976). It is important to note that single-party governments are by definition minimum winning coalitions. The second way that a government may coalesce is by finding the party that is nearest to them on the ideological spectrum and forming a government.<sup>4</sup> We would expect coalitions to prefer to have some ideological convergence versus ideological divergence. “A party will prefer coalitions in which the ‘average’ policy preferences of the other members are as close to its own policy preferences as possible” (Powell 1982, 134). Nonetheless, it may not be possible for the party with the plurality of the votes to coalesce with the party nearest to them ideologically because of disagreements over specific issues or it could be that the nearest party does not want to coalesce. However, regardless of the proximity ideologically of the parties “the most moderate party personalities are included in the government (cabinet), so when they come to an agreement it is difficult for other members of the parliament to challenge or undo it” (Tsebelis 1995a, 97). Coalition governments are unique not only because they involve a high amount of coordination between otherwise competing parties but they also allow more

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<sup>4</sup> Under these conditions, the government continues to look for similar parties to coalesce with until they are able to create a majority.

viewpoints to be expressed within the government. “Because parties competing for the support of the same set of voters are unlikely to have identical policy goals any coalition agreement necessarily carries the seeds of conflict” (Heller 2001, 780).

“The existence of multiple and polarized parties in government prohibits significant changes to the status quo” (Tsebelis 1995a, 103). Therefore, the more parties that there are in the government the more difficult it may be to find a bargaining set that all parties prefer over the status quo; this inability to find a joint winset may result in policy stability. In contrast, when there is single-party government changes in the status quo are less difficult. Furthermore, multiple parties in the government may inhibit a quick governmental response to exogenous shocks (i.e. sudden rises in inflation or unemployment) because each party will have a different position on how best to deal with the problem. Therefore, multiparty governments are forced to find compromises among their coalition members in order to deal with potentially contentious issues.

“An implicit but widely shared assumption of coalition theorist is that government coalitions, once installed, can withstand much internal tension because their members want to avoid the costs associated with destroying a coalition” (Mershon 2002, 3). One way that governments can deal ex ante with possible consensus problems in coalition governments is to limit the number of cabinet offices or specify which offices will be given to each potential coalition partner before the election. This can even prove to be difficult as coalition partners may demand offices based on the extent to which they expect their electoral support to influence actual election outcomes. Coalescing after elections is more frequently used. Regardless, the coalition building process involves a great deal of bargaining to ensure that all partners are

satisfied with their individual gains enough to continue the government versus any other possible governmental coalition in which they could participate.<sup>5</sup>

Minimum winning coalitions can help to alleviate the problems associated with keeping a large coalition together. “The fewer parties there are, the more readily they strike agreements to coalesce and stick to agreements once allied” (Mershon 2002, 9). In addition, there is an expectation that the coalition is connected ideologically so that there is an increased ease in policy making. Though empirical analysis had pointed out that connected minimum winning coalitions are infrequent in practice (Laver and Schofield 1990). Since it is assumed that coalition parties are connected ideologically, it may be impossible to find a minimum winning coalition. As a result governments may have to work within a surplus coalition of parties that each has distinct preferences. However, if there is flexibility in the cabinet offices in terms of allocation, then a surplus coalition is less of a problem because parties will be satisfied with the cabinet positions they fill.

Policy differences among the parties can determine which parties are even available to coalesce with. If coalition building is policy-driven, the most obvious benefactor is the median party and/or the strongest party (Laver and Shepsle 1996). Empirical analysis has shown that “more than 80 percent of all governments in twelve parliamentary democracies either incorporate or are supported by the median party on the left-right spectrum” (Laver and Schofield 1990, 113-119). In addition, this can help explain why most coalitions are not the minimum size, as intuition tells us that some of the largest parties will exist around the median. Since coalitions are not usually the minimum size, it seems logical that potential governments distribute cabinet offices based on policy preferences for key portfolios. “The costs (or benefits) of building a coalition depend on actors’ calculations or policy distance (or nearness), are communicated

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<sup>5</sup> I am assuming that parties prefer to be in the government versus among the opposition.

through portfolio allocation, and are expected to materialize since prospective members work to enact their party's preferences in office" (Mershon 2002, 15). Thus, as the number of parties involved in the coalition increases, it may be more difficult for the government to present a unified opinion or course of action. This may be exacerbated by the extent to which the parties are divided over a particular issue.

The above sections have clarified the differences among the different types of democracies in terms of how the structure of executive-legislative relations can impact decision making. In addition to these structural differences, there are also other institutional facets of democratic governments that can impede the cooperation process. The legislature can have an independent affect on the ability for the executive to negotiate international agreements. One of the primary reasons why the executive is linked with foreign policy is because the structure of most governments encourages legislators to be concerned with domestic and even district based concerns. Yet, this is not to suggest that legislators have no interest in foreign policy. In fact, "executive-legislative conflict over foreign policy is inevitable, sometimes even desirable, for it can provide a degree of checks and balances over ill-conceived or dangerous policies" (Hersman 2000, 1). Nonetheless, one should not over generalize and say that foreign policy relations between the legislature and executive are always conflictual. In fact, delegation to the executive without constraints is likely when the executive and legislative are in consensus on how to deal with certain issues. "Well-functioning delegation patterns mean that parliaments can exercise influence, defined as having their preferences reflected in international agreements, without much overt oversight or other activity" (Martin 2000, 151-2).

The structure of the institutions of the legislative and executive supply the executive with more foreign policy influence and power than the legislature because of the wealth of

information that the executive is able to obtain. “Although at one level these institutions are highly adversarial, the individuals that compose them are closely linked into informal relationships and networks. Huge quantities of information move informally...between these institutions every day” (Hersman 2000, 7). In addition, the role of the executive in terms of foreign relations through diplomatic visits and conference participation creates an image of the executive as the spokesperson and representative for the state in terms of foreign affairs. Nevertheless, the legislative is able to exercise substantial influence over foreign policy in its role as the ratifier of agreements, implementer of agreements, and allocator of funds. Furthermore, nearly all legislatures have committees that address foreign policy and foreign affairs issues. In addition, legislatures that have strong bicameralism may experience internal legislative bargaining problems over the extent to which they should support the executive. Bicameralism may make international cooperation more difficult particularly as the costs of cooperation increase. It is fair to say that the legislature is not the primary actor in foreign policy. “However, as the issues being negotiated move into more sensitive realms, where winners and losers are identifiable, the impact on constituents’ welfare more immediate, and disagreement exists about the appropriate course of action, more conflict of interest emerges” (Martin 2000, 153). The result will be that the power of the executive to negotiate unilaterally with a free hand will decrease and the legislature will increase its influence over foreign policy through its institutionalized constraints over the executive.

### **The Impact of Domestic Institutions on International Cooperation**

A wealth of literature has bloomed in the last few decades addressing the influence of domestic politics on international relations and, in particular, foreign policy (Putnam 1988; Milner 1997; Martin 2000). Foreign policy has been typically regarded as the realm of the

executive. However, recent work suggests that the influences of domestic institutions are stronger than originally thought.

Putnam's seminal work on two-level games recognized the importance of domestic institutions in negotiating agreements. In particular, he focused on how win-sets<sup>6</sup> are constructed between the domestic legislature, which ratifies international agreements, and the other international negotiating party. The negotiator must simultaneously satisfy domestic groups that want the government to adopt favorable policies while trying to maximize international outcomes. The game as explicated by Putnam requires that any international "agreement must, in the end, be ratified at (the domestic level which) imposes a crucial theoretical link between the two levels" (1988, 436). An important aspect of his game is that the win-sets between the two levels must overlap for the agreement to be ratified. Iteration of play encourages cooperation (Axelrod 1984; Axelrod and Keohane 1985) however, the effect of domestic ratification can tie the negotiator's hands (Schelling 1960). Tied hands can be a blessing in the sense that it forces the other side to come closer to your ideal point if you desire an agreement, but it can also limit your win-set such that an agreement may not be possible.

Constrained win-sets can also lead to involuntary defection for which the negotiator cannot be punished. However, "credibility (and thus the ability to strike deals) at the [international level] is enhanced by a negotiator's (demonstrated) ability to 'deliver' at [the domestic level]" (Putnam 1988, 439). The size of the win-set at the domestic level is determined by both preferences and coalitions of relevant individuals as well as domestic institutions, while at the international level it is influenced by the negotiator's strategy and the other state's expected winset size. Suggesting that the ability for the negotiator to bring an attractive winset

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<sup>6</sup> A winset is defined as the set of all possible international agreements that would satisfy the necessary majority of domestic constituents (Putnam 1988: 437).

to the international level is, in part, a product of endogenous forces within the government (i.e. the legislature and other institutional constraints) that determine the size of the winset. The effect of domestic institutions is mitigated by the extent to which they delegate authority to the executive. In addition, uncertainty regarding “the size of the win-set can be both a bargaining device and a stumbling block in two-level negotiations” (Putnam 1988, 452). As a result of that uncertainty negotiators have incentives to understate their own win-sets and to make the other side believe that the proposed deal will be ratified but any other deal that slightly favors the opposition is unlikely to be ratified. Win-sets prove to be very important in international negotiations and the manipulation of those win-sets can determine whether or not cooperation will occur.

Helen Milner’s work is an explicit extension of Putnam’s two-level game work (1997). Milner uses the logic of two-level games to examine specific cases of domestic institutions influencing international negotiations and outcomes. Milner argues that interests, political institutions, and the availability of information determine whether or not cooperation will occur. She introduces the concept of polyarchy which is when “power or authority over decision making is shared, often unequally...and the parceling out of distinct powers among the groups” (1997, 11). She argues that the extent of polyarchy directly influences the ease with which cooperation can be created. As a government becomes increasingly polyarchic, the difficulty of reaching cooperation will be increased.

The key to understanding policy making is to realize how the game between the domestic actors is played. This game depends on three variables: the differences among the players’ policy preferences, the distributions of information domestically, and the nature of domestic political institutions. (Milner 1997, 14)

Preferences derive from the actors’ interests that represent their fundamental goals. With reference to institutions she argues that institutional controls can produce variance in outcomes.

The distributions of legislative power directly influence the “probability and terms of cooperation” (Milner 1997, 19) in this sense there is a specific link between institutions and outcomes. Furthermore, her analysis takes into account the effect of information and uncertainty. Uncertainty creates inefficiency because mutually beneficial outcomes may be rejected by the legislature and that asymmetric information can allow powerful actors to bring outcomes closer to their preferences at the expense of other actors (Milner 1997). In general, asymmetric information benefits the executive who is likely to have more information regarding foreign affairs. Incomplete information makes cooperation more difficult and in Milner’s analysis interest groups make information available to the legislature at a low cost. While Milner’s work finds a difference between presidential and majoritarian parliamentary governments in terms of the ease of cooperation, her work can be extended to coalition governments as well. If polyarchy increases the difficulty in cooperation under unified government, then one would expect a coalition government to further increase the difficulty in coming to cooperative agreements. Coalition governments share power not only with the executive but also among the parties in government, which in turn should make decision making even more difficult.

The effect of legislative approval on cooperative agreements with reference to their intrinsic credibility derived from how the agreement is constructed is Martin’s emphasis (2000). Her argument is based on the indirect impact that legislatures can have on foreign policy through the implementation and finance allocation processes. “Legislators can use procedural powers to influence the shape of policy outcomes even if they delegate authority to the executive branch and do not pass a great deal of substantive legislation” (Martin 2000, 7). The logic of her theory is that legislative influence in foreign policy determines the credibility of the executive’s

promises. If the executive has incentives to attempt to use a form of agreement that does not require legislative approval or input, then the state with which he is negotiating has reasons to believe that he is hiding something and thus the agreement is less credible. Martin conceptualizes the relationship between the executive and legislature not as a power struggle, but as an exchange relationship where each branch can benefit from international cooperation (2000, 10). In that relationship of exchange legislative indirect endorsement lends credibility to the negotiations and agreements of the executive and, in turn, the executive negotiates while being influenced by the legislature.

She provides both case study and quantitative-based examples to illustrate her theory. Of particular interest to this research effort are her case studies on the European Union. Her analysis, as opposed to other integrationist analyses that have examined the effect of the legislature on European integration, concludes that legislatures have an influence on the process especially when a conflict arises among states. “National parliaments organize themselves to oversee the executive and exercise more control over the implementation of EU-level agreements” (Martin 2000, 18) and that the parliamentary influence is not always an impediment to integration. She finds that “national parliaments have rediscovered their latent powers to influence the activities of the governments in European integration” (Martin 2000, 188). The motives for and processes of integration have long-puzzled scholars seeking to understand why rational states would give up sovereignty and autonomy to an international organization. Yet, the reasons for integration are not the purpose of this project, this paper seeks to look at the influence of the different branches of government on cooperation between democracies. Few scholars would argue that there is no impact of the legislature on cooperation and many scholars would agree that the limit of the legislature’s influence on foreign policy is determined by the extent to

which it controls allocation of funds and implementation of agreements, as well as its influential ratification power.

While the above examples of the domestic influences on international cooperation have come primarily from scholars of international relations, there has also been work done in the comparative politics context that examines this relationship. Garrett analyzes the effects of domestic politics on globalization in a comparative context and concludes that globalization has constrained national autonomy through trade, multinationalization of production, and the internationalization of financial markets (1999, 155). His argument relies on how domestic policy can offset the harmful effects of trade liberalization and fixed exchange rates can have on the public. In short, he points to the development of a welfare state to redistribute the gains from cooperation to the losers of cooperation because “social insurance directly supports those adversely affected by market risk” (Garrett 1999, 157) and that insurance is supplied through taxation that some political parties are more willing to implement than others. Yet, since the government provides important collective goods that the market cannot supply the public is willing to pay the costs. He concludes, “the coupling of openness with domestic compensation remains a robust and desirable solution to the problem of reaping the efficiency benefits of capitalism while mitigating its costs in terms of social dislocations and inequality” (1999, 184). Thus for Garrett, the harmful side effects of international cooperation are offset by the government’s provision of public goods.

Another scholar who has looked at the affect of domestic politics in comparing relations between states is Leonard Schoppa. “Variations in the preferences of domestic actors have effects on the level and terms of international cooperation because such deals require the approval of more than one person in each country” (2002, 95). The heterogeneity of preferences

can help encourage cooperation because as some individuals do not want cooperation this will make the supporters of it desire it more fully. Thus, a key to obtaining cooperation is identifying the relevant actors and issues and the positions of those actors on those issues. Heterogeneity of preferences “helped make possible the compromises that were necessary for the bargaining to result in a cooperative deal” (Schoppa 2002, 104). In his analysis of US-Japanese relations, he concludes that actions should be taken help to create a space for bargaining as well as set the limits for that space.

In conclusion, it is clear that there is an impact of domestic politics and institutions on international negotiations and thus on the actions of the executive. Domestic institutions, particularly the legislature, influence foreign policy action by their ability to ratify agreements, allocate funds, and influence the structure of agreements. In addition, the extent to which power and decision making is shared in government impact the cooperative outcomes by determining the availability of consensus over issues. Furthermore, the skill of individual players in government determines the extent to which they are able to influence policy and find a convergence with other veto players.

### **Bargaining & the Importance of Issues: Economic vs. Military-Security**

Uncertainty is endemic in bargaining because information regarding the motivations and ideal preferences of actors is unknown (Morrow 1989). The sources of uncertainty are multiple and states deal with uncertainty by “establishing conjectures about what underlying conditions, called states of the world, could produce the final outcome” (Morrow 1989, 944). With reference to cooperation information is revealed through the offers made and revised between states during the bargaining process. However, the future consequences of deals made today are unknown suggesting that deals should be structured to ensure reliability/responsibility on the part

of the players (Koremenos et al 2001). Uncertainty over future consequences also suggests that the ease with which deals are made today will be affected by the costs that may be imposed in the future both expected and potential. Thus, the ability for states to cooperate today will be affected by their expectations of potential future costs that may be exacted by the agreement. Therefore, future costs are taken into account today and as those costs rise bargaining becomes more difficult (Lipson 1984; Bueno de Mesquita 2003).

It is well established that democracies face trade-offs of various types be they related to security or domestic allocations. Powell argues that all states, but particularly democracies, face a trade-off between what he characterizes as guns (security needs) versus butter (domestic needs) (1999). Since states have a finite pool from which allocate resources to each of these needs, states have to determine what the appropriate allocation of resources is given both their domestic situation and their external security concerns. Because the internal pool of the resources is finite states may choose to search internationally to fulfill these needs. What this really suggests is that states may be able to ameliorate their domestic burden for fulfilling these opposing forces by searching for international partners that they may be able to generate joint production economies with over these issues and thus decrease their own individual costs (Lake 2002).

In creating these joint production economies, states necessarily cede some amount of sovereignty and autonomy over their decision making because of the cooperative endeavor (Walt 1987). The costs of ceding autonomy vary depending on the issue. Intuitively, the costs for military cooperation are higher because they involve questions of sovereignty and autonomy that have implications for the survival of the state.<sup>7</sup> Furthermore, democratic leaders are very

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<sup>7</sup> Military cooperation can be linked to issues of state sovereignty in the sense that each military troop assigned to protect an ally or to work on a cooperative endeavor is one less troop that is tasked with protecting the nation's interests both domestic and foreign, as well as its security. Thus, domestically viewed international cooperation over military issues can appear to be zero sum, where the domestic security is forsaken for the future benefits of

cognizant of the potential costs involved regarding the stationing, deployment or promise of military aid in the form of troops. “Admittedly, economic issues usually seem to exhibit less conflictual payoff structures than do those of military security” (Axelrod and Keohane 1985, 231).

In contrast, economic issues may more closely approximate positive sum gains for all parties involved (both domestic and international). Though economic issues may involve questions of autonomy, in general states face lower costs for these agreements because they are unlikely to involve troop commitments or questions of sovereignty. The key difference between the two issues is the inherent conflictual nature of security cooperation where individual incentives make unilateral defection attractive making any equilibrium less stable (Lipson 1984). The consequences of the “peril of defection” make security cooperation very difficult to obtain because immediate gains and long terms costs from security issue defection are different from economic issue defection (Lipson 1984). Thus, the potential costs to be paid for security cooperation are higher than those for economic cooperation. While there is no exact method for measuring the future costs of security cooperation, they are certain to be higher than those for economic cooperation suggesting that security issues may be more difficult to cooperate over. This difficulty is likely to exacerbated by the extent to which decision making in the government is not only polyarchic but impeded by domestic institutional constraints and the informational environment. Since the question of interest is the amount of cooperation between democratic states, issues are certain to affect the amount of cooperation that states engage in.

### III. Drawing Hypotheses from the Literature

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international cooperation. However, this is not to suggest that there is no opportunity for joint gains in security cooperation (Lipson 1984), rather the perceptions of the players matter in shaping the ability for the joint winset to be found.

The literature review has provided the appropriate background necessary for explicating hypotheses and designing a plan for researching the question of interest. The question proposed is: how do institutional constraints affect the annual amount of cooperation between democratic states?

“Majoritarian legislatures typically feature a ruling party and a few other veto players. Requiring the cooperation of multiple parties, (coalition) systems include more veto players in the legislative process” (Reiter and Tillman 2002, 812). Following the logic of Tsebelis (1995a; 1995b) outlined above, I expect that as decision making power becomes more dispersed in government (single-party majority vs. coalition government), then the likelihood of international cooperation decreases. In addition, I expect that the more unified the government is around one party, the more likely we are to see international cooperation. As mentioned above I also expect issues to be important. Thus, the negative effects of increasing the number of veto players by having a coalition government should be more pronounced over security cooperation. In fact, since economic cooperation can be universally viewed as either positive-sum or prone to joint gains I do not expect coalition governments to be any less likely to cooperate than majoritarian governments.

H1a: Majoritarian governments will have a positive effect on the dyadic amount of cooperation over economic issues.

H1b: Majoritarian governments will have a positive effect on the dyadic amount of cooperation over security issues.

H2a: Coalition governments will have a positive effect on the dyadic amount of cooperation over economic issues.

H2b: Coalition governments will have a negative effect on the dyadic amount of cooperation over security issues.

There is no escaping that parties are important to government. In fact, the number of effective parties in the legislature can be very important in terms of cooperation because as the number of distinct effective parties increases states are less likely to be able to obtain legislative approval of foreign policy actions, particularly risky foreign policy actions. I expect the influence of the number of effective parties in the legislature to be negative because the measure of effective parties takes opposition parties into account that are likely to have asymmetric information with regard to any agreements that the 'government' negotiates. The uncertainty of opposition parties may lead them to impede cooperation despite the possibility that joint gains can be obtained (Milner 1997). I also expect the number of effective parties in the legislature to have a negative effect on security cooperation regardless of the government type for the same reasons.

H3a: The number of effective parties in the legislature will have a negative affect on the amount of dyadic cooperation over economic issues.

H3b: The number of effective parties in the legislature will have a negative affect on the amount of dyadic cooperation over security issues.

The effects of bicameralism and treaty-ratification by the legislature are issue specific in the sense that as the costs of cooperation increase institutional constraints should have a negative effect on the amount of dyadic cooperation. As mentioned earlier economic issues can approximate positive-sum games suggesting that bicameralism and treaty ratification may actually have a positive effect on the amount of dyadic cooperation over economic issues because individual legislators have incentives to support economic agreements that have a possibility of yielding district level benefits. In contrast, security cooperation may be hindered by bicameralism and treaty ratification because the costs of cooperation are high and the benefits

of security cooperation are more concentrated than the benefits of economic cooperation since they may be concentrated in a few districts.

H4a: Bicameralism has a positive effect on the amount of dyadic economic cooperation.

H4b: Bicameralism has a negative effect on the amount of dyadic security cooperation.

H5a: Legislative treaty ratification has a positive effect on the amount of dyadic economic cooperation.

H5b: Legislative treaty ratification has a negative effect on the amount of dyadic security cooperation.

The relative amount of military power that a state has should shape their incentives for cooperation. In fact, as a state becomes more powerful militarily relative to the other state in the dyad they should be unlikely to pursue agreements with regard to security cooperation because the future costs may be higher and powerful states should want to prevent themselves from being trapped in a security agreement. On the other hand, over issues of economic cooperation relative power should not matter since economic gains are minimally, if at all, related to the amount of military power a state has. In fact, powerful states may actually seek out economic cooperation as a way to balance their domestic allocations toward the military.

H6a: Relative capabilities have a positive effect on the amount of dyadic economic cooperation.

H6b: Relative capabilities have a negative effect on the amount of dyadic security cooperation.

Finally, I include a variable to control for the percent of dyad's interaction that is over military issues or economic issues. This variable is really trying to capture how important cooperation over these issues is to the dyad. I expect this variable to have a positive affect on the amount of cooperation in the dyad.

#### IV. Data and Methods

Data for this paper come from a variety of sources. The unit of analysis is democratic dyads by year. The dependent variables come from Cooperation and Peace Databank

[COPDAB] (Azar 1993). This databank codes all event interactions between states on a scale from most cooperative (1) to highly conflictual (15). Since these data are event based I aggregated the data over the year. Thus, the dependent variable is a count of the number of cooperative interactions this dyad had over economic issues or security issues.<sup>8</sup> The only other variable, derived from these data, is the control variable that accounts for what percent of the dyadic interaction is over this issue. The temporal span of the COPDAB data limit my analysis from 1948 to 1978.

The other primary data source is a data set collected by Reiter and Tillman (2002) on the effect of constraints in democracies on the initiation of conflict. They collected data on institutional constraints in 37 democracies (see Table 1 for a list of countries). Variables of interest used in this analysis include dichotomous indicators for coalition governments and majoritarian governments,<sup>9</sup> the number of effective parties in the legislature (a continuous variable that ranges from 1-7), whether or not the government has strong bicameralism, and an indicator of treaty ratification by the legislature.<sup>10</sup>

The final data source is data generated from EUGene (v. 3.0) (Bennett and Stam 2000). Variables generated include power status (major power or not) and military capabilities data.<sup>11</sup>

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<sup>8</sup> Cooperation must occur at levels 1,2, or 3 to be included as counted event over the year. According to the COPDAB coding manual events included in levels 1-3 include such things as voluntary unification, major strategic alliances, and strategic support/assistance including joint programs for military and economic reasons. Since all of these actions involve a considerable commitment by one state to another, it is certain that the legislature would desire some influence on the final outcome policy and try to prevent the executive from unilaterally committing the state.

<sup>9</sup> Minority governments are the excluded category.

<sup>10</sup> This variable is coded 0, 1, or 2 depending on the extent to which the legislature has control over treaty issues. This variable equals 2 if treaty ratification is always required, 1 if approval is conditionally required and 0 otherwise.

<sup>11</sup> Capabilities, referred to as power, are determined using the Composite Index of National Capabilities (Singer et al. 1972). The relative capabilities of a dyad were determined by taking the largest capability score in the dyad and dividing it by the sum of the dyad's capabilities. This variable ranges from .5 to 1.0 with .5 representing parity within the dyad and 1.0 indicating a preponderance of capabilities by one dyad member.

These data are used because of the modeling approach chosen to model the relationship of interest.

The data for the dependent variable are asymmetrically distributed. Zeros account for 90% of the observations in the data suggesting that a model should be used to account for the preponderance of zeros. In fact, it is likely that there is some unobserved process that *ex ante* affects the likelihood that a state has a non-zero observation and simply predicting the amount of cooperation between the two states would lead to incorrect inferences about the true causal process at work. Some of the observations equal zero because that dyad has no chance of interacting cooperatively at all, while other zero observations are from dyads that have the opportunity<sup>12</sup> to interact cooperatively, yet fail to do so, which results in our observed zero. “The upshot is that “zeros” in the data can indicate either of these conditions, though we cannot be sure which is which since the process that produces opportunities ... is unobserved” (Clark and Hart 2003).

As a result, the model must be among the zero-altered or zero-inflated class to account for these different processes that determine whether or not states transition to the positive count state, in this sense these models account for the probability of a zero when determining the count process. Therefore, these analyses use a simultaneous approach where the opportunity for cooperation is first modeled using a maximum likelihood technique and then the amount of cooperation is modeled given that the dyad has the opportunity to cooperate. The zero-inflated stage allows me to control for the opportunity that states have to interact cooperatively. Since this stage is used as a control only, I do not develop hypotheses for the variables included. In the

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<sup>12</sup> The following discussion is framed in terms of opportunities to cooperate because characteristics of the dyad determine whether or not it has the opportunity to engage in cooperation. For a general example, states that are non-contiguous minor powers lack the opportunity to cooperate because their distance increases the costs of cooperation and their minimal level of power decreases the potential benefits to other partners from their cooperation.

opportunity stage, I include variables that attempt to capture the dyad's opportunity for cooperation, thus I include measures such as major power status and relative military capabilities. Thus, I use a Zero-Inflated Poisson model based on the structural model that follows (See Long 1997 and Greene 2003 for a discussion):<sup>13</sup>

- (1) No Opportunity =  $\alpha + \beta_{11}$  Major Power +  $\beta_{12}$  Relative Capabilities +  $\epsilon_i$
- (2a) Amount of Cooperation (Economic) =  $\alpha + \beta_{21}$  Majoritarian Government +  $\beta_{22}$  Coalition Government -  $\beta_{23}$  Effective Legislative Parties +  $\beta_{24}$  Bicameralism +  $\beta_{25}$  Treaty Ratification +  $\beta_{26}$  Relative Capabilities +  $\beta_{27}$  Percent Interactions on Economic Issues +  $\epsilon_i$
- (2b) Amount of Cooperation (Security) =  $\alpha + \beta_{21}$  Majoritarian Government -  $\beta_{22}$  Coalition Government -  $\beta_{23}$  Effective Legislative Parties -  $\beta_{24}$  Bicameralism -  $\beta_{25}$  Treaty Ratification -  $\beta_{26}$  Relative Capabilities +  $\beta_{27}$  Percent Interactions on Security Issues +  $\epsilon_i$

#### IV. Analysis and Results

Since these data are of a count nature, I first report Poisson regression models predicting the amount of cooperation over security issues and economic issues (see Table 2). As can be observed from the results of models 1 and 2 many of the variables of interest have a significant affect on the amount of democratic dyad cooperation. The percent of interactions that involve the issue of interest have a positive and significant affect on the overall amount of cooperation. Nearly all the institutional constraint variables exert a positive influence on the amount of cooperation except the number of effective parties, which exerts a negative influence.<sup>14</sup>

However, since these data are zero-inflated, the appropriate model to use is a Zero-Inflated Poisson (ZIP) model. I use a probit specification of this model for the opportunity stage. Thus, models 3 and 4 report results for economic and security issue cooperation respectively.

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<sup>13</sup> The inflation stage of the model (stage 1) models the probability that no opportunity occurs for cooperation. Thus, these coefficients are interpreted with respect to observing a zero count on the dependent variable. For example, the presence of a major power decreases the likelihood that there is no opportunity for cooperation.

<sup>14</sup> Note that in the economic cooperation model the effect of treaty ratification and majoritarian government cannot be distinguished from zero.

First, I will compare the differences between the ZIP model and the Poisson model by issue and then I will comment on the two ZIP models. In terms of the economic issues model, when I control for the probability that states have no opportunity/motive to cooperate both bicameralism and relative capabilities have no effect on the amount of cooperation that states exhibit. Since the ZIP and Poisson models are nested, as the ZIP model reduces to the Poisson model when the Vuong statistic is not significant, a log-likelihood test can be performed. The log-likelihood is significant at the .01 level with degrees of freedom equal to the number of restrictions between the models. In comparing the two security issue models, using the ZIP model decreases the significance of the effect of coalition government and the constant becomes insignificant in the model stage. However, this model does appear to outperform the Poisson, as the standard errors appear to be more efficient. In addition, the log-likelihood test of these models suggests that the ZIP model is better than the Poisson model at the .01 level.

In both ZIP models the Vuong statistics are significant suggesting that the individual issues ZIP models outperform the comparable Poisson models which indicates that it is correct to assume that there are two processes generating these data. Furthermore, the security issue model appears to be a better model than the economic issue model as the coefficients have stronger magnitudes and some of the standard errors are reduced.<sup>15</sup> However, these models are not directly comparable because though they use the same sample they do not include the same independent variables. Though the tables are informative, they are not literally interpretable. Thus, I generate some expected values of the dependent variable based on government type (See Long 1997 and Greene 2003).<sup>16</sup>

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<sup>15</sup> Another reason why I believe the security issue model is the better model is because the coefficient on relative capabilities and constant in the opportunity stage of the economic issue model appear to be somewhat inflated in comparison to all of the other coefficients.

<sup>16</sup> The following formulas were used for computing these figures:

[Figure 1 about here]

Figure 1 compares the expected values of the amount of cooperation when controlling for opportunity versus not accounting for opportunity.<sup>17</sup> The figure suggests that when the probability of no opportunity for cooperation is accounted for the expected amount of cooperation is nearly cut in half. Furthermore, as the number of effective parties increases states become less likely to exhibit any amount of cooperation.

[Figures 2 and 3 about here]

These figures compare the expected amounts of economic and security cooperation based on government type as the number of effective parties increases. Coalition governments appear to have higher expected amounts of cooperation over economic issues in comparison to other governments. This makes sense in light of the belief that economic issues approximate positive sum gains and that coalition governments have more partisan veto players to satisfy. In contrast, majoritarian governments appear to have higher expected amounts of cooperation over security issues. These results are consistent with expectations because decision making in majoritarian countries is more unified and more decisive, I expect those states exhibit higher amounts of security cooperation despite the fact that security cooperation is more costly.

In terms of hypothesis support, I hypothesized negative effects for bicameralism, treaty ratification, and coalition governments on the amount of security cooperation. The evidence presented counters these hypotheses. Though the magnitude of the coefficient for majoritarian governments is larger, there is still a positive relationship between coalition governments and security cooperation and as the figures have shown majoritarian governments appear to be more likely to cooperate over security issues than coalition governments. Furthermore, the positive

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$$\Lambda = \exp(X_i B_i)$$

$$\psi = \Phi(z_i \gamma_i) - \text{Opportunity Stage}$$

$$E[Y] = \Lambda - (\Lambda \psi)$$

<sup>17</sup> These were calculated with all other variables set at their means or modes for a minority government.

effects of bicameralism and treaty ratification support Martin's argument that the existence of institutional constraints enhances the credibility of democratic commitments and thus enhance the ability of democratic states to make international agreements regardless of the type of issue. These results do not contradict previous analyses of the relationship between democracies and cooperation (Leeds 1999). Furthermore, these results are not at all inconsistent with strategic behavior explanations of observed empirical results (Leeds & Davis 1997; Clark 2003). A strategic argument would suggest that agreements that have little chance of being ratified by the legislature would never be presented to legislature, in this sense the agreements that are least likely to be ratified would be selected out of the ratification process resulting in a positive effect for treaty ratification on the amount of dyadic cooperation.

I was not able to ascertain the true relationship between treaty ratification and cooperation over economic issues, as the coefficient for treaty ratification is insignificant. However, it could be the case that the effect of treaty ratification on economic issues cooperation is conditional on the type of government. So I re-estimate Model 3 including an interaction term for treaty ratification and government type in Table 3. The results are more robust than previously<sup>18</sup> and one observes that treaty ratification is actually positive and significant as hypothesized but the government effects when interacted with treaty ratification are negative. This suggests that both the institutional constraints and the government type are jointly influential in determining the amount of economic cooperation. Clearly the legislative powers of treaty ratification matter in terms of the amount of economic cooperation a state is able to obtain and the magnitude of the effect is stronger for coalition governments than for majoritarian

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<sup>18</sup> In fact, a log likelihood test comparing the revised model to Model 3 reported above is significant suggesting that this model is a better model. Also note the effect of majoritarian governments is now positive and significant, whereas before it could not be distinguished from zero.

governments. Overall, about a little more than three-quarters of my hypothetical relationships were supported by the analyses reported in this paper.

## V. Conclusions

The argument presented in this paper suggests that institutional constraints and the electoral systems of the government affect the amount of cooperation between democracies over various issues. The results presented in these analyses confirm those beliefs. In contrast to the hypothesized effects both majoritarian and coalition government appear to have positive effects on the amount of democratic dyadic cooperation. However, the magnitude of the coefficients for majoritarian governments is larger than that for coalition governments suggesting that the effects of a more unified executive and legislature are stronger than those for executives that require partisan veto player approval before moving forward with policy. Clearly legislative constraints do play a role in the amount of observed cooperation in democratic states as both treaty ratification and the number of effective parties have significant affects on this process. Furthermore, the effects of government on economic issues are conditional upon treaty ratification powers. Finally, it does appear as though relative capabilities have a strong negative affect on the amount of security issue cooperation supporting the argument that strong states are less likely to cooperate because the gains may be minimal.

In terms of extending this analysis for future research, I would like to extend the time period of the analysis. In fact, during the time period used in this article there were many significant changes occurring throughout the world that affected democracy such as colonial transitions, the cold war, and autocratic reversions in Latin America. In fact, though Reiter and Stam collected data on 37 democracies from 1816 until 1994, it is likely that some of those democracies are not even included in this analysis because of the time constraints. Second, I

would try to further specify the model by accounting for things such as electoral cycles, whether government is divided if bicameral, and the number of parties in the government coalition. I suspect that there may be interesting electoral incentives that influence international cooperation. Finally, I would attempt to generalize this model to autocrats because autocrats also face these balancing incentives between internal and external security but the importance of internal security is trumped by external security suggesting that they may be more likely to enter into security agreements with other autocrats.

In conclusion, the results of this analysis supports a vast amount of literature that suggests that institutional constraints shape both the incentives of executives and the ability of executives to act as if they have a free hand in shaping foreign policy. The results also suggest that much more research both theoretical and empirical needs to be done to further refine our understanding of these relationships.

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**Table 1: Countries Included  
(Based on Reiter and Tillman 2002)**

Australia  
Austria  
Bahamas  
Barbados  
Belgium  
Botswana  
Canada  
Columbia  
Costa Rica  
Denmark  
Finland  
France  
Germany (Federal Republic)  
Greece  
Iceland  
India  
Ireland  
Israel  
Italy  
Jamaica  
Japan  
Luxembourg  
Malta  
Mauritius  
Netherlands  
New Zealand  
Norway  
Papa New Guinea  
Portugal  
Spain  
Sri Lanka  
Sweden  
Switzerland  
Trinidad & Tobago  
United Kingdom  
United States  
Venezuela

**Table 2: Poisson and Zero-Inflated Poisson Estimates of the Amount of Cooperation**

Variable	M. 1 Econ.	M. 2 Sec.	M. 3 Econ.	M. 4 Sec.
<i>Model Stage</i>				
% Eco. Interaction	2.2939** (.1207)	---	2.2965** (.1385)	---
% Sec. Interaction	---	2.7300** (.1086)	---	2.6057** (.1145)
Bicameralism	0.2509* (.1115)	0.6758** (.1494)	0.1012 (.1366)	0.6642** (.1361)
Treaty Ratification	0.0176 (.0508)	0.3876** (.0580)	0.0620 (.0567)	0.4943** (.0447)
Effective # of Parties	-0.2228** (.0378)	-0.3376** (.0578)	-0.1965** (.1794)	-0.2138** (.0636)
Coalition Government	0.8342** (.1726)	0.9645** (.2443)	0.7566** (.1794)	0.4602* (.2172)
Majoritarian Government	0.1868 (.1744)	0.9645** (.2362)	0.2671 (.1799)	0.5627** (.2053)
Relative Capabilities	-1.4224** (.2625)	-1.4506** (.3525)	-0.4398 (.3872)	-2.1712** (.3536)
Constant	-2.1050** (.2766)	-1.7063** (.3960)	-2.5794** (.3762)	-0.1009 (.3958)
<i>Opportunity Stage<sup>19</sup></i>				
Major Power	---	---	-1.7647** (.5295)	-0.7622** (.1287)
Relative Capabilities	---	---	55.8348** (16.6045)	-1.4872** (.4668)
Constant	---	---	-53.4714** (16.119)	1.4951** (.3635)
Vuong Statistic <sup>20</sup>	---	---	3.57**	5.23**
Log-Likelihood	-1193.6057	-1969.1693	-1174.491	-1842.579
Chi-square (df) <sup>21</sup>	565.24(7)*	861.68(7)*	392.82 (7)*	453.21(7)*
N	3188	3188	3188	3188

Robust Standard Errors reported for M.1 & M.2. \*p<.05 \*\*p<.01

<sup>19</sup> This stage predicts the likelihood that any dyad belongs to the zero-count of cooperation group for a given year. I use a probit specification for this stage.

<sup>20</sup> The Vuong statistic z-score provides a test of the null hypothesis that the opportunity stage does not contribute to the model; it evaluates the ZIP specification versus the Poisson model.

<sup>21</sup> Note: Poisson models report Wald Chi-Square whereas Zero-inflated Poisson models report the Likelihood Ratio Chi-Square.

**Table 3: Zero-Inflated Poisson Estimates of Economic Issue Cooperation (Revised Model)<sup>22</sup>**

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<i>Model Stage</i>	<i>Coefficient</i>	<i>Standard Error</i>
% Eco. Interaction	2.2277**	0.1382
Bicameralism	0.1422	0.1376
Treaty Ratification	0.6732**	0.1766
Effective # of Parties	-0.2097**	0.0498
Coalition Government	0.9984**	0.2848
Majoritarian Government	0.9254**	0.2558
Relative Capabilities	-0.5268	0.3887
<b>Maj. Govt.*Treaty Ratif.</b>	-0.4335**	0.1985
<b>Coal. Govt.*Treaty Ratif.</b>	-0.8931**	0.1952
Constant	-3.1154**	0.4003
<i>Opportunity Stage</i>		
Major Power	-1.9116**	0.5668
Relative Capabilities	52.1643**	17.8375
Constant	-49.9648**	17.3192
Vuong Statistic	3.09**	
Log-Likelihood	-1160.75	
Chi-square (df)	420.30**	
N	3188	

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\*\*p<.01

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<sup>22</sup> Running the revised model for economic issues does not substantially change the results from those reported in Model 4.

Figure 1: Expected Amount of Cooperation (Opportunity vs. No Opportunity)

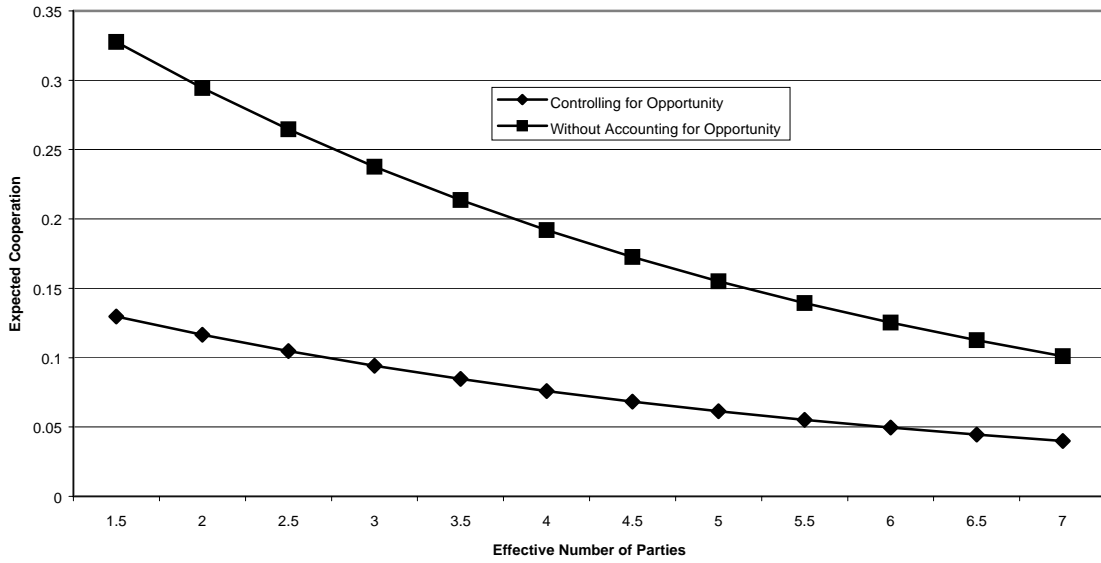


Figure 2: Expected Amount of Economic Cooperation by Government Type

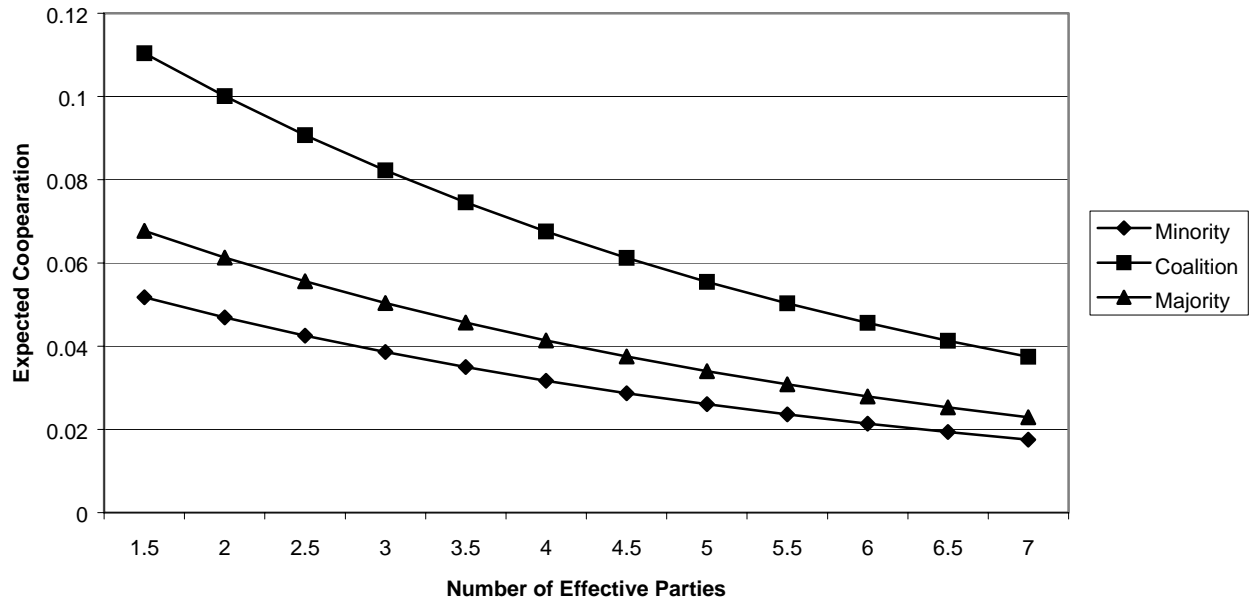


Figure 3: Expected Amount of Security Cooperation by Government Type

