Democratic Regime Types and the War-Proneness of States

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Abstract

This paper examines the effect of the variation among democratic regime types on states’ willingness to use force. It asks if all democracies behave the same way when it comes to deciding over the use of force. The influence of various institutional configurations on conflict behavior is an important theoretical question: if we wish to compare democracies to autocracies, we must know if all democracies behave the same way and can be conveniently lumped together under the democratic label or if we must treat them separately. This paper improves upon the few studies that have examined this question so far: using insights from comparative politics, it offers a more nuanced distinction between democracies by separating permanent (separation of powers, monocratism) and temporary (majority size and coalition type) variables and defining their relationship to each other. Finally, departing from the conventional linear understanding of the relationship between use of force and executive constraints, I hypothesize that the relationship is curvilinear: few constraints inhibit war-proneness, while a lot of constraints make chief executives escape forward into using of force. I find that permanent features are significant but temporary features are not.

Key words: conflict, use of force, democracies, parliamentary, presidential, legislative coalition
1. Introduction

This paper examines the effect of the variation among democratic regime types on states’ willingness to use force. It investigates whether all democracies have the same propensity to use force regardless of institutional variation within democratic family.¹

A literature of considerable size has been built around examining the difference between the conflict behavior of democratic and autocratic regimes. However, only a handful of studies examine variation within the democratic community. This is rather surprising, since the most frequent operationalization of regime type is the continuous autocracy-democracy variable of the Polity databases (Marshall and Jaggers 2006), which easily lends itself to the idea that there may be a difference within the democratic (and the autocratic) community in their willingness to use force.

Studies that examine the conflict engagement or war-proneness of democracies suffer from a careful conceptualization of democratic regime type and a lack of systematic thinking on how institutional variables relate to each other. I improve upon both of these aspects. First, building on the insights of comparative politics, I offer a more nuanced conceptual understanding of democratic regime types, differentiating between permanent and temporary variation among democracies. Second, since regime type only provides a broad framework, and thus, leaves room for variation. I analyze the interplay between formal institutions and the actual political situation may influence the use of force.

I posit that actual political variables mediate the effects of regime type on the use of force and that the relationship between executive constraints and the use of force is not

¹ I wish to thank Agnes Simon for her help and advice.
linear as the conventional understanding of the structural variant of democratic peace has claimed so far but curvilinear.

I examine two permanent dimensions – separation of powers and monocratism – and two temporary ones – majority size and coalition type. I find that while permanent features have a significant influence, temporary features do not. The presence of separation of powers pulls toward peaceful behavior, while the single-headed nature of the executives increases the likelihood of the use of force. Neither majority size nor coalition type has a significant effect.

The paper proceeds as follows. Section 2 reviews the literature. Section 3 offers a new conceptualization of democratic regimes. Section 4 presents the hypotheses. Section 5 discusses the data. In section 6 I discuss the results. Section 7 concludes.

2. Democratic Regime Types and War

There is an almost unanimous agreement about the validity of the democratic peace proposition – at least in its dyadic form (e.g. Leeds and Davis 1999, Maoz and Russett 1993, Oneal et. al. 1996; Goldsmith 2006; Levy 1994, 452). That is, democracies are more peaceful vis-à-vis each other although not necessarily more peaceful than autocracies. Two types of explanations have been suggested to account for this: a structural (e.g. Bueno de Mesquita et. al. 1999; Weitsman and Schambaugh 2002; Prins 2003; Prins and Sprecher 1999; Morgan and Campbell 1991) and a normative one (e.g. Owen 1994; Dixon 1994). Both of these have been found to be significant. By examining the interplay between democratic institutions – not values and attitudes – and the use of force this study enriches the literature on the structural variant of democratic peace.
The exact nature of the causal mechanism of democratic peace is still heavily debated (Prins 2003, 68; Maoz and Russett 1993, 791; Starr 1997, 154; Morgan and Campbell 1991, 188; Layne 1994). Consequently, while the structural hypothesis claims that democratic constraints lead to fewer engagements in wars and studies examined a great number of structural variables, the institutional characteristics that are relevant are not yet clear.

The fact that the nature of constraints varies among democracies suggests that there is a difference between the war-proneness of states within the democratic (and autocratic) community as well (Maoz and Russett 1993). Reiter and Tillman (2002, 812) note that democracies have been conceptualized rather simply either as a dichotomous variable (free vs. non-free; autocratic vs. democratic) or as a unidimensional variable (see e.g. Mansfield and Snyder 1995, Barbieri 1996; Oneal et. a. 1996; Leeds and Davis 1999; Dixon 1994). While this may be appropriate to examine the difference between the behavior of autocracies and democracies, it comes at the price of lumping all democracies together without making the examination of potential differences possible (Reiter and Tillman 2002, 812).

A few studies (Reiter and Tillman 2002; Prins and Sprecher 1999; Ireland and Gartner 2001; Schjølset 1996; Leblang and Chan 2003; Auerswald 1999) have already recognized the need to examine variation among democracies. These studies examined the influence of a great number of factors: degree of consensus (i.e. majoritarian vs. consensus democracies, Schjølset 1996), separation of powers (presidentialism vs. parliamentarism, Reiter and Tillman 2002; Leblang and Chan 2003), legislative parity (Campbell and Morgan 1991), and the size of popular participation at elections (Reiter
and Tillman 2002). Prins and Sprecher (1999) and Ireland and Gartner (2001) only examine parliamentary democracies in terms of the following variables: government type (single-party vs. multi-party), size of the government’s majority (including minority governments i.e. negative majorities and electoral system). Ireland and Gartner (2001) as well as Leblang and Chan (2003) study the influence of electoral systems. Prins and Sprecher (1999) add government polarization or the number parties in the coalition.

Only a few results have not been contested. First, majoritarian democracies appear to be more peaceful than consensus democracies (Schjølset 1996). Second, increasing participation at the elections (Reiter and Tillman 2002) and the increasing number of parties in the governing coalition (Prins and Sprecher 1999) decrease the likelihood of conflict.

The rest of the findings are contradictory. Neither Leblang and Chan (2003) nor Morgan and Campbell (1991) find the separation of powers/legislative parity to be related to conflict involvement. As opposed to this, Reiter and Tillman (2002) conclude that mixed types are more war prone than pure presidential and parliamentary democracies that behave similarly. According to Prins and Sprecher (1999) coalition governments are more likely to reciprocate conflict than single-party governments, but others do not find meaningful difference between single-party and coalition governments (Ireland and Gartner 2001; Leblang and Chan 2003). Minority governments may (Prins and Sprecher 1999) or may not (Ireland and Gartner 2001) be more war-prone than majority governments. Finally, the electoral system has been found to be related (Leblang and Chan 2003) and unrelated (Ireland and Gartner 2001) to conflict behavior.
I argue that many of these differences are due to a hasty application of concepts from comparative politics. For example, neither Leblang and Chan (2003) nor Ireland and Gartner (2001) recognize that two of their independent variables – electoral system and coalition type – are likely to be related. One of the few law-like relations in political science, Duverger’s law, claim that the electoral system influences the number of parties in the legislature: first-past-the-post systems yield on average 2.5 parties, whereas pure PR systems 4-6 parties in the assembly (Duverger 1954). In turn, the likelihood of the formation of a single-party or a coalition government is closely related to the number of parties in the legislature.

Leblang and Chan (2003) define the presidential-parliamentary distinction collapsing long-term features of these systems with short-term variation along the unified-divided government dimension. This results in a categorization that treats France under cohabitation – when different parties give the president and the majority of the assembly and, thus, the prime minister – as parliamentary, but otherwise as presidential. Yet, the mixed nature of the system remains unchanged even if actual political constellations vary.

I improve upon this and continue by conceptualizing regime type and spelling out the relationship between permanent and temporary institutional features. Taking into account the mediating effect of regime type, this will allow me to make more sophisticated claims about the influence of such temporary features as the size of the government majority or coalition type, which vary across presidential and parliamentary democracies.
3. Democratic Regime Types and Democratic Politics

3.1 Differentiating among Regime Types

Auerswald (1999, 469-71) claims that implicitly or explicitly all structural explanations are based on differentiating between different accountability mechanisms among democracies. The explanation below is based on this assumption. My analysis is restricted to the examination of indirect or elite accountability as opposed to direct or popular accountability through regular elections.

In harmony with the comparative literature, I conceptualize different elite accountability structures along the presidential-parliamentary continuum. It is made up of two dimensions. Elites may hold the democratic leader accountable either because of their position within a single institution or because of the strengths of a competing institution (Morgan and Campbell 1991, 191-2). The former corresponds to the nature of the cabinet – whether it is single-headed or collective – and the latter to the power relations between the executive and legislative branches, respectively.

Shugart and Carey’s (1992) definition of democratic regime types take care of the latter. They note that although there are a great number of ways to differentiate between regime types (e.g. Mainwaring and Shugart 1997; Powell 1982; Lijphart 1989; Lijphart 1999), most of these contemporary definitions are similar. All of them stress three aspects of democracies: the popular election of the chief executive, fixed term of office for the legislature and chief executive, and the selection of the cabinet. These capture different aspects of the same phenomenon, the separation of powers or, that is, the origins and survival of executives (Shugart and Carey 1992, 15, 20). Presidentialism stands at one
end of the spectrum. It is built on the idea of maximum separation of powers. As opposed to this, parliamentary democracies lack this feature.

The other dimension – monocratism – relates to the relationship of chief executives to their cabinet. I agree with Lijphart (1989; 1999, 117-118) and Rockman (1997, 48, 51) that this dimension is an integral part of the presidential-parliamentary distinction and not redundant as Shugart and Carey suggest (1992, 21). Yet, Shugart and Carey (1992) are right in that it is not part of the separation of powers dimension. In other words, monocratism is a qualitatively different phenomenon. On the one end of the spectrum stands presidentialism where the president has advisors but he is the single executive official who makes decisions. On the other end of the continuum are ideal type parliamentary regimes where the cabinet is the decision-making authority and where the chief executive has to secure cabinet support.

Taking both of these dimensions into account, presidents ideally are masters of their own house, having unquestionable authority over the cabinet. Because they are elected directly, they enjoy a fixed term of office and because the legislature cannot remove presidents in general, presidents enjoy great freedom to act. It is important to note that this understanding of presidential power, where elite accountability is missing, is only feasible in the field of foreign policy where legislative power is mainly limited to ratifying treaties.\(^2\) Since conflicts of the magnitude that carry the threat of the use of force rarely conclude with a formal treaty that might necessitate legislative action (Wallensteen and Sollenberg 2000), it is safe to treat presidential democracies as operating under few constraints. This conceptualization of presidential power is consistent with that of Maoz and Russett (1993, 626; cf. Reiter and Tillman 2002, 815).

\(^2\) Declaration of war could be another legislative prerogative, but it has long gone out of fashion.
As opposed to this, prime ministers face much stricter constraints, because they are accountable to the political elite not just the electorate. Not only prime ministers but also their whole cabinet are responsible to the assembly, which even under strong – i.e. prime ministerial – parliamentary government makes the game different from presidential ones. Unlike presidents, prime ministers cannot survive without maintaining the support of the parliament and their colleagues. To work on ensuring the support of cabinet colleagues is also crucial because they can remove the prime minister without endangering the party’s or coalition’s majority in parliament. All they have to do to outfox the prime minister is to build an alliance among themselves and in opposition to the premier. All in all, prime ministers need some measure of agreement (be it simple majority or consensus) within the executive branch and, thus, are required to bargain with their cabinet the way presidents are not (Rockman 1997, 48; Peters 1997, 69).

3.2 Regime Types and Everyday Politics

Some scholars (Prins and Sprecher 1999; Ireland and Gartner 2001) consider factors beyond those that fall under the permanent aspects of separation of powers and monocratism, including coalition type, majority size, and the number of parties in the government. In the present conceptualization, this represents a different dimension from the two constituting elements – separation of powers and monocratism – of regime type. The effect of this additional dimension on conflict behavior is mediated through regime types, as it covers the possible political variation within regime types.

The dimension of actual political constraints is closest to Haggard and McCubbins’ concept of the separation of purpose, that is, the idea that “different parts of the
government are motivated to seek different goals” (2001, 3). The separation of purpose may be present in both parliamentary and presidential democracies. It may manifest itself between branches that are formally separated or it may rise in parliamentary regimes when the governing party or the governing coalition is divided. Similarly, the separation of purpose may be absent under united government when an assembly and a president work in agreement or when parliamentary governments do not suffer from inter- or intra-party division (Haggard and McCubbins 2001, 3-4).

Some modifications must, however, be made to Haggard and McCubbins’ (2001) understanding of the separation of purpose because all of these authors describe the concept in dynamic terms, but their actual categorization of different regimes is static. For instance, Haggard and McCubbins’ (2001) describe the United Kingdom as unified with respect to both the separations of powers and purpose. Contrary to this, here regimes are allowed to move on the dimension of separation of purpose with changes in the actual political situation. This preserves the dynamic nature of this dimension.

The relationship is visualized in figure 1. On the horizontal axis (separation of powers in one dimension and monocratism in the other) each presidential or parliamentary regime occupies one permanent position. This position may be altered but only in the long run. Alterations of constitutional/legal rules typically belong to this dimension. However, evolutionary change on the long run is also possible.

A typical evolutionary change is the growing role of chief executives in both presidential and parliamentary regimes. In the American presidential context, it has been described as the “imperial presidency”, that is a permanent shift in the balance of power toward the president and out of the hands of Congress (e.g. Schlesinger 1973; Jones 1997,
A similar debate is carried out in connection with the monocratism dimension of parliamentary democracies. This trend is referred to as the presidentialization of parliamentary regimes or prime ministerial government. It is characterized by a move away from collective decision-making and toward a single-headed executive (e.g. Hennessy 2000; Poguntke and Webb 2006; Foley 1993).

Finally, it is important to stress that conceptually both separation of powers and monocratism are continuous variables even if no continuous operationalization of the separation of powers dimension has appeared so far, resulting in the clustering of democracies in the course of analysis.

FIGURE 1 ABOUT HERE

The separation of purpose is visualized on the vertical axis. Each presidential, parliamentary or mixed type may move on this axis as a consequence of the actual political situation. This axis represents such temporary aspects of political life as coalition type, majority size, strength of the opposition in legislature, and factionalization of the assembly.

Separating permanent and temporary features of regimes helps, for instance, overcome Leblang and Chan (2003)’s dilemma, which forced them to categorize the French Fifth Republic as presidential under cohabitation and as parliamentary in all other cases. In the present framework the French Fifth Republic remains semi-presidential and – as a mixed type – is located around the middle of the horizontal axis. Depending on
whether the president and the prime minister come from the same (unified) or different (divided) parties, the regime moves on the vertical axis.

4. Hypotheses

4.1 Permanent Aspects: Presidential, Parliamentary, and Mixed Regimes

This paper restricts the analysis to democracies. It assumes, with the rest of the literature, that politicians are office-seekers and, thus, primarily interested in getting reelected (e.g. Shugart and Carey 1992, 14; Reiter and Tillman 2002, 812; Auerswald 1999, 470). The main actors are chief executives who are profit-maximizers: they are only willing to take the risk and bear the cost of the use of force if they believe that they can gain from it in electoral terms. Chief executives are not expected to fight just because they are not entirely restrained from doing so. In other words democratic leaders avoid the risk of the use of force in general, but when the likelihood of losing their job substantially increases, they are likely to become risk-acceptant.³

This understanding leads to a departure from the conventional – linear – conceptualization of the effect of democratic constraints on the use of force (e.g. Reiter and Tillman 2002, Prins and Sprecher 1999, Ireland and Gartner 2001, Schjølset 1996, Leblang and Chan 2003; Auerswald 1999), i.e. more constraints lead to more peaceful behavior. I suggest that the relationship is curvilinear.

Some level of constraints is necessary to inhibit the behavior of states. However, when decision-makers face too many constraints, that is, when the possibility of being ejected from office drastically increases, the use of force becomes more attractive. In

³This proposition is based on prospect theory that differentiates between risk-behavior in the domain of loss where people are risk-takers (~the use of force here) and the domain of gains where they are risk-averse (Kahneman and Tversky 1979, 1984).
such situations, the use of force may easily appear as an alternative that can demonstrate the resolve of the chief executive as a decisive leader, rally the public behind him and, thus, relieve uncertainty over his job, at least, for a short time.

The distinction among regime types is based on the different effects of popular and elite accountability. Popular accountability constrains the use of force. Because its immediate threat to job-loss, elite accountability, especially under certain conditions, are likely to increase conflict behavior in the international arena. Presidents only face popular accountability; therefore they are expected to be the more peaceful. Parliamentary democracies face both. Of the two, elite accountability is expected to use force. Such expectations run counter to Maoz and Russett’s (1993, 626).

As discussed above, the parliamentary-presidential distinction has two parallel permanent manifestations. One of these is the separation of powers. While the theory above predicts well the behavior of unified (parliamentary) and separated (presidential) regimes, the position of mixed regimes is less clear. On the one hand, they face some accountability from the elite, but less than parliamentary democracies, which suggests that their conflict behavior also falls between presidential and parliamentary regimes.

\( H1A: \) Separated (~presidential) democracies are more peaceful than mixed types and unified (~parliamentary) democracies. The least peaceful are unified (parliamentary) regimes.

\(^4\) Note that this also predicts autocracies to be the most conflictual, because an autocratic leader faces the least amount of accountability, and when there is accountability, it is elite accountability that fosters conflict behavior.
On the other hand, Reiter and Tillman’s (2002) findings suggest that combining the characteristics of presidential and parliamentary regimes may result in the ‘worst’ constellation of accountability features, i.e. mixed types are the most war prone.

\textit{H1B}: Separated (~presidential) democracies are more peaceful than mixed types and unified (~parliamentary) democracies. The least peaceful are mixed types.

The other dimension is monocratism. As for the latter, based Weitsman and Shambaugh’s (2002) results, I expect that single-headed executives fight fewer wars.

\textit{H2}: The more monocratic – the closer to ideal-type presidentialism in this dimension – a democratic polity is, the less it uses force.

4.2 Separation of Powers and Actual Political Constraints

As mentioned above, the effect of regime types is expected to be mediated by actual political constellations, that is, by variables falling into the separation of purpose dimension. I posit that temporary variables only exert an influence when they increase the threat to job loss for the leader. Here only the interaction between the separation powers dimension and two temporary variables will be discussed. Because of the separated nature of presidential democracies, adverse temporary conditions are not expected to effect presidential regimes the way they effect parliamentary regimes.

The first variable whose mediating effect is tested is legislative majorities. Because prime ministers (and cabinets) exist out of the will of the parliament, they are sensitive to the size of the majority.
H3: The smaller the majority of the government in a parliamentary regime, the more wars it fights.

I agree with Ireland and Gartner (2001) who treat negative majorities (~minority governments) as qualitatively different than positive majorities. In case of negative majorities the traditional mechanism of job loss is no longer in operation since the prime minister is already in minority and involvement in war will not bring him new coalition partners. Because of limited space, this paper does not deal with minority governments.

The second variable whose mediating effect is tested is majority type in case of positive majorities: single party vs. multi-party governments. Contrary to Auerswald (1999, 478), this paper follows Rockman (1997, 55) in that it argues that the unity of interest in single-party governments is often overestimated and should not be automatically assumed. In other words, single-party governments may face conditions of separation of purpose. The difference is that in one-party governments an intra-party and in coalition governments an inter-party coalition has to be maintained.

This would suggest that their conflict behavior is similar. Yet, there is one respect where they differ: members of single-party governments have a joint interest to stay in power. The interest of some minority coalition partners in remaining in the government may be less strong and such a coalition partner would be willing to push the government into a position of high threat of job-loss in order to achieve its interests.

It is not entirely clear if this difference is meaningful enough. The results of Ireland and Gartner (2001) who found no difference in the conflict behavior of one-party and multi-party governments suggest that it is not. Nonetheless, relying on Prins and Sprecher’s (1999) findings to the contrary, I posit that this difference yields meaningful
variation in the behavior of parliamentary democracies. Coalition governments are relevant with regard to presidential democracies. Even if they are rarer in presidential democracies, “they are far from exceptional under presidentialism” (Cheibub et al. 2004). Again, because of executive insulation from legislative influence, I do not expect this aspect to have an effect in presidential democracies.

**H4**: Single-party governments in parliamentary democracies are more peaceful than multi-party parliamentary governments.

5. Research Methods

Although my original intention was to test the 1945-2000 period, data availability forced me to limit the analysis to shorter periods. To avoid confusion, I will report the time frame when presenting the results.

I use directed and politically active dyads (Quackenbush 2006) in which democracies were the initiator of the use of force. Variables were extracted with the help of the **EUGene 3.202** software (Bennett and Stam 2000).

The data is arranged as this is time-series (year), cross-section (dyad). Since the dependent variable in binary, I use logit analysis with random effects model. I follow the recommendation of Beck, Katz, and Tucker (1998) and, in order to avoid bias due to autocorrelation, add peaceyear and three cubic splines variables when estimating my model.

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5 Although fixed effects model is recommended in order to deal with the non-independence of observations within dyads, it also leads to dropping important variables that (almost) invariant within cross-sections (i.e. contiguity). In order to preserve these variables, and thus, make my findings comparable to other studies in the literature, I have decided to use the random effects model (Green et al. 2001; Beck and Katz 2001; King 2001; Kristensen and Wawro 2007).
5.1 Dependent Variable

The dependent variable is binary: use of force (=1) vs. no use of force (=0). In conceptualizing this variable, I relied on the overall dispute hostility level (MZHOST) variable of the Correlates of War (COW) dataset where the use of force equals crisis intensity levels 4 and 5 (Ghosn et al 2004; Ghosn and Bennett 2003).

5.2 Independent Variables

5.2.1 Democracy

Democracies were defined on the basis of the POLITY2 score of the Polity IV database. The POLITY2 variable was recoded into a dummy: democracies (=1) and non-democracies (=0). I used the conventional cut-off point suggested in the codebook: democracies are polities with a seven or greater POLITY2 score. (Marshall and Jaggers 2006).

5.2.2 Separation of Powers

Three kinds of regime types have been defined for this dimension: separated (=1), mixed (=2), and unified (=3). The data comes from Shugart and Carey (1992, 41). Non-pure regimes – premier-presidential, assembly-independent, president parliamentary – listed in Shugart and Carey (1992) are characterized as mixed types. With respect to polities that are not listed by Shugart and Carey, I used the descriptive country chapters of Derbyshire and Derbyshire (1993), constitutions where available, and historical sources (e.g. MSN Carta 2008; CIA World Factbook 2008).\(^6\)

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\(^6\) Because of ambiguity Poland and Romania are dropped from the sample.
5.2.3 Monocratism

Monocratism measures the degree of independence of the chief executive within the executive branch. The measure for monocratism (MONO) is extracted from the Polity III database (Jaggers and Gurr 1996). Monocratism is a scale variable running from pure individual executives (=1) to collective executives (5). Data on monocratism is only available until 1994.

5.2.4 Majority size

In defining coalition size, three variables of the DPI2006 database (Beck et al. 2001) were used: the size of the governing coalition (NUMGOV), the size of the opposition (NUMOPP), and the size of the non-aligned representative (NUMUL) of the lower house of the assembly. The following calculation was made to define the size of the majority: NUMGOV-(NUMOPP+NUMUL). Cases where the size of the majority was smaller than 1 (= minority governments) are dropped. Data is only available from 1975.

5.2.5 Coalition type: Single-party vs. Multi-party

This variable is calculated on the basis of the DPI2006 variable, GOV2ME, which describes the second government party (Beck et al. 2001). The GOV2ME variable was turned into a dummy to differentiate between cases where a party was named in this field (multi-party government = 1) or when there was not (single-party government = 0). Data is only available from 1975.
5.3. Control Variables

To control for spuriousness, I include control variables most often used in the democratic peace literature: power status, capabilities, geographical contiguity, alliance patterns, and economic prosperity (Goldsmith 2006, 534; Maoz and Russett 1993, 626-627).

5.3.1 Power Status

Major powers are more likely to fight. Major power status is assigned on the basis of the MAJPOW variable of the COW database (Ghosh et al. 2004). This dummy takes the value of 1 if at least one party in the dyad is a major power.

5.3.2 Capabilities

Democracies are likely to pick weaker opponents (Peceny et al. 2002; Werner 2000). I use the Composite Index of National Capabilities (CINC) of COW (Ghosh et al. 2004). I take the difference between the capabilities of the initiator and the target state. The variable is lagged with one year.

5.3.3 Geographical Contiguity

Neighboring polities are the most likely to fight. The data on geographical proximity of states is based on the CONTIG variable of COW (Beck et al. 2001). I follow Goldsmith (2006, 540) in recoding CONTIG into a dummy variable (1 = shared land border or closer than 150 miles by sea; 0 = everything else).
5.3.4 Alliance Patterns

Allies are less likely to fight. Alliance patterns, i.e. whether the two parties in a dyad were allied, are measured by the dummied ALLIANCE variable of the COW database (Ghosn and Bennett 2003) where 1 equals ALLIANCE categories 1, 2, and 3. 0 equals ALLIANCE category 4.

5.3.5 Economic Prosperity

Economic prosperity is measured as real GDP per capita. I use the RDGPL variable of the Penn World Table 6.1 (Heston et al. 2002). The data is in USD and the base year is 1996. Economic prosperity measures the difference between the GDP per capita of the initiator and the target state. The logic behind this is the same as the one behind capabilities. The greater the difference between the economic strength of a democracy and another state, the more likely a democracy is to attack.

5.3.6. Regime Type of the Target

The dyadic version of democratic peace predicts that democracies are more peaceful than autocracies *vis-à-vis* each other but not when they face autocracies. As in case of the democracy variable, I use the POLITY2 variable and the same cut-off point to dummy the regime type of the target state. The target state is coded 1 if it is a democracy (POLITY2 ≥7) and 0 if the target state is an autocracy (POLIT2<7).

6. Results

6.1. Permanent Features
The effect of permanent features are examined in the 1950-1994 time period. Model 1 in table 1 regresses separation of powers on the use of force. While the relationship is positive as predicted, the effect of the separation of powers is not significant. Model 2 in table 1 regresses monocratism on the use of force. Interestingly, monocratism is negatively correlated with the use of force. That is, single-headed executives are the most war prone. Monocratism is insignificant but only marginally. When separation of powers and monocratism are put into the same equation (model 3 in table 1) both of them are significant. Monocratism is still negatively related to the use of force but is significant at the .001 level. The separation of powers is positively related to the use of force, that is unified or parliamentary regimes are more likely to fight than presidential ones and this result is almost significant at the .001 level (p=.003).

As for control variables, results suggest that contiguous states and major powers are more likely to fight. I find support for dyadic democratic peace: democracies are more likely to fight non-democratic states than democracies. Neither capabilities nor economic prosperity is significant. This suggests that there is no difference among democracies in their ability to select weaker opponents.

Table 2 shows the magnitude of the relationship between regime type and monocratism. Results are for major power initiators in dyads where both states are contiguous and non-aligned and the target state is non-democratic. Single headed parliamentary executives are the most war prone. They are five times more likely to fight than single headed presidential executives and twice as likely to fight than mixed regimes with single-headed executives.

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7 All other variables were set to their mean.
Findings with respect to the separation of powers support hypothesis 1A and run counter to hypothesis 1B, i.e. the findings of Reiter and Tillman (2002), who find mixed regime the most war prone, and those of Leblang and Chan (2003) and Morgan and Campbell (1991), who find no effect. As for monocratism, results here confirm Weitsman and Shambaugh’s (2002) about the war-proneness of single-headed executives.

TABLE 2 ABOUT HERE

6.2. Temporary Features

Tests on this aspect is carried out for the 1975-1994 period. When examining interactions, mixed types in the separation of powers variable are dropped and regime type is dummied (0=separated/presidential; 1=unified/parliamentary). First, the interaction effect between the separation of powers dimension and majority size is examined. Table 3 presents the logit regression results. On the basis of this it appears that the interaction term is insignificant. However, Norton et al (2004) argue that in case of non-linear models, the z-statistics of the interaction variable cannot be used to determine the statistical significance of the results. Therefore, I follow their method to see if majority size in constellation with unified regimes is significant. The full interaction effect is positive but negligible (.000027) and still insignificant (z-statistics = 1.319). For a visual representation see figures 2a and 2b.

TABLE 3 AND FIGURES 2a AND 2b ABOUT HERE
The results for coalition type is similar whether we follow the conventional model (table 4) or Norton et al.’s (2004) (figures 3a and 3b). In the latter the interaction effect of the separation of powers and coalition type is again positive but negligible (.0014) and insignificant (z-statistics = .51489). This undermines Prins and Sprecher’s (1999) conclusion but supports those of Ireland and Gartner (2001) and Leblang and Chan (2003).

On this basis hypotheses 3 and 4 must be rejected.

In this paper, I argued that definitions of democratic regime types in the democratic peace literature is not nuanced enough, and worked out a definition, which separated permanent features (separation of powers and monocratism) of democracies from temporary features that may vary in the short run. The latter was termed as the separation of purpose dimension. Two aspects – the size of the governing majority in the legislature and the number of parties in the governing coalition – were examined in constellation of the separation of powers dimension.

My findings suggest that both separation of powers and monocratism are important determinants of war proneness. However, they have opposite effects. Separated systems are more peaceful than unified ones, while single-headed executives are more war-prone than single-headed executives. That is, the two aspects of the presidential-parliamentary
dichotomy pull into different directions, which may be a reason why earlier studies found no significant difference between the two regime types.

This leads me to conclude that worries about the presidentialization of parliamentary regimes are not unfounded, as unified and single-headed governments appear to be the most war prone. In other words, in parliamentary regimes there is nothing that could offset the negative effects of the appearance of a strong chief executives the way separation of powers lessen the effect of the presence of a strong chief executive.

As opposed to this, the temporary dimensions are insignificant and do not systematically influence the behavior of presidential (separated) and parliamentary (unified) regimes. Presently it is unclear how much this should be taken at face value or how much this result is due to the very restricted time period examined here.

This paper only examined the interaction effect between the separation of powers dimension and temporary features. In the future it may be useful to examine the interaction effects between monocratism and temporary variables as well as to expand the timeframe of analysis. In addition, while this paper was limited to examine the effects of elite accountability, if an adequate cross-national database is compiled on party/presidential popularity, the effects of the direct accountability mechanism should also be subjected to analysis.
References


Appendix: Figures and Tables

Figure 1. The visual representation of regime type (separation of powers/monocratism) and separation of purpose dimensions
### Table 1. Time-series cross-section logit results for use of force by democracies, 1950-1994

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separation of powers</td>
<td>.054</td>
<td>.711 **</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.152)</td>
<td>(.240)</td>
<td></td>
</tr>
<tr>
<td>Monocratism</td>
<td>-.273</td>
<td>-.640 ***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.148)</td>
<td>(.193)</td>
<td></td>
</tr>
<tr>
<td>Major power status</td>
<td>.671 *</td>
<td>.559</td>
<td>.655 *</td>
</tr>
<tr>
<td></td>
<td>(.306)</td>
<td>(.309)</td>
<td></td>
</tr>
<tr>
<td>Capabilities</td>
<td>2.692</td>
<td>1.480</td>
<td>3.571</td>
</tr>
<tr>
<td></td>
<td>(2.270)</td>
<td>(2.386)</td>
<td>(2.527)</td>
</tr>
<tr>
<td>Contiguity</td>
<td>3.561 ***</td>
<td>3.477***</td>
<td>3.620 ***</td>
</tr>
<tr>
<td></td>
<td>(.271)</td>
<td>(.308)</td>
<td>(.319)</td>
</tr>
<tr>
<td>Alliance</td>
<td>.323</td>
<td>.032</td>
<td>.160</td>
</tr>
<tr>
<td></td>
<td>(.272)</td>
<td>(308)</td>
<td>(.316)</td>
</tr>
<tr>
<td>Economic prosperity</td>
<td>.000 *</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>(.000)</td>
<td>(.000)</td>
<td>(.000)</td>
</tr>
<tr>
<td>Type of target</td>
<td>-.638 **</td>
<td>-.633**</td>
<td>-.677 *</td>
</tr>
<tr>
<td></td>
<td>(.248)</td>
<td>(.289)</td>
<td>(.296)</td>
</tr>
<tr>
<td>Peace years</td>
<td>-.473 ***</td>
<td>-.354 ***</td>
<td>-.365 ***</td>
</tr>
<tr>
<td></td>
<td>(.087)</td>
<td>(.105)</td>
<td>(.105)</td>
</tr>
<tr>
<td>Constant</td>
<td>-7.063 ***</td>
<td>-6.651 ***</td>
<td>-7.580 ***</td>
</tr>
<tr>
<td></td>
<td>(.532)</td>
<td>(.541)</td>
<td>(.668)</td>
</tr>
<tr>
<td>Chi-square</td>
<td>258.40 ***</td>
<td>179.26 ***</td>
<td>181.72 ***</td>
</tr>
<tr>
<td>Log-likelihood</td>
<td>-685.371</td>
<td>-519.94317</td>
<td>-513.7183</td>
</tr>
<tr>
<td>N</td>
<td>66754</td>
<td>53903</td>
<td>52443</td>
</tr>
</tbody>
</table>

Note: *p < .05 **p < .01, ***p < .001
Standard errors are in parenthesis.
Dependent variable: use of force (0 = no; 1= yes)

### Table 2. Predicted probabilities for the use of force 1950-1994

<table>
<thead>
<tr>
<th>Separation of Powers</th>
<th>Unified regimes</th>
<th>Mixed regimes</th>
<th>Separated regimes</th>
<th>Difference †</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pure individual</td>
<td>.090 *</td>
<td>.040 *</td>
<td>.017 *</td>
<td>.076</td>
</tr>
<tr>
<td>Intermediate category</td>
<td>.050 *</td>
<td>.022 *</td>
<td>.009 *</td>
<td>.042</td>
</tr>
<tr>
<td>Qualified individual</td>
<td>.027 *</td>
<td>.012 *</td>
<td>.005 *</td>
<td>.017</td>
</tr>
<tr>
<td>Intermediate category</td>
<td>.014 *</td>
<td>.006 *</td>
<td>.003</td>
<td>.012</td>
</tr>
<tr>
<td>Collective executive</td>
<td>.008 *</td>
<td>.003</td>
<td>.001</td>
<td>.005</td>
</tr>
</tbody>
</table>

† Difference is computed between unified and separated systems
* Significant at the p < .05 level.
Table 3. The effect of majority size in parliamentary (unified) regimes on the use of force, 1975-1994

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Coefficient 1</th>
<th>Coefficient 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Majority size</td>
<td>-.0048186</td>
<td>.0071764</td>
</tr>
<tr>
<td>Separation of powers dummy</td>
<td>1.010</td>
<td>.700</td>
</tr>
<tr>
<td>Majority size*parliamentary regimes</td>
<td>.009 (0.007)</td>
<td></td>
</tr>
<tr>
<td>Monocratism</td>
<td>-.491 *</td>
<td>(.244)</td>
</tr>
<tr>
<td>Major power status</td>
<td>.178</td>
<td>(.419)</td>
</tr>
<tr>
<td>Capabilities</td>
<td>2.180</td>
<td>(5.124)</td>
</tr>
<tr>
<td>Contiguity</td>
<td>3.266 ***</td>
<td>(.400)</td>
</tr>
<tr>
<td>Alliance</td>
<td>.355</td>
<td>(.419)</td>
</tr>
<tr>
<td>Economic prosperity</td>
<td>.000 *</td>
<td>(.000)</td>
</tr>
<tr>
<td>Type of target</td>
<td>-.400</td>
<td>(.397)</td>
</tr>
<tr>
<td>Peace years</td>
<td>-.317 *</td>
<td>(.161)</td>
</tr>
<tr>
<td>Constant</td>
<td>-6.028 ***</td>
<td>(.783)</td>
</tr>
</tbody>
</table>

Chi-square 105.76 ***
Log-likelihood -249.40311
N 17572

Note: *p < .05 **p < .01, ***p < .001
Standard errors are in parenthesis.
Dependent variable: use of force (0 = no; 1 = yes)
**Figure 2a.** Interaction effects between separation of powers and majority size after logit, 1975-1994

**Figure 2b.** Z-statistics of interaction effects between separation of powers and majority size after logit, 1975-1994
Table 4. The effect of coalition type in parliamentary (unified) regimes on the use of force, 1975-1994

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coalition type</td>
<td>-.312</td>
<td>(.718)</td>
</tr>
<tr>
<td>Separation of powers dummy</td>
<td>1.621 **</td>
<td>(.600)</td>
</tr>
<tr>
<td>Coalition type*parliamentary regimes</td>
<td>.539</td>
<td>(.792)</td>
</tr>
<tr>
<td>Monocratism</td>
<td>-.787 ***</td>
<td>(.248)</td>
</tr>
<tr>
<td>Major power status</td>
<td>.380</td>
<td>(.382)</td>
</tr>
<tr>
<td>Capabilities</td>
<td>6.412</td>
<td>(3.828)</td>
</tr>
<tr>
<td>Contiguity</td>
<td>3.465 ***</td>
<td>(.368)</td>
</tr>
<tr>
<td>Alliance</td>
<td>.381</td>
<td>(.374)</td>
</tr>
<tr>
<td>Economic prosperity</td>
<td>.000</td>
<td>(.000)</td>
</tr>
<tr>
<td>Type of target</td>
<td>-.473</td>
<td>(.355)</td>
</tr>
<tr>
<td>Peace years</td>
<td>-.383 **</td>
<td>(.138)</td>
</tr>
<tr>
<td>Constant</td>
<td>-5.975 ***</td>
<td>(.682)</td>
</tr>
</tbody>
</table>

Chi-square | 139.72 ***
Log-likelihood | -323.61981
N | 24408

Note: *p < .05 **p < .01, ***p < .001
Standard errors are in parenthesis.
Dependent variable: use of force (0 = no; 1 = yes)
**Figure 3a.** Interaction effects between separation of powers and coalition size after logit, 1975-1994

**Figure 3b.** Z-statistics of interaction effects between separation of powers and coalition type after logit, 1975-1994