

Testing the Selectorate

Explanation of the Democratic Peace

by

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Abstract

Using the previously published selectorate theory of politics, we present four novel hypotheses about institutionally-determined differences in policies regarding the use of force in disputes and international, colonial and imperial wars. The hypotheses are (1) democratic states try harder to win than autocracies, except under specified circumstances; (2) democracies show no reluctance to use force against other democracies when the rival is expected to capitulate; (3) democracies show no reluctance to engage in wars against weaker adversaries; and (4) that colonial and imperial expansion are attractive policies for democracies when there is an institutional imbalance. The first hypothesis contradicts other institutional explanations of the democratic peace. The second and third are inconsistent with norms based explanations, and the fourth is inconsistent with both norms and institutions. Using data from 172 nations, spanning 1816-1992, we test the hypothesized relationships. The results sustain the expectation derived from the selectorate theory.

Testing the Selectorate Explanation of the Democratic Peace

The democratic peace is the observation that democratic states are much less likely to fight wars with one another than other pairs of states, even though democracies are not less likely to fight wars in general. An earlier paper by Bueno de Mesquita, Morrow, Siverson and Smith [hereafter BdM2S2] (1999), presented an explanation of the democratic peace that accounted for the known regularities of the wars that democracies fight and do not fight. Here we present tests of novel hypotheses derived from that argument, which we will refer to as the selectorate explanation.

Briefly recapping the theoretical argument, all political leaders must satisfy a *winning coalition* to remain in power. This need to please backers affects how leaders fight wars and which wars they choose to fight. The larger the winning coalition on which they depend to remain in office, the more important successful foreign policy is for a leader's survival in office. Autocratic leaders, who generally depend on a small winning coalition, reserve resources from the war effort to distribute as private benefits to their backers to ensure their hold on office. Leaders of democracies normally rely on a large coalition for their hold on power; they commit state resources towards victory even at the expense of private benefits for their supporters. Further, leaders with a large winning coalition are willing to go to war only when they believe they have an excellent chance of winning. Leaders who answer to a small winning coalition, in contrast, can choose to accept less favorable chances of victory because they can placate supporters with private goods. All else equal, democratic leaders choose their wars more carefully and try harder to win than autocrats do; each regime type creates different incentives for leaders.

Two exceptions to the claim that democracies "try harder" emerge from the selectorate theory. First, democracies (i.e., generally large coalition systems) do not increase their effort relative to autocracies (i.e., generally small coalition systems) if the initial belief is that victory is virtually certain. In that case, the marginal improvement in the chance of victory is not worth the added cost of trying hard. Second, autocrats, like democrats, try hard if the incumbent *anticipates* at the outset that the dispute represents a significant threat to national or personal political survival. In equilibrium however, the theory offers no anticipation of interstate war when a party to the dispute believes the conflict will end in a loss of national sovereignty or personal hold on office. Instead, such a party seeks a negotiated settlement and is willing to make substantial concessions to avoid war.

The first exception to the "try harder" prediction refers to an observable and testable phenomenon while the second does not. That is not to say that nations do not ever lose sovereignty or that leaders do not lose power following defeat in war. Clearly they do, as the world wars well illustrate. However, as also illustrated by the world wars, initial belligerents seem not to have believed they were entering a war of as large a magnitude as both world wars achieved. That is, at the outset they did not expect to lose sovereignty or power because of their limited effort in the war and so did not make the extra effort at the beginning of the war that would be commensurate with the subsequently revealed risk (Bueno de Mesquita and Siverson 1995) Once the true circumstances became clear, it is likely that all participants tried hard, but

we do not have data with which to evaluate the change in effort at that stage in the war. We focus on effort levels at the war's onset. Thus, only one set of observable circumstances exist in which expectations would lead democracies to try no harder than autocracies. Those circumstances involve disputes in which democratic leaders begin with the expectation that victory is almost a sure thing. With these thoughts in mind, we test four novel propositions from the selectorate explanation:

- (1) Democratic leaders try harder to win wars than do autocrats, except under two conditions:
 - a) autocracies try hard when national survival is at risk, or
 - b) democracies do not try hard when the adversary is much weaker;
- (2) Democracies show no reluctance to use force against other democracies in situations in which the rival democracy is expected to capitulate rather than fight back;
- (3) Democracies show no reluctance to engage in wars against much weaker adversaries;
- (4) Colonial and imperial expansion are especially attractive for democracies when the state's "democraticness" outpaces the size of its "winning coalition."

We believe that these hypotheses contradict the two most widely held explanations for the democratic peace.¹ The first hypothesis challenges other institutional explanations of the democratic peace (Morgan and Campbell 1991; Bueno de Mesquita and Lalman 1992; Bueno de Mesquita and Siverson 1995). Hypotheses 2, 3, appear inconsistent with the normative explanation of the democratic peace (Maoz and Russett 1993). The fourth hypothesis may be inconsistent with both the normative and the institutional accounts.

We begin with a summary of the selectorate argument applied to the question of war. This section presents a discussion of the origin of the four hypotheses. Tests of these hypotheses follow in the next section. The paper concludes with a discussion of why alternative explanations of the democratic peace cannot explain our results.

The Dyadic Selectorate Model

The theory shows that leaders who require a large coalition to remain in office favor spending resources on public goods rather than on private benefits for their coalition of supporters (Author 2001). Leaders who rely on a small winning coalition, such as autocrats, can hold power by spending resources disproportionately on private goods to reward their backers. The central insight is that the resources committed to private goods are spread more thinly as the winning coalition increases in size. Public goods become more attractive to leaders with larger winning coalitions because their value to members of the winning coalition does not decrease as the winning coalition increases in size.

¹ We do not discuss the argument that the democratic peace is a statistical fluke explained by common interests among democracies during the Cold War (Farber and Gowa 1995, Gowa 1999) because that explanation cannot account for other observed regularities about democracies and war that follow from the selectorate explanation.

In wartime, as in peacetime, the selectorate theory shows that large coalition polities (like many democracies) seek gains in the form of public goods while small coalition systems (like many autocracies) pursue the acquisition of private benefits. While each type of regime extracts different goods from a victorious war, all else equal, all types of regimes provide incentives for leaders to prefer victory over defeat. Victory itself is a public good. But whether victory is sufficiently attractive to be worth making an extra effort to achieve is another matter.

To illustrate these central ideas, consider the limiting case. Suppose a leader must choose between making an all-out effort that guarantees victory and making no additional effort at all even though this makes defeat inevitable. In the former case, the resources are not available for distribution to the winning coalition as private goods. Say the leader has R resources that could be committed to the war effort or distributed as private goods to her winning coalition, the value of victory is v , the value of defeat 0 , and the cost of fighting to the members of the winning coalition k . If the leader makes an all out effort, her state wins the war, and her coalition receives a payoff of $v-k$. If instead of making an all out effort she distributes the resources to the W members of her winning coalition as private goods, their payoff is $0-k+R/W$, assuming each coalition member receives an equal share of the private goods.

Since survival in office depends upon maintaining the support of the winning coalition, leaders pick the policies that their supporters prefer. Leaders who depend upon large coalitions are more likely to try hard during conflict; it is more likely that $v-k > R/W-k$ for these leaders than for those who answer to a small winning coalition. The latter should provide private goods to their supporters even though that act makes military defeat inevitable. Such leaders could improve their chances of victory by trying harder but this is not incentive compatible with their desire to stay in office.² BdM2S2 (1999) shows theoretically that effort level increases with coalition size, W , in general as well as in this limiting case.

This argument leads directly to our first hypothesis. In general, the larger the winning coalition, the greater the effort a state makes during wartime. This leads to the novel substantive conclusion that democrats generally try harder in wartime than do autocrats. There are, as noted in the statement of the hypothesis, two exceptions. First, defeat in some wars means that the leader will be removed by the victor or her state, and therefore her position as leader, will disappear. In World War II, Mussolini was lynched, Tojo hanged by the Allies, and Hitler killed himself before he could be captured. At the outset, however, these leaders did not foresee their destiny. They did not believe that national sovereignty and personal survival faced such a serious threat. If they had, then we would expect that even autocratic leaders would commit all possible resources to the war effort because defeat means loss of office (and, perhaps, loss of life). At the other extreme, the salience of the war might be sufficiently low that no political arrangements

² One might argue that the value of remaining in office is a function of regime type. As Goemans (2000) points out, being ousted is more often fatal for autocrats than democrats. This reinforces our conclusion. Our assumption is that the primary goal of all leaders is to keep their jobs. Given this, the principle component in every leader's objective function is reselection. It may be true, conditional on being ousted, that autocrats are more likely to be killed or exiled than are democrats, but it is also true that the risk of being ousted is most effectively diminished for autocrats by spending less on the war effort and reserving more for their domestic coalition.

induce additional effort. Extra effort in wars against weak rivals might have little effect on the chance of victory, so even leaders with large winning coalitions will not make an extra effort to win. Wars of colonial and imperial expansion against largely unarmed or under-armed indigenous adversaries fit this category. This qualification yields the hypothesis that democracies, while trying harder to win than autocrats in most wars, do not manifest this extra effort level in wars, like colonial and imperial wars, against much weaker adversaries. As this claim is about circumstances in which the *ex ante* belief is of a nearly certain victory, this exception to the “try harder” hypothesis is testable.

The importance that leaders with large winning coalitions place on success in war also affects their judgments of which wars to fight. As Bueno de Mesquita and Siverson (1995) have empirically demonstrated, the fate of democratic leaders is more sensitive to the outcome of international conflict than are leaders who rely on small coalitions. This makes democrats more reluctant to engage in international conflict, because unless they are certain of victory, they realize conflict places their tenure in office in serious jeopardy. They choose their fights more carefully (Bueno de Mesquita and Siverson 1995; Reiter and Stam 1998, Siverson 1995) than autocrats who are willing to fight even when they are not confident of victory. A democratic leader will offer more to avoid war when she does not believe her state will win. Autocrats, being at the helm of small coalition governments, rely on private goods to hold power. They are willing to accept a larger risk of defeat because their political consequences of defeat are smaller. This is our explanation for the democratic peace. When two democrats confront each other in a dispute, they are more likely to negotiate than fight (Lake 1992; Stam 1996, 176-78). When a democrat and an autocrat face off, both may be willing to fight when the democracy is likely to win.

When two democracies face off in a dispute, at least one leader is likely to believe that she is uncertain of victory, and so is unwilling to use force to achieve her objectives. If a democracy uses force against another democracy in a dispute, the second is especially likely to back down without retaliating in kind. Our second hypothesis is that there will be a large difference in the hostility levels of the sides when a democracy uses force against another democracy exactly because the target is expected to back down.

Democratic leaders, in our argument, are willing to fight wars when they are likely to win. Weak opponents are attractive targets for democracies. The targets of colonial and imperial expansion typically are very weak states or peoples who can easily be defeated. So, democracies, like autocracies, are not immune from the temptations of colonial and imperial expansion according to the model. Our third hypothesis is that democracies are not less likely to engage in colonial wars than other types of states.

The selectorate theory distinguishes between coalition size and nominal regime labels like democracy or autocracy. While it is convenient to think of democracies as large coalition systems, in fact they vary in the size of their coalition, while averaging larger coalitions than are found in autocracies. The variance in coalition size within democracies is due in part to how encompassing the rules of enfranchisement are. In the nineteenth century, for instance, nominally democratic systems frequently had great restrictions in their franchise so that winning coalitions were smaller than the label “democracy” implies. Coalition size has grown with expanded enfranchisement.

Our fourth hypothesis exploits the difference between the degree of democracy and

coalition size to predict that when the coalition is small relative to recorded “democraticness” then there is a greater interest in private goods such as could be extracted through colonialism and imperialism than might be expected just from the degree of democraticness. Recall that the selectorate theory leads to the conclusion that the smaller the coalition size the greater the emphasis on private goods.

Empirical Assessments

To test our hypotheses, we construct a data set in which the unit of analysis is a country-year. The data are organized around up to 172 different countries, spanning the years 1816-1992. For each nation-year we collect data on military expenditures taken from the Correlates of War (COW) capabilities data (Singer, Bremer and Stuckey. 1972), data on war and crisis involvement taken from the COW project, and data on institutional arrangements taken primarily from POLITY.

In assessing military spending we focus on the logarithm of military expenditures, referred to as $\ln(\text{Milex})$. The logarithm is used because we are interested in the magnitude of changed effort indexed by military spending conditional on the advent of war and on regime type. Because larger polities naturally spend more on the military than do smaller polities, we control for the logarithm of population size. Population data are also taken from the Correlates of War capabilities data.

War, extra-systemic war and crisis data are taken from COW. War is as defined by the Correlates of War (Singer and Small 1972. The data are downloadable from <http://pss.la.psu.edu/>). The War variable is coded as 1 every year that a leader’s country becomes newly embroiled in an interstate war. The variable is coded as 0 for every year in which there was no war involving the country or the country was already enmeshed in the war during the previous year. In addition to evaluating effort levels in interstate wars, we must also assess effort levels in wars of colonial and imperial expansion. To test the selectorate claims regarding these disputes we construct a dummy variable called Colonial/Imperial War. We code this variable as 1 in any year a leader entered a colonial or imperial war; that is, a war categorized by the Correlates of War Project as extra systemic. Otherwise it is coded as zero. To construct the test of the second hypothesis we used the dyadic version of the Militarized Interstate Dispute data (Jones, Bremer and Singer 1996; Maoz 1999 downloadable via <http://garnet.acns.fsu.edu/~phensel/intlconf.html#crisis>).

We offer two estimates of coalition size. The indicators are labeled respectively as W and Democracy. We also construct a variable called W/D to evaluate the size of the coalition relative to the degree of democracy. We now describe each institutional indicator.

The Polity II collection of data include a number of institutional variables, four of which provide a first approximation of an index of the size of W for the years up to 1992 (<http://k-gleditsch.socsci.gla.ac.uk/Polity.html>). We estimate W as a composite index based on the variables REGTYPE, XRCOMP XROPEN, and PARCOMP in Polity II. When REGTYPE is not missing data and is not equal to codes 2 or 3 in the Polity dataset, so that the regime type was not a military or military/civilian regime, we award one point to W. When XRCOMP, that is, the competitiveness of executive recruitment, is larger than or equal to code 2 then another point is assigned to W. An XRCOMP code of 1 means that the chief executive was selected by heredity or

in rigged, unopposed elections, suggesting dependence on few people. Code values of 2 and 3 refer to greater degrees of responsiveness to supporters, indicating a larger winning coalition. XROPEN, the openness of executive recruitment, contributes an additional point to W if the executive is recruited in a more open setting than heredity (that is, the variable's value is greater than 2). Finally, one more point can be contributed to the index of W if PARCOMP, competitiveness of participation, is coded as a 5, meaning that “there are relatively stable and enduring political groups which regularly compete for political influence at the national level” (Polity II, p. 18). We divide by the maximum value, which is 4. The minimum value, then, is 0 and the maximum is 1.

The Polity data contain widely used scales of democracy and autocracy, each ranging between 0 and 10. We subtract the autocracy score from the democracy score (Maoz and Russett 1993). This yields a variable that ranges between -10 and +10. We add 10 to the score and divide by 20. Thus, our variable Democracy varies between 0 and 1, with scores closer to zero reflecting autocratic governments and scores closer to 1 reflecting more democratic governments.

W/D is simply W divided by Democracy and is set equal to 1 in those cases in which Democracy = 0 and W = 0. This variable is used to test the fourth hypothesis. We also make use of a dichotomous variant W/D* which is coded as 1 if W > Democracy or if Democracy equals 0, and is otherwise coded as 0.

Table 1 displays the bivariate correlations among the institutional indicators. Although all are, as expected, correlated significantly with one another, they each clearly capture different aspects of a polity’s institutional make-up. Even the strongest association, between W and Democracy, leaves about one third of the variance between them unexplained. What is more, this correlation somewhat overstates the relationship. Among the 6,897 observations for which Democracy equals neither 0 nor 1, the bivariate correlation with W is 0.63. The correlation between W and Democracy at their boundary values is nearly perfect, but in the interior of the two measures there are substantial differences. With this information in hand we can be confident that tests across these indicators will capture complementary aspects of political institutions.

Table 1 About Here

Table 1: Correlations Between W, Democracy, and W/D

	W	Democracy	W/D
Democracy	0.831		
W/D	-0.041	-0.421	
W/D*	0.286	-0.168	0.335
N = 9,289			

Every cross-sectional, time-series analysis we examine includes further controls for the interaction of geographic region-year as a set of fixed effects dummy variables. We include these fixed effects because there may be spatiotemporal dependence in the data resulting, for instance, from factors that influence fluctuations in economic growth rates or the persistence of peace in particular parts of the world in particular years (Green, Kim, and Yoon 2001). In this way we recognize that war, drought, the business cycle and a host of other factors have an impact on government performance at different times in different places.

We specify six geographic regions for the region-year fixed effects. These are: Europe, South and Central America, North America and the Caribbean, Asia, the Middle East, and Africa.

We do not discuss the fixed effects as they are strictly statistical corrections of no substantive interest. Their presence, however, makes our tests especially demanding as we have removed the effects of any temporal and spatial factors that might be the actual explanation for shifts in the values of our dependent variables. The number of fixed effects variables is relatively large, so success at finding substantively and statistically significant institutional effects would provide considerable encouragement for further refinement and testing of the selectorate theory.

Testing the Predictions

Hypothesis 1: Challenging Other Institutional Accounts

The first hypothesis maintains that large coalition, democratic states try harder in war than their small coalition, autocratic counterparts except under special circumstances tested as hypothesis 1b. To evaluate the first hypothesis we construct four different tests. The dependent variable in each is the logarithm of military expenditures. The independent variables for three tests include the lagged institutional indicator (i.e., Lagged W or Lagged Democracy), a dummy variable that identifies years in which the state in question first became embroiled in a war, the war indicator times the lagged institutional factor, the logarithm of population size and the fixed effects for region-year. The second set of tests repeats the first analyses, but adds a control for the lagged logarithm of military expenditures. The difference between the current year's $\ln(\text{Milex})$ and the previous year's $\ln(\text{Milex})$ is the proportionate change in military expenditures. The second set of analyses is extremely demanding as virtually all the variance in a given year's military spending level is likely to be explained by the previous year's spending. Controlling for lagged expenditures, then, demands that the marginal change in spending be attributed to the presence of a large coalition system.

The selectorate theory specifically predicts that each test involving War will show a significant positive coefficient associated with the interaction term for War*Lagged W (or Lagged Democracy) and that the coefficient will be so large that the sum of the coefficients associated with War and War*Lagged W (or Lagged Democracy) will be significant and positive. The theory makes no prediction about the sign or magnitude of War by itself.

Table 2 presents the results for two models that assess the relationship between war, W and military effort. Table 3 replicates Table 2, but shifts from W to Democracy. The findings across Tables 2 and 3 are consistent with the prediction derived from the dyadic selectorate model (BdM2S2 1999). In fact, Tables 2-3 offer a perhaps surprising, interesting perspective on warfare. The fact that a country finds itself newly enmeshed in a war does not generally imply that it increases its military spending regardless of regime type. The coefficient associated with the variable War by itself is not significant in any of the tests.

Table 2 About Here

Table 2: Do Large Coalition Leaders (W) Try Harder in Wartime?

	Log(Milex)	Log(Milex)
	Coefficient (Std. Error) Probability	Coefficient (Std. Error) Probability
Lagged Log(Milex)		0.935 (0.004) 0.000

Lag W	0.741 (0.045) 0.000	0.064 (0.015) 0.000
War	0.117 (0.186) 0.528	0.056 (0.062) 0.368
War*Lagged W	0.602 (0.301) 0.046	0.347 (0.101) 0.001
Log(Pop)	1.151 (0.008) 0.000	0.069 (0.005) 0.000
Constant	-0.473 (0.083) 0.000	0.087 (0.028) 0.002
	p(War+War* Lagged W) \neq 0 = 0.0000	p(War+War* Lagged W) \neq 0 = 0.0000
	R ² = 0.44 N = 7,864 F.E.=880	R ² = 0.98 N = 7,525 F.E.=861

Table 3 About Here

Table 3: Do Democracies Try Harder in Wartime?

	Log(Milex)	Log(Milex)
	Coefficient (Std. Error) Probability	Coefficient (Std. Error) Probability
Lagged Log(Milex)		0.938 (0.004) 0.000
Lag Democracy	0.506 (0.038) 0.000	0.041 (0.013) 0.001
War	0.192 (0.151) 0.205	0.077 (0.049) 0.111
War*Lagged D	0.541 (0.263) 0.040	0.306 (0.085) 0.000
Log(Pop)	1.156 (0.009) 0.000	0.066 (0.006) 0.000
Constant	-0.268	0.102 (0.029) 0.000
	p(War+War* Lagged D) \neq 0 = 0.0000	p(War+War* Lagged D) \neq 0 = 0.0000
	R ² = 0.44 N = 7,204 F.E.=877	R ² = 0.98 N = 6,922 F.E.=859

The selectorate model predicts that large coalition leaders try harder in wartime than do small coalition leaders, but it makes no specific prediction about whether small coalition leaders try harder than when they are not at war. That is, the theory makes the novel predictions that War*Lagged W (or War*Lagged Democracy) will be positive and significant and that War + War*Lagged W (or War*Lagged Democracy) will also be significant and positive. Each of these expectations is reinforced by the evidence. However, the selectorate model does not specify that War itself will be significant and positive. Such a result, along with the results predicted by the dyadic selectorate model, would have indicated that war leads to a general increase in military spending, but that the increase is greater among large coalition regimes than small coalition regimes.

Instead, we find that the small coalition regimes, on average, do not increase their effort over what they were doing the year before the war began. Perhaps they geared up earlier. Yet tests that assess whether a conflict began or escalated over the previous year or two continue to show that small coalition regimes do not gear up, while large coalition regimes continue to try significantly harder. So, not only do large coalition leaders try harder in wartime than their small coalition counterparts, the small coalition leaders do not even try harder than their effort level before the war began. Apparently it is true that democratic leaders, with their dependence on a large winning coalition, try harder than autocrats in wartime.

When Colonial/Imperial War is substituted for War then the selectorate theory does not expect significant coefficients associated with Colonial/Imperial War*Lagged W (or Lagged Democracy). Leaders generally do not need to try harder when fighting such wars because these wars involve a near certainty of victory from the start.

Wars of colonial and imperial expansion, as noted earlier, have a very low ex ante probability of ending in defeat for the aggressive state. They also have a low ex ante probability of bringing down the leader of the aggressor state. Therefore, in looking at military expenditures, controlling for Colonial/Imperial War and its relevant interaction terms, we expect that the interaction term for coalition size (or democracy) will not be statistically significant. That is, we do not believe leaders alter military expenditures in response to their participation in Colonial/Imperial Wars regardless of the structure of their political system.

To test the hypothesis, we examine cases in which either there was no militarized interstate dispute or in which the state in question engaged in a Colonial/Imperial War without also engaging in any other form of militarized interstate dispute. The evidence, summarized in Tables 4 and 5, bears out the theoretical expectation. No model involving colonial and imperial wars shows anything remotely approaching statistical significance in terms of effort level for large coalition polities. Democracies come closer to statistical significance, but fail to meet the conventional threshold. Such states do not try harder when, as predicted by the theory, their prior probability of victory is near certainty. The evidence leads to a direct conclusion. When their survival is in question, dependence on a large coalition encourages leaders to shift more resources into achieving military success. When survival is not expected to be at risk, extra effort is not put into the pursuit of victory.

Table 4 About Here

Table 4: Do Large Coalition Leaders (W) Try Harder in Colonial or Imperial Wars?

	Log(Milex)	Log(Milex)
	Coefficient (Std. Error) Probability	Coefficient (Std. Error) Probability
Lagged Log(Milex)		0.934 (0.004) 0.000
Lag W	0.702 (0.049) 0.000	0.060 (0.016) 0.000
Colonial/Imperial War	0.421 (0.328) 0.199	0.024 (0.109) 0.827
Colonial./Imperial War*Lagged W	-0.333 (0.524) 0.525	0.123 (0.173) 0.478

Log(Pop)	1.155 (0.009) 0.000	0.066 (0.006) 0.000
Constant	-0.495 (0.091) 0.000	0.119 (0.031) 0.000
	p(Col/Imp. War + Col/Imp War* Lagged W)) ?0 = 0.779	p(Col/Imp. War + Col/Imp War* Lagged W)) ?0 = 0.151
	R ² = 0.44 N = 6,610 F.E.=822	R ² = 0.98 N = 6,314 F.E.=798

Table 5 About Here

Table 5: Do Democracies Try Harder in Colonial or Imperial Wars?

	Log(Milex)	Log(Milex)
	Coefficient (Std. Error) Probability	Coefficient (Std. Error) Probability
Lagged Log(Milex)		0.935 (0.004) 0.000
Lag Democracy	0.450 (0.041) 0.000	0.043 (0.013) 0.001
Colonial/Imperial War	0.111 (0.298) 0.709	0.049 (0.094) 0.602
Colonial./Imperial War*Lagged D	0.440 (0.485) 0.364	0.091 (0.154) 0.556
Log(Pop)	1.158 (0.010) 0.000	0.067 (0.006) 0.000
Constant	-0.275 (0.095) 0.004	0.127 (0.031) 0.000
	p(Col/Imp. War + Col/Imp War* Lagged D) ?0 = 0.094	p(Col/Imp. War + Col/Imp War* Lagged W) ?0 = 0.179
	R ² = 0.44 N = 6,059 F.E.=818	R ² = 0.98 N = 5,816 F.E.=795

Hypotheses 1 and 1b are supported by the evidence. Large coalition regimes try harder in wartime than small coalition regimes except in wars against extremely weak foes with little chance of victory, as in colonial and imperial wars.

Hypotheses 2, 3 and 4: The Normative Challenge

The second hypothesis represents an important challenge for those who explain the democratic peace by appealing to differences in norms. Using the dyadic version of the Militarized Interstate Dispute data (MID) we examine how coalition size of the protagonist states influences the extent to which a target of violence will retaliate. The selectorate theory does not preclude democratic states from using violence against other democracies. Rather the theory predicts it is unlikely, although not impossible, for a democracy to use force against another democracy that results in war. Using force against a democracy and then having the dispute settled short of war is predicted by the selectorate account.

The MID data provide the level of violence that states involved in crises use against each other on a five point scale, where a score of four indicates the use of violence and a score of five indicates that the violence surpasses the COW project's criteria to be assessed as a war (for example, a thousand battle fatalities). Table 6 is a 2-by-2 table showing the number of instances when both the initiator and the target in a crisis used violence. For clarity of presentation, we consider a dichotomous classification of states.

Table 6 About Here
 Table 6: The Incidences of Mutually Violent Disputes
 by the Institutions of the Protagonists.

		Target State	
		Small Coalition ($W < 0.75$)	Large Coalition ($W \geq 0.75$)
Initiator State	Small Coalition ($W < 0.75$)	964	466
	Large Coalition ($W \geq 0.75$)	719	186

The presence of events in the bottom right cell is inconsistent with the norms argument. It is legitimate to argue that large coalition size does not reflect democracy; yet this pattern is sustained when measures of democracy are substituted for W . Indeed, substituting large coalition size for the most rigorous definition of democratic states ($\text{Democracy} = 1$), there are still 24 events in the bottom right cell. Admittedly, none of these events involve both states using a hostility level of five, the COW definition of war, but there clearly are numerous instances of a democracy using force against other democracies.

While there are events in each of the cells in Table 6, the mutual use of violence is less likely to occur between large coalition states than between other combinations of states. The likelihood ratio χ^2 statistic is 40.981 which, at the 0.000 level, rejects the null hypothesis that the cell entries are the product of row and column frequencies. Such evidence is entirely consistent with the selectorate theory.

Large coalition systems have no moral prohibition against the use of violence. However, they are unlikely to do so in instances when violence is likely to lead to war between two large coalition systems. As a consequence, democracies attack other democracies only when they expect the target to backdown. An ordered logit analysis of the difference between the hostility levels used by the initiator and target when the initiator uses violence (i.e., at least a score of 4 in the MID's data) reinforces these results. If an initiator of violence is from a large coalition system (e.g., a democracy) and the target is also from a large coalition system, then the target is significantly more likely to back down than if the target were from a small coalition polity (such as an autocracy).

These findings both complement and challenge work by Schultz (1998, 1999, 2001). Building on research on audience costs (Fearon 1994, Smith 1998), Schultz argues that democracies are less likely to engage in foreign adventures because of constraints imposed by the domestic opposition when adventures are expected to turn out badly. This is consistent with our expectation that democracies (i.e., large coalition systems) need to be especially confident of victory before engaging in the use of force. However, Schultz's argument is not developed for

the case where both the target and initiator are democratic. In those cases, one might conjecture from his theory that both parties are subject to the same constraint. However, if the prospective initiator knows that the target, being a democracy, is subject to domestic pressures not to fight when the odds are poor, then the first-party may be encouraged to take greater risks because it anticipates that the second party will back down. This claim follows directly in the selectorate explanation of the democratic peace, but is not developed in Schultz’s analysis.

The existence of even one violent dispute between democracies or large coalition systems represents a fundamental challenge to the normative account of the democratic peace. While these cases appear to contradict the normative explanation of the democratic peace, they are entirely consistent with the expectations derived from the selectorate theory and some other institutional explanations.

To test hypotheses 3-4 we examine three logit analyses. The first is between Colonial/Imperial War, region-year fixed effects and Democracy. The second also includes the region-year fixed effects and substitutes W for Democracy. The third replaces W with W/D. If the selectorate account is supported, then whether W or Democracy is 1 or 0, there is no significant change in the likelihood of Colonial/Imperial War. The smaller W/D is, the greater the prospects of such wars, commensurate with the greater interest in private goods as W gets smaller. In addition to the logit analysis on this question, we also examine the relationship between the advent of such wars and the dichotomous indicator W/D*. The three logit analyses, reported in Table 6 present an interesting picture.

Democracy has a significant impact on the likelihood of extra systemic war in the *opposite* direction from that anticipated by those who advocate a normative explanation of the democratic peace. That is, democracies are more likely to engage in wars of colonial and imperial expansion than are non-democracies. The selectorate theory is agnostic about democracy per se. The logit analysis based on the coalition size indicators show, as expected, that a large coalition system and a small coalition system are – in a statistical sense – equally likely to engage in such wars. This is precisely the prediction from the dyadic selectorate model, reinforcing the claims for a “selectorate peace”.

The third logit helps shed light on why democracies seem to have a significant proclivity to engage in such wars; these conflicts are more likely when W is smaller than the Democracy score as predicted by our fourth hypothesis. Indeed, the import of the fourth hypothesis in explaining why some types of democracies are more inclined to engage in colonial or imperial wars than other types can be seen even more dramatically. W/D*, the dichotomous indicator of whether the democracy in question is the type whose coalition is at least comparable in size to its democracy score (W/D* = 1) or the type whose coalition is smaller (W/D* = 0) shows that such wars are more than twice as likely when W/D* = 0 than when it equals 1. The χ^2 statistic is 10.029 (1 df), indicating that the null hypothesis of no difference has only a .002 chance of being true.

Table 7 About Here

Table 7: Colonial/Imperial War, Democracy and Coalition Size

	Coef. (Standard Error) Probability	Coef. (Standard Error) Probability	Coef. (Standard Error) Probability
W	-0.062 (0.570) 0.913		

Democracy		1.29 (0.602) 0.032	
W/D			-0.455 (0.246) 0.064
Summary	N = 811 $\eta^2 = 0.01$ 43 Fixed Effects	N = 582 $\eta^2 = 4.66$ 39 Fixed Effects	N = 582 $\eta^2 = 6.05$ 39 Fixed Effects

Conclusions

We have shown that novel hypotheses derived from our explanation of the democratic peace are consistent with observed evidence. Leaders who answer to a large winning coalition apparently do make greater efforts to win during wars; are willing to use force against weaker opponents, especially when their seemingly democratic system still has a relatively small coalition; and are unwilling to fight back when stronger states use force against them.

We now ask whether competing explanations of the democratic peace can account for these regularities. The normative explanation contends that democratic leaders externalize their domestic norm of political competition when that norm is expected to be reciprocated. Democracies then do not go to war with one another because they share norms of peaceful resolution of disputes (Maoz and Russett 1993, Dixon 1994). When facing an autocracy in a dispute, democracies understand that their opponent does not share their values of peaceful resolution and so they must adopt the means of power politics to protect themselves. Our results on the willingness of democracies to use force against other democracies and in colonial wars seems to contradict the normative explanation. If democracies are normatively bound from the use of violence against one another, we should not observe any use of violence by one democracy against another. Instead, we find democracies do use force against other democracies when the latter is unlikely to resist. If democracies only abandoned their norms against violence when they were threatened, they should not fight weak polities in colonial and extra-systemic wars. We do not see how a normative explanation could account for these patterns.

The constraints argument states that domestic constraints make it difficult for democratic leaders to garner the support they need to wage war. The democratic peace occurs because the leaders of two such constrained states will not both be able to gain the necessary support to go to war. Our evidence on the greater wartime effort of systems with large winning coalitions seems inconsistent with this argument. Once at war, democracies are more able to mobilize resources for victory. Autocratic leaders, according to the constraints argument, should be more able to mobilize resources for war because they face fewer constraints. Again, we do not see how the constraint argument could explain the observed pattern in which autocracies fail to mobilize as much as democracies once a war begins.

References

- Bueno de Mesquita, Bruce and David Lalman. 1992. *War and Reason*. New Haven: Yale University Press.
- Bueno de Mesquita, Bruce, James D. Morrow, Randolph M. Siverson and Alastair Smith. 1999. "An Institutional Explanation of the Democratic Peace" *American Political Science Review* 93(December):791-807.
- Bueno de Mesquita, Bruce and Randolph M. Siverson. 1995. "War and the Survival of Political Leaders: A Comparative Study of Regime Types and Political Accountability," *American Political Science Review*, December.
- Dixon, William. 1994. "Democracy and the Peaceful Settlement of International Conflict" *American Political Science Review* 88 (March): 14-32.
- Farber, Henry S. and Joanne Gowa. 1995. "Politics and Peace," *International Security* 20:123-46.
- Fearon, James D. 1994. "Domestic political audiences and the escalation of international disputes." *American Political Science Review*. v. 88 Sept. '94 p. 577-92.
- Goemans, Hein E. 2000. "Fighting for Survival: The Fate of Leaders and the Duration of War," *Journal of Conflict Resolution* (October).
- Gowa, Joanne. 1999. *Ballots and Bullets: The Elusive Democratic Peace*. Princeton, NJ: Princeton University Press.
- Green, Donald, Soo Yeon Kim, and David Yoon. 2001. "Dirty Pool," *International Organization*.
- Jones, Daniel M. Stuart A. Bremer and J. David Singer (1996) ." Militarized Interstate Disputes, 1816-1992: Rationale, Coding Rules, and Empirical Patterns." *Conflict Management and Peace Science*, 15(2): 163:213.
- Lake, David A. 1992. "Powerful pacifists: democratic states and war" *American Political Science Review* 86(Mar.): 24-37.
- Maoz, Zeev. 1999. Dyadic Militarized Interstate Disputes (DYMID1.1) Dataset—Version 1.1 Tel-Aviv University.
- Maoz, Zeev and Bruce Russett, "Normative and Structural Causes of the Democratic Peace," *American Political Science Review* 87 (September 1993):624-38.
- Morgan, T. Clifton and Sally Howard Campbell. 1991. " Domestic Structure, Decisional Constraints, and War: So Why Kant Democracies Fight?" *Journal of Conflict Resolution* 35 (June) 187-211.
- Reiter, Dan and Allan Stam, III, 1998a. "Democracy, War Initiation and Victory," *American Political Science Review*. 92(June): 377-389.
- Schultz, Kenneth A. 2001. "Looking for Audience Costs: A Research Note." *Journal of Conflict Resolution* 45, 1(February):32-60.
- Schultz, Kenneth A 1998. "Domestic Opposition and Signaling in International Crisis." *American Political Science Review* 92, 4 (December): 829-44.
- Schultz, Kenneth A 1999. Do Democratic Institutions Constrain or Inform? *International Organization*. 53(2 Spring):233-266.
- Smith, Alastair. 1998. "International Crises and Domestic Politics" *American Political*

Science Review, September Vol. 92. No.3. p. 623-638.

Singer, J. D. S. Bremer and J. Stuckey. 1972. Capability Distribution, Uncertainty, and Major Power War, 1820-1965." in B. Russett (ed.) *Peace, War and Numbers*. Beverly Hills: Sage.

Singer, J. David, and Melvin Small (1972). *The Wages of War, 1816-1965: A Statistical Handbook*. New York: John Wiley.

Siverson, Randolph M. 1995. "Democracies and War Participation: In Defense of Institutional Constraints," *The European Journal of International Relations*, 1, 4:481-88.

Smith, Alastair. 1998. "International Crises and Domestic Politics" *American Political Science Review*, September Vol. 92. No.3. p. 623-638.

Stam, Allan C., 1996. *Win, Lose or Draw: Domestic Politics and the Crucible of War*. Ann Arbor, MI: The University of Michigan Press.