

Chapter 5: War, Peace and Coalition Size

Two-thousand five hundred years ago, Sun Tzu, a general in the service of King Ho Lu of Wu, wrote *The Art of War* (James Clavell, ed. New York: Delacorte Press, 1983). On November 28, 1984 Caspar Weinberger, a Secretary of Defense in the service of President Ronald Reagan of the United States, pronounced his doctrine for waging war. These two doctrines, separated by two and a half millennia, one prepared for a leader dependent on a small winning coalition, the other for a leader dependent on a large winning coalition, are remarkable in their similarities and their fundamental differences. Each is concerned with the conduct of warfare that best achieves the objectives of the incumbent leader. Each reaches rather different conclusions about when to fight, what to fight for, and how hard to fight. Each in specific and important ways describes the expectations that follow from the selectorate theory.

Sun Tzu wrote:

The art of war is governed by five constant factors, all of which need to be taken into account. They are: The Moral Law; Heaven; Earth; the Commander; Method and discipline. . . .

These five factors should be familiar to every general. He who knows them will be victorious; he who knows them not will fail. . . .

When you engage in actual fighting, if victory is long in coming, the men's weapons will grow dull and their ardor will be dampened. If you lay siege to a town, you will exhaust your strength, and if the campaign is protracted, the resources of the state will not equal the strain.¹ Never forget: When your weapons are dulled, your ardor dampened, your strength exhausted, and your treasure spent, other chieftains will spring up to take advantage of your extremity. . . .

In all history, there is no instance of a country having benefitted from prolonged warfare. Only one who knows the disastrous effects of a long war can realize the supreme importance of rapidity in bringing it to a close. It is only one who is thoroughly acquainted with the evils of war who can thoroughly understand the profitable way of carrying it on.

The skillful general does not raise a second levy, neither are his supply wagons loaded more than twice. Once war is declared, he will not waste precious time in waiting for reinforcements, nor will he turn his army back for fresh supplies, but crosses the enemy's frontier without delay. The value of time – that is, being a little ahead of your opponent – has counted for more than either numerical superiority or the nicest calculations with regard to commissariat. . . .

Now, in order to kill the enemy, our men must be roused to anger. For them to perceive the advantage of defeating the enemy, they must also have their rewards. Thus, when you capture spoils from the enemy, they must be used as rewards, so that all your men may have a keen desire to fight, each on his own account (pp 9-14).

¹ Enrique IV of Castile, victimized by his use of siege rather than swift combat, might have done well to study Sun Tzu or to have as wise an adviser.

Caspar Weinberger indicated:

First, the United States should not commit forces to combat overseas unless the particular engagement or occasion is deemed vital to our national interest or that of our allies. That emphatically does not mean that we should declare beforehand, as we did with Korea in 1950, that a particular area is outside our strategic perimeter.

Second, if we decide it is necessary to put combat troops into a given situation, we should do so wholeheartedly, and with the clear intention of winning. If we are unwilling to commit the forces or resources necessary to achieve our objectives, we should not commit them at all. . . .

Third, if we do decide to commit forces to combat overseas, we should have clearly defined political and military objectives. And we should know precisely how our forces can accomplish those clearly defined objectives. And we should have and send the forces needed to do just that. . . .

Fourth, the relationship between our objectives and the forces we have committed – their size, composition, and disposition – must be continually reassessed and adjusted if necessary. Conditions and objectives invariably change during the course of a conflict. When they do change, then so must our combat requirements.

. . .

Fifth, before the US commits combat forces abroad, there must be some reasonable assurance we will have the support of the American people and their elected representatives in Congress. . . . We cannot fight a battle with the Congress at home while asking our troops to win a war overseas, or, as in the case of Vietnam, in effect asking our troops not to win, but just to be there.

Finally, the commitment of US forces to combat should be a last resort.

Sun Tzu's perspective can coarsely be summarized as follows: (1) satisfying the moral law insures domestic support; (2) war must be swift; (3) resources should be sufficient for a short campaign that does not require reinforcement or significant additional provisions from home; and (4) distributing private goods is essential to motivate soldiers to fight. Sun Tzu says that if the army initially raised proves insufficient or if new supplies are required more than once, then the command lacks sufficient skill to carry the day, implying that perhaps the fight is best given up rather than risk exhausting the state's treasure and giving additional advantages to rival chieftains. Indeed, his advice is rather specific. "If equally matched, we can offer battle; if slightly inferior in numbers, we can avoid the enemy; if quite unequal in every way, we can flee from him" (Sun Tzu, p. 16).

Weinberger's fifth point agrees with Sun Tzu's emphasis on the moral law, but for the rest, there are important differences.² Weinberger's doctrine does not emphasize swift victory, but rather a willingness to spend however much victory requires. He contends that if the United States is not prepared to commit resources sufficient to win, then the United States should not get involved at all. Here he argues for great selectivity in choosing when to risk war. At the same time he recognizes that once committed, victory may take a long time and that, therefore, there

² "The Moral Law causes the people to be in complete accord with their ruler, so that they will follow him regardless of their lives, undismayed by any danger," Sun Tzu p. 9.

must be regular reassessment of objectives in light of evolving circumstances. He endorses a preparedness to raise a larger army and to spend more treasure if warranted by subsequent developments.

Sun Tzu emphasizes the benefits of spoils to motivate combatants (“when you capture spoils from the enemy, they must be used as rewards, so that all your men may have a keen desire to fight, each on his own account”). Weinberger emphasizes the public good of protecting vital national interests. For Sun Tzu, the interest soldiers have in the political objectives behind a fight or their concern for the common good is of no consequence in determining their motivation to wage war. That is why he emphasizes that soldiers fight, “each on his own account.”

Sun Tzu’s attentiveness to private rewards and Weinberger’s concentration on the national interest represent part of the great divide between small coalition and large coalition regimes. This chapter elaborates on that difference in the context of war. It also shows, within the context of the selectorate theory, that Weinberger’s emphasis on committing however many resources victory requires or else not fighting are logical consequences of dependence on a large coalition. Sun Tzu’s emphasis on an initial levy and then, if circumstances indicate this is insufficient, cutting losses, is the effort level that follows as a logical consequence of dependence on a small coalition. The remainder of this chapter is concerned to establish that these and other principles that distinguish the war-fighting behavior of large coalition and small coalition systems follow logically from the selectorate theory.

The Democratic Peace

There are few widely accepted generalizations about politics. One such generalization, sometimes even asserted to be a law (Levy 1988), is that democracies do not fight wars with one another. The empirical evidence for this claim is, in fact, quite strong (Maoz and Abdolali 1989; Bremer 1992; Oneal and Russett 1997; Ray 1995). Recent efforts to cast this empirical observation in doubt notwithstanding (Layne 1994; Spiro 1994; Farber and Gowa 1995; Schwartz and Skinner 1997), extensive, rigorous statistical tests all show a significant propensity for democracies to have been virtually immune from wars with one another (Maoz and Russett 1993; Russett 1995; Maoz 1998). Associated with this observation of what has come to be termed the “democratic peace” are six additional empirical regularities that relate war-proneness and democracy. These are the data-based observations that democracies are not at all immune from fighting wars with non-democracies (Maoz and Abdolali 1989)³; democracies tend to win a disproportionate share of the wars they fight (Lake 1992; Reiter and Stam 1998a); when disputes do emerge, democratic dyads choose more peaceful processes of dispute settlement than other pairings of states (Brecher and Wilkenfeld 1998; Dixon 1994; Mousseau 1998; Raymond 1994); in wars they initiate, democracies pay fewer costs in terms of human life and fight shorter wars than nondemocratic states (Bennett and Stam 1996; Siverson 1995); transitional democracies appear to fight one another (Mansfield and Snyder 1995; Ward and Gleditsch 1998); and larger democracies seem more constrained to avoid war than are smaller democracies (Morgan and Campbell 1991).

³ Some studies suggests that democracies are, on the whole, more pacific than autocracies (Benoit 1996; Ray 1995). Yet, such general war avoidance can not account for the relative propensity to fight with different regime types.

Although these observations about democracy and war are part of an important pattern, they lack a coherent explanation. Several possible explanations have been put forward, but none has gained broad acceptance. Here we propose that the domestic selectorate model, introduced in chapter 3, suitably modified to deal with the dyadic aspect of international conflict, may help bring closure to the debate on the causal mechanism governing the seven regularities mentioned above, as well as other regularities that follow from the dyadic view of the selectorate theory. This chapter demonstrates that the selectorate theory offers a logically coherent account for the empirical record regarding:

- (1) the tendency for democracies not to fight with one another;
- (2) the tendency for democracies to fight with non-democracies with considerable regularity;
- (3) the tendency for democracies to emerge victorious from their wars;
- (4) when disputes do occur between democracies, the tendency for them to use conflict management processes that reach peaceful settlements;
- (5) the tendency for democracies to experience fewer battle deaths and fight shorter wars when they initiate conflict;
- (6) the tendency for transitional democracies to be more likely than democracies to fight one another; and
- (7) the tendency for major power democracies to be more constrained to avoid war than less powerful democracies (Morgan and Campbell 1991).

The selectorate account of the “democratic peace” is neither an endorsement nor a rejection of the pacifying role or normative superiority of democracy as compared to other forms of government. As we observed earlier, neither a large coalition nor a large selectorate define democracy. Whereas other discussions of the democratic peace attribute moral superiority to democracy over other regime types because of the seeming peacefulness of democracies, the selectorate model casts some doubts on this interpretation. We will, for instance, show that large coalition systems, while manifesting the pacific behavior mentioned earlier, also provide incentives for leaders to pick on much smaller rival states, including small democracies. Large coalitions, a characteristic shared by democracy, foster special reasons to find opportunities to engage in wars of colonial and imperial expansion and, in a sense, to be bullies. These hardly seem like attractive norms of conduct but they, as much as the regularities already mentioned, form part of the democratic, large coalition “selectorate peace.”

In the discussion that follows, we sometimes slip casually between usage of the awkward phrase “large coalition systems” and the more common term “democracy”. In doing so, we do not intend to equate the two, but merely note that they are highly correlated. A large coalition may well be a necessary condition for democracy, but it is insufficient to capture conventional meanings of the term. We use the awkward coalition constructions when it is critical to distinguish between coalition size and democracy.

The Debate

The current debate over the war behavior of democratic states, and particularly the democratic peace, centers on whether a normative or an institutional explanation best accounts for the known facts. Normative accounts postulate several different assumptions about democracies. One such supposition is that they share a common value system, including respect for individual liberties and competition. As stated by William Dixon (1994):

. . . international disputes of democratic states are in the hands of individuals who have experienced the politics of competing values and interests and who have consistently responded within the normative guidelines of bounded competition. In situations where both parties to a dispute are democracies, not only do both sides subscribe to these norms, but the leaders of both are also fully cognizant that bounded competition is the norm, both for themselves and their opponents.

A closely related contention is that citizens in democracies abhor violence or at least prefer negotiation and mediation to fighting and so constrain their leaders from pursuing violent foreign policies. As succinctly explained by T. Clifton Morgan and Sally H. Campbell (1991, p. 189), “the key feature of democracy is government by the people and . . . the people, who must bear the costs of war, are usually unwilling to fight.” However, adherents of these perspectives also argue that democracies are willing to set aside their abhorrence of violence or their respect for other points of view when they come up against authoritarian states because the latter do not share these values. For instance, Zeev Maoz and Bruce Russett (1993, p. 625) contend, “when a democratic state confronts a nondemocratic one, it may be forced to adapt to the norms of international conflict of the latter lest it be exploited or eliminated by the nondemocratic state that takes advantage of the inherent moderation of democracies.”

We believe that any explanation of the empirical regularities that collectively are known as the democratic peace must satisfy two criteria. First, it must account for all the known regularities. Because explanations are generally constructed in response to the observed regularities, the ability to explain all the known patterns helps build confidence that the account is not simply an *ex post* rationalization of a few patterns of behavior. Clearly, the more patterns that are explained, the more credible the explanation, provided that it does not come at the expense of parsimony. Second, a credible explanation should also suggest novel hypotheses that do not form part of the corpus of the democratic peace. If these novel hypotheses are borne out by systematic evidence, that adds further credibility to the overall explanation. The existing norms-based and institutional-constraints arguments fail these tests. The selectorate theory provides an explanation of the seven known regularities enumerated earlier. It also suggests novel hypotheses that we test here, as well, of course, as providing an account for the host of factors investigated in chapter 4.

Norms-based arguments have two difficulties. First, they appear *ad hoc*. The presence and substance of norms are established in the literature on the democratic peace solely by reference to the outcomes of conflict between democratic states. What the international and domestic norms are is induced from the observed patterns of behavior in international conflicts that these arguments seek to explain. That democracies abandon their normative commitment to resolve disputes peacefully in the face of threats to their survival by foes who do not adhere to those norms is entirely plausible. However, that assertion must be derived independently of the observation, either from prior axioms or from unrelated empirical evidence, in order to qualify as an explanation of the observation. Otherwise, we cannot know what the argument predicts about seemingly contradictory patterns of evidence. For instance, analyses of covert operations (James and Mitchell 1995; Forsythe 1992) suggest that, providing they can escape public scrutiny, democratic leaders often undertake violent acts against other democracies. Does such evidence contradict a norms-based argument or do the norms apply only to interstate conflict at the level of crises and war?

A related difficulty is empirical. The historical record is replete with democratic states that followed policies at variance with the norms argument. That argument contends that when

democracies confront one another they eschew violence. It suggests that they adopt the anticipated conduct of authoritarian states to ensure their own preservation. Yet, there are clear instances of democracies adopting violent dispute resolution methods in opposition to adversaries who could not be a consequential threat to the democracy's survival. In particular, democratic states pursued imperialistic policies and in the process of building their empires engaged in numerous wars that were about subjugation rather than self-protection. It may be correct to argue that democratic states resort to realist strategies in the face of a powerful nondemocratic opponent who threatens their existence, but too many democratic wars have been against significantly weaker states for this argument to be sustained as an explanation for the democratic peace. It is difficult to reconcile such a pattern with notions of a democratic political culture that abhors violence or that endorses mediation and negotiation. The selectorate model, by contrast, provides an explanation of the willingness of democracies to pursue imperialistic or colonial conquest. This observation is the sort of novel fact for which an explanation of the democratic peace should account. We return later to our explanation of imperial wars by large coalition systems and test the predictions from the dyadic selectorate theory on a broad data base that includes just such wars.

Theories about institutional constraints offer alternatives to the normative accounts. A version of the institutional constraints argument holds that democracies are more deliberate in their decision making because their procedures preclude unilateral action by leaders. This is thought to raise the costs of violence. Maoz and Russett (1993, p. 626) make this point clearly: due to the complexity of the democratic process and the requirement of securing a broad base of support for risky policies, democratic leaders are reluctant to wage wars, except in cases wherein war seems a necessity or when the war aims are seen as justifying the mobilization costs.”⁴

This latter argument seems, however, to suggest that democracies should be unlikely to wage war generally and not just against other democracies. The empirical record, however, does not support such a conclusion.⁵ Rather, it shows that democracies do not fight one another, but do indeed engage in wars with authoritarian regimes.⁶ The claim based on the cheapness of expressing opposition seems stronger than other putative institutional explanations, but it too has shortcomings, one of which is that it fails to account for the well-known rally-round-the-flag effect observed in democracies at the outset of crises and wars (Mueller 1973; Norpoth 1987).

⁴ Without some specification of war aims and mobilization costs, such as are found in the Weinberger Doctrine, the last phrase of this statement appears to allow anything with respect to democratic war behavior.

⁵ Benoit (1996) suggests that on average democracies are slightly less war prone than other systems.

⁶ Although democracies do not fight wars with one another they often become engaged in militarized disputes (Bueno de Mesquita and Lalman 1992; Oneal and Russett 1997). Indeed, the Militarized Interstate Disputes data for Europe even include 22 cases in which democracies became embroiled in violent disputes that fail to reach the definitional threshold for war. These 22 events will prove important later when we discuss implications of the selectorate model. See Senese (1997) for an alternative view point.

This effect suggests that there is not an inherent abhorrence of violence in democracies. Most importantly from a theoretical position, none of the institutional constraints arguments has a sufficiently well developed theory of how and why democratic institutions constrain leaders in the particular way that produces the seven regularities that have been observed while other institutional arrangements do not. Rather, these arguments generally assert that democratic leaders are more constrained than autocrats so that the constraints are taken as exogenous rather than as endogenous properties of equilibrium.

Bueno de Mesquita and Lalman's signaling explanation accounts for three of the seven observed regularities (Bueno de Mesquita and Lalman 1992). They did not, for instance, explain why democracies win a disproportionate share of their wars or why their costs are lower. Bueno de Mesquita and Siverson's model accounts for these regularities, but not for the failure of democracies to fight one another (Bueno de Mesquita and Siverson 1995). Both Bueno de Mesquita and Lalman's signaling explanation and Bueno de Mesquita and Siverson's model have in common the assumption that democracies are more constrained than autocracies. For reasons of theoretical parsimony, we prefer that this be a deductive result of a general model, rather than an assumption. That is, we wish to account for the several empirical regularities without assuming that one type of political system is more constrained than another. Instead, we demonstrate that a dyadic model of the selectorate theory explains how institutional arrangements produce different levels of constraint in different political systems and what effect those institutional arrangements have on behavioral incentives and the empirical generalizations of interest.

The explanation we offer shows that the behavioral incentives (perhaps these could be called norms) are themselves endogenous to certain institutions arrangements and the interests that sustain them.⁷ As with the domestic model introduced in chapter 3, we make no assumptions about the citizens' abhorrence of violence or even the ease with which they might protest governmental policies. Neither do we assume that large (or small) coalition systems have a shared set of values or culture. Instead, we continue to assume that political leaders in any and all forms of government are motivated by the same universal interest: the desire to remain in office. We make no normative assumptions about differences in the values, goals or civic mindedness of democratic leaders or their followers as compared to authoritarian leaders or their followers. We do, however, propose a model that offers an explanation of the known regularities and suggests new hypotheses regarding the democratic peace.

The Dyadic Selectorate Model

Building on the model in chapter 3, we continue to assume that incumbent leaders (as individuals or as a governing coalition) select and implement public policies. These public policies inevitably have public goods components and private goods components. Leaders have only a scarce amount of resources to allocate to different policy goals and to help keep them in office. They can put everything into public policy that benefits everyone in the polity, everything into private goods that are consumed only by members of the winning coalition, or any mix in between. Naturally, if they spend resources on, for instance, providing defense for the citizenry (a public good), they cannot use those same resources to provide special privileges to the members

⁷ Earlier work demonstrates the endogenous relationship of institutions to foreign policy interests (Bueno de Mesquita and Siverson 1996; Schultz 1998; McGillivray 1997).

of the winning coalition. If they buy national defense only from cronies in the winning coalition, then the reduced competition to provide defense will likely result in an inefficient provision of that public good while cronies skim money off the top for their personal gain. Scarcity requires leaders to make choices over just how much to focus resources on providing generally beneficial public policies and how much to concentrate on satisfying the wants of their core supporters.

A formal representation of the dyadic selectorate model is found in the appendix for this chapter. Here we describe the basic structure of our model and outline the intuition that leads to the democratic peace results and to novel hypotheses. Then we provide a more detailed explanation of the logic behind the dyadic selectorate game that leads to the conclusions.

Assume that two nations, A and B, are engaged in a dispute. The national leaders must decide whether they are prepared to start a war in the hope of achieving their objectives or rely instead on a negotiated settlement. If one side initiates a war, then both leaders must decide how much of an effort to make to achieve military victory in the war. By this we mean, the proportion of available resources a leader is prepared to allocate to the war effort rather than to other purposes. Obviously, leaders who dedicate large quantities of resources to the war are more likely to win, but at the cost of not having those resources available to reward themselves or their supporters. The citizens receive payoffs based on the outcome of the crisis – be it a war or a negotiated settlement – and the rewards that accrue from resources that are not consumed in the war effort. Given these payoffs, the winning coalition decides whether they would be better off retaining their current leader or whether they would be better off replacing her.

A polity's institutional arrangements shape the selection criteria that supporters use to determine whether to retain the incumbent. Hence political-selection institutions determine which outcomes allow a leader to keep her job and which do not. As we shall see, these differences profoundly influence the policies that leaders choose during international conflicts. Those, like Sun Tzu's King Ho Lu, who depend on a small coalition are best off saving resources for their backers rather than spending the national treasure on pursuit of war aims. Those, like Caspar Weinberger's President Ronald Reagan, who depend on a large coalition are best off making an extra effort by shifting additional resources into pursuit of their war aims.

Recall that all citizens enjoy the benefits of public policies whether they belong to the winning coalition or not. The advantage that members of the winning coalition have is that they also enjoy a share of whatever private goods are allocated by the leadership. Earlier we established that if the winning coalition gets larger, each member's share of private goods decreases. This makes public policy benefits loom larger in the overall utility assessment of members of the winning coalition in more democratic, large-coalition polities as compared to more autocratic, small-coalition states. One consequence is that large-coalition leaders, being just as eager to retain office as their small-coalition counterparts, must be especially concerned about policy failure. To reduce the risk of policy failure and subsequent deposition, they make a larger effort to succeed in disputes. This means that they are willing to spend more resources on the war effort to avoid defeat and only engage in fights they anticipate winning (see the Weinberger Doctrine). In contrast, leaders with small winning coalitions reserve more resources for distribution to their supporters in the form of private goods (see Sun Tzu). As long as they can provide substantial private goods, they are not at such a high risk of being deposed as are their larger coalition counterparts who, perforce, cannot give large amounts of such benefits to each member of their winning coalition.

Because of their dependence on a large coalition, democratic leaders are more likely to try

hard to win their wars than are autocrats. If they do not expect to win, they try to avoid fighting. This implies that they pick and choose their fights more carefully (see the Weinberger Doctrine; Reiter and Stam 1998a). This has several consequences. Democrats who are dependent on a large coalition are more likely to win wars than autocrats who depend on a small coalition for two reasons. First, *if they need to*, democrats try hard, spending resources on the war to advance their public policy goals. Second, fearing public policy failure, democrats try to avoid those contests they do not think they can win. Since two leaders of large coalition systems – loosely democrats – in a dispute both try hard, both can anticipate that, if they go to war, each will spend lots of resources in a risky situation where they are not disproportionately advantaged by their great effort. This is shown to incline such leaders to negotiate with one another rather than fight (Lake 1992; Stam 1996 p.176-178). By contrast, those who depend on a small coalition – loosely termed autocrats – typically reserve their resources for domestic uses as their political survival depends on satisfying a few key constituents through the distribution of private goods. Autocrats do not have a great need to produce successful public policies. Consequently, autocrats try less hard than democrats in war, but still sometimes fight in wars where their chances are poor because defeat does not so greatly affect their prospects of political survival at home. Democrats, by their superior level of effort, more often defeat autocratic foes and achieve successful policy outcomes. This helps enhance their reselection.

Structure of the Dyadic Selectorate Game

Our modified model examines the fundamental decisions that national leaders make under the contingency that they are engaged in an international dispute. In the game, leaders choose to fight or to negotiate a settlement. If the choice is to fight, then leaders decide how many of their available resources they are prepared to commit to the war effort. In reality, of course, either side in a dispute can resort to war. We, however, consider the restricted game in which the leader in nation A chooses between the use of force and a negotiated settlement. The question of whether nation B wants to initiate is answered by simply flipping the labels A and B. If the leader of A decides to attack then she also picks an effort level, by which we means she allocates some proportion, g_A , of her available resources, R , to the conduct of the war. Once attacked, the leader in nation B also picks an effort level, g_B . If nation A decides not to attack then the dispute is settled peacefully through negotiations.

The war's outcome is partially a function of the relative effort by each side. That is, who wins depends in part on how leaders choose to allocate their scarce resources. When the dispute is settled, either through negotiation or war, the domestic audiences in A and B then decide whether to retain their leader or to depose the incumbent (Fearon 1994; McGillivray and Smith 2000; Schultz 1998; Smith 1998)⁸. To make this decision, they evaluate their payoffs under each contingency and decide whether they are better off remaining in the incumbent's winning coalition or defecting to a prospective new leader.

⁸ McGillivray, Fiona and Alastair Smith. 2000. Trust and Cooperation Through Agent-specific Punishments. *International Organization* 54(4 Autumn): 809-824. Schultz, Kenneth. 1998. Domestic Opposition and Signaling in International Crises. *American Political Science Review* 92(4): 829-44.

Settling Crises by War

We model war as a costly lottery (Smith 1998; Wagner 2000)⁹ in which each player's expected utility from the war depends on the probability that its side wins or loses and the utilities associated with each possible outcome. In this section we develop our notions regarding the probability of victory (and defeat) and the attendant utilities.

The values of victory and defeat are normalized to one and zero, respectively. In addition, players pay a per capita cost, k , associated with the war's destruction and the risks of fighting. Therefore, the utility of victory equals $1-k$ and the utility for defeat is $-k$.

Many factors give shape to the outcome of a war. Observable military capabilities certainly play an important part. So too do short-term shifts in government priorities by putting more national resources behind a war effort (Organski and Kugler 1980; Kim and Morrow 1992; Powell 1996a). The probability of victory is presumed to be increasing as the total military advantage dedicated to the war effort of one side grows relative to the other side. Therefore, if a war occurs the victor is more likely to be the nation with the most total military capabilities dedicated to the war effort. We consider two types of military capabilities: the observable military balance, M , and the proportion of additional national resources committed to the war effort, g_i . The subscript refers to nation A or B, as appropriate. The military balance, which takes values between 0 and 1, represents the ratio of observable military assets of the two sides. M , therefore, is treated as common knowledge. Additional resources dedicated to the war effort by either country are drawn from the R_i resources each leader has at her disposal. By choosing to devote the proportion g_i of R_i to the war effort, she generates an additional $g_i r$ military assets, where r represents the exchange rate between resources and military capability.¹⁰

The probability that A wins in a war is increasing in military balance, M , and A's effort, g_A , and is decreasing in B's effort, g_B . The probability B wins is $1-p_A$ with p_A being the probability that A wins. We stipulate that the probability that side A wins is an increasing function of $M - \frac{1}{2} + g_A r - g_B r$ or in words, A's military advantage or disadvantage ($M - \frac{1}{2}$) adjusted for the relative additional effort made by the rival sides.

Settling Crises by Negotiations

When nations enter negotiations, we assume they have expectations about the likely outcome of the bargaining process. In particular, we assume the expected rewards for A and B from a negotiated settlement are θ and $1-\theta$, respectively. We might suppose this deal, θ , reflects the military balance, M , but it need not. Other factors can also be influential. As Fearon (1995) points out in his bargaining model, the indivisibility of the policy space, how sustainable deals are in the future, and the role of current negotiations in altering the future military balance all influence which deals can be achieved through negotiations.

⁹ Smith, Alastair 1998. "Fighting Battles, Winning Wars." *Journal of Conflict Resolution* June 1998 Vol. 42, No.3, pp.301-320. Wagner, R. Harrison. "Bargaining and War." *American Journal of Political Science* 44 (July 2000): 469-484.

¹⁰ Intangible or unobservable military capabilities may be important additional factors influencing the outcome of war. Introducing uncertainty into the model in this way, however, does not fundamentally alter any of our results, while needlessly increasing complexity.

Reselection

Following the international dispute, the leaders in each nation face reselection. The members of the selectorate evaluate the payoff they received under the incumbent leader. They compare this payoff with what they expect to receive if they depose the incumbent and choose a domestic challenger instead. Deposing the incumbent is not simply a matter of concluding that she has done a poor job during the dispute. Rather, it is a question of whether the members of the winning coalition believe they will be better off under alternative leadership.

Incumbents are deposed when they can no longer convince enough members of the selectorate to support them. If the package of benefits an incumbent offers to her supporters is better than the rewards any challenger can credibly offer, then the incumbent can find W members of the selectorate who will retain her in office. If, however, the incumbent fails to provide benefits to the winning coalition in excess of what a challenger can credibly promise to provide, then the incumbent can no longer garner enough support to form a winning coalition. At this point, supporters defect and the incumbent is ousted. Recall that the decision to defect is not simply a choice about which leader is better. Defection is risky. There is a W/S chance of being essential to the new leader if the current incumbent is deposed. Failure to make it into the post-transition winning coalition of a new leader means losing an assured flow of private goods if one is a member of the current coalition. The loyalty norm, induced by the size of the risk of defection (W/S), when strong (i.e., W/S is small), encourages coalition members to stick with an incumbent who is doing a poor job for the nation as a whole.

Like the incumbent, the challenger proposes a mix of public and private goods allocations. Of course, the selectorate does not know what the challenger can or will actually deliver. In contrast, they have observed the performance of the incumbent. The observed performance or competence of the incumbent substitutes in the dyadic selectorate model for the concept of affinity used in the basic selectorate model. We noted in chapter 2 that affinity is a convenience rather than a necessity for the selectorate theory. We could continue to use affinity here, but choose to substitute prior performance by the incumbent as an alternative. We do so for two reasons. First, in the context of war, expectations about competence seem especially important. Second, we wish to demonstrate that affinity is not essential. Indeed, as noted in chapter 2, neither affinity (nor competence) is essential. We only require a condition that gives members of the current winning coalition a better chance of being in the incumbent's future coalition if they remain loyal than their chance of being in the challenger's long-term coalition if they defect. Those who prefer the idea of affinity to competence can assume that affinity is correlated with the prospective ability or competence of the challenger.

The selectorate must infer the ability of or their affinity for the challenger. That, of course, is the inherent feature of any political campaign, whether the society is democratic or autocratic. If the challenger performs well during the campaign, that is, appears competent, then we expect that he will perform well once in office (Riker 1996). At the time the incumbent leader makes her choices about fighting or negotiating and how to allocate resources, she is uncertain of the qualities of a prospective domestic rival. We represent the distribution of possible challengers whom the incumbent may face by using the cumulative density function and, for technical convenience, we assume the distribution of challengers is exponential.

What can a challenger credibly offer the selectorate? The challenger cannot make credible promises regarding how he will perform during a dispute or on other policy questions. Knowing this, the selectorate's members focus on the reservation value they expect if they choose a new

leader. Incumbents can anticipate what they must give to supporters in order to defeat challengers. They simply must provide more utility for their coalition members than that offered by the challenger. The utility coalition members receive depends, in part, on the outcome of the policy of the leader in the international dispute. $1-g_A$ is the proportion of resources reserved for distribution as private goods to the winning coalition after spending g_A on the war effort. Of course, if there is no war then $x_A = 0$. The total pool of resources (R_A) is diminished by whatever portion has gone to the war effort, if any. What remains is distributed evenly to the members of the winning coalition. Of note is that members of the winning coalition receive their share of private goods for sure if they stick with the incumbent, while only receiving such goods probabilistically if they defect. Additionally, neither the incumbent nor the challenger can promise to distribute any resources that are destroyed or lost by the state during a war. This proves important later in understanding why small coalition leaders like autocrats or kings do not make the same allocation decision as do large coalition leaders like democrats.

Probability of Reselection

Leaders want to remain in office. At the time leaders choose their actions, including whether to wage war and how to allocate resources, they cannot be certain of the quality of prospective political rivals. However, given the distribution of possible challengers, the incumbent can assess how outcomes influence her prospects for reselection.

All else being equal, leaders who generally perform well on domestic issues of the sort examined in chapter 4, and those with large selectorates, find it easiest to remain in office. Good performance on domestic issues becomes a liability, however, when good performance costs resources that are needed as private rewards to retain coalition loyalty.

The size of the leader's incumbency advantage depends upon the configuration of the polity's institutions. The smaller the selectorate, the greater the future private benefits that members of the current winning coalition can expect from any challenger and, therefore, the greater the private benefits the incumbent must provide in order to remain in power. Similarly, as the size of the required winning coalition decreases, the number of people with whom private benefits must be shared decreases, making the value of the benefits to each member that much greater. Therefore, as the winning coalition becomes larger, the incumbency advantage diminishes because the value of the private benefits to individual members of the winning coalition gets smaller. When the winning coalition is small and the selectorate is large, supporters of the incumbent jeopardize much of their welfare if they defect to a political rival of the incumbent since they face a high risk of being cut off from private benefits under the new leader. The risk of being excluded from the private payoffs of future coalitions grows as the size of the selectorate increases and as the size of the winning coalition decreases, so that the risk is greatest, speaking somewhat loosely, in autocracies and smallest in democracies.

The incumbent has a selection advantage over the challenger. The incumbent is advantaged in her ability to supply private goods because current members of the coalition are sure of receiving them. Given her advantage in private goods, the incumbent survives provided she does not do such a poor job on public policy that she is judged grossly incompetent as compared to the challenger. What constitutes sufficient policy incompetence by the leader so that she gets deposed, however, depends on the structure of the polity. If the leader has a huge advantage over the challenger in her ability to supply private goods then she can survive disastrous policy outcomes. Although leaders from systems with large winning coalitions have

some advantage in the supply of private goods, the magnitude of this advantage is small and as such these leaders cannot tolerate policy failure as well as can autocrats or even monarchs (Bueno de Mesquita and Siverson 1995; King, Tomz and Wittenberg 1998).

To summarize, during a dispute, leader A decides whether to fight, and if so, how hard to try. If attacked, leader B chooses an allocation of resources to dedicate to the war effort. Following the end of the dispute, members of the winning coalition decide whether to remain loyal or to defect, thereby retaining or bringing down the incumbent leadership. This is the sequence of play in the game. With the utilities all specified, we can now turn to solving the game.

Solving the Game

We solve the game by finding sub-game perfect equilibria. Using backward induction, the analysis at each stage of the game insures knowledge of actors' anticipated responses to subsequent decisions. Having already examined reselection above, we move to the preceding decision: the level of resources dedicated to prosecuting the war.

If attacked, the leader of nation B chooses how many of her available resources, R_B , to dedicate to the war effort. The advantage of spending more on the war is that she improves B's prospects of victory. However, trying hard also involves risks. By trying harder, B's leader reduces the amount of resources available to reward her supporters through private goods. Political-selection institutions influence the effort decision because they determine the relative importance for political reselection of saving resources to use as private goods versus increasing the odds of military victory by spending those resources on the war effort.

Leaders choose the effort level that maximizes their expected payoff. In general, the larger the winning coalition, the greater this optimal effort level. This leads to our substantive conclusion that democrats try harder in wartime than do autocrats. Before explaining the origins of this result it is important to add a qualifier. In some cases, the outcome of the war is so important for political survival relative to private goods that all leaders, whatever their domestic political institutions, try all out to win the war. For example, in a war like World War II where the survival of sovereignty was at risk, militarily defeated incumbents could be nearly certain of losing their jobs (and perhaps their lives) no matter what.¹¹ At the other extreme, the salience of the war might be sufficiently low that no political arrangements induce additional effort. This might be true, for example, in wars against such weak rivals that there is virtually no chance of defeat. Wars of colonial and imperial expansion against largely unarmed or under-armed indigenous adversaries may fit this category. However, between these extremes, it is large winning coalitions that induce high effort levels and small winning coalitions that induce the hoarding of resources for subsequent distribution as private rewards to the winning coalition.

The game reveals that large winning coalitions encourage leaders to dedicate additional

¹¹ It is likely, however, that leaders did not recognize these risks to personal survival or to sovereignty at the outset of either World War. Indeed, if prospective war participants recognized that they were about to embark on an extremely costly and risky war, it is likely that they would choose to negotiate a resolution of differences rather than fight. Thus, it is unlikely that leaders hold ex ante beliefs that are consistent with the ex post revelation of a high political risk following defeat in a world war.

resources to the war effort. As with all the technical results, the formal proof is contained in the appendix. The key insight concerns how coalition size influences the importance of private goods as a means of rewarding supporters. As leaders increase their level of effort during a war, they increase the probability of victory. A military victory benefits everyone in nation B, including members of the winning coalition. Since the difference in utility between victory and defeat was normalized to one, the marginal benefit of increased effort is one multiplied by the marginal impact of effort on the probability of victory. Quite simply, the value of trying harder is the extent to which extra effort improves the prospects of winning. The marginal benefit of increased effort is independent of political institutions since everyone benefits from the policy success, be they leader, member of the winning coalition, member of the selectorate or part of the disenfranchised portion of society. So, victory itself is not more or less beneficial politically for one regime type as compared to another. All leaders prefer to win wars in which they are engaged. However, increased effort to win comes at the expense of having fewer resources with which to provide private goods for supporters. No leader wants to spend so much on the war effort that her chances of being deposed are increased.

Resources not spent on the war effort go to the winning coalition in the form of private goods. As we established in chapter 3, the value of these private goods depends upon how many people must be rewarded. As the leader allocates resources to the war effort she reduces the private goods rewards for her supporters. The rate at which increased effort diminishes supporters' benefits depends upon the size of the coalition sharing private goods. When the winning coalition is small, each of its members' share of the resources is high. Given these concentrated benefits, increased war effort drastically reduces the utility of members of the winning coalition. In contrast, when the coalition is large, each of its members receives only a small share of the private goods in the first place. Thus, when the winning coalition is large, the reduction in supporters' utility from having resources channeled into the war effort, instead of being retained as private benefits, is small. It is incentive compatible with a leader's goal of remaining in office to maximize her supporters' utility. In terms of the supporters' rewards, the cost of improving the probability of victory increases as the winning coalition gets smaller. The marginal benefit of increased effort – the increase in the probability of victory – is independent of institutional arrangements, but the cost of increased effort is dependent on those institutions. To make the institutional comparison as stark as possible, consider the following limiting case.

Suppose a leader chooses between making an all-out effort that guarantees victory and making no additional effort at all even though this makes defeat in war inevitable. Consider the effects on the prospects of reselection. In terms of direct rewards, an all-out effort gets the leader a payoff of $1 - k$ (i.e., the utility of victory) as opposed to no additional effort, which generates a direct payoff of $-k + R/W$ where $-k$ is the cost of fighting and R/W is the unspent per capita share of resources that remain available for private goods (or for kleptocracy). Clearly, if the winning coalition (W) is larger than R then the leader makes an all-out effort because then $1 - k > R/W - k$. While the direct benefits are illustrative of why leaders with large W try hard, we think of our argument as predominately reselection driven. The reselection related rewards associated respectively with all-out effort and with no additional effort, as shown in the appendix, again favor all-out effort when $1 > R/W$. Again, in the limiting case, leaders make an all-out effort to win only when $W > R$. Otherwise leaders hoard their resources for private goods provision and make no additional effort even though military defeat is 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.¹²

Thus far we have shown how selection institutions affect the amount of resources dedicated to the war effort for B. Similar logic applies for A. Although A's decision calculus is slightly more complicated because she must anticipate B's effort level, the same motivations persist. Again, the larger A's winning coalition, the less important private goods become relative to foreign policy success. Therefore, all else being equal, the larger the winning coalition, the more resources A dedicates to the war effort.

The game shows that democratic leaders, because they require large winning coalitions, try harder in war than do autocrats who only need support from a small coalition to stay in office. One might think that autocrats have an interest in fighting hard to protect the pool of resources they need to distribute as private goods. However, to stay in office, they must only provide more than their challenger can credibly promise. The challenger cannot promise to distribute any resources that have been lost as a consequence of defeat in the war. Therefore, the incumbent autocrat's comparative advantage in distributing private goods and in reserving resources for that purpose remains unaltered following military defeat.¹³

The deduction from our model that democratic leaders try harder in wars than do autocrats is, we believe, a novel theoretical result. It is interesting to note, therefore, that others have reported illustrative empirical evidence that fits our deduction. Rosenthal (1998) "finds a 'selection effect:' parliamentary governments, for example, fight fewer wars. They are only willing to fight wars that are profitable, and they are more willing to adequately finance, and therefore more likely to win, the wars they choose to sponsor. His conclusion is reinforced by the argument of Levi (1998), who explores the impact of increased democratization and industrialization upon military mobilization. Faced by an increase in both variables, she argues, governments have to invest more in convincing their populations of the importance of the war and in winning their consent to fight." (in Bates et al, 1998, p. 7.) That is, democratic leaders invest their effort and resources in mobilizing their societies to produce the public good of victory in war, as predicted. Lamborn (1991) presents additional direct evidence for the deduction that democracies try harder in war. He shows that before World War I, Germany devoted a larger percentage of its gross national product to the military than did Britain or France. Nevertheless, the latter countries defeated Germany in the first World War; that is, they mobilized greater resources once the war began because they were better able than the Germans to increase revenue extraction for the war effort. Below we provide systematic, large N empirical tests of this proposition to go beyond the case history evidence to see if the pattern indicated by the theory holds in reality across many countries, leaders, and years.

¹² One might argue that the value of remaining in office is a function of regime type. As Goemans (1995) 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.

¹³ Equally, any spoils won in the war are as available to be distributed by the challenger as by the incumbent in the event the incumbent is deposed.

We have demonstrated that the incentives of leaders in war differ as a function of their institutional arrangements. Although we have explained the reasoning in the special case where all prospective private goods are either spent on the war effort or are saved to pay off supporters, it should be evident that the logic holds in the more general setting. We have also focused our attention on conditions under which institutional differences cause democrats (due to their large coalitions) and autocrats (due to their small coalitions) to behave differently. There are also conditions under which either both try hard or neither tries hard. All of these are documented in the appendix. The general conclusion is clear. All else being equal, institutional arrangements provide large coalition leaders with greater incentives to try hard relative to small coalition leaders. To show how this influences the empirical regularities associated with the democratic peace we now assess the incentives to negotiate rather than fight.

The Decision to Fight or to Negotiate

We now know how national leaders are expected to behave once a war starts. The influence of institutions on war effort has been shown. Democrats typically try harder than autocrats. A democrat's dependence on a large coalition makes the value of the improved prospects of victory from trying hard worth more than the lost benefit, or cost, arising from taking private benefits away from the winning coalition. The opposite is true for autocrats because of their dependence on a small winning coalition. This result is crucial to understanding the decision to fight or to negotiate.

Leaders in states with large winning coalitions cannot easily compensate for policy failure by doling out private goods. They need to succeed in foreign and domestic policy. Leaders in systems with small winning coalitions can more readily compensate for policy failure by providing private benefits to their few key backers. Therefore they do not try as hard in wars as do their more democratic counterparts. A consequence of this is that democracies are less attractive targets of war than are autocracies. By the same token, democracies are not eager to pursue wars that they do not expect to win. Their leaders are at great risk of political defeat at home from failed policies. Autocrats are not.

It follows that democratic leaders, because of their dependence on a large coalition, generally attack only if they anticipate victory. They are highly selective; they prefer to negotiate when they do not anticipate military success. This does not imply that they are reluctant to fight. Democracies, because of their propensity to try hard, can often overwhelm their foe. This carries an important implication for the type of foe they can fight and defeat. Autocrats do not try as hard in war and so make attractive targets for democracies. In contrast, democracies are unlikely to be willing to fight each other. Since both try hard, each minimizes, to the extent possible given resource endowments, the chance that the other will win. Since democrats, as we will show, need to be overwhelmingly confident of victory, it is difficult to satisfy the conditions necessary for democracies to fight each other. The reason is directly tied to coalition size and not to other characteristics of democracy.

Autocrats, being at the helm of small coalition governments, do not depend upon military victory to keep their jobs. Of course, they prefer winning to losing, but their political (and personal) survival is primarily a function of satisfying their small band of supporters with private goods rather than providing their citizens with successful policies. They are more willing to gamble on war than their democratic counterparts. So, the required chance of success in war under which an autocrat will take the risk is considerably lower than it is for a democrat. The

latter's political survival is on the line; the former's is not. Thus, it is straightforward to see that democracies and autocracies can fight wars against each other and that autocracies can afford to fight one another.

Above we characterized optimal effort decisions for A and B once war occurs. All else being equal, the larger W_i , the harder nation i tries. If A initiates conflict with B then A's payoff is its chance of winning multiplied by its utility for winning plus the chance it loses multiplied by its utility for losing, plus the value of the private goods retained after choosing a level of war effort. A only initiates conflict when the benefit of doing so exceeds what she expects from a negotiated settlement. The more likely A is to win, the more likely it is that this condition is met. Given their institutional arrangements, A and B exert effort levels g_A and g_B respectively. These effort levels influence the probability of A being victorious. In addition to structuring how hard A and B try, selection institutions also influence whether leaders want to initiate conflict, given knowledge of the effort levels that will follow in any subsequent war.

We present examples for both autocrats and democrats to illustrate how institutions structure the conditions under which leaders choose war rather than negotiations. These standard cases show how autocrats and democrats differ in their decisions to initiate conflict. Generally, an autocrat's survival depends upon her ability to distribute private goods. Providing she does not expend resources on the war effort, she typically survives whether she wins, loses or negotiates. Since, except in the extreme cases discussed earlier, her survival is not strongly influenced by the war outcome, an autocrat's initiation decision resembles a standard realist calculation of benefits and losses. For a democrat the situation is different. Given the large number of supporters she must appease, she cannot buy political loyalty with private goods alone, relying instead on public policy success. For her, military defeat equates with political defeat and so, where possible, she avoids fighting when defeat is a significant possibility.

Autocrats initiate conflict when the expected gains of conflict exceed what they expect to obtain through negotiations. The decision to fight is largely a secondary consideration that is not driven by an autocrat's primary objective – to stay in office. As such, conflict initiation depends upon an assessment of the expected value of war relative to negotiations. As we saw theoretically, autocrats find it easier to retain office than do their democratic counterparts. Autocrats have an advantage over challengers in their ability to provide private goods. Since private goods figure predominantly in the rewards given to supporters in autocratic systems, supporters risk much if they desert the incumbent. This incumbency advantage in the supply of private goods means that as long as autocratic leaders retain resources to provide private goods for their supporters, they survive. Hence, as shown above, providing she makes little additional effort, a leader in autocracy A survives in office.

Knowing that A makes no additional effort and typically survives whatever the outcome of conflict, A's expected value of fighting approximately reduces to $p_A - k + R_A/W_A + ?$ where $?$ is the leader's utility for remaining in office and p_A is A's probability of victory given no additional effort. Negotiated settlements leave A's resources untouched and available for distribution as private goods. Again, having the incumbency advantage of guaranteed private goods provision, the typical autocrat also retains office via negotiations. An autocrat's expected value for negotiations reduces to approximately $? + R_A/W_A + ?$. Therefore, an autocrat's decision resembles that of a standard unitary actor model. An autocratic leader typically initiates fighting when $p_A > ? + k$: the expected benefits of conflict outweigh the expected value of negotiations.

Unlike autocrats, leaders with large winning coalitions have only a small incumbency

advantage in the supply of private goods. As we have already shown, this makes their survival in office harder and more contingent upon their public policy performance. Knowing that the survival of democrats depends upon their public policy performance, we now construct a stereotypical example to demonstrate how institutions structure the conflict decision of leaders in large winning coalition systems. Having examined this archetypal case, we analyze the limiting mathematical case. Although we believe the stereotypical case is generally appropriate, there are plausible conditions under which the results we generate from this example break down. These conditions are important because they predict the domestic political circumstance when democrats become belligerent and when war between democracies is most likely. Rather than interrupt the flow of our general argument by continually referring to these exceptional circumstances, which resemble those of gambling for resurrection under the diversionary war hypothesis (Downs and Rocke 1993; Levy 1989; Smith 1996; Werner 1996; Goemans 1995; Richards et. al. 1993), we consider them separately.

As we have already demonstrated, leaders in systems with large winning coalitions have only a small incumbency advantage in the provision of private goods. Instead, leaders survive on the basis of their public goods performance. This led to the earlier result that large coalition (democratic) leaders retain few resources for private goods, and instead pump resources into the war effort to help ensure a successful resolution of the conflict. With their sensitivity to public policy provision in mind, we construct our stylized case by assuming that defeat means near certain removal and victory means near certain retention. Therefore, the expected payoff for a democratic leader from initiating conflict is approximately $p_A(1 - k + \theta) + (1-p_A)(-k) = -k + p_A(1+\theta)$, where p_A is the probability of victory for A given the effort each side makes. If instead of fighting A negotiates a settlement, then her expected payoff is approximately equal to $\theta + \theta + R_A/W_A$.¹⁴ We know that democratic leaders are sensitive to policy failure, and supporters' rewards from negotiations are generally closer to those of success than failure since conflict is inefficient. An additional, although small benefit from negotiation is that leaders can allocate private goods. So as an initial working supposition, we assume that negotiations also give leaders a significant probability of retaining office.

Democrats, naturally enough, initiate conflict when the expected utility from doing so exceeds the expected utility from negotiation; that is, $-k + p_A(1+\theta) > \theta + \theta + R_A/W_A$, which can be rewritten as $p_A > (\theta + \theta + k)/(1 + \theta) + R_A/(1 + \theta)W_A$. Given the large winning coalition size of a democracy, the latter term, $R_A/(1 + \theta)W_A$, is small. The magnitude of the former term, $(\theta + \theta + k)/(1 + \theta)$, depends upon the value of holding office. As **the value from holding office becomes substantial** (large θ), this term becomes close to one. This indicates that large-coalition, democratic leaders who value office holding need to be near certain of victory before risking war. They are highly selective about the wars they are prepared to fight, preferring negotiation if the odds of their victory are not overwhelming.

In constructing this stylized example we made suppositions about the probability of reselection associated with each outcome. Later we explore the robustness of our results in light of variation in these conditions. By looking at the limiting case of an extremely large winning coalition we see justification for this working assumption. As the winning coalition expands, each supporter's private goods allocation becomes vanishingly small. Under this contingency, private

¹⁴ We use the approximation here to keep the presentation unencumbered by lots of notation. Of course, the appendix contains the full, precise mathematical statement.

goods have no value to leaders either in terms of personal or reselection benefits. Hence leaders allocate all available resources to extra war effort. If, as we believe, the reselection motive is primary then given our technical assumptions of concavity and an exponential distribution of challenger types (see the appendix), this means that leaders in systems with large W must be more certain of winning before they would attack than is true for their autocratic counterparts.

As an aside it is interesting to note what the above theoretical result implies about the willingness of democratic leaders to use violence as the means to advance their objectives. Autocracies may engage in imperialist expansion, for instance, out of a quest for additional private goods. Democracies can also be expected to participate in imperialist expansion according to our model, provided that doing so enhances (or at least does not diminish) the survivability of incumbents. The targets during wars of colonial and imperial expansion typically are very weak states or peoples who can easily be defeated. While the norms-based argument that democracies use violence to protect their survival against nondemocratic foes who do not share the abhorrence of violence might account for some democratic-autocratic wars, it seems to be contradicted by wars of colonial or imperial expansion by democracies. Certainly the weak foes in such wars did not threaten the survival of the democratic belligerent. Yet, the dyadic selectorate model shows that such extremely weak opponents readily fulfil the requirements to be targets of democratic initiations of violence, even when the extremely weak target is democratic. Democracies, according to the selectorate model, only initiate fighting when **office holding is especially highly valued their leaders value holding office** and their prospects of victory are a near certainty. So, democracies, like autocracies, are not immune from the temptations of colonial and imperial expansion according to the model. Near certainty of victory, not normative commitment to peaceful resolution of disputes, describes when large coalition polities (democracies) go to war.

Later in this chapter, using data from the 19th and 20th century, we show democracies engage in colonial wars and imperial war against much weaker adversaries. This is not just a recent phenomenon. Throughout history democracies and other large coalition systems have shown a propensity to use violence against weaker states. For example, having repulsed the Persian's attack on Greece in 479 B.C., Athens took the lead in the Delian league, an alliance formed primarily of Eastern Greek city states, for the purpose of gaining compensation from Persia (Buckley 1996; Fine 1983¹⁵). By the symbolic act of dropping iron into the sea the allies signaled the permanence of their agreement. They set up a treasury, initially located on Delos, but subsequently moved to Athens in 454 B.C. Each ally was expected to contribute to the league either by providing ships or by paying phoros (essentially tribute) into the treasury. While initially many allies provided ships, gradually nearly all shifted to phoros contributions that were used to pay for Athenian ships.

The Greeks were militarily successful. As the Persian threat diminished many of the allies no longer saw the need for the alliance and became discontented, particularly with Athens' high handed approach. Even after peace was negotiated with Persia (c. 449), Athens maintained the league. Naxos was the first city to rebel, in 471. In response, the Athenians sieged the city, removed its autonomy and reduced it to a subject, tribute-paying ally. Athens continued this policy of crushing allies who revolted, using their superior military strength, which was in part paid for by the allies. Through this process the allies lost their autonomy and the Delian league became the Athenian empire. Like European democracies in the 19th and 20th centuries, Athens

¹⁵ Fine, John V. A. 1983. *The Ancient Greeks*. Cambridge MA: Harvard University Press.

used forced against inferior states. Indeed this case provides an even stronger rejection of normative arguments than European colonialism, which might be dismissed on racial grounds. The Athenians and many of the Ionian cities of the Delian league shared the same heritage. Democratic Athens showed itself willing to suppress its own kinsmen when its own security was not threatened.

The propensity of regimes with large coalitions, like democracies, to try hard makes it difficult for either side of a democratic dyad to overwhelm the other. Being unable to guarantee victory, both sides of a democratic dyad seek to avoid what is likely to be a long, bloody and protracted conflict. The exception to this claim arises when one party in the dyad is much weaker than the other. In that case, large democracies (because of coalition size) are not immune from attacking small democracies, but small democracies (again because of coalition size) are expected to sue for peace rather than fight back. This follows in the model because democracies, being large coalition systems, need a high probability of victory in order to fight. Therefore, large democracies are prepared to fight weak adversaries, including democracies, but the weak democrats, having a low probability of victory, are unwilling to fight back. They prefer to negotiate. This results in cases of low-level, one-sided attacks by big democracies against small ones (e.g., the United States attacked the Dominican Republic in 1965), a phenomenon widely observed in the historical record. This also accounts for the proclivity of democracies to have been imperialist powers.

While democrats generally need to be more certain of victory than do autocrats before they attack, this is not to say that democratic states are necessarily more dovish than autocratic states. Although democratic states must be confident of victory before initiating conflict, their increased effort means that they can often overwhelm other states. In the appendix we formally show that the size of a negotiated settlement sufficient to buy off A and prevent A from attacking is not a simple monotone in the size of the winning coalition. Simply because democrats are more selective in their conflicts does not always make them less aggressive. Rather, whether large or small winning coalition systems are more aggressive is a function of the specific conditions. Under some circumstances autocrats might be more dovish, under other conditions they might be more hawkish. Our institutional explanation has two components pulling in opposite directions. First, leaders with large winning coalitions typically try hard during conflict, dedicating additional resources to the war effort and allowing them to overwhelm other states. Second, leaders with large winning coalitions need to be more certain of victory than their small coalition, autocratic counterparts before initiating conflict. Given these two competing influences, we can not say whether in general democrats are more hawkish or dovish. However, the combination of these two effects leads to the implication that democratic nations generally do not fight each other. It also implies that when democrats initiate wars they are unusually likely to win. Reiter and Stam (1998a) report that 93 percent of wars initiated by democratic states are won by them. In contrast, only about 60 percent of wars initiated by non-democracies are won by the initiator.

The Selectorate Peace: Interaction of Polities

Thus far, we have shown that political-selection institutions help shape war-fighting incentives. We found that a large winning coalition has two effects: It makes states try harder if there is a war and it makes leaders more selective about the disputes they are prepared to escalate to warfare. We now explore how these effects shape the possibility of conflict between different combinations of polities.

Case (1): A is autocratic and so is B. In this case, neither tries hard if there is a war. A attacks if it believes that on average it can get more from conflict than negotiations. A may believe, for instance, that the expected settlement through negotiations underestimates A's relative war-fighting ability. B presumably does not share this belief. If the leader in B did, then the negotiated settlement proffered by B would reflect that fact. As the war's outcome is not critical to A's (or B's) political survival, the decision to fight is more easily influenced by secondary factors – such as uncertainty, rally-round-the-flag effects, etc. – not assessed in our model.

Case (2) A is autocratic, but B is democratic. Despite the fact that A's institutions place few constraints on the decision to fight, A is generally reluctant to attack a democracy if it anticipates that the democracy is prepared to reciprocate with force. Democracies try hard. Therefore, the leader in A knows that her state is likely to lose any such war. However, since B is reluctant to engage in a war unless nearly certain of victory, B is likely to offer concessions to achieve a peaceful resolution when its capabilities are insufficient to make it sufficiently confident of military victory even with its extra effort. Therefore, A is likely to make demands, precipitating disputes, when B is a democrat without sufficient expected certainty of victory. This means that there will be many disputes initiated by autocrats against democrats, but only a small proportion of such disputes will escalate to reciprocal violence. A larger proportion of disputes between two autocracies are expected to escalate to reciprocal violence than is true for disputes initiated by autocracies against democracies.

Case (3) A is democratic, but B is an autocrat. A's selection institutions make her reluctant to attack B unless military victory is highly likely. Yet, A is prepared to put more effort into the war (if there is one) than will the autocratic B, making A more likely to win the conflict than, for instance, the pre-war military balance alone suggests. Thus, democracies are willing to fight autocrats so long as the pre-war military balance plus the democracy's additional effort give A a substantial probability of victory. Autocrats, depending upon the risks to them from the war, are more willing to fight back under these conditions because victory is not essential for their political survival.

Case (4) A is democratic and so is B. A will attack B only if B is sufficiently weak so that B will prefer to negotiate rather than fight back, taking both the pre-war military balance and effort levels into account. Since B will also try hard if it chooses to fight back, A must either have a great pre-war military advantage or a great advantage in overall resource endowments that can be put to use in the war effort or A must be confident that B's resources are insufficient for B to believe it can have a near certainty of victory. Thus, A must be sure that B is *unsure* of victory; this is of paramount importance in a head-to-head military dispute between democracy A and another democracy. Besides such asymmetric conflicts as characterize imperialism and wars of colonial expansion, war – that is, reciprocal violence – between democracies is unlikely, though disputes are not.

At a superficial level, many autocracies, particularly military dictatorships, appear to have the upper hand over democracies in term of the military balance. On the whole, military states invest in their armed forces at a higher rate than democracies. Yet this belies the purpose of military spending. As demonstrated above, democratic leaders spend resources on effective public policy. In contrast, spending in autocracies is focused on the provision of private goods. Although military dictators might invest vast proportions of their resources into the military, this is often to reward their supporters rather than as a policy to provide effective defense of their society.

During the Falklands war between Argentina and Britain, for instance, the Argentine military Junta neither garrisoned the Falklands with their best troops nor put their fleet to sea. It was raw recruits, not seasoned soldiers, that faced the British forces. The Junta was dominated by army and navy officers. Recall also the use of raw recruits was also a problem for the Spartans at Leuctra.

It is worth emphasizing here a distinction made in chapter 1 when we introduced our use of public and private goods. National security policy, if oriented toward providing actual security for the residents in a state, is consumed as a public good, though its production is a private benefit to manufacturers, soldiers, etc. Weapons manufacturers benefit privately from the production of systems required to protect national security. So do generals. In all political systems, the production of military capabilities is private; in small coalition systems the private production or acquisition of military capabilities is also distorted so that the quality of these capabilities may be such that little by way of the public good of security consumption is achieved. This is a central problem in many autocracies.

We have now established theoretically that autocracies fight one another provided either one believes it has a consequential advantage; autocracies are more reluctant to initiate wars against democracies because of the difference in levels of effort, though they are not precluded from doing so when the conditions in the model are right; and democracies target autocratic states just under those circumstances when the democracy expects to win although this is more often than we might naively suppose because of the effort advantage induced by democratic institutions. The latter two results suggest an explanation for Benoit's (1996) finding that democracies are overall more pacific than other systems.

The institutional arrangements within democracies means that the survival of democratic leaders depends more upon policy success than upon the provision of private goods to supporters. Given this, once engaged in a war, democratic leaders typically make every effort to win. Should a war break out between two democracies, it is likely to be a bloody and hard fought affair, both sides utilizing every available resource. As we have already shown, democratic leaders, not wanting to risk their political tenure in office, are reluctant to engage in a war unless they are extremely confident of winning. As we saw above, democratic leaders can often almost assure themselves of victory against autocracies by their willingness to try hard. Yet, when matched against a democracy, democratic leaders find it harder to overwhelm their opponents, who, given the institutional arrangements they face, are also prepared to go the extra mile for policy success. Since victory has to be a near certainty in order for a large-coalition democracy to fight rather than negotiate, it is extremely difficult for either democracy to have a sufficiently large advantage so that it prefers fighting to negotiation. Consequently, democracies are highly likely to negotiate a resolution of their mutual disputes rather than fight. Only democratic leaders who do not value highly holding on to office are willing to fight when the perceived odds of victory are not extremely high.¹⁶

The dyadic selectorate model supports the claims that democracies tend not to fight one another, but do tend to fight wars against autocracies provided the democratic state has a

¹⁶ Term limits in democratic systems presumably reduce a leader's value for office, at least in the final stages of the incumbent's last term. In chapter 6 we discuss term limits, exploring the subtle and perhaps surprising implications that term limits have for a host of policy areas, including issues related to the democratic or selectorate peace.

substantial probability of victory. We also saw that our logic indicates that autocracies can readily fight one another and that autocrats are less inclined to negotiate than are democrats. So, while we began with seven observed empirical regularities of interest, we have shown how institutional arrangements explain four empirical patterns. While the remaining three regularities have not been explicitly discussed thus far, the model can readily be directed to address these questions too.

It is commonly assumed and has been demonstrated empirically that the costs a nation endures in war and the length of time it takes a nation to win are inversely related to its military dominance (Bennett and Stam, 1996; Bueno de Mesquita, 1983; Siverson 1995). If this is so, then nations that overwhelm their opponents are likely to win quickly and suffer fewer casualties in the process. As we have shown theoretically, democracies tend to make greater effort. Therefore, on average we should expect them to win quickly and to have lower casualties, as has been observed. Although the relationship between costs and relative military dominance is outside the formal framework of our model, it further reinforces our findings. Democracies find it hard to overwhelm other democracies because both sides are prepared to make an all out effort during the war. Hence, a war between democracies is likely to be a long and costly struggle. Since the survival of democratic leaders depends upon public policy success, they typically want to avoid long and costly wars.

Edward Mansfield and Jack Snyder (1995) suggest that transitional democracies are not bound by the democratic peace. Rather, unstable, transitional democracies are more war prone than are either democracies or autocracies according to them. Our model may shed some light on the regularity they have advanced. Later we report on preferences over the selection of institutions. We find a larger set of theoretical conditions under which there are incentives to expand the size of the selectorate than there are to expand the size of the winning coalition.

If states in transition from autocracy to democracy expand their selectorate faster than they expand their winning coalition, reducing W/S , then the willingness to risk war increases. By expanding the selectorate first or faster than the winning coalition, the transitional regime temporarily mimics the structure of a more autocratic system (W is getting smaller relative to S). In that case, the model suggests that the government is more willing to risk war than it will be when W expands enough to increase the ratio of W/S . These suggestive implications seem compatible with the regularity advanced by Mansfield and Snyder (1995). This explanation is reinforced by Michael D. Ward and Kristian S. Gleditsch's (1998) result that show that rather than all transitional democracies being war prone it is those undergoing reversal in the democratization process that are most apt to fight.

We now turn to the empirical regularity uncovered by Morgan and Campbell (1991), namely that large democracies appear particularly constrained to avoid war. To do so, we return to the debate between Madison and Montesquieu regarding the relative advantages of large republics and small republics. Major power democracies typically have a significant advantage over their opponents in terms of the military balance. This enhances their bargaining position relative to smaller, less powerful democracies. Powerful democracies can use their advantageous bargaining position to obtain nearly everything they want anyway through negotiations. Even if certain of victory, the small additional gains made through military victory are likely to be off-set by the costs of fighting. Therefore, powerful democracies should strongly manifest the expected behavior of democracies in a manner consistent with the Morgan and Campbell results.

Diversionsary War and Compromise Agreements

Although we present a general model of war, for clarity of exposition, we focused on particular cases. These stylized cases suggest that democracies are only aggressive if they are nearly certain of victory. When the outcome of the war is less certain, democracies prefer negotiated settlements. Since this conclusion drives the democratic peace predictions, it is worthwhile exploring its robustness especially since there are legitimate, identifiable conditions under which it breaks down.

For mathematical convenience we assumed the distribution of challenger types was exponential. Our arguments about effort levels are grounded upon how institutions shape the rewards supporters receive and not specifically on the marginal impact of these benefits. So, with respect to effort level, our assumption that challenger types are distributed exponentially is benign. However, with respect to the decision to fight, our assumption is less benign. For example, in examining the limiting case ($W \rightarrow \infty$), we utilized the concavity of the exponential distribution. While it certainly seems reasonable to assume there are diminishing marginal returns from additional rewards for supporters when a leader is already likely to remain in office, such an assumption is less tenable when a leader's initial prospects of survival are low. We might, for example, prefer to assume challengers are distributed normally, making the reselection decision appear as a probit model. Of course, providing a leader had reasonable prospects of survival, the logic behind our stylized case holds. Unfortunately, for leaders who, *ex ante*, have little hope of remaining in office, the rationale for our stylized case diminishes and may even be reversed. Democratic leaders with failed domestic policies may be extremely belligerent.

Given her institutional incentives, a democratic leader with failed public policies is unlikely to retain office unless she has an astonishing change in performance. If we think of reselection as modeled in a probit setting, then this is to say the leader starts deep in the left hand tail. Given the increasing marginal returns on additional rewards when starting from such a low base, a leader with failed policies has an incentive to gamble everything on the outcome of conflict. It is perhaps only through a successful war that she has any significant chance of remaining in office. If a leader is in a position where accepting the negotiated settlement leaves her with little chance of domestic survival, then, counter to our earlier argument, she faces no downside from fighting. If she loses, she will be deposed, but she would have been removed anyway. Yet, victory holds the prospects (although not necessarily high, significantly greater than with negotiations) of remaining in office. Hence, a democratic leader with failed policies is potentially bellicose. This, of course, is the gambling for resurrection idea inherent in the diversionary war theory literature (Downs and Rocke 1993; Levy 1989; Smith 1996; Werner 1996; Goemans 1995; Richards et. al. 1993).

At first the presence of these diversionary hypotheses might appear to undermine our earlier conclusions, but this is not so. Indeed quite to the contrary, these diversionary results are satisfying on several dimensions. The selectorate theory does not simply state that democracies are either more cautious or more bellicose. It states the conditions under which each of these eventualities occurs. This distinction is important. Our theory does not state that a war between democracies is impossible. Rather we show that the conditions under which a democrat would attack another democrat are more restrictive than the conditions under which a democrat would attack an autocrat. This constraint, which occurs because democrats are less attractive targets due to their high war effort, holds even in diversionary circumstances. While autocrats always remain the more attractive targets, it is when both democratic leaders have failed domestic policies, as we elaborate below, that war between democracies is most likely.

In terms of theory building, the diversionary hypotheses are pleasing. A new theoretical model is convincing when it accounts for the predictions of extant models. The fact that our model simultaneously accounts for findings in both the diversionary war and democratic peace literature strengthens our arguments.

Negotiations are complex and for convenience we have not modeled their details. However, the objectives of leaders during negotiations differ depending on their institutional arrangements. Since autocratic leaders survive whatever the policy outcome, providing they do not squander their resources, they simply seek to maximize their gains from the process. Democratic leaders face different pressures. It is harder for them to keep their jobs if they perform poorly on policy. They would like to get a good deal for their nation through negotiations, but they only need a deal good enough for them to be reselected. If the negotiations break down then the democrat must be militarily successful to satisfy domestic policy wants and to survive politically. Hence, a democratic leader might be prepared to accept a modest negotiated settlement rather than allowing the negotiations to break down and risk being removed by failure during war. This is particularly true if the democrat is faced with a democratic rival, because the rival will try hard in any war. Again, then, we see that democrats are unlikely to fight one another; they are likely to look for ways to succeed through negotiations even if it means that one makes additional concessions to avoid a breakdown.

For autocrats the story is different. Autocrats survive domestically by providing private goods. Unless the international outcome is really horrendous, it is unlikely to influence their reselection prospects. So they do not have a great incentive to avoid the breakdown of negotiations. They have a smaller incentive than democrats to make additional concessions in negotiations to avoid a war against a belligerent foe. While domestic policy failures make domestic leaders belligerent, autocrats find it less important to keep negotiating than do democrats. Democratic leaders are destined to fight each other only when neither is able to make additional concessions. This circumstance arises only when both have domestically failed policies. The same motivations exist for autocrats, but these incentives are not as strong since autocrats are surer of reselection whatever the international outcome.¹⁷

Empirical Assessments

The selectorate model explains the known regularities of the so-called democratic peace. The explanation also includes novel hypotheses that indicate, for instance, that (1) because of their selection criteria for fighting, leaders of large coalition systems show no reluctance to engage in wars of colonial or imperial expansion, contrary to normative accounts of the democratic peace; (2) democrats are willing to make larger concessions in negotiations than are autocrats; (3) leaders who rely on a large coalition try harder in interstate wars than leaders who rely on a small coalition; (4) but leaders who rely on a large coalition do not try harder in wars with near certainty of victory (i.e., colonial or imperial wars) than leaders who rely on small coalitions. We test the first, third and fourth hypotheses now. We lack the information necessary to test the

¹⁷ Chapter xxx presents a model that ties war aims to the size of the selectorate and the winning coalition. There we show how the extraction of resources from defeated foes; the deposition of vanquished leaders by the victors; and the imposition of policy changes on defeated adversaries relates to selection institutions in the victorious state and in the vanquished state.

second. The third and fourth are most important as they speak directly to a heretofore unexamined and undetected aspect of behavior during military disputes.

The selectorate model indicates that large coalition systems are prepared to fight wars against especially weak adversaries, like prospective colonies, all else being equal. The theory does not suggest any reluctance by small coalition systems to engage in similar wars, as well as wars with poorer odds. Normative accounts of the democratic peace argue that democracies favor compromise and avoid violence, using it only defensively when confronting non-democratic regimes in disputes. Consequently, the normative account of the democratic peace appears to suggest that democracies should be disproportionately unlikely to engage in wars of colonial and imperial expansion because the adversaries are especially unlikely to represent threats to the security of the stronger democratic state. The selectorate model parts from such normative accounts in suggesting no hesitation by large coalition systems, including democracies, to engage in such wars. Large coalition systems, according to the selectorate theory, have no basis to behave differently from their small coalition counterparts as aggressors in imperialist or colonial wars. To test the competing claims we construct a dummy variable called Colonial/Imperial War. We code this variable as 1.0 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.

Normative vs Selectorate Account

The test of the normative democratic peace account and the selectorate account is straightforward. We examine two logit analyses. The first is between Colonial/Imperial War, the standard region and year fixed effects we have used throughout, and, Democracy. The second also includes the regional/year fixed effects and substitutes W for Democracy. If the normative account is correct, when Democracy scores 1.0 Colonial/Imperial War will be significantly less likely than when Democracy is zero. If the selectorate account is supported, then whether W is 1.0 or zero, there is no significant change in the likelihood of Colonial/Imperial War. The two logit analyses, reported in Table 5.1 (and available for replication through our Web site along with all other statistical results) 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 coalition size indicates, 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 selectorate and democracy findings persist if we examine the simultaneous effects of W and the residual of Democracy after removing the effects of W and S. This result, available through our Web site, shows that the residual of democracy is significantly tied to an increase in colonial and imperial wars while W remains statistically insignificant, as expected.

Table 5.1 About Here

Table 5.1: Colonial/Imperial War, Democracy and Coalition Size

| | Coefficient (Standard Error) | Probability | Coefficient (Standard Error) | Probability |
|--|---------------------------------|-------------|---------------------------------|-------------|
|--|---------------------------------|-------------|---------------------------------|-------------|

| | | | | |
|-----------|-------------------------|------------------|-------------------------|------------------|
| W | -0.062 (0.570) | 0.913 | | |
| Democracy | | | 1.29 (0.602) | 0.032 |
| Summary | N = 811 $\eta^2 = 0.01$ | 43 Fixed Effects | N = 582 $\eta^2 = 4.66$ | 39 Fixed Effects |

Who Tries Harder in War?

Perhaps the most important and surprising deduction regarding the “Selectorate Peace” is that leaders of nations whose governance depends on large coalitions try harder in war, committing more resources to their war efforts than do leaders who depend on small coalitions. We offer a variety of tests of this deduction. The analysis of this question uses two dependent variables. The first is the logarithm of national military expenditures on a year by year basis, with those expenditures drawn from the Correlates of War data. The second is the percentage change in the state’s military expenditures compared to the previous year.

We conduct eight tests. Each one controls for the logarithm of the size of the nation’s population as this clearly influences the magnitude of military spending. Each test also includes fixed effects for the region and year. The dependent variable is the current year’s logarithm of military expenditures (Log(Milex)). We test both controlling for the previous year’s logarithm of military expenditures and not. When we control for lagged military expenditures the test essentially evaluates growth in military spending as the difference between the lagged log of military spending and the log of military spending assesses the proportional change in such expenditures. This analysis 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.

In chapter 4 we established that government expenditures increase with the size of the coalition. As this is expected also to be true of military expenditures, every test controls for the size of the coalition (or, in alternative tests, the degree of Democracy) lagged by one year. The lagged institutional size (Lagged W or lagged Democracy) is used to avoid the risk that a country’s form of government changed as a consequence of its dispute experience, a possibility we examine in a later chapter.

We construct a variable called COWWar that is coded as 1 every year that a leader’s country becomes newly embroiled in an interstate war (as defined by the Correlates of War). The variable is coded as zero 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 the latter case, we presume that the larger coalition society already began trying harder earlier, when the war began. We also construct interaction terms (COWWar*Lagged W and COWWar*Lagged Democracy) to evaluate whether large coalition systems (or democracies) try harder. Similarly, we also use the variable Imperial/Colonial War and its interaction with the lagged institutional variables for tests on wars in which the expectation of victory was so high that the selectorate theory does not predict greater effort by leaders who depend on a large coalition. The eight tests reflect the following models:

War Model 1: $\text{Log(Milex)} = f(\text{Lagged W, COWWar, COWWar*Lagged W, Log(Population), Fixed Effects});$

War Model 2: $\text{Log}(\text{Milex}) = f(\text{Lagged Log}(\text{Milex}), \text{Lagged } W, \text{COWWar}, \text{COWWar} * \text{Lagged } W, \text{Log}(\text{Population}), \text{Fixed Effects});$

War Model 3: $\text{Log}(\text{Milex}) = f(\text{Lagged Democracy}, \text{COWWar}, \text{COWWar} * \text{Lagged Democracy}, \text{Log}(\text{Population}), \text{Fixed Effects});$

War Model 4: $\text{Log}(\text{Milex}) = f(\text{Lagged Log}(\text{Milex}), \text{Lagged Democracy}, \text{COWWar}, \text{COWWar} * \text{Lagged Democracy}, \text{Log}(\text{Population}), \text{Fixed Effects});$

War Model 5: $\text{Log}(\text{Milex}) = f(\text{Lagged } W, \text{Colonial/Imperial War}, \text{Colonial/Imperial War} * \text{Lagged } W, \text{Log}(\text{Population}), \text{Fixed Effects});$

War Model 6: $\text{Log}(\text{Milex}) = f(\text{Lagged Log}(\text{Milex}), \text{Lagged } W, \text{Colonial/Imperial War}, \text{Colonial/Imperial War} * \text{Lagged } W, \text{Log}(\text{Population}), \text{Fixed Effects});$

War Model 7: $\text{Log}(\text{Milex}) = f(\text{Lagged Democracy}, \text{Colonial/Imperial War}, \text{Colonial/Imperial War} * \text{Lagged Democracy}, \text{Log}(\text{Population}), \text{Fixed Effects});$

War Model 8: $\text{Log}(\text{Milex}) = f(\text{Lagged Log}(\text{Milex}), \text{Lagged Democracy}, \text{Colonial/Imperial War}, \text{Colonial/Imperial War} * \text{Lagged Democracy}, \text{Log}(\text{Population}), \text{Fixed Effects});$

The selectorate theory specifically predicts that each test involving COWWar will show a significant positive coefficient associated with COWWar*Lagged W and that the coefficient will be so large that the sum of the coefficients associated with COWWar and COWWar*Lagged W will also be significant and positive. Although we expect a similar pattern when Democracy is substituted for W, the selectorate theory does not specifically predict this. Rather, the expectation arises only because democracies tend to be large coalition systems. When Colonial/Imperial War is substituted for COWWar then the selectorate theory does not expect significant coefficients associated with Colonial/Imperial War*Lagged W. Leaders generally do not need to try harder when fighting such wars because these wars involve a near certainty of victory from the start.

Table 5.2 presents the results for the first two models that assess the relationship between COWWar, coalition size (W) and military effort. The findings are consistent with the prediction derived from the dyadic selectorate model. In fact, Table 5.2 offers a perhaps surprising, interesting perspective on warfare. The fact that a country finds itself newly enmeshed in a war (measured by the variable COWWar) does not imply that it increases its military spending.

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 dyadic selectorate model makes the novel predictions that COWWar*Lagged W will be positive and significant and that COWWar + COWWar*Lagged W will also be significant and positive. Both of these claims are reinforced by the evidence. However, the selectorate model neither rules out nor rules in the expectation that COWWar 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.

The results that substitute Lagged Democracy for Lagged W also show that democracies try harder as can be seen by examining the statistical details for models 3-4 on our Web site. In model 3, the effect of COWWar*Lagged Democracy fails to achieve two-tailed significance at the 0.05 level, though it does reach this threshold for a one-tailed test (two-tailed $p=0.081$). This reinforces the belief that it is coalition size and not other aspects of democracy that lead such polities to make the predicted extra effort in wartime.

Table 5.2 About Here

Table 5.2: Do Large Coalition Leaders Try Harder in Wartime?

| | War Model 1 Log(Milex) | War Model 2 Log(Milex) |
|-------------------|---|---|
| | Coefficient (Std. Error) Probability | Coefficient (Std. Error) Probability |
| Lagged Log(Milex) | | 0.935 (0.004) 0.000 |
| Lag W | 0.736 (0.045) 0.000 | 0.062 (0.015) 0.000 |
| COWWar | 0.052 (0.195) 0.789 | 0.026 (0.065) 0.688 |
| COWWar*Lagged W | 0.762 (0.312) 0.015 | 0.416 (0.104) 0.000 |
| Log(Pop) | 1.151 (0.008) 0.000 | 0.069 (0.005) 0.000 |
| Constant | -0.470 (0.082) 0.000 | 0.088 (0.028) 0.002 |
| | $p(\text{COWWar}+\text{COWWar}*\text{Lagged W})>0 = 0.0000$ | $p(\text{COWWar}+\text{COWWar}*\text{Lagged W})>0 = 0.0000$ |
| | $R^2 = 0.44$ N = 7,864 | $R^2 = 0.98$ N = 7,525 |

Rome in the Punic Wars: An Illustration of Extra Effort

Before turning our attention to the special case in which large coalition systems are predicted to try no harder than their small coalition counterparts, we pause to consider an illustrative example of the extra effort in war that arises as W gets bigger. We consider the case of Rome, and particularly compare Rome and Carthage in the Second Punic War. We set the stage by reflecting on the gradual expansion in Rome's winning coalition requirements during the period of the Republic.

Rome's political institutions underwent significant changes during the period of the Republic, changes that necessitated dependence on an enlarged winning coalition at the time of the Punic Wars. The early political history of the Republic is replete with competition between the wealthy patrician families who achieved domination through the *Comitia Centuriata* and the Senate, and the ordinary citizens, the plebs. The plebs extracted substantial concessions, including the formation of their own assembly, the *Concilium Plebis* and an increase in the power of the Tribunes. Initially, the *Concilium Plebis* was nothing more than an opportunity for the

people of Rome to express an opinion; however, over time its legal authority grew, climaxing in the *Lex Hortensia* of 271 B.C. These laws are often seen as the high point of democracy in Rome, with the importance of the *Concilium Plebis* subsequently declining as the tribunes were co-opted.

The plebs gained political concessions through their use of protests, riots and their threat to withdraw from the polity at a time when a Greek confederation was challenging Rome from Southern Italy. As we explain in chapter xxx, such actions are carried out for the purpose of expanding public goods provision by increasing the size required for a winning coalition. The concessions granted to the plebs resulted in a shift of votes away from the class-dominated *Comitia Centuriata* to the tribal-based *Comitia Tributa*. Such reforms meant that a winning coalition could no longer be created from only the wealthiest classes. As the selectorate theory suggests, these reforms heralded Rome's economic development and its supremacy in Italy. The ascendance of the tribunes and the shift to voting by tribes effectively increased winning coalition size. This in turn forced leaders to shift their policies away from favoring the patrician class and towards the general interests of the public as a whole. These shifts improved the prospects of foreign policy success in the manner described by the dyadic selectorate model.

By around 270 B.C., with the subjugation of Bruttium and Calabria, Rome dominated the whole of Italy south of the Po, with yet greater military achievements made in the first Punic War, 261-241 B.C.. In this conflict against the Carthaginians, despite numerous catastrophes and no history of seamanship, the Romans won largely through naval conquest. Rome's spoils included Sicily and subsequently Sardinia, which provided enormous impetus to Roman trade (Caven 1992; Lazenby 1996 ; Livy).

No better example of the difference between how large and small W systems fight wars can be found than in the second Punic War which started in 219 when Hannibal marched an army out of Spain and crossed the Alps into Italy. Before his eventual defeat at the hands of Scipio at the battle of Zama in 202 B.C. Hannibal crushed numerous Roman armies and terrorized the Italian peninsula. Yet despite winning practically every battle for five years, he never defeated the Romans. They simply tried harder than the Carthaginians.

Carthage was an oligarchy of wealthy traders. As the dyadic selectorate model suggests, Carthage, being a small W system, pursued policies aimed at helping the few rather than the many. Despite repeated calls by Hannibal for men and materials – in particular for siege equipment without which he was almost powerless to take the major Roman strongholds – the leadership in Carthage never diverted resources away from promoting the trading interests of the winning coalition and toward fighting the war. After years of conflict, Hannibal's resources, men and allies whittled away. He had continually defeated Rome militarily, but Carthage never gave him the tools he needed to finish her off. Indeed the fact that he thrived so long in Italy is a testimony to his genius and brutality.

In contrast to Carthage's miserable effort, Rome's effort was enormous. Despite losing nearly entire armies at the battles of Trebia (218), Lake Trasimene (217) and Cannae (216), Rome continued to raise, equip and train large armies.¹⁸ Following its defeat of Carthage, Roman

¹⁸ As Livy points out, two aspects of Roman institutions hurt the Roman effort. First, the presence of two Consuls, often leading the army on alternate days, led to a lack of coherence. Second, as the end of the consular year approached Consuls gave battle when prudence would have been a better course of action. This was particularly the case for those who had achieved

success continued with the defeat of the Gauls in 200 B.C. and the conquest of much of Greece by 168 B.C.

Unfortunately, Rome's successes combined with the dislocations of the Punic Wars and changed economic circumstances undermined the size of Rome's W which eventually led to the collapse of the Republic and the succession of Empire, a small W , large S system.

Colonial Wars: An Exception to Trying Harder

Models 5-6 investigate a subtlety of the dyadic selectorate model's prediction that leaders who rely on a large coalition try harder in wartime, while models 7-8 parallel the investigation, substituting Democracy for coalition size. The dyadic selectorate model identifies two circumstances when large coalition size does not imply greater effort than small coalition size during foreign conflict. These arise when the leader's survival is at risk (as eventually became clear during the world wars) regardless of regime type, or when the leader's survival is not at risk regardless of regime type. Fortunately for history there are too few instances of cases of world war-level risks that were recognized at a war's actual inception to provide an adequate sample for statistical testing under this circumstance. However, unfortunately for history, there are ample opportunities to test the second exception to the try-harder prediction.

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 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 Table 5.3, 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 (or for democracies). 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 the survival dice are rolled, 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 5.3 About Here

Table 5.3: Do Large Coalition Leaders Try Harder in Colonial or Imperial Wars?

| | War Model 5 Log(Milex) | War Model 6 Log(Milex) |
|--|---------------------------|---------------------------|
| | | |

some level of numerical superiority or tactical advantage and feared having the honors of defeating Hannibal grabbed by their successor.

| | 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 /90.009) 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 | R ² = 0.98 N = 6,314 |

Conclusions

We have posed a dyadic extension of the selectorate model. In it, leaders must decide how much effort to put into winning a war versus reserving resources to be spent as private benefits for their key backers. They also have the option of seeking a negotiated resolution of international disputes. We demonstrated that large-coalition leaders, when faced with a war, are more inclined to shift extra resources into the war effort than are small coalition leaders. This was shown to follow because as the winning coalition gets larger, the prospects of political survival increasingly hinge on successful policy performance. The extra effort made by large W leaders gives them a military advantage over small coalition rivals in war. Additionally, we have shown that large coalition leaders are prone to fight when they are very confident of military victory, a restriction not observed by small coalition leaders. Otherwise, those who head a large coalition prefer to negotiate.

We have shown that democrats, because of their large coalitions, make relatively unattractive targets. Domestic reselection pressures cause leaders to mobilize resources towards the war effort. This makes it harder for other states to target them for aggression. In addition to trying harder, democrats are also more selective in their choice of targets. Since defeat typically leads to domestic replacement for those who rely on a large coalition, these leaders only initiate wars when they expect to win. These two factors lead to the interactions between polities that is often referred to as the democratic peace, a set of interactions that might better be called the “selectorate peace”. Small coalition leaders (like many autocrats) while needing a slight expected advantage over other small coalition adversaries to initiate conflict, need more overwhelming odds against large coalition (usually democratic) foes. This is true because those who depend on a large coalition compensate for any initial military disadvantage by devoting additional resources to the war effort. In order to initiate war, democrats generally need overwhelming odds of victory. However, this does not mean that they are passive. Because democrats utilize their

resources for the war effort rather than reserving them to reward their backers, they are generally able, given their war fighting selection criteria, to overwhelm small-coalition autocracies, resulting in short and relatively low cost wars. Yet, democracies find it hard to overwhelm other democracies because they also try hard due to their large coalitions. In general, democracies make unattractive targets. They are particularly unattractive to other democracies. Hence, democratic states rarely attack other democratic states.

One concern about what is termed the democratic peace is that it has lacked a comprehensive explanation. Explanations based on norms or on constraints account for some of the democratic peace regularities, but they do not explain all. The model here appears to offer a more comprehensive account. Several novel hypotheses follow: large coalition systems (democracies) try harder; political incentives in systems with a large W (democracies) do not make them immune from wars of imperial expansion; they do not try harder during such wars; and they offer more concessions in negotiations than do autocracies. We provided evidence for all but the last (for which we lack appropriate data). The hypothesis about willingness to fight colonial or imperial wars seem to contradict the core of the norm-based explanations of the democratic peace. The model we propose offers an explanation for these diverse phenomena without attributing better motives or greater civic mindedness to one kind of leader over another. The explanation is driven purely by self-interested leaders seeking to hold office and facing alternative institutional arrangements.

Appendix