WAR AND THE SURVIVAL OF POLITICAL LEADERS: A COMPARATIVE STUDY OF REGIME TYPES AND POLITICAL ACCOUNTABILITY

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We seek to answer the question, What effect does international war participation have on the ability of political leaders to survive in office? We develop a model of political reliability and derive seven related hypotheses from it that anticipate variation in the time a national political leader will survive in office after the onset of a war. Drawing upon a broadly based data set on state involvement in international war between 1816 and 1975, our expectations are tested through censored Weibull regression. Four of the hypotheses are tested, and all are supported by the analysis. We find that those leaders who engage their nation in war subject themselves to a domestic political hazard that threatens the very essence of the office-holding homo politicus, *the retention of political power. The hazard is mitigated by longstanding experience for authoritarian elites, an effect that is muted for democratic leaders, while the hazard is militated by defeat and high costs from war for all types of leaders. Additionally, we find that authoritarian leaders are inclined to war longer after they come to power than democratic leaders. Further, democratic leaders select wars with a lower risk of defeat than do their authoritarian counterparts.*

On 6 April 1982, six days after the Argentine invasion of the Falkland Islands, the *New York Times* correspondent in Buenos Aires gave this evaluation of the position of Argentine president Leopoldo Galtieri: "Political leaders here . . . agree he has greatly enhanced his political power and stature" by invading the Falkland Islands. At the same time Galtieri's political fortunes were in ascent, British prime minister Margaret Thatcher was being attacked by the British press for what was perceived as tardy reaction to the situation. In those few days, her political fortunes fell almost as much as those of Galtieri had risen. However, less than four months after Galtieri's stature had been ascendent he was out of office, while slightly more than a year after successfully repelling the Argentine forces, Thatcher and her party were returned to parliamentary power by a large majority.[1]

Of course, the Falkland's War was not a major conflict on the scale of, say, World War II or the Crimean War, and its value as a case from which we may generalize about the effects of war is limited. Nonetheless, it does serve as a striking example of the relationship investigated here—the effects of war on the tenure of political leaders and on their regimes among nations involved in war.

We first discuss the relationship between war performance and the subsequent fate of national political leaders. We then offer a model and seven related hypotheses accounting for what happens to leaders because of their war policies and describe our data and research design before reporting the results of our tests of four of the hypotheses. Because of presently existing data limitations, tests of three of the hypotheses must be postponed.

The research presented here represents an extension of our previous work on the political consequences of war in which we examined the effects of a state's initial position in a war (i.e., initiator or target), its outcome, and the costs of the war on the probability of the nonconstitutional overthrow of the state's political regime (Bueno de Mesquita, Siverson, and Woller 1992). Although the research reported here shares a broad set of interests in linkage politics with the earlier work (Rosenau 1969), it differs significantly in that the model used here is both more rigorous and more extensively specified than that used in the previous work. Moreover, because our present focus is on the survival *time* of the individual political leaders who were responsible for government policy at the point the state entered the war, our empirical tests are both more sensitive than those in the previous paper and speak more clearly to neorealist explanations of international politics and war. As we shall show, our results obtain even when we control for the dependent variable in the previous study, nonconstitutional regime overthrow. Consequently, the results here capture the strong additional effects on leadership survival that follow from our model, above and beyond the effects shown in our earlier analysis.[2]

WAR PERFORMANCE AND THE FATE OF LEADERS

Norpoth has observed that "war and economics have few rivals when it comes to making or breaking governments" (1987, 949). Our attention is directed at the "war" part of this assertion. Although many probably agree with the idea, the evidentiary base on which this assertion rests is both fairly narrow in terms of the range of time periods and governmental

types studied and also, in some respects, ambiguous.[3] Data for the United States and the United Kingdom indicate that international crises and war can have an effect on the public's evaluation of political leaders. In the context of the United States, various studies (but most notably Brody 1992; Brody and Page 1975; Kernell 1978; Mueller 1973) have attempted to connect variations in presidential popularity to foreign policy events and participation in international crises. Although Mueller and Kernell portray presidents as generally benefiting from the short-run "rally" effects of foreign policy events, Brody's analysis draws out a more complex process in which a president may or may not enjoy a gain in popularity, depending upon a variety of factors, the most notable being the articulation of criticism by opinion leaders from either the media or the political opposition. However, there is little direct evidence bearing on the effect of war itself, although it is obviously worth pointing out that neither Truman nor Johnson was willing to hazard a try at reelection while engaged in wars that had divided the American public.

More broadly, with respect to the United Kingdom, Norpoth, using time-series methods, examined the impact of economic performance and the course of the Falkland's War on citizen ratings of Thatcher and the Conservative party between June 1979 and July 1985. He concluded that the independent effect of the Falkland's victory was worth between five and six additional percentage points to the vote for the Conservatives in the 1983 general election victory.[4]

All of these results are intriguing, but their domain is limited to the United States and Great Britain in the second half of the twentieth century. Absent is any broadly based theory or research on the general question of the effects of war involvement and war outcome on the political fortunes of the leaders who were responsible for them, even when those leaders presided over nondemocratic governments. This lacuna represents a major gap in our understanding of political accountability and the implications of such accountability for the selection of foreign policies.

Are political leaders and their regimes at greater hazard if they involve their nation in a war than if they do not? Is their political fortune affected by the outcome of the war? Does the effect, if any, fall equally across different types of political systems? Is the anticipation of domestic political punishment for failed policies an important element in shaping how nations relate to each other or, as suggested by neorealists, are these domestic factors minor features in the arena of international politics?

We contend that there are strong reasons to believe that a close connection exists between war and the domestic fate of governments and that the consequences of that connection can be and are anticipated by political leaders. Defeat in war almost always alters the loser's freedom of action by some measure, reducing the nation's autonomy over its own foreign policy or depriving the vanquished state of sovereignty over some portion of its citizens, territory, or national product (Morrow 1987). Compared to the often ambiguous outcomes of international conflicts and crises (see, e.g., Kernell 1978; Mueller 1973; Brody 1992) or even economic policy, evidence of loss from a war is much clearer to populations. Moreover, in nations without functional electoral systems, such evidence is far clearer to members of the elite, who themselves may have both the opportunity and motive for replacing leaders.

How can we assess the effects of war involvement and outcome on political leaders? One straightforward factor that would seem to be intimately tied to the welfare of any national leader is whether, given war participation, that leader's tenure in office is shortened or lengthened as a consequence of the state's performance in the war. Continuation in office may reasonably be seen as a reward, while removal from office (as opposed to natural death) in one way or another may be seen as punishment. We propose that leaders care about maintaining themselves in power—that they seek to maximize their reselection and, through the opportunities offered by continuing in power, to promote their own policy objectives. To achieve their objectives they must anticipate the effects their policies will have on the politically relevant domestic audience (Fearon 1994). Consequently, we expect that they will ex ante try to avoid policies that they believe will ex post foreshorten their hold over the perquisites of political leadership.

THE PROBLEM OF POLITICAL SURVIVAL

We begin with several assumptions. First, all politics is competitive. The issues over which—like the rules in which—the competition takes place differ across political units, and both the issues and the rules are subject to change. This portrait of politics is, of course, not remarkable.

Second, we assume that political leaders are intent on maintaining themselves in power and use the available tools of power and rules to accomplish this end. In like manner, we assume that all political leaders have opponents, most of whom are members of the leader's own political system, with their own ambitions for office. At the same time, leaders will often pursue policies that place them in opposition to those outside their own political system. Broadly speaking (and leaving natural causes aside), leaders then are subject to removal by their internal and external opposition or, quite possibly, some combination of the two. To be sure, we cannot dismiss instances in which a leader is removed by his or her "friends," who fear the costs to themselves of the leader remaining in power, but in this case, the friends have become opponents. Finally, given the opportunity, each opponent will be willing to pay a certain price to remove a leader.

Leaders, of course, recognize the existence of opposition and the designs of others on the office they

hold. They consequently select policies to minimize the opportunities available to those seeking to remove them from power.

The ambition to remain in power, then, encourages political leaders to behave more responsibly than if they viewed the holding of office as a burden rather than as a prize (Bueno de Mesquita and Organski n.d.; Fearon 1994; Morgan and Bickers 1992). Enhancing the welfare of relevant constituents (to the extent that it is successful) removes from the opposition the most salient issues that can be used against a leader.

Several studies have tried to express a generic theory of the domestic politics relevant to foreign policy decision making (G. Allison 1971; Bueno de Mesquita, Newman, and Rabushka 1985; Bueno de Mesquita and Stokman 1994; Putnam 1988; Richards et al. 1993; Tsebelis 1990). We share with several of these approaches an interest in building on Black's (1958) median voter theorem and incorporating the notion that leaders want to be reselected. We also share the notion that voting is just a special case of the articulation of power or political influence and control, so that Black's theorem, suitably adapted, is relevant to policy formation in authoritarian as well as democratic regimes (Bueno de Mesquita, Newman, and Rabushka 1985; Bueno de Mesquita and Stokman 1994). It is just that in authoritarian regimes the median voter or pivotal power is drawn from a much smaller set of constituents than is true in democracies. In authoritarian regimes, then, as in democratic governments, the clique of leaders who can count on support from a majority of the relevant resources—whether they be guns, dollars, or votes—can expect to win office and retain it. With this in mind, we suggest the following model of governmental accountability for decisions about war.

Suppose that each nation consists of a set of stakeholders interested in influencing foreign policy decisions. In a democracy, this set may include everyone or nearly everyone in the society. In more authoritarian regimes, the set probably includes a more limited array of organized or unorganized interests. The military, politically active religious groups, business interests, government bureaucrats, and the population at large are a small sampling of such possible stakeholders. Each of these various groups engages in strategic maneuvers to promote their particular foreign policy agenda at the expense of alternative approaches to international politics.

At the end of the process of bargaining and possible logrolling, competing and allied internal interests come to a decision. We assume that the decision is equivalent to the policy stance of the median "voter," in other words, the policy preference of the median powerholder at the end of the bargaining process. Of course, since voting per se often does not take place or is not meaningful (especially in authoritarian societies), this median position is that policy supported by the individual or group that can count on the ability to mobilize more than half of the sum of all stakeholders' utilized power on behalf of its agenda against any possible challenge. The median stakeholder is the pivot around whom a winning coalition forms.

For the purposes of the present analysis, we do not elaborate a complete theory of domestic political decision making and its relationship to foreign policy. Instead, we describe a simplified model of implications that follow from such theories of domestic interest group competition. By keeping the model simple we naturally raise the prospects of having fairly robust results, and focus on broad generalizations as opposed to detailed nuances of the role of foreign policy and the retention of the leader in power. Additionally, because our model is rather general it cannot rule out some alternative explanations of the phenomena we discuss. That said, it is important to consider these caveats in the context of a model that is an integrated whole and generates a number of significant, testable hypotheses.

In describing these implications we begin by assuming that preferences across policy issues are single-peaked. This means that for each stakeholder the utility for any given resolution of an issue declines monotonically with the Euclidean distance from that decision maker's most preferred choice (i.e., the stakeholder's ideal point). We further assume that all utility functions are quadratic, reflecting the notion of declining marginal utility. This latter assumption is for ease of computation and does not materially affect our results.

Although many problems in international affairs and foreign policy are quite complex, involving the possibility of trade-offs and linkages across policy issues, we assume that this is not true of the most fundamental questions. For problems involving the risk of war, we assume that issues collapse to a single policy dimension having to do with the overall contribution of the putative policy to the welfare of the leadership's backers and opponents. This is broadly consistent with the realist notion that treats the state as a unitary actor.

Our view, however, differs from the realist approach in that the selection of policy options and the accompanying demands and actions taken in the international arena are not dictated by external, structural considerations. Rather, the choice of goals and actions is given shape by the domestic agenda of the leadership, as well as by the feasibility constraints of the external environment. Prudent leaders make choices that they think will help them retain power: they choose in such a way that they do not precipitate an internal overthrow of their authority. Consequently, their foreign policy goals may be seen as endogenous to their domestic political concerns rather than just to the international system's structure.

Because we have assumed single-peaked preferences and unidimensional issues on questions related to the threats of warfare, and because we propose that the coalition controlling a majority of political influence within a nation is expected to get its way, Black's (1958) median voter theorem can be applied. This means that the policy objective of the interested party located at the median of the distribution of

power on the policy in question is the objective expected to prevail internally. The median power occupies the position that can, in head-to-head competition with any other proposed policy, muster a majority coalition. As such, it is the policy stance that maximizes internal political security, the position least susceptible to internal defeat.

With the median voter theorem in mind, we assume that on questions that involve the risk of war all nations can be summarized by examining the characteristics of three critical stakeholders:

1. the stakeholder or interested party, denoted as V, who controls the median power position;
2. the incumbent leader, called I; and
3. a challenger, called C, who wishes to gain control over the government's foreign policy.

So, with the state denoted as S we can say $\{V, I, C\} \in S$. V, of course, is itself an element in the preference distribution of all the stakeholders or interested parties in S. We assume further that policy objectives over which war is waged fall along a single policy continuum, denoted as **R**, with $\{X_C^*, X_C, X_V^*, X_I, X_I^*\} \in \mathbf{R}$. (Terms with a superscript * are ideal points and belong to the actor named by the subscript. Terms without superscripts are the publicly taken policy positions of the subscripted actor.) The term X_C^* represents the ideal point, or most preferred foreign policy, of the challenger for power, and X_C expresses the actual policy position openly supported by the challenger in its attempt to woo the median stakeholder V away from supporting I. The other terms have analogous interpretations.

Incumbents can have an advantage over challengers in our model because they can earn political credit for their past performance or demonstration of reliability if they pursue foreign policies that satisfy V. This means that V can gain utility from the past performance of the incumbent, which is broadly consistent with the idea of retrospective voting (Fiorina 1981). Incumbents with bad records are more likely to be turned out; incumbents with good records from V's perspective have an edge in the ongoing campaign to remain in power. But incumbents also have a disadvantage because V bears the costs associated with the foreign policies pursued by the incumbent and V is not reluctant to pass judgment on I in response to these costs. I can accumulate negative credits as well as positive ones. Costs occur as a result of actions in wartime whether the war ultimately proves to be successful or not, as well as potentially arising as a consequence of policies by I that alienate V.

Let R denote the accumulated costs or benefits associated with the past performance of political leaders. We assume that the more constituents who have to be satisfied by a political leader, the smaller R is—and indeed that as the number of constituents rises so does the likelihood that $R < 0$. This is consistent with the notion of the coalition of minorities effect identified by Mueller (1973). The longer a leader has been in power, the greater the opportunity the leader has to alienate part of his or her coalition of supporters, gradually eroding the chances of holding onto support from the median voter (Powell and Whitten 1993; Rose and Mackie 1983). In authoritarian regimes, where fewer constituencies have to be satisfied, leaders are better able to fulfill the wants of their crucial backers. Consequently, $R > 0$ is probably true for authoritarian leaders, while $R < 0$ is more likely to be true for leaders in democratic states. In any event, whether positive or negative, it is likely that R for democratic leaders is smaller than R for authoritarian leaders. R_t is the benefits or costs from the leader's performance on the job at a specific time in the past (denoted by the index t), with $t = 0$ being the present.

If a current wartime policy is implemented and succeeds (i.e., the nation in question wins the war), we assume that the reliability benefits R are increased by $R_0 > 0$ but that if the policy fails, then $R_0 \leq 0$. R_0 is, then, one of the critical elements at stake for an incumbent engaged in a war. R_t decays over time so that recent demonstrations of reliability are more valuable to V (and therefore to I) than are demonstrations in the more remote past. Similarly, recent policy failures are more costly than old ones that have been survived. We denote this decay effect by discounting earlier demonstrations of competence or incompetence by d_t, with $0 < d < 1$, so that

$$R = R_0 + \sum_{t=n}^{1} d^t R_t.$$

The benefits of competence ($R > 0$) or the costs of incompetence ($R < 0$) are realized by I only so long as he or she remains in power. Consequently, when an incumbent is replaced, R returns to zero for the former incumbent. Since the challenger has not yet had an opportunity to demonstrate competence or incompetence, V expects $R = 0$ when the challenger first comes to power.

Incumbents, of course, serve only for a finite (though usually indeterminate) time. We denote this by specifying that R accumulates over the interval from the time when the leader first comes to power, $t = n$, to the present moment, $t = 0$. The leader's tenure in office, then, at the time a war starts, is the interval from $t = n$ to $t = 0$ (i.e., the moment the war starts). Assuming that R_t is a constant that decays in value at the rate d^t, then R is a logarithmic function of tenure in office that reflects the marginally declining impact of past successes or past failures on the current evaluation of I's job performance.

In addition to the costs or benefits associated with the leader's overall performance, we assume that there are direct transaction costs associated specifically with waging war. Let L denote the transaction costs or losses borne by the society (i.e., summarized by V) as a result of the implementation of wartime actions by I. These costs represent a burden of war that leaders must overcome if they are to be kept in office.

The fundamental dynamic in our conceptualization

TABLE 1

Utilities for the Incumbent (I), Challenger (C) and Median Voter (V) under Alternative War and Outcome Scenarios

OUTCOME SCENARIOS	UTILITIES: INCUMBENT	CHALLENGER	MEDIAN "VOTER"
Wins & retained	$-(X_I-X_I^*)^2 + R$	$-(X_C^*-X_I)^2$	$-(X_V^*-X_I)^2 + R - L$
Wins & replaced	$-(X_C-X_I^*)^2$	$-(X_C^*-X_C)^2$	$-(X_V^*-X_C)^2$
Lost & retained	$-(X_I-X_I^*)^2$	$-(X_C^*-X_I)^2$	$-(X_V^*-X_I)^2 + \Sigma_{t=n}^{1} d^t R_t - L$
Lost & replaced	$-(X_C-X_I^*)^2$	$-(X_C^*-X_C)^2$	$-(X_V^*-X_C)^2$

of domestic politics revolves around the expectation that incumbents wish to retain power and challengers wish to replace incumbents. This means that actor I wishes to remain more appealing to V than is C. However, I and C not only want power, they also have policy objectives of their own. That is why we have defined their ideal points as well as their public stance on the policy questions of the day. Thus our candidates for leadership may be pulled in two directions: to do what V wants and to do what they themselves want on foreign policy questions. They are not merely motivated by a desire for power and may be quite principled in terms of their policy interests. But when torn between personal preferences and constituent expectations, the successful political leader is likely to be someone who recognizes that politics is the art of the possible.

The political costs and benefits of alternative choices that are reflected by these assumptions are summarized as a set of utility values. Table 1 displays the utilities for I, C, and V under the four scenarios of interest to us:

1. I is expected to win the war it wages and I is retained in power;
2. I is expected to win but is removed from power anyway, being replaced by C;
3. I is expected to lose the war and is retained nevertheless; and
4. I is expected to lose and is replaced.

The incumbent, I, can be sure of retaining power only so long as V believes it is better off with I than with C. I remains the incumbent if V's utility for retaining I is greater than V's utility for replacing I with C. With P defined as V's subjective probability estimate that I will win the war it is involved in, V will retain I in power if

$$P[-(X_V^* - X_I)^2 + R - L] + (1 - P)[-(X_V^* - X_I)^2 + \sum_{t=n}^{1} d^t R_t - L] > -(X_V^* - X_C)^2 \quad (1)$$

Several inferences can be drawn from expression 1. Solving for PR_0, which reflects the expected political stakes for both I and V from the war, we see that retention in office requires that

$$PR_0 > (X_I + X_C - 2X_V^*)(X_I - X_C) - \sum_{t=n}^{1} d^t R_t + L \quad (2)$$

The incumbent has control over several factors in expression 2. These include selecting events for which the probability of success is believed to be high and picking policies that are not so objectionable to V that the policies become an encumbrance to I's retention of power. I naturally tries to pick X_I to ensure that the inequality in expression 2 is satisfied, while C, of course, picks its policy position to try and thwart I. Yet C and I are also constrained in selecting a policy because neither I nor C will wander so far from their respective ideal points that gaining or holding power is a pyrrhic victory.

It is evident from expression 2 that C has little incentive to locate itself at the same policy position as I. Being Tweedledum to I's Tweedledee (Downs 1957) simply means that I will be retained if

$$PR_0 > L - \sum_{t=n}^{1} d^t R_t \quad (3)$$

It is evident from expression 3 that if $R > 0$, then, barring costs expected to be large enough to offset all of I's reliability credits, C has no chance of removing I no matter how poor I's chances of bringing the country to a victorious outcome in the war. Even if $P = 0$ (i.e., defeat is expected to be a sure thing), the expected costs must outweigh the credit for past performance accumulated by V in order for C to be chosen over I. Of course, if R_t is negative, C has an easier time removing I. Even in that case, however, rather than be Tweedledum, C's best hope of gaining power is to support a position sufficiently close to X_V^*. Even in the worst case for I, when C adopts X_V^*, I can retain power provided that

$$PR_0 + \sum_{t=n}^{1} d^t R_t - L > (X_I - X_V^*)^2 \quad (4)$$

Clearly we see in expression 4 that I is constrained to stay relatively close to V's ideal point if C adopts that position. I can drift away only to the extent that its past reliability and the expected reliability gains from the present war are large enough to offset its policy difference *and* the expected transaction costs from the war. If its past performance has accumulated costs rather than benefits, then, of course, I will have a more difficult time holding on to power, having to rely exclusively on the benefits derived from the current war.

Is it possible for I to prefer that C gain power rather than choose a policy stance X_I that is more distasteful to I than losing power to C? In order for I to prefer a

government led by C over a government led by I, it must be true that

$$-(X_I - X_I^*)^2 + R < -(X_C - X_I^*)^2 \quad (5)$$

if I expects to win the war, or

$$-(X_I - X_I^*)^2 < -(X_C - X_I^*)^2 \quad (6)$$

if I expects to lose the war.

Expressions 5 and 6 suggest some consequential differences between democracies and authoritarian states, given our assumption that R for democracies is smaller than R for authoritarian states (including the prospect that $R < 0$ is more likely for democratic leaders than authoritarian leaders). Expression 5 implies that democratic leaders are more likely to leave office voluntarily than are authoritarian rulers. If $R > 0$, then it should be obvious that I would never pick X_I such that X_C is preferred by I to its own position. Consequently, I cannot prefer a government led by C to a government led by itself so long as $R > 0$ in our model, which presumably includes all authoritarian leaders and some democratic leaders. Authoritarian leaders can be expected to seek to hold office for life, never stepping aside on principled grounds. Some democratic leaders can be expected to behave quite differently, even choosing to lose office rather than pursue objectionable policies.

I can, of course, choose a different policy position than C, but the choice will be in favor of a policy closer to I's ideal point and never farther away. Then, the range of policy choices that I can make is constrained. C will do best, in terms of maximizing its chances of being selected to replace I, by picking V's ideal point as its own policy position (even though that is not C's ideal point), as we have already mentioned. I, then, can drift away from the median stakeholder's policy preference up to the limit of the value of the reliability benefits that I generates for V, less whatever costs are associated with I's war policy. If I's accumulated R values are negative, then I cannot drift away from V's ideal point, presuming that it is known to I. Avoiding war must thus be inherently better for I than waging war unless $R_0 > L$.[5]

It is evident, then, that X_I is endogenous, being chosen strategically (as is X_C) to facilitate I's retention of power and to maximize I's expected utility. X_C, naturally, is chosen by C to try to reverse the above inequalities in an attempt to induce V to prefer C to I. The threat of being replaced by C constrains I not to wander too far from X_V^*, while I's own policy concerns constrain the incumbent not to drift too far from its own ideal point. Leaders who want to retain power can rarely afford to hold an uncompromising commitment to the pursuit of the policies represented by their ideal point. Such "true believers" are unlikely to survive politically unless they happen to have the good fortune that their ideal point is the same as X_V^*.

In the scheme we have proposed, I can have a distinct advantage over C and can also suffer a distinct disadvantage from its actions. The advantage stems from its reputation for reliability if that is positive. In expression 2, the authoritarian incumbent's past record of performance decreases the size of the righthand side of the inequality, making it easier to stay in power even if the war is lost. The opposite is true for democratic leaders for whom $R < 0$. And the bigger the prospective stakes in the war (R_0) for I, the more likely it is that the incumbent will fight even with a small chance of success. These implications of our simple model give us the following initial hypotheses:

HYPOTHESIS 1. *The odds in favor of political survival increase as a function of the logarithm of the time that the leader has already been in office for authoritarian leaders, while the odds of survival increase less—or even decrease—for democratic leaders.*

HYPOTHESIS 2. *The greater the prospective benefits of the war (PR_0), the more likely the incumbent will wage the war rather than resolve its differences through other means. Conversely, the smaller those prospective benefits, the less likely the retention threshold will be passed and, therefore, the less likely the incumbent will risk its position by fighting and the more likely the incumbent will be deposed if it does take the risk of fighting.*

Both of these hypotheses are testable. However, only the first one is central to the concerns addressed here. Consequently, we test hypothesis 1 and defer a test of hypothesis 2 to a future study focused on war behavior rather than leadership retention.

The incumbent must bear the burden for the failure of diplomacy and for the lost lives and property that are bound to result from war (L). This term, of course, makes it harder to keep power. The gains of reputation, if any, may be offset by the expected losses in the war. This suggests that the selection of wars to fight is itself endogenous. We have already seen that PR_0 influences the likelihood that a leader will be retained in office. The size of this term is within the control of political leaders to the extent that leaders can choose to resolve disputes short of war if the value of PR_0 is expected to be too small to lead to retention. Thus we have already seen one way in which war selection is endogenous to domestic political circumstances. Now we see that the endogeneity also extends to the impact that war costs are expected to have on domestic politics.

A leader can reduce the size of L by offering concessions to a foreign adversary in the hope of precluding a war so costly that it threatens to drive one from power. Likewise, one can eschew initiating a war expected to culminate in such high costs. Consequently, the wars we observe in nature are presumably a biased sample of the prospective wars that were considered and rejected. It follows then that the observed wars are those expected to have low enough costs that they would not jeopardize the leader's retention of power. This suggests two additional hypotheses:

HYPOTHESIS 3. *All else being equal, the greater the expected costs in war (*L*), the more likely the incumbent will be replaced by the domestic political process.*

HYPOTHESIS 4. *All else being equal, the greater the expected costs from a prospective war, the higher the probability that the leader will not engage in war but rather resolve international differences through other means, such as negotiations.*

Hypotheses 3 and 4, like 1 and 2, are testable. Hypothesis 3, like hypothesis 1, is focused on our central concern with the accountability of political leaders. Consequently, it will be tested here. Hypothesis 4, like hypothesis 2, is more oriented toward an investigation of dispute escalation than toward an evaluation of the survival of political leaders. We defer to a later study any tests of hypothesis 4.

The reliability variable in our model reveals several important features of incumbency. The longer a leader has been in power prior to the onset of a war, the greater the opportunity the leader has had to amass credit for reliability or to lose supporters as part of the coalition-of-minorities effect. The latter effect is more likely to arise the more dependent the leader is on multiple constituencies, while the former effect is more likely to be realized by authoritarian leaders who must satisfy more limited constituencies. Thus, all else being equal, the longer an authoritarian incumbent has been in power, the more likely it should be that the incumbent will be retained in office once a war begins, even if the war is lost. The beneficial effects of a long prewar incumbency should be significantly muted (and can even be reversed) in democracies relative to authoritarian leaders. This can be seen more clearly from expressions 7 and 8:

$$R - L > (X_I - X_C)(X_I + X_C - 2X_V) \quad (7)$$

$$\sum_{t=n}^{1} d^t R_t - L > (X_I - X_C)(X_I + X_C - 2X_V) \quad (8)$$

Expression 7 denotes the conditions under which V prefers to retain I if I wins the war while expression 8 denotes the conditions for retaining I when I loses the war. Of course the left side of expression 7 is strictly larger than the left side of expression 8, because $R_0 > 0$ in a victorious war, so that the incumbency advantage is, not surprisingly, greater if one is victorious. This suggests a fifth hypothesis:

HYPOTHESIS 5. *Tenure in office has a greater beneficial impact on the political survival of incumbents expected to win their wars than on incumbents expected to lose.*

From expression 2, it is evident that the longer an authoritarian I (or a democratic I not suffering from the coalition of minorities effect) has been in power (and therefore the greater the accumulated reliability benefits) the smaller P can be and still satisfy the requirements for retention in office. In a comparative static sense this means that the longer the tenure of an authoritarian leader, the easier it is for that leader to believe that he or she can survive the political consequences of losing a war. Consequently, authoritarian "old-timers" in office can more readily afford to pursue foreign policies that represent a gamble, with a high risk of failure. Newcomers to power, conversely, cannot afford such boldness and are thus more likely to avoid high-risk gambles in foreign policy. All else being equal, then, long-surviving nondemocratic leaders should be more likely to wage losing wars (or wars in general) than incumbents who are newer to their positions. We state this as our sixth hypothesis:

HYPOTHESIS 6. *The longer an authoritarian leader has been in power, the higher the probability that the leader will risk waging a war, including waging a war that ultimately is lost.*

Hypothesis 6 suggests that long-standing authoritarian leaders engage in riskier wars not because of any inherent flaw in their character but because of an inherent feature of the political conditions that keep them in power. Their country's political institutions facilitate their dangerous behavior. It is also evident that as the authoritarian incumbent's tenure in office grows longer, I can afford to drift away from policies preferred by V because of the cushion provided by its reputation for reliability among its limited constituency. Paradoxically, those who have been reliable to their key followers in the past can afford to be less reliable to them in the future. Recall that in our model V is prepared to retain I in power even if C's policies are closer to those desired by V than are I's, provided $R > 0$. V selects its leaders in terms of an evaluation of overall welfare not just on the basis of current policy stances. This provides I with the opportunity to shift its policies closer to its own ideal point and away from V's preferences as I's reputation for reliability grows with its tenure in office. This suggests our final hypothesis:

HYPOTHESIS 7. *The longer an authoritarian leader has been in power, the more likely he or she is to pursue personal policy preferences rather than the policies of* V.

This final hypothesis, though interesting and a clear implication of our model, is, like hypotheses 2 and 4, reserved for a future study because it is not central to our concern with leadership survival.

Hypotheses 1, 3, 5, and 6 form the core of our present investigation. Each of these four hypotheses refers to a feature of leadership retention that links war behavior and regime type to domestic political considerations rather than to the high politics of a realist or structuralist view of international affairs. These hypotheses represent summary statements of more detailed implications of the basic model of war choices we have delineated. Some are intuitive, but some are surprising.

In particular, we believe it is surprising that longevity in office makes leaders, particularly authoritarian leaders, more prone to wage wars, especially wars they can expect to lose. We also think it is surprising that longevity facilitates political survival for authoritarian leaders more than for democratic elites, especially in light of the proposition that it also facilitates the waging of losing wars. But even the intuitively more apparent hypotheses are important

to test. We should always bear in mind that intuition can be fickle or wrong. Simply because something *seems* to make sense does not mean that it reflects how the world actually works. Also, we should feel greater confidence in counter-intuitive propositions if they are part of a theoretical structure that yields many intuitively anticipated results. Finally, even when ideas seem intuitive, it is useful to pin them down within a logical structure so that we can see more clearly how they relate to other concepts and exactly how they relate to each other.

THE DATA

Hypotheses 1, 3, and 5 link the survival of political leaders after the onset of war to their prior tenure in office, expected costs, regime type, and the expected outcome respectively. To test these hypotheses, we require data that permit us to relate the length of time a policymaker is able to remain in power after war onset, the outcome of the war, the costs of the war, the prewar tenure of the leader, the openness of the political regime, and the expectations that those around the leader had with respect to that leader's continued ability to rule. Most of the data are fairly straightforward, and some of them are widely available.

The states participating in war between 1816 and 1980 are given in the well-known collection of the Correlates of War Project reported in Small and Singer's (1982) *Resort to Arms*. The data set not only reports on national involvement in all international wars between 1816 and 1980 with at least a thousand battle-related fatalities but also identifies the states that were the eventual winners and losers. From this list we exclude several groups of states. First, we exclude states that participated in wars beginning after 1975 because of uncertainty with respect to the casualty data (the need for which we shall explain). Second, because we are interested in the domestic political aspects of war involvement, we also exclude those cases in which the relevant political leader is deposed by the direct use of force by an external party.[6] For example, the cases of the Netherlands and Belgium in 1940 are excluded from the data, as is the case of Germany in 1945. However, the case of Premier Tojo, who led Japan into war in 1941, is included in the data set because he was driven from office well before the end of the war and the United States occupation. Finally, although we originally intended to include cases where the outcome was sufficiently unclear that it could be called a tie, all of these were associated with the Korean War. Rather than rest our analysis of this effect on only one war, we do not consider these cases. Our final data set consists of 191 cases of state war participation between 1823 and 1974.

Data measuring the duration in office of the political leaders who were the heads of the governments at the time the war began were derived from several sources. Our basic source of data was Spuler, Allen, and Saunders' (1977) *Leaders and Governments of the World*. These data were checked against the historical chronology given in Langer's (1972) *Encyclopedia of World History*, Bienen and van de Walle's (1991) *Of Time and Power*, and the *Cambridge Encyclopedia* (Crystal 1990, RR 42–67). Post-1965 data were also checked against *Facts on File*.

In selecting the relevant leader whose longevity in office is of interest, we identify the individual who was the *head of government* (as distinguished from the head of state, if relevant) at the time the war began. In the large majority of cases the head of government was the individual most responsible for formulating and implementing policy regarding war decisions. In democratic countries the identification was straightforward, with the prime minister, chancellor, or president (as appropriate) being the designated head of government. For nondemocratic governments more judgment was required. We tried to ascertain whether there existed a cabinet or council of ministers or a comparable entity serving under the head of state or whether there existed a legislative body concurrent with the head of state. In either case, we identified the leader of this cabinet or council of ministers or the leader of the legislative body as the relevant decision maker. If such a council, cabinet, or legislative body existed concurrent with a head of state, Spuler and his colleagues identified the relevant ministers and generally provided enough information to determine which individual was the chief minister or leader and thus, by assumption, was responsible for policy. Of course, in some instances there is nothing to substitute for historical knowledge, because the apparent constitutional form of the government had little to do with the actual exercise of political power. For example, we consider Stalin to have been the responsible political leader for the Soviet Union between 1928 and 1953, and Mao for China between 1949 and 1976, rather than anyone listed as being the leader of a council of ministers. Beyond this, in some instances the histories of the individual states were examined, and in a few cases these histories were particularly useful in determining who actually held political power.

From these data, the central items of information we ascertained were four: (1) the date the leader entered office; (2) the date the war began; (3) the date the leader left office; and (4) if the leader left before the end of the war, whether that exit was the result of death or a political removal.[7]

We are interested in ascertaining the effect of several variables on the survival of the political leader who takes a state into war. One of these is the outcome of the war. Here we focus our attention on wars in which there is a fairly clear winner and loser. We have taken the win/lose designations from the Correlates of War data set.

We are also concerned with the costs and benefits to a leader's political fortunes that result from longevity in office. We share with others the claim that democratic institutions impose political constraints (e.g., the coalition-of-minorities effect) on leaders to a

greater degree than is true in authoritarian settings. Therefore, we assume that democratic leaders are constrained in their foreign policy choices by the acquisition either of reliability costs or smaller reliability benefits than is true for authoritarians over time, while authoritarian leaders are liberated in their actions by reliability credits that redound to them from the actions they take to satisfy their much more limited constituencies (Bueno de Mesquita and Lalman 1992; Maoz and Russett 1993; Morgan and Campbell 1991). Consequently, we are interested in the interactive effect of regime type with tenure in office as factors influencing political survival. The interaction of regime type and tenure is taken as our general indicator of R, the reliability cost or benefit in our model.

To calculate the impact of R from our model, we must specify whether each leader operated in a democratic or authoritarian setting. Gurr (1990) has undertaken an extensive survey of political systems in the nineteenth and twentieth centuries, reporting, among other things, a relatively rigorous measure of the extent to which various states were democratic. The scale runs from 0 (no democracy) to 10 (high democracy). All the states we cover are surveyed at the time of interest, so we have an estimate of the extent to which any state is democratic at, as nearly as possible, the time of the war onset. We measure the democraticness or authoritarianism of the institutions in each state by treating all cases that Gurr coded as 6 or above as democratic and those below 6 as authoritarian, coded as 1 and 0, respectively.[8] With this dummy variable, DEMO, in place, we create TENUREL * DEMO. TENUREL is the logarithm of a leader's total time in office prior to the war (plus 1), while TENUREL * DEMO is simply the product of DEMO and TENUREL.

In accord with our hypotheses, we anticipate that TENUREL * DEMO increases the hazard of being removed from office relative to that experienced by authoritarian leaders while TENUREL alone decreases the risk of removal. In other words, democratic leaders of states at war are expected to survive for a shorter time than their nondemocratic counterparts.

The transaction costs of war include losses in life and property and the attendant forgone opportunities that the destruction of lives and property entails. Although Organski and Kugler (1980) have been able to estimate some important dimensions of war cost for a few nations, we know of no data set that provides a usable measure of these costs for the number of nations with which we will deal. However, one reasonable alternative measure is available in the war lethality data contained in the Small and Singer data (1982, table 4.2). Small and Singer list for each nation's war participation the number of battle deaths per 10,000 population. This measure is particularly attractive because it is consistent across time and controls for population size. We expect this transaction cost measure to decrease the likelihood that a political leader will be retained in office.

At this point, it may be useful to lay out briefly the relationship between the hypotheses and the data. Hypothesis 1 indicates that the odds of political survival increase as a function of the logarithm of the time the leader has already been in office for authoritarian leaders (TENUREL) while the odds of survival increase less or even decrease for democratic leaders TENUREL * DEMO. The sources used to provide estimates of the postonset survival of leaders also provide the necessary data on the prewar tenure in office of each leader. Hypothesis 3 is testable against the reported battle deaths per 10,000 population, the form of which used here is the log because (1) the data are highly skewed and (2) increasing battle deaths probably have a decreasing marginal impact that would otherwise be exaggerated (Jackman 1993). In accordance with hypothesis 5, we expect that winning the war increases survival rates. The measure of war outcome is, of course, post hoc for leaders removed from office before the end of the war. It contains information that might not have been known to V at the time that the relevant constituents had to decide whether to retain or remove I. Here we treat the actual outcome as a post hoc indicator of probable expectations while the war was going on in those cases in which the leader was not retained to the end of the conflict.

Hypothesis 6 addresses expected changes in the conditions under which a leader would choose to wage a war. In particular, it indicates that the longer an authoritarian leader has been in power, the more likely the leader will choose to wage war, including high-risk wars that are lost. The likelihood of choosing high-risk wars (i.e., wars, on average, lost more often) is expected to be negatively associated with tenure in office for democratic leaders. To test this proposition, we examine the relationship between the logarithm of tenure in office (as suggested by the time discounting of past performance) and the outcome of the wars fought, taking into account whether the leader headed a democratic or authoritarian regime. If the hypothesis is correct, then the logarithm of tenure in office will be negatively associated with the likelihood of winning the war for authoritarian leaders and will be positive for democratic leaders. A second test examines the prewar tenure of authoritarian leaders whose nations engaged in war, comparing that tenure to the average total seniority of leaders in states that did not engage in warfare. If our hypothesis is correct, leaders of warring states should, on average, have already been in office before the war started for a longer time than is true for the total tenure in office of their counterparts in states that did not wage war. Authoritarian old-timers, recall, are hypothesized to pursue riskier foreign policies than their less senior counterparts.

To summarize, from hypotheses 1, 3, and 5 we have the following empirical expectations:

$$\text{Leader's Post-War-Onset Political Survival} = a + b_1\,\text{TENUREL} - b_2\,\text{TENUREL} * \text{DEMO} - b_3\,(\text{BATTLE DEATHS/10K})\text{L} + b_4\,\text{WIN} + \epsilon;$$

and from hypothesis 6 we expect

$$\text{WIN} = c - b_5\ \text{TENUREL} + b_6\ \text{TENUREL} * \text{DEMO} + \epsilon;$$

and

Average prewar tenure in warring states

> average total tenure for authoritarian

leaders of nonwarring states.[9]

We add one additional test in which we control for nonconstitutional changes in the regime. In an earlier study (Bueno de Mesquita, Siverson, and Woller 1992) we reported a strong association between war performance and the survival of political regimes. Naturally, if a regime falls to domestic opposition, this may increase the likelihood that the individual key leader also falls from power. We are interested, therefore, in ascertaining the impact of our hypotheses on the survivability of leaders when we control for the effects of a nonconstitutional turnover in regime. The test adds the variable NONCON as follows:

Leader's Post-War-Onset Political Survival

$$= a + b_1\ \text{TENUREL} - b_2\ \text{TENURE} * \text{DEMO}$$

$$- b_3\ (\text{BATTLE DEATHS/10K})\text{L}$$

$$+ b_4\ \text{WIN} - b_5\ \text{NONCON} + \epsilon.$$

EVENT HISTORY AND SURVIVAL ANALYSIS

Our approach to testing the specification of the model involves the application of survival analysis, often referred to as event history (by sociologists) or duration analysis (by economists). The dependent variable in the present case, the length of time a leader remains in power after the onset of the war, is exactly the kind of problem for which survival analysis was designed. The fundamental element of survival analysis is the estimation of the hazard rate, which may be thought of as the natural rate for the ending of some event or process. Here we are interested in the hazard rate faced by political leaders from the time their state enters into a war.

The hazard rate has two elements. The first is the underlying baseline rate of termination as if the event whose duration we are measuring is unaffected by anything. The second is the effect of the various covariates—specified as independent variables—that are seen as affecting the survival, in log-linear form, of the units of interest. In this case those units are the leaders.

There are two key advantages to event history methods over others. The first of these is that they allow us to include within the analysis cases that otherwise would be excluded or treated improperly. In the present instance, some of the leaders in our data set died in office through natural causes. The use of regression methods makes these cases problematic because their inclusion would inappropriately treat them as the political "deaths" that are of interest, while their exclusion removes from the estimate the information that they survived in office at least until their death. Event history analysis, however, allows us to include such information because these cases are treated as "censored"—that is, they are identified as lasting at least as long as the time until biological death. The contribution of such censored cases to the likelihood is then produced through the survivor function rather than the density function that is used on the noncensored cases.[10]

Second, it permits the hazard rate to change with the passage of time. The exact nature of this variation is, in fact, a critical element in distinguishing among survival models. While there are several such models, a graph of the hazard for our data shows it to be monotonically decreasing. Many survival models do not apply to a monotonically increasing or decreasing hazard, but the Weibull model accommodates such a pattern (P. Allison 1984). A plausible alternative to the Weibull is the exponential model in which the hazard is constant. A graphic method of distinguishing between the appropriateness of these models is to plot $\log(-\log(S(t))$ against $\log(t)$, where $S(t)$ is the survivor function defined by the Kaplan-Meier product-limit estimate and (t) is survival time (Kalbfleisch and Prentice 1980, 24). If the result is a straight line, the data may be judged to come from a Weibull distribution; but if the line has a slope of 1, the distribution is exponential. In the present case the scatter is on a straight line, but with a slope of less than 1, supporting the judgment of a Weibull with a decreasing hazard.[11]

DATA ANALYSIS

We turn now to an examination of the effects of the variables which compose our model.[12] The main question is, Does prior tenure in office, in combination with the authoritarianism or democraticness of the political system, the battle deaths per 10,000 population, and war outcome have the anticipated effect on the length of time that a political leader survives in office after the onset of the war? Table 2 reports the results of the maximum likelihood estimates based on censored Weibull regression for both the initial model and the one incorporating nonconstitutional overthrow of the regime. The coefficients are the estimated effect of the variable on the *hazard* rate of leaders; thus, negative values indicate a decreased hazard, or longer survival. The results reported in Table 2, column 1, reveal that all of the variables in the model have the predicted effect on political survival. Longer prewar tenure for authoritarian leaders and victory for all leaders extend time in office, while high overall battle deaths reduce subsequent time in office.[13] Our theory predicts that prewar tenure in office will be less advantageous to democratic leaders relative to their nondemocratic

TABLE 2

The Effect of War on Political Survival Time of Leaders: Censored Weibull Regression Test of Hypothesis 1, 3 and 5

INDEPENDENT VARIABLES	COEFFICIENT (1)	HAZARD RATE[a] (2)	COEFFICIENT (3)	HAZARD RATE[a] (4)
TENURE*L*	−.48**	.62	−.47**	.62
	(.09)		(.08)	
TENURE*L* * DEMOcracy	.33*	1.38	.36*	1.44
	(.16)		(.16)	
(BATTLE DEATHS/10K)*L*	.08*	1.08	.07*	1.07
	(.04)		(.04)	
WIN	−.28*	.75	−.26*	.77
	(.16)		(.15)	
NONCONstitutional overthrow	—	—	.51*	1.67
			(.19)	
Constant	−.53**	—	−.62**	—
	(.19)		(.20)	
Sigma[b]	1.44	—	1.43	—
	(.08)		(.08)	
χ^2	34.2	—	39.8	—
Probability	<.01	—	<.01	—

Note: Entries in columns 1 and 3 are unstandardized regression coefficients with standard errors in parentheses. N = 191.
[a]On the hazard rate, see n. 15.
[b]On sigma, see n. 16.
*$p < .05$, one-tailed.
**$p < .01$, one-tailed.

counterparts. Since the coefficient for the effect of the length of prewar tenure for democratic leaders is estimated through the interaction TENURE*L* * DEMO, we obtain the estimate of the coefficient for just the democratic leaders by summing the coefficients for the interaction and the prewar tenure of all leaders (i.e., .33 − .48 = −.15). The coefficient of −.15 is greater than −.48, demonstrating that prewar tenure contributes less to the survival of the democratic leaders than of the authoritarian leaders, but is it, as we predict in the model, a significantly different effect? This can be shown by two F-tests. First, a test of the difference between this coefficient and the TENURE coefficient (−.48) yields an F of 13.17 ($p < .001$). Second, we test the difference between −.15 and 0, and obtain an F of .76 ($p = .38$). As our model predicts, the leaders of democratic states derive less advantage from prewar office holding than do the authoritarians; in fact, it is indistinguishable from no advantage whatever.[14]

The results are perhaps best understood as relative risks (or risk ratios), which are shown in Table 2, column 2.[15] In these expressions values above 1.00 (the baseline) indicate an increased risk that the leader would not survive in office, while hazards below 1.00 indicate that the survival rate has risen as the hazard has fallen. More precisely, the hazard's deviation from 1.00 is interpreted as the percentage increase or decrease in the likelihood of political survival resulting from the marginal impact of the independent variable, so that the relative effects of the variables can be discerned by the magnitudes of the hazards.[16]

Exponentiating the coefficient given for authoritarian leaders (−.48) produces a hazard of .62, which means that a one-unit increase in the length of their prewar tenure (an order of magnitude, since we are using the log of tenure) reduces the risk of postwar removal by 38%. In contrast, similar tenure for democratic leaders produces no significant benefit in survival (exp. [−.48 + .33] = .86, which, as we have seen, is statistically indistinguishable from zero). Thus regime type evidently makes an appreciable difference in the prospects of surviving a war politically, with democratic leaders placed at considerably higher risk than their authoritarian counterparts. Even victory does not enhance survivability as much as prewar tenure for authoritarians; nor does victory fully offset the increased hazard for democratic leaders. Victory reduces the overall risk of removal by 25%. Finally, all else being equal, it is easier for political leaders to survive low-cost wars than higher-cost ones. The risk of being turned out of office increases by 8% with each order-of-magnitude increase in the log of battle deaths per 10,000 population.[17]

Hypotheses 1, 3 and 5 are well supported by the evidence. What about hypothesis 6, which contains one of our more surprising expectations? Recall that this hypothesis indicates that authoritarian leaders who have been around a long time are better able to

engage in risky foreign policies, even gambling on wars that have a relatively high probability of ending in defeat. Newer leaders and democratic leaders, by contrast, are not expected to take such large risks, and so pick and choose their fights more carefully, engaging in wars with a higher probability of leading to victory. The results of the logit analysis bear out the hypothesis. The actual result is

$$\text{WIN} = .49 - .35\ \text{TENUREL} + .77\ \text{TENUREL} * \text{DEMO},$$

with N = 191 and one-tailed probability = .002. The individual variables are also highly significant. The probability that the effect of TENUREL arose by chance is only .017. For TENUREL * DEMO, the probability that its effect is due to chance is only .007.

Hypothesis 6 implies a second, equally surprising result. Relatively short term authoritarian leaders have not had the opportunity to build up the reservoir of good will (R) among their few essential constituents that facilitates taking the risks of war. Democratic leaders are less likely than authoritarian leaders to have built up such a reservoir of good will after they have been in power for a long time. If democratic leaders are going to wage war, they are better off doing it early, before they have lost support as a result of the cumulative impact of the coalition of minorities effect. Consequently, on average we expect authoritarian leaders who engaged in war to have a longer prewar period in office than (1) the total tenure of all leaders who do not wage war and (2) democratic leaders who do wage war.

By moving slightly outside our data set, we can test these two expectations. Of our 191 cases, 106 are also to be found in the Bienen and van de Walle data set describing the political survival of 2,258 leaders around the world in the period since 1820. In this data set, the average total tenure of the nonwarring leaders is 3.32 years (N = 2,152), while the average total tenure of those leaders who ultimately engaged in war is 8.52 years (N = 106). The difference is highly significant, with t = 6.9. The average prewar tenure of all of the authoritarian leaders in our data set is 5.66 years, which is significantly longer than the total tenure of all the nonwarring leaders in the Bienen and van de Walle data set. The average prewar tenure of democratic leaders is only 2.57 years, which is significantly shorter than the prewar longevity or leadership experience of authoritarian leaders. The result is surprising, but consistent with our expectations. Long-serving authoritarian leaders are more likely to wage war than are relative newcomer democratic leaders. Democratic leaders are more likely to wage war early in their years in office, while their support is still high (Gaubatz 1991).

Hypothesis 6—like hypotheses 1, 3, and 5—seems to run directly counter to neorealist expectations and also to our general intuition. As such, it provides an additional basis from which to question the fundamental basis of neorealism and to suggest greater attention to the interplay between domestic politics and international affairs.

Before concluding, we examine the robustness of our results regarding hypotheses 1, 3, and 5 by controlling for the impact of nonconstitutional regime change produced by internal opposition. This test will help clarify the extent to which our model accounts for variations in leadership survival after controlling for regime change, a factor for which we have previously suggested an explanation (Bueno de Mesquita, Siverson, and Woller 1992). Table 2, column 3, contains the results of adding to our original model a dummy variable coded 1 for all the regimes that were overthrown by internal opposition either during the war or within three years of the war's end. As can be seen, even after controlling for nonconstitutional regime changes, the evidence in support of our hypotheses is quite robust. Nonconstitutional regime changes increase the risk of political removal by 67%, a very hefty effect. Still, the effects shown in the original model continue to obtain. The hazards, reported in column 4, show that authoritarian leaders continue to derive the same political benefits from their apparent ability to avoid problems such as the coalition of minorities. Similarly, winning and battle-related costs both continue to have significant effects of about the same magnitude as reported in the test that did not control for nonconstitutional regime change. In sum, our model's predicted effects are independent of our own earlier reported results for nonconstitutional regime change.

CONCLUSION

Our investigation has found that those leaders who engage their nation in war subject themselves to a domestic political hazard that threatens the very essence of the office-holding *homo politicus*—the retention of political power. The hazard is mitigated by longstanding experience for authoritarian elites, an effect that is muted for democratic leaders, while the hazard is militated by defeat and high costs from war for all types of leaders. Additionally, we find that authoritarian leaders are inclined to fight wars longer after they come to power than are democratic leaders. Further, democratic leaders select wars to participate in that have a lower risk of defeat than is true for their authoritarian counterparts. These results, which are implied directly by the specification of our model, obtain across a time span of over 150 years and encompass a broad spectrum of political systems and types of leadership removal. The evidence is consistent with the claim that decisions to go to war are endogenous to the domestic political setting of the leaders.

Such a result runs counter to expectations from neorealist theory. In that theory, war policies are endogenous to the international system and not to the domestic political situation. This is seen most clearly in Waltz's proposition that

> the elements of *Realpolitik*, exhaustively listed, are these: the ruler's, and later the state's, interest provides the

> spring of action; *the necessities of policy arise from the unregulated competition of states; calculation based on these necessities can discover the policies that will best serve a state's interests*; success is the ultimate test of policy, and success is defined as preserving and strengthening the state. (1979, 117, emphasis added)

We agree that policymakers care about the security of their state (though perhaps not necessarily as their paramount concern), and it is almost impossible to believe that the problem of maintaining or enhancing security does not enter into the calculations they make with respect to the policies that should be pursued. How does one square those facts with our assertion that internal political considerations are fundamental to external policy selection? The answer to this question depends upon what one takes to be the central assumption of neorealist theory.

If one proceeds from the basic neorealist assumption that *states* maximize their power to maximize their security and does not go further, then the theory is almost certainly false. However, if one extends the theory (in a way not previously done) by (1) assuming that *policymakers* want to stay in power for the rents, as well as for the policy opportunities thus afforded (Lake 1992) and (2) observing that declining security (as indicated here by war loss and costs) shortens time in power, then the linkage between internal politics and external policies is established. Thus the leader—whether president, prime minister, or president-for-life—who adopts policies that reduce the security of the state does so at the risk of affording his or her political opponents the opportunity of weakening the leader's grasp on power. Put differently, a leader's search for the security of the state intertwines with the search for policies that will maintain the leader in power against domestic opposition. The desire to remain in power thus provides the linchpin between the threats and uncertainties of the international system and the inevitable imperatives of fending off the domestic opposition.

Writing almost 25 years ago, James Rosenau (1969) lamented the fact that students of international relations did not have a well-developed framework—much less a well-developed theory—for linking political processes internal to the state with those that were external. In particular, he called attention to the absence of any theory that could account for the effect of foreign policy events on the tenures of political leaders:

> Consider the processes whereby the top political leadership of a society acquires and maintains its position of authority. To what extent are these processes dependent on events that unfold abroad? Under what conditions will the stability of cabinets and the tenure of presidents be reduced or otherwise affected by trends in the external environment? Are certain leadership structures more vulnerable to developments in the international system than others? Political theory presently offers no guidance as to how questions such as these might be researched and answered. (p. 5)

More recently, Putnam (1988) called attention to the linkages between international and domestic politics. Putnam's conceptualization of the logic of two-level games is certainly an advance over much of the past work on linkage politics, but although his concluding sentence is an admonition for empirical research, he fails to specify a model. The present research both specifies a model and offers data that are highly consistent with that model. With this knowledge in hand, we can no longer afford to treat domestic politics as ending at the water's edge, as neorealism is inclined to do. Foreign policy, instead, is better seen as intimately connected to the desire of leaders to maintain themselves in power.

Notes

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1. We are indebted to Gary Woller for calling this particular example to our attention.

2. There is a different way of putting this: all the political leaders used in this study left office, but only 36 of the regimes were overthrown by nonconstitutional means, and in 20 of these the responsible leader at the time of the entry into war had been removed from office *before* the overthrow of the regime.

3. The literature on the effects of economic performance on regimes and political leaders is quite large. Good summaries of the research are to be found in Lewis-Beck and Eulau 1985 and Norpoth, Lewis-Beck, and Lafay 1991. Although almost all of this work is within the domain of democratic political systems, research by Londregan and Poole (1990) demonstrates that military coups are more likely when economic performance has been poor.

4. However, Sanders, Ward, and Marsh (1991) argue that the Falkland's effect is exaggerated and that Thatcher's rise in the polls can be traced more clearly to economic policies and conditions.

5. It should be noted that we assume a game of complete and perfect information here. In later investigations we intend to examine the implications of uncertainty on the general effects suggested here.

6. To be sure, from a risk assessment point of view, policymakers cannot be indifferent to the possibility that a failed conflict policy may result in their removal by a foreign power. Indeed, it happens. In the present instance, however, we note that in the cases that would otherwise constitute our data base, removal by a foreign power took place only 19 times. However, our data probably understate the extent to which removal through this means occurs, because in many such cases the initiator is so "successful" that the casualties are not sufficiently numerous to qualify the event for inclusion in the war data set (e.g., the United States intervention in Grenada).

7. Not all deaths are neatly managed, because some are not natural. While Franklin Roosevelt died a nonpolitical death, Anwar Sadat did not. However, Sadat's assassins did not succeed in capturing power and replacing him with someone

who would bring Egypt's policies closer to their own. All political leaders are potentially subject to assassination, but the success of such attempts in the absence of a group able to seize power may be random. Consequently, in cases where assassins were not able to seize the state, we coded their departure as a "natural death." However, if a leader died as the direct result of a successful coup or revolution, the death was treated as a political removal.

8. One potential difficulty with this is that warfare sometimes changes governments. Few of such changes, however, are large enough to alter the state's score on the democracy index. For example, while the United Kingdom suspended elections during most of World War II, the democracy score remained unchanged at 10.

9. The two equations specified here are not intended to suggest a system of simultaneous equations but, rather, tests of hypotheses that follow directly from our model. Still, the dependent variable of one is an independent variable in the other so that it might be possible to conceptualize the argument as implying simultaneity. However, it should be noted that the factors hypothesized to explain the variable WIN are also independent variables in the first equation and so cannot be used as instruments for WIN. Having said that, we did test the argument as if there were a set of simultaneous equations. To do so, we calculated the predicted values of WIN from a logit analysis and substituted those predicted values into the first equation. Not surprisingly, the predicted values of WIN did not have a significant effect on the dependent variable, given that the predicted values were necessarily collinear with the effects of the remaining independent variables in the first equation. This had to be so because the remaining variables were exactly the same as the ones used to generate predicted values of WIN. As our results show, however, WIN itself is significantly related to the survival of political leaders even when the other independent variables are taken into account. This is the expectation derived from our model and suggests that additional factors explain war outcomes beyond those hypothesized here.

10. For a general introduction to survival methods, see P. Allison 1984. Applications in political analysis are growing. Some noteworthy examples of its use are to be found in the various papers of Warwick (1992a, 1992b, 1993). Also see King et al. 1990 and Hanneman and Steinback 1990.

11. Copies of the graph of the hazard and the plot of the integrated hazard against the log of survival time are available from Siverson.

12. The means, standard deviations, and ranges on the four main independent variables are

Variable	Mean	SD	Min.	Max.
TENUREL	1.34	.91	0[a]	3.45
(BATTLE DEATHS/10K)L	1.93	1.65	0[a]	6.32
DEMOCRACY	.24	.43	0	1
WIN	.54	.49	0	1

[a]These values simply report numbers too small to register. For example, in the 1956 Suez War, the United Kingdom suffered 40 battle deaths, which, as a proportion of that state's population, is recorded in the data set at the value given above.

13. In keeping with the fact that our model leads to expectations about the direction of each relationship, one-tailed tests of significance are reported in the table.

14. The model we have tested does not include the main effect of democracy even though the interaction of democracy and tenure is present. We do this because we have no theoretical reason for including democracy. Nonetheless, we now report the same model including democracy as a main effect, and from the very small changes in the coefficients that attend this and the absence of a fit for democracy itself, we conclude that there is no empirical reason for including it either.

Variable	Coefficient (SE)
TENUREL	−.51
	(.10)
TENUREL * DEMOCRACY	.44
	(.25)
(BATTLE DEATHS/10K)L	.08
	(.04)
WIN	−.26
	(.15)
DEMOCRACY	−.17
	(.31)
Constant	−.48
	(.21)
Sigma	1.44
	(.08)

15. Hazards are found by exponentiating the coefficients from the regression (P. Allison 1984, 28).

16. In Weibull regression, a shape parameter sigma describes whether the hazard is increasing or decreasing with time. When the hazard is decreasing, sigma has a value greater than 1.00. The value of sigma for our model is 1.44 (with a standard error of .08), so the hazard is decreasing, a result that is similar in character to that reported by Bienen and van de Walle (1991). In some statistics programs and in Greene 1993, the shape parameter is 1/sigma, in which case the effect of the shape parameter as increasing or decreasing the hazard relative to the baseline of 1.00 is the opposite of that given here.

17. Selecting the appropriate model for the overall hazard (in this case the Weibull) does not mean that other problems of misspecification are avoided. In ordinary least squares, diagnostics would be approached with the analysis of residuals. However, as Greene explains, "There is no direct counterpart to the set of regression residuals with which to assess the validity of the specification of the duration [i.e., survival] model" (1993, 722). Greene, nonetheless, does offer a test for specification, based on the use of "generalized residuals" (ϵ^2), to test the second moment restriction that $E(\epsilon^2) = 2$ (Greene 1993, 722–23; Lancaster and Chesher 1985b, 37). Since some of our observations are censored, the residuals are appropriately adjusted as:

$$\hat{e}(t) = \begin{cases} \epsilon\ (t) \text{ if uncensored} \\ \epsilon\ (t) + 1 \text{ if censored.} \end{cases}$$

With the adjusted residuals, the second moment restriction is $s_e^2 = \Sigma\ (C_i/N)$, where s_e^2 is the sample variance of $\hat{e}(t)$ and $\Sigma\ (C_i/N)$ is the proportion of censored cases in the sample. The test statistic for the second moment restriction is implemented by running an ordinary least squares in which unity is regressed on $(\hat{e}_i - 1)^2 - C_i$, and all $\partial \mathcal{L}_i/\partial \theta_j$ where θ_j ($j = 1, \ldots, k$) represent parameters of the model. The test statistic is computed as N, the sample size, multiplied by the uncentered R^2 and under the null hypothesis has an asymptotic $\chi^2(1)$ distribution (Lancaster and Chesher 1985b). In the present instance, the value of the test statistic is .974, which is well below the 3.84 level necessary to reject the hypothesis at the 5% level. Additionally, we plotted the integrated hazard against the generalized residuals, the result of which was a 45-degree line characteristic of the Weibull (Lancaster and Chesher 1985a).

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