Domestic Politics and US Foreign Policy: A Study of Cold War Conflict Behavior

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This study re-examines an empirical claim that is broadly accepted in international relations: during the Cold War US foreign policy belligerence was influenced strongly by domestic factors. We develop a rational expectations theory that produces hypotheses that are at odds with that result. We test our hypotheses and report findings that are both consistent with our rational expectations theory and inconsistent with the “domestic effects” hypothesis. We thus conclude that international politics, rather than domestic politics, was the primary determinant of US foreign policy behavior during the Cold War.

Long before the 1998 movie Wag the Dog appeared in American theaters, a common belief in the United States had suggested that U.S. foreign policy is driven, at least in part, by domestic considerations. According to this logic, unpopular presidents attempt to rally support by diverting attention from domestic failures to overseas threats. The view that domestic politics influences foreign policy is also well represented in the scholarly literature. Ostrom and Job (1986), for example, argue that during the Cold War US presidents used force in response to domestic, more than international, imperatives, especially fluctuations in their approval rating. This study takes issue with that finding.

Whether or not presidents engage in conflict to manage their tenure in office has important normative implications. If presidents do behave this way it runs counter to the normatively appealing implications of the democratic peace literature (e.g., Russett 1993). Whereas that work anticipates that a federation of dem-

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ocratic countries will resolve disputes peacefully, this argument suggests that
democratic states inject “false conflict,” which is to say conflict based on the elec-
toral incentives of specific leaders rather than the foreign policy interests of coun-
tries, into the international system (Hess and Orphanides 2001). Thus, while our
study is rather narrowly focused on the impact of presidential approval on con-
flictual US foreign policy, to the extent that additional work on other democracies
indicates that the findings can be generalized, this research has important
implications for the relationship between democracy and international conflict.¹

Before turning our attention to conflictual US foreign policy during the Cold
War we should also note how this debate fits within the broader debate about
domestic politics generated by the democratic peace literature. A major theme
developed within the institutional variant in that literature (e.g., Lake 1992;
Richards, Morgan, Wilson and Schwebach 1993; Fearon 1994; Smith 1996;
Siverson 1998; Bueno de Mesquita, Morrow, Siverson, and Smith 2000; Goemans
2000; and Bueno de Mesquita 2001), is that the structure of domestic institutions
creates incentives for politicians that produce observable implications across
democratic and autocratic polities. In short, domestic political institutions affect
conflictual foreign policy behavior: they matter.

Our study does not take issue with this broad claim. Rather, we focus our atten-
tion on an older, more narrow debate about whether the primary determinant of
conflictual US foreign policy during the Cold War was domestic politics. This
debate asks whether US presidents used hostile behavior toward other countries
primarily to curry favor with the voting public. We take issue with those who find
that conflictual US foreign policy was so motivated, and we do so by developing
an argument that begins with the same primary assumption with which Ostrom
and Job began: politicians desire to retain office for themselves and their party.
Unlike Ostrom and Job (and others who have followed their lead), we develop an
explicit theory of conflictual foreign policy behavior that places the behavior of
other countries at the center of the analysis. We argue that conflictual foreign
policy behavior can be explained adequately without reference to presidential pop-
ularity or domestic electoral politics. More specifically, we build on McGinnis
and Williams (1989, 2001, Williams and McGinnis 1988) and develop a rational
expectations theory of conflictual US foreign policy decision making. Our rational
expectations argument leads to hypotheses which suggest that international poli-
tics, not domestic politics, was the primary determinant of conflictual US foreign
policy behavior. To evaluate our claims we test the major hypothesis implied by
our theory as well as two rival hypotheses advanced in the literature.

**Domestic Politics and US Uses of Force**

During the past fifteen years the notion that domestic economic and political
performance has a substantial impact on conflictual US foreign policy behavior

¹See Oneal and Tir (2002) for a cross-national study that finds that democratic leaders do not
gamble for resurrection.
has become a widely reported finding, beginning with Ostrom and Job (1986). What is most noteworthy about their study is the finding that the international dimension of the environment is not the most important determinant of the president’s decision to use force. The domestic environment, especially economic performance and the president’s standing in the polls, has the largest substantive impact on the probability that the president will use force in any given quarter. A number of scholars have replicated this basic result (e.g., James and Oneal 1991), and a number of studies have sought to refine the specific impact of domestic politics on conflictual US foreign policy behavior (e.g., Nincic 1990; Gaubatz 1991; Morgan and Bickers 1992; James and Hristoulas 1994, DeRouen 1995, 2000; Hess and Orphanides 1995, 2001; Wang 1996; and Fordham 1998a, 1998b; see also Morgan and Anderson 1999, for a related discussion of the British case). There is, to be sure, some debate: Meernik (1994), Gowa (1998), and Enterline and Gleditsch (2000) take exception. But considerably more studies have reported this finding than have disputed it.

A Rational Expectations Theory of Policymaking

We propose a rational expectations theory of policymaking. The purpose of the theory is not to describe the policymaking process. Rather, we are interested in highlighting a choice between policy tools. Like Ostrom and Job, we assume that the president’s first goal is to retain office for himself and his party. We also assume that he divides the world into two domains, domestic and foreign. Each domain has the potential to create problems that could threaten the president’s tenure, and we contend that both domestic and foreign policy will be influenced by the goal of retaining office.

Our next assumption is that the president divides policies into two groups, much as he divides the world into two domains. We might think of the president as having two policy boxes from which to select policies, and one contains domestic policies while the other contains foreign policies. We further assume that the president enters office with the belief that, on average, domestic policies more effectively resolve domestic problems that might threaten his tenure than do foreign policies. Further, we assume that presidents believe that foreign policies will, on average, be more effective for resolving foreign problems than will domestic policies. This assumption is the lynchpin for developing our expectation that international politics has had a stronger effect on conflictual US foreign policy than domestic politics.

McGinnis and Williams (1989, 2001, Williams and McGinnis 1988) pioneered the development of rational expectations models of conflictual foreign policy making, and we build on their general approach. Their central idea is that the president is a prospective decision maker: rather than react to the foreign policy behavior of other countries toward the US, the president and his advisors develop

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2 Majeski (1985) also studied expectations models.
expectations about the likely behavior of other countries, and select an appropriate level of conflictual foreign policy behavior based on those expectations.

To add meat to this general rational expectations approach we assume that US presidents can array the conflictual foreign policy options available to them along a dimension ranging from minimal hostility to maximum hostility. We also assume that the president selects the policy that he believes has the greatest prospect for limiting any strategic gain the other country could obtain. That is, we expect that presidents seek to avoid situations that would reflect poorly on their personal and political reputation. Being the target of another country’s hostility is just such a situation, and presidents should thus seek to deter other countries from engaging in hostile behavior toward the US.

This argument leads us to expect US presidents to choose, in any given time frame, a hostility level that would roughly match the hostility level that they anticipated from the other country. Further, we expect them to observe the subsequent behavior of the other country, and when their expectations are violated, we expect them to note the “error” and used it to develop a new expectation about future behavior.

Hypotheses

Let us begin by considering the implications of our assumptions that (1) foreign policy is driven by a rational expectations process, (2) that presidents prefer international tools to domestic tools for solving foreign policy problems, and (3) that presidents generally seek to match the conflictual behavior of other countries. If countries form rational expectations about one another’s behavior, then they should also react to deviations from expected behavior. Consider the following equation where $U$ is US behavior toward another country, $O$.

$$\Delta U_t = -\beta(U_{t-1} - O_{t-1}) + \epsilon$$

The change in US behavior toward the other country is driven by the difference between its past behavior and the other country’s past behavior. If the difference in the past behavior of the US and the other country is zero, then there will be no significant change in US behavior. If, however, there is a non-zero difference on the right-hand side of that equation, then the US will change its behavior to bring it back in line with the other country’s behavior. That is, the equation specifies that the US president will respond to errors he made when forming

These hypotheses are, of course, implications of our theory. One might make a case for a direct examination of the argument, for example by determining whether presidents’ have formed expectations of other countries’ behavior and whether they believe that foreign adventurism would help them restore popularity. While a study might be done via interviews and archival work with diaries, minutes of meetings, and other official records, it would suffer from a fundamental weakness. That is, officials have an incentive to shape how history remembers them, and many of those sources would be biased. Further, we are unaware of any unbiased sources for such data.
expectations of the other country’s behavior, and that is why this is called an “error correction” specification.

To this point we have focused our attention on the US president. We can also expand our focus to other countries and assume that they use a similar rational expectations process to make conflictual foreign policy decisions. Doing so allows us to state the primary hypothesis of our study.

**Hypothesis 1:** The foreign policy behavior of a country, and all other countries toward it, is generated by a rational expectations process that will cause both sets of countries to respond to deviations from their expectations of one another’s behavior.

That we expect both countries to follow a rational expectations error-correction process implies that the foreign policy series will have a long-run equilibrium. That is, the two series will never drift far apart from one another for a sustained period of time. Thus, in the short-run both actors will respond to deviations from expected behavior by adjusting their own behavior to bring it back in line with the other. Conceptually this implies that hostility will generally be met with hostility and cooperation will generally be met with cooperation.

Below we report the results from our test of Hypothesis 1, but we also test two hypotheses that are at odds with our expectations. If these hypotheses are supported, it would cast doubt on our theory, even if Hypothesis 1 is upheld by our data. The first hypothesis comes from an alternative explanation of conflictual foreign policy behavior; the second comes from Ostrom and Job’s work.

We begin with the action–reaction hypothesis advanced by reciprocity theory (Ward 1982; Dixon 1983, 1986; Goldstein and Freeman 1990, 1991; Goldstein 1991, 1995; Goldstein and Pevehouse 1997; and Pevehouse and Goldstein 1999). Whereas our rational expectations model hypothesizes that each actor’s present behavior is driven by the expectation of the other’s future behavior, the action-reaction model states that each actor will respond to the past behavior of the other actor.

We test the action–reaction hypothesis using both a directed-dyadic and modified directed-dyadic design (explained below), but we only report the results of the modified directed-dyadic design here (the other findings are reported in notes). We will refer to this alternative action-reaction hypothesis as Hypothesis 2:

**Hypothesis 2:** International actors respond to one another’s past behavior, resulting in action-reaction behavior between countries.

The second claim that is at odds with our theory emphasizes the impact of domestic economic and political performance on conflictual foreign policy behavior (Ostrom and Job 1986). As noted above, our theory suggests that executives will only rarely (if ever) use international tools to boost the public’s perception of their domestic job performance. Therefore, our model suggests that the president’s approval rating will not systematically influence his foreign policy
behavior. This is a significant revision of the claim proposed by Ostrom and Job, but it is one that follows necessarily from our premises. Note, however, that we are not contending that concerns about approval ratings never influence a president's foreign policy behavior. Rather, we are arguing that because presidents prefer domestic tools to international tools when they are faced with domestic problems, we do not expect to find a systematic relationship between approval and foreign policy behavior. Nevertheless, given the prominence of this perspective in the literature, we also test this hypothesis.

**Hypothesis 3:** Public opinion of the president's performance is negatively associated with the president's conflictual foreign policy behavior.

One additional point about Hypothesis 3 is important. A curious aspect of the Ostrom and Job study (and many that have followed it) is that the performance of the domestic economy is included as an explanatory variable. We find this specification curious because it suggests that economic performance has a direct effect on the president's use of force that is independent of the indirect effect that these variables have through their impact on presidential approval (which is also included as an explanatory variable). We have searched in vain for a justification of this specification, and indeed, find only the following in Ostrom and Job: “there may be an important indirect relationship between the economy and the use of force” (1986:548). Since specification should be theory-driven, and neither our theory nor anyone else’s suggests that the performance of the domestic economy should be included as an explanatory variable, we do not include it in our analyses.⁴

**The Empirical Analysis**

*Statistical Model Specification and Estimation*

Our specification decision was driven by our need to estimate both long run and short-run dynamics among several series. For reasons described below, a vector error correction (VEC) approach impresses us as the best tool for the job. Political scientists who study dynamic processes have long been aware of the statistical problems associated with time-series analysis. A univariate issue that is well known concerns whether a series is stationary—i.e., whether its mean and variance are constant over time. A series that is not stationary is said to contain a unit root, the result of which is that any exogenous shock to the series remains in effect forever. A non-stationary series that yields a stationary first difference is said to be integrated of order one, or I(1). An integrated series is one whose “current value can be expressed as the sum of all previous changes” such that

⁴To verify that economic performance does not systematically influence conflictual US foreign policy behavior we included various measures of economic performance in vector error correction regressions such as those reported below and found no evidence to support including them.
“the value of any given point is a function of all past disturbances” (Durr 1992:191–92).

Ostrom and Smith (1992:143) point out that differencing non-stationary series and using them in a multivariate analysis (such as a transfer-function analysis) is by no means innocuous. “[A]lthough each univariate time-series may contain a stochastic trend, this trend could be common to other variables in the multiple time-series vector. When two or more integrated processes share a common stochastic trend, they are cointegrated.” They continue that “finding that variables are cointegrated suggests that analyses of differenced variables will suffer from specification error” (p. 145). Granger (1988) explains that a more appropriate approach to estimating causal relations among I(1), cointegrated series is to use an error correction model because the inclusion of the error correction term allows one to model the long run equilibrium relationship among the series and thus eliminate the misspecification problem.

The past decade has witnessed the publication of a number of articles discussing cointegration and error correction models (especially Durr 1992 and Ostrom and Smith 1992, as well as the comments by Beck 1992 and Williams 1992). Further, error correction models have been used by McGinnis and Williams (1989, 2001, Williams and McGinnis, 1988), to evaluate rational expectations theories of conflictual foreign policy behavior.5

Engle and Granger (1987) propose a two step method for estimating the error correction relationship among two or more I(1) time series that are cointegrated (it is known as the Engle-Granger two-step method). While this method is useful, it can produce ambiguous results, especially when used to determine whether three or more series are cointegrated. Johansen (1988, 1991) has developed a different procedure for determining whether N time series are cointegrated that circumvents this potential ambiguity.

Both approaches also propose a method for testing for the error correction relationship among cointegrated series. We conducted analyses using both the Engle-Granger two-step method and error correction model and the Johansen method and VEC model. Because of the drawbacks to the Engle-Granger method when studying more than two series (see Enders 1995:385 for a discussion), we report the results obtained using the Johansen procedure, but we report in footnotes the results obtained using the Engle-Granger method.6

Data

We employ a time-series case study of US foreign policy during the Cold War, 1953–1978. One might think that the ideal unit of observation to test the hypothe-

5 See also Rajmaira and Ward (1990), Ward and Rajmaira (1992), and Rajmaira (1997).
6 The inferences drawn are identical, though some ambiguities did crop up in the Engle—Granger method analyses. All of the analyses are available in the Eviews workfiles that are included in the replication dataset.
ses is the directed-dyad, which records information about the behavior of one country toward another. While this unit of observation is entirely appropriate for testing our hypotheses about rational expectations and action–reaction, we cannot use such data to test hypotheses about the impact of domestic politics on foreign policy behavior such as that posited by Ostrom and Job. The difficulty is that an executive can choose among a wide variety of countries against which to direct hostility. Directed-dyadic observations make it easy to code information about a given country’s behavior toward another specific country, and the other country’s behavior toward it. If the president always selected the same country against which to direct hostility, then we could study that directed-dyad. But because of the ability to project force throughout the globe, the US president can choose most any country in the world as a target.

To proceed in the face of this conundrum we selected a modified directed-dyadic unit of observation used by Davis and Ward (1990) and Leeds and Davis (1997). These scholars were also studying the impact of domestic politics on foreign policy behavior and created a one-to-many directed dyad to do so. The modified directed-dyad allows us to record information about one country toward all other countries, and all other countries toward the given country.

Of course, since Hypotheses 1 and 2 can be tested using directed-dyadic data, we only need to use the modified directed-dyadic data for the test of Hypothesis 3. We tested Hypotheses 1 and 2 using both a conventional directed-dyadic design and the modified directed-dyadic design. We tested Hypothesis 3 using only the modified directed-dyadic design. Importantly, the results of the tests of Hypotheses 1 and 2 are consistent across the two designs. In the interest of both clarity and composition, we report only the results from the modified directed-dyadic design.

Having discussed the modified-directed dyads, we turn our attention to the measurement of the dependent variable: conflictual foreign policy behavior. Ostrom and Job use their theory to explain uses of force by the US president. We expand the explanans to hostile foreign policy behavior, since our theory is intended to explain hostile behavior, not simply the use of force. Our argument is similar to one advanced by Most and Starr (1989:87–91) and Morgan (1990, 1994:3–6), both of whom provide a useful critique of the dichotomous definitions of war/not war (or force/not force) used in so many studies. A decision to examine a dichotomous dependent variable that is coded “use of force” or “no use of force” for each observation is an arbitrary decision to divide into a dichotomy behavior that can usefully be conceptualized on a continuum. That is, chief executives can express displeasure with the foreign policy behavior of another state—and seek to influence future behavior—using a wide variety of means, including delivering (or having someone else deliver) a speech denounc-
ing the policy, recalling an Ambassador, making a public threat of force, mobilizing troops, or actually using force. Our model is intended to explain that full range of behavior.

We adopt the quarter year (i.e., January–March, April–June, July–September, and October–December) as the unit of temporal aggregation, and our temporal domain is the years 1953–1978. The conflictual foreign policy behavior variable is operationalized using the Cooperation and Peace Databank (COPDAB), which does not code data beyond 1978 (Azar, 1993).

The COPDAB project coded news reports of foreign policy behavior. It is an events data set, which is to say that the unit of observation is a foreign policy event. The COPDAB coders would read a news report of a foreign policy event and then code the date, the actor (e.g., the US), the target (e.g., Cuba), and assign the foreign policy act a score on an ordinal scale of behavior over a cooperation-conflict continuum. Conflictual foreign policy acts are events with a score greater than eight on the COPDAB scale (cooperative acts receive a score of eight or less). Because ordinal level data do not meet the assumptions required to perform multivariate regression analyses, the COPDAB project created a set of interval weights to assign to each event score so that the ordinal level data can be converted into interval level data (Azar 1993).

To generate our series we first select all events in which the United States was an actor (to create the series measuring conflict sent by the US), and all events in which the US was a target (to measure the conflict received). Using the weighted scores, we then create two variables by calculating the quarterly mean of all conflict events sent and received by the United States.

Presidential popularity is measured as the aggregated quarterly average of Americans who say that they approve of the performance of the president. We used Burbach’s (1995) dataset, and used the mean score of the polls in each quarter. Burbach compiled the responses to the Gallup poll survey question about approval of the job the president is doing from King and Ragsdale (1988), Edwards (1990), and various issues of Gallup Opinion Index and Gallup Poll Monthly.

Results

Though the centerpiece of our hypothesis tests is a regression analysis, we first conducted some diagnostic analyses. We began with a univariate ARIMA analy-

9 Freeman (1989) and Goldstein (1991) raise concerns about the impact of temporal unit of aggregation choices in the study of foreign policy behavior. We are aware of this concern, and also studied series produced using monthly units of aggregation. The results are not notably distinct from those reported here, and we make detailed reference to that issue when reporting our findings below.

10 We also conducted analyses using the total—rather than the average—quarterly conflict levels, and the results were not substantively different. They are available in the replication data set.

11 Burbach’s data includes some interpolated values. We deleted the interpolated values before creating the quarterly scores.
sis of the relevant series: hostile behavior sent by the US and hostile behavior received by the US. This exercise gave us a feel for the univariate dynamics of each series.\(^\text{12}\) Second, to determine whether the series are I(1) (i.e., whether their first difference is stationary) we conducted augmented Dickey–Fuller (ADF) and Philips–Perron unit root tests. This is important because ignoring this question can lead to spurious regression (Granger 1980). We found that the series are I(1), which led us to evaluate the possibility that the series are cointegrated. We thus selected Johansen’s (1988) vector error-correction regression model to estimate parameters and test our hypotheses.\(^\text{13}\)

### Stationary and Cointegrated Series

To ensure that one is not reporting spurious regressions one must determine whether the series have constant means and variance (i.e., whether the series are stationary). The ADF unit root test can be used to evaluate the hypothesis that the series is stationary. Because the ADF test statistics (not reported) fail to exceed the critical value for any of the three series (i.e., hostility sent, hostility received, and approval), we accept the null hypothesis that they contain unit roots (i.e., are not stationary).\(^\text{14}\)

We also conducted ADF tests for the first difference of each of the series.\(^\text{15}\) The results (not reported) suggest that each of the three series is I(1), and that finding implies that we should determine whether a linear combination of the series are cointegrated.\(^\text{16}\) If each series is non-stationary, but a linear combination of the series are stationary, then those series are cointegrated. Any given \(N\) non-stationary series may contain as many as \(N - 1\) cointegrated equations. In our case, we have 3 series, so there may be 0, 1, or 2 cointegrated equations.

\(^{12}\) Due to space limitations, these results are not reported, but they can be examined using the replication data set.

\(^{13}\) See Enders (1995, ch. 6) for a useful introduction.

\(^{14}\) We report the results of an ADF test that assumed neither a constant nor a trend for the hostility sent and received series, and with a constant but no trend for the approval series. We used four lags because our data are aggregated over the quarter—year.

\(^{15}\) Again, we report the results of an ADF test that assumed neither a constant nor a trend for any of the series. We used four lags because our data are aggregated over the quarter—year.

\(^{16}\) We should note that the conclusion that Approval is I(1) is controversial. Beck (1991) and Williams (1992) argue that Approval is stationary. Their argument is not based merely on the results of unit root tests (recall that any series is merely a representation of the full series, and any given series may produce the wrong inference in a unit root test, to say nothing of making a Type II error). Instead, they argue that it does not make sense theoretically for Approval to be I(1). For example, should we believe that the 1979 Iran hostage crisis will affect the president’s approval in 2010? We could invoke this argument and conclude that the three series are not cointegrated, thus supporting Hypothesis 3, but this impresses us as an easy way out that would not necessarily persuade others. As such, we accept the inference drawn from the unit root tests and report below the results of the test of the hypothesis that the three series are cointegrated.
The Vector Error Correction Regression

The first step of the Johansen method is to determine the number of cointegrating equations to estimate, and the second step in the Johansen method is to estimate a VEC model.\textsuperscript{17} The VEC regression model produces parameters for two equations: the cointegrating equation and the vector error correction equation. The parameter estimates from both equations are relevant for drawing inferences about the hypotheses we evaluate in this study.

The VEC model provides us with information beyond the parameter estimates, and we also use that information for drawing inferences about the hypotheses. Specifically, the impulse response functions and variance decomposition yield useful information. Impulse response functions map the impact on a given variable of a shock in another variable. A variance decomposition provides information that can be used to determine whether a given series is exogenous to another series.

To test our three hypotheses we specified a three equation VEC regression composed of conflictual US foreign policy toward other countries (\(HS\)), other countries’ conflictual foreign policy behavior toward the US (\(HR\)), and presidential approval (\(A\)). Doing so allows us to determine whether the three series share a common trend. Hypothesis 1 suggests that \(HR_t\) and \(HS_t\) have a common trend such that their linear combination forms a stationary series. Thus, we are interested in determining whether

\[
HS_t - \delta_1 HR_t - \delta_2 A_t - \alpha = \nu_t
\]

where \(\nu_t\) is a 0 mean, normally distributed, stationary series. Let \(\delta = (1, -\delta_1, -\delta_2, -\alpha)\) be the cointegrating vector. As above, the constant, 1, is associated with \(HS\), and has a positive sign. If the directed-dyadic foreign policy behavior of the US and other countries is driven by an error-correction process (Hypothesis 1), then \(\delta_1\), which represents \(HR\), in this representation, will be statistically significant and will have a negative sign. The sign will be negative because the constant, 1, which represents \(HS\), in this representation, has a positive sign. If the series have an error-correction relationship, then they must have opposite signs. If they have the same sign, we can infer that the data generating process is not

\textsuperscript{17}We should note that although there are two steps to the procedure, both the cointegrating equation and the error correction model are estimated in a single step. This is a substantial advantage of the procedure over the Engle—Granger two step method, which estimates the cointegrating equation and the error correction model in separate steps, thus increasing the possibility of problems with specification error. More important, however, is that the Johansen method provides an explicit test for the number of cointegrating equations (or vectors) when one is studying three or more series, as we do below when testing Hypotheses 3 and 4. As Enders (1995:385) explains, “in tests using three or more variables, the [Engle—Granger] method has no systematic procedure for the separate estimation of the multiple cointegrating vectors.” This shortcoming of the Engle—Granger method was the decisive factor in our decision to use the Johansen method.
error-correction, but rather action-reaction, which would be consistent with Hypothesis 2.\(^{18}\)

There are, of course, other possibilities. For example, if either \(A_t\) or both \(HR_t\) and \(A_t\), are cointegrated with \(HS_t\), then \(\delta_1\) and \(\delta_2\) must have a negative sign, as represented above in the cointegrating vector. Hypothesis 3 suggests that approval \((A_t)\) has a systematic impact on hostility sent \((HS_t)\). Given that we concluded that \(A_t\) is an I(1) series, we must now determine whether a linear combination of \(A_t\) and \(HS_t\) is cointegrated (in combination with \(HR_t\), or without \(HR_t\)). If \(A_t\) and \(HS_t\) are cointegrated, then the estimate of \(\delta_2\) will be negative and statistically significant. That finding would be consistent with Hypothesis 3.

For convenience of presentation, we will assume 1 cointegrating vector, and can write the three equation VEC as follows:

\[
\begin{align*}
\Delta HS_t &= \beta_0 \delta + \Sigma \beta_{11} \Delta HS_{t-1} + \Sigma \beta_{12} \Delta HR_{t-1} + \Sigma \beta_{13} \Delta A_{t-1} + \epsilon_1 \\
\Delta HR_t &= \beta_1 \delta + \Sigma \beta_{21} \Delta HS_{t-1} + \Sigma \beta_{22} \Delta HR_{t-1} + \Sigma \beta_{23} \Delta A_{t-1} + \epsilon_2 \\
\Delta A_t &= \beta_2 \delta + \Sigma \beta_{31} \Delta HS_{t-1} + \Sigma \beta_{32} \Delta HR_{t-1} + \Sigma \beta_{33} \Delta A_{t-1} + \epsilon_3
\end{align*}
\]

where the \(\beta\)'s are \(i\)-dimension vectors of parameters to be estimated, and \(i\) is the number of lags included in the VEC model. The ECM parameters, \(\beta_i, n \in \{1, 2, 3\}\), are the response rates and indicate how rapidly the series return to equilibrium. If the ECM parameters for \(\Delta HS\) and \(\Delta A\) have opposite signs, we would infer that we could not reject Hypothesis 3.

We can use the above system of three equations to test Hypotheses 1, 2 and 3. We evaluate Hypothesis 1 (rational expectations, error-correction) in the context of five different implications: (1) in the first step \(\lambda\) should exceed the critical value for the hypothesis of zero cointegrating equations, (2) the \(\delta_1\) parameter estimate for the cointegrating vector should be negative and statistically significant, (3) the ECM response rate parameters, \(\beta_i, i \in \{1, 2\}\), should have opposite signs and both should be statistically significant, (4) the impulse response functions should show that the series respond to innovations in the other series, and (5) the variance decompositions should suggest that the two series can be used to forecast the error variance in the other.

Hypothesis 2 (action-reaction), on the other hand, implies that (1) the \(\delta_1\) parameter estimate for the cointegrating vector should be positive or statistically non-significant and (2) the estimates of \(\Sigma \beta_{12}\) and \(\Sigma \beta_{13}\) parameters should be statistically significant. With respect to Hypothesis 3 (domestic politics), we will reject the null hypothesis of no relationship if the parameter estimates for \(\delta_2\) and

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\(^{18}\)We should note that a more direct test of our argument is a two equation VEC regression composed of conflictual US foreign policy behavior toward other countries and other countries’ conflictual foreign policy behavior toward the US. We estimated that VEC model and the results are consistent with those reported here for the three equation model. A write up of those results can be found in an earlier version of this paper which is available at the 2001 Working Papers page of the Department of Political Science at Florida State University.
$\beta_{13}$ are statistically significant. In addition, the impulse response functions will help us determine the extent to which approval has an impact on hostility sent, and the variance decomposition will suggest whether the approval series is exogenous to the hostility sent series.

Table 1 reports the results from the Johansen cointegration test and Table 2 reports the results from the VEC. We again assumed an intercept in the cointegrating vector, but not in the VEC, and no drift terms. We examined 4 lags through 1 lag, and the AIC/SC statistics suggest that a 1 lag specification is superior. That the estimate for $\lambda$ exceeds the critical value for the hypothesis of zero cointegrating equations suggests that we cannot yet reject our hypotheses and should estimate the VEC.

The results from the first step indicate that there is at least one cointegrating equation among the series, but whether we infer the presence of one or two cointegrating vectors depends on the probability of making a Type I error one wants to adopt. Against the null hypothesis that there are no cointegrating equations $\lambda$ substantially exceeds the critical value whether one adopts a .05 or .01 significance level. However, against the null hypothesis that there is at most 1 cointegrating equation, $\lambda$ barely exceeds the critical value at a .05 probability, and is below the critical value at the .01 level. A VEC with more than one cointegrating vector can produce ambiguous results, and thus one would prefer to find evidence of a single cointegrating vector. Yet, our rational expectations theory implies that there will be one cointegrating vector, between $H_{St}$ and $H_{Rt}$, with $A_t$ exogenous. Thus, in the interest of not biasing the test in our own favor, we estimated the VEC with both 2 and 1 cointegrating equations. The results indicate the same inferences with respect to the hypotheses, so we report only the results assuming 1 cointegrating vector.

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**TABLE 1**

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>Alternative Hypothesis</th>
<th>$\lambda$</th>
<th>5% Critical Value</th>
<th>1% Critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 CEs</td>
<td>&gt;0 CEs</td>
<td>41.29</td>
<td>34.91</td>
<td>41.07</td>
</tr>
<tr>
<td>≤1 CE</td>
<td>&gt;1 CE</td>
<td>20.02</td>
<td>19.96</td>
<td>24.60</td>
</tr>
<tr>
<td>≤2 CEs</td>
<td>&gt;1 CE</td>
<td>5.96</td>
<td>9.24</td>
<td>12.97</td>
</tr>
</tbody>
</table>

---

20 The potential ambiguity derives from the fact that the $\delta$ parameters (i.e., the cointegrating vector parameters) and the $\beta_i, i \in \{1, 2, 3\}$ parameters (i.e., the response rates) often vary across different choices of the normalization series in the cointegrating vector.

21 If we assume two cointegrating vectors, the inferences are the same as those produced by the results reported in Table 3 which assume one cointegrating vector. The results assuming two cointegrating vectors can be reproduced using the replication data set.
The cointegrating vector is \( \delta = (1, -5.3, 0) \). Using a conventional \( \alpha \) level, the \( \delta_n, n \in \{1, 2\} \) parameter estimate for \( A_t \) in the cointegrating equation cannot be distinguished from 0. This finding is inconsistent with Hypothesis 3.

Turning our attention to the VEC, and the response rate parameters, \( \beta_n, n \in \{1, 2, 3\} \), associated with \( \delta \), we see that all three are statistically significant. The \( \beta \) parameters associated with \( \Delta H_{St} \) and \( \Delta A_t \) have a negative sign and the parameter associated with \( \Delta H_{Rt} \) has a positive sign. This suggests that \( H_{St} \) and \( H_{Rt} \) move toward one another in response to a change in \( \delta \), and that \( A_t \) and \( H_{Rt} \) also move toward one another in response to a change in \( \delta \). The parameter estimates for \( A_t \) and \( H_{St} \) have the same signs, so they do not share a long run equilibrium relationship, except indirectly through \( H_{Rt} \). The size of the parameter estimates suggest that all three variables respond rather sluggishly to the ECM.

This information suggests that \( A_t \) contributes to the ECM; that approval has a long run equilibrium relationship with hostility received (on which the literature is mute); but that it does not have a long run equilibrium relationship with hostility sent (which is the expectation of Hypothesis 3). Further, the t-score for

### TABLE 2

**VEC Analysis of 3 Series, 1 CE**

<table>
<thead>
<tr>
<th>Cointegrating Equation</th>
<th>( \delta )</th>
</tr>
</thead>
<tbody>
<tr>
<td>( H_{St} )</td>
<td>1.0</td>
</tr>
<tr>
<td>( H_{Rt} )</td>
<td>-5.30*</td>
</tr>
<tr>
<td>( A_t )</td>
<td>.36</td>
</tr>
<tr>
<td>( \alpha )</td>
<td>-43.80</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vector Error Correction Equations</th>
<th>Dependent Series</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \Delta H_{St} )</td>
</tr>
<tr>
<td>( \delta )</td>
<td>-.10*</td>
</tr>
<tr>
<td></td>
<td>(.05)</td>
</tr>
<tr>
<td>( \Delta H_{St,1} )</td>
<td>-.22*</td>
</tr>
<tr>
<td></td>
<td>(.10)</td>
</tr>
<tr>
<td>( \Delta H_{Rt,1} )</td>
<td>-.14</td>
</tr>
<tr>
<td></td>
<td>(.28)</td>
</tr>
<tr>
<td>( \Delta A_{t,1} )</td>
<td>.06</td>
</tr>
<tr>
<td></td>
<td>(.11)</td>
</tr>
</tbody>
</table>

Standard errors are reported in parentheses.
\( \Delta A_{t-1} \)’s parameter estimate in the \( HS \) equation indicates that it does not have a statistically significant impact on US foreign policy behavior.\(^{22}\)

Figure 1 contains the impulse response functions for this VEC.\(^{23}\) Each panel exhibits the response of a given series to shocks in the error of each of the three equations. First, all three variables are most responsive to innovations in their own equations. However, what is interesting about these graphs is the relationships among the three series. First, an innovation in the \( A \) equation has little impact on the \( HS \) series: there is a tiny initial increase in hostility sent when there is a positive innovation in the approval series, and then there is a fairly small drop in hostility sent after three quarters. This could be viewed as weak evidence for or against Hypothesis 3 (depending on whether one focused on the presence of the impact or its small size). On the other hand, \( HS \) is responsive to an innovation in the \( HR \) equation. The other interesting things to note in these graphs are that (1) similar results are found in \( HR \)’s functions, and (2) \( A \) is rather responsive to an innovation in the \( HR \) equation (and rises in response to a positive innovation in the hostility received equation), and not very responsive to an innovation in the \( HS \) equation (rising briefly, then falling). The impulse response functions for \( A \) suggest that approval rises in response to foreign aggression and the impact grows over time and stays positive indefinitely, but that while approval rises a bit at first in response to domestic aggression toward other countries, it falls after six quarters, and then stays slightly negative indefinitely.

These results suggest that the American public will initially support a president’s hostile behavior, but that the support will wane and ultimately erode approval in fairly short order, while a greater portion of the American public will support the president indefinitely in the face of foreign hostility. These impress us as rather reasonable findings, and are consistent with the literature regarding the “rally effect” (Mueller 1973; MacKuen 1983; and Lanoue 1988).

When we examine the variance decomposition we find that \( HS \) has a statistically significant impact on the forecast error variance in \( HR \), accounting for

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\(^{22}\) We also used the Engle—Granger method to test for a CI relationship among the three series. We only examined the possibility of a single CE with this method. The results of the first step produced the inference that each residual from a regression on the other two is stationary, thus implying cointegration. The second step is to estimate an error correction model. We estimated three error correction models, using each of the three residual series as the ECM in one of the regressions. The results varied rather dramatically, depending on which residual series was used as the ECM. Further, as is the case with the Johansen method, when both \( HS \) and \( A \) produced statistically significant parameter estimates, they had the same sign, suggesting that they do not have a long run equilibrium relationship.

\(^{23}\) These functions can be sensitive to the ordering of the variables, so we calculated them using all possible orderings, and the results were not meaningfully different. The ordering reported here is: \( HS, HR, A \). Further, An anonymous reviewer pointed out that an unrestricted vector autoregression (VAR) on \( I(1) \) series is efficient, and thus serves as a useful check on the VEC impulse response functions. That is, the VAR impulse responses should tell a similar story to the impulse response functions of the VEC. We estimated an unrestricted VAR and the impulse response functions tell a similar story (this can be checked with the replication data set).
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FIGURE 1

Response of HSt to One S.D. Innovations

Response of HRt to One S.D. Innovations

Response of At to One S.D. Innovations
31.8% after 16 periods. In contrast, $A_t$ fails to produce a statistically significant impact on the forecast error variance of either $HS_t$ or $HR_t$. These results suggest that $HS_t$ has an endogenous relationship with $HR_t$, and that $A_t$ is exogenous to both $HS_t$ and $HR_t$. On the other hand, $HS_t$ does not have a statistically significant impact on the forecast error variance in $A_t$, but $HR_t$ does (accounting for 33.2% after 16 periods). This suggests that $HS_t$ is exogenous to $A_t$, while $HR_t$ is not exogenous to $A_t$.

To summarize, the findings in Table 2 are generally inconsistent with Hypothesis 3: the ECM response parameters, $\delta$, for $\Delta A_t$ and $\Delta HS_t$ suggest that the two series do not share a long run equilibrium relationship. Further, the parameter estimate for $\Delta A_{t-1}$ in the $\Delta HS_t$ equation is not statistically significant, and an examination of the impulse response functions fails to reveal a strong relationship between innovations in approval and a response in hostility sent. Finally, the variance decomposition implies that approval is exogenous to hostility sent. We think it is reasonable, therefore, to conclude that the tests produce evidence that fails to support the theory advanced and tested by Ostrom and Job and others.

Conclusion

This study develops a rational expectations theory of foreign policy behavior. Specifically, we argue that presidents are prospective decision makers who choose between foreign and domestic tools to address foreign and domestic policy issues that threaten their ability to govern effectively. We assume that the president enters office with a belief that domestic policy tools are, on average, more effective than foreign policy tools for addressing domestic policy issues, and that foreign policy tools are, on average, more effective than domestic policy tools for addressing foreign policy issues. We thus expect to find a systematic relationship between conflictual foreign policy behavior directed at the United States and the conflictual foreign policy behavior sent by the United States to other countries, but do not expect to find a systematic relationship between presidential approval and conflictual foreign policy behavior. We test three hypotheses using Johansen’s (1988) method, and the results are consistent with our expectations.

Our findings are, therefore, inconsistent with one frequently reported in the literature that conflictual US foreign policy behavior was strongly influenced by domestic factors during the Cold War. We contend that previous work, by not considering the hostility sent by other countries against the United States, is misspecified.

We hope this study breathes new life into the empirical debate about the impact of executive performance on conflictual foreign policy behavior. Interest in domestic politics and foreign policy has shifted in recent years from the analysis of domestic performance per se, to comparisons between autocratic and democratic institutions, and that new generation of research suggests that domestic politics play a critical role in foreign policy making (e.g., Fearon 1994; Smith.
1996; Siverson 1998; and Bueno de Mesquita, Morrow, Siverson and Smith 2000). We do not believe that our findings are necessarily at odds with this new generation of work. Smith (1996), for example, contends that countries will adjust their behavior so as not to antagonize a president who is suffering from economic or political woes. His model thus implies that though domestic politics can give politicians incentives to pick a fight abroad, other countries will deny those countries the opportunity to fight, and thus one will not observe a relationship between domestic politics and international conflict. Future research in this area will do well to explore the implications of these different arguments, and specify statistical models that allow us to test the hypotheses developed.

Finally, to the extent that our findings can be generalized beyond the US during the Cold War, they have implications for the broader literature on the democratic peace. In a recent study Hess and Orphanides (2001) challenge the democratic peace literature with an argument along the lines of Ostrom and Job and data analyses which suggest that leaders of countries with democratic institutions succumb to the incentive to gamble for resurrection and thus undertake hostile foreign policy behavior in response to electoral incentives. Large N studies by Gowa (1988), Enterline and Gleditsch (2000), and Oneal and Tir (2002) report findings at odds with the Hess and Orphanides result, and are consistent with Meernik’s (1994), Mitchell and Moore’s (2002), and this study of US presidents. Thus, a growing body of both large N and time series case studies of the US are finding that leaders in democracies do not engage in foreign policy adventurism in response to poor economic performance and/or standing in the polls. Those results lend support to the normative benefits of democratic institutions.

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References


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