Is Anyone Listening? Crisis Signaling by the British House of Commons, 1918-2004

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Abstract

Several prominent theories suggest that vocal legislative opposition to leadership policies in international crises can moderate governmental stances and/or embolden adversaries. However, empirical tests of these theories have looked only at indirect measures of both independent and dependent variables. We change this by employing large-scale, textual analysis software to examine all British Parliamentary debates concerning international crises, for the period 1918-2004. We account for variations in the certainty, anger, and anxiety expressed by Parliament members during debates and identify the level of agreement among party members. Our analyses of these debates suggest our measures perform well since both certainty and anxiety predict British crisis escalation quite well. However, potential signals of calculated risk-taking propensity on the part of the House of Commons do not, independently, influence the escalatory behavior of the UK's primary adversaries in interstate crises. Certainty and anxiety in British Parliament are associated with increased escalation by adversaries in most types of crises, even when controlling for common predictors of crisis escalation. We discuss the implications of these arguments for theories of democratic signaling.

Keywords
Militarized Interstate Disputes, Correlates of War, Conflict, Data Replication

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One of the most theoretically rich explanations for why democracies do not fight each other focuses on the role of informative signaling. Democracies are purported to signal better because of the prevalence of open debate and competitive domestic political environments (Schultz 2001*a*). Thus, when the opposition actually backs the leadership's position in a democracy, greater credibility attaches to the signal. Knowing this, rivals are less likely to challenge, and, when two democracies face each other over a contentious issue, their signaling abilities assure peaceful resolution of the crisis before escalation to war (see also Fearon 1994).

Tests of these arguments have provided strong support for the theory but have done so using only simple assessments of legislative debate and/or indirect measures of rival actions. This is somewhat understandable given the strategic nature of audience cost advantages and legislative signaling (Schultz 2001*b*). However, we use this paper to change the nature of these empirical tests in two distinct ways. First, we focus on one democracy and examine, in detail, the entire legislative record of the state as it pertains to foreign policy crises. Using textual analysis software, we are able to generate quite accurate measures of the overall certainty in these debates as they pertain to specific crises; we can also measure such psychological attributes as anxiety and anger among legislators. Thus, we directly measure the tenor of legislative debate as each crisis unfolded. Second, by focusing on one state and all of its crises, we are able to examine escalation within conflict, which is a much more appropriate test of the signaling logic. Together, these research design improvements give us the ability to provide empirical tests of democratic signaling at a level of precision and theoretical consistency that has been absent in prior works.

We focus on the crises in the United Kingdom (UK) for these analyses, specifically all crises in the International Crisis Behavior (ICB) dataset involving the UK for the period 1918-2004. This sample includes 592 House of Commons debates that are directly related to the 44 ICB Crises in which the UK was a participant. Our analyses of these debates suggest our measures perform well since both certainty and anxiety predict British crisis escalation quite well. However, contrary to the arguments of the signaling model of escalation, we do not find strong evidence that certainty, anxiety, or anger lead to de-escalation or avoidance behavior by British adversaries. In fact, certainty and anxiety in British Parliament are associated with increased *escalation* by adversaries in several types of crises—including those involving territorial threats—even when controlling for common predictors of crisis escalation.

We begin our argument in the next section with an outline of the informative signaling argument and the problems associated with empirical tests of signaling. We then discuss our method of textual analysis and discuss our estimations of the ability of British Parliament to effectively signal. Finally, we close by considering the implications of our findings for debates over the democratic peace.

Legislative Signaling in International Crises

When leaders hold private information regarding their capabilities and resolve, cooperation becomes challenging. State leaders have an incentive to bluff their capabilities or resolve in order to coerce greater concessions from the other actor. Therefore, the ability to differentiate between cheap talk and credible information becomes critically important to both avoid losses and win concessions. While leaders can often deduce reliable assessments of opposing capabilities, understanding an opponent's resolve is more difficult. How does one distinguish between a leader who is bluffing and one who is resolved to fulfill their threat?

Originating with Thomas Schelling's (1960) discussion of credible commitments, audience costs are the domestic penalties (e.g. removal from office) that leaders fear they will suffer if they back down from a public threat during an international crisis (Fearon 1994). The added cost associated with backing down adds credibility to leader threats, thereby providing a more informative signal to other leaders than capabilities or other observables. Audience costs have been used to explain a variety of international interactions, but most studies have focused on the unique ability of democratic leaders to signal their intentions.

In two separate works, Schultz (1998, 2001a) changes the mechanism for democratic signaling from a method of constraining leaders to a rationale for why institutions inform during crises. The argument rests on the strategic politics of democratic opposition parties. Schultz argues that opposition parties provide checks on the actions and statements of the leader. Opposition parties that back the leader signal resolve, while opposition parties that fail to support the leader signal ambivalence or contention within the state. In a politically competitive state, opposition parties try to garner support and votes, so their position taking is informative, and, since democracies tend to be the only states that have both active opposition parties and a media system that advertises these platforms, democracies should have a signaling advantage over other types of states during

crises. Schultz (2001a) confirms this advantage in several case studies and also by demonstrating that militarized interstate disputes (MIDs) initiated by democracies are less likely than other types of disputes to be reciprocated; democratic leaders' initiations are indeed credible. Weeks (2008) confirms the reciprocation finding and also extends the logic of the argument to a limited set of non-democracies with similar domestic constraints.

Matching theory to empirics is difficult in this literature, and there is often too much slippage between concept and measurement in extant tests of signaling with open democratic debate. Schultz (1998) introduced the theoretical argument of informative democracies and, later, tested the implications of the argument in two separate studies (Schultz 1999, 2001a). The tests used a simple dichotomous variable of dispute reciprocation, arguing that democracies, if they were able to signal credibly, would be less likely to find their initiations reciprocated. Opposition party behavior and open debate were assumed to be part of democratic institutions and were never directly identified in the empirical tests. Instead, failure to reciprocate a democratic challenge constituted confirmation of the informative democracy argument. Schultz (2001a, 163-175) also examines the effects of opposition party support on extended deterrence outcomes using Huth's (1988) data. However, he notes that, given the strong selection effects in the sample, there is very little outright opposition in the legislature during these events. Only five of 31 threats were coded as lacking opposition support with the dichotomous measure. In a statistical analysis of these deterrence cases, democratic challenges backed by the opposition were more likely to be successful ($p < 0.10$) while opposed actions had no effect on success.

We should note that recent theoretical work has begun to question the informational advantage of democratic legislatures. For example, Arena (2015) demonstrates that the signaling advantages trumpeted by Schultz (1998) maintain only under fairly restrictive conditions of the formal models. Instead, Arena argues that legislative rhetoric is often uninformative to adversaries and may, in some cases, provoke escalatory behavior that leads to unwanted wars. This is an important point for understanding our empirical tests. We focus on the restrictive conditions that make legislative signaling most likely—a best-case outcome for the original theory.

Properly Matching Theory with Empirical Test

Schultz (2001a, 95-96) argues that opposition parties provide a confirmatory function when they back the government. Unity across parties signals adversaries that the actions of the government are not unilateral bluffs; instead, the state is most likely resolute in its actions. Since the opposition seemingly has no domestic political motive to back the government's policies, the fact that it does signals foreign policy agreement. Note, here, that the key variable is unity across parties, from which resolve is inferred.

Schultz (2001a, 96) also suggests that opposition disagreement with the government will not affect adversary behavior. Party disunity in the legislature will instead constrain the government and make it less likely to bluff against adversaries since governments in power will not want to risk the after effects of failed policies amid criticisms by the opposition. Together, these two observations make it likely that democratic governments with open legislative debate will be more adept at signaling their intentions.

The underlying theory of opposition signaling is clearly innovative, but prior tests have largely ignored the information provided by open legislative debate during crises. For example, Schultz's (2001a) tests of the theory use either dummy variables for the presence of democracy (assuming that democracies are informative) or operationalize the unity across party positions with a dummy variable that codes opposition agreement or disagreement with the government. Either of these tests is problematic for several reasons.

First, the degree to which legislative activity is informative to potential adversaries is likely contingent upon issue salience. Snyder and Borghard (2011) argue that the "committing threats" central to the generation of appreciable audience costs are very rarely issued. Similarly, Gibler and Hutchison (2013) note that few, if any, democracies face serious threats to their homeland territories (but see also Davies and Johns 2013). If these arguments are correct, and it is likely that informative debates over salient issues are quite rare, then few electoral incentives will exist for opposition parties to take political stands over issues the public cares little about. A proper test of legislative signaling must control for issue salience and the types of crises that involve the government.[1]

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[1] Schultz (2001a) does control for issue type when testing dispute reciprocation. However, those tests assume uniform effects from legislative signaling across all issue types.

Second, audience support is often nuanced and almost never dichotomous. Making unity a dichotomous measure will conflate limited support with full opposition backing of the government. Opposition parties may stand in unison with the leader while their actual support is thin and their dialogue remains ambiguous. Indeed, vague rhetoric will likely be correlated with issue salience and the likelihood of electoral sanction, as Schultz (2001b) notes elsewhere. It is also possible that the government is not unified in its own policy stance during the crisis, as officials defect strategically or otherwise. These problems make it essential to examine the actual rhetoric in the legislature and the type of signal that is sent by the open debates.[2]

Finally, perhaps the most serious problem with tests of legislative signaling is that none captures variations in legislative signaling and rival response during the crisis itself. Consider the strategy Saddam Hussein used during the 2003 invasion of Iraq. The goal was not to defeat the invaders but to change public and legislative opinion by inflicting casualties—a strategy that has often been used against democratic governments, at least since the American intervention in Vietnam. If this strategy is successful, initial opposition party support evaporates. More generally, in fact, opposition parties can have ex ante political incentives to withdraw support for conflicts they initially endorsed, especially when the state is forced to choose between accepting an unfavorable diplomatic outcome and initiating a risky armed conflict (Arena 2015). This implies that the opposition party's position is endogenous to both the strategy of the adversary and the success of the government in prosecuting state interests during the crisis. As such, the exclusive use of opposition policies at the start of crises to analyze the impact of legislative signaling on crisis development and outcomes renders empirical tests inconsistent or possibly even meaningless. Properly testing legislative signaling requires successive identification of opposition party position as domestic and international events change during crises.

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[2]Very few scholarly works have tested the signaling argument, directly or indirectly, by examining actual legislative behavior. Three related pieces offer some insight into the relationship between opposition criticism of various magnitudes and adversary behavior or electoral outcomes, but even these are insufficient to capture the dynamics suggested by the audience cost approach. Foster (2006, 2008) demonstrates that the United States is more likely to be targeted for militarized incident initiation when individual members of Congress voice displeasure with presidential foreign policy choices. While capturing variation in critical legislative activity, Foster's framework does not account for the institutional depth and breadth of opposition, and the opposition it codes need not deal with any exigent foreign policy crises. Arena's (2008) study of British, US, Indian, and Israeli legislative behavior shows that there are electoral consequences when the opposition is against war: specifically, criticism diminishes the opposition party's share of legislative seats won in the next election when that party disagrees with successful war leader policies. However, this does not capture variations in the intensity of criticism, nor does it gauge the influence of potential costs on adversaries' strategies.

Identifying the Content of Legislative Signaling

We focus on one democracy—the United Kingdom—and all open legislative debates during international crises between 1918 and 2004. This type of focus allows us to analyze, in depth, the full content of legislative rhetoric during all types of potential crises confronting their democratic government. According the International Crisis Behavior Database, the UK was a direct participant in 44 crises during this time period (Brecher and Wilkenfeld 1997).

We identified the universe of crisis-relevant debates in the House of Commons (retrieved from Hansard Commons), which include oral question periods, Prime Minister's time and statements by relevant cabinet ministers, and prescheduled Commons debates pertaining to a given crisis. We organized the debate transcripts by the international crisis to which they pertained and then separated the debates by day. This allowed us to match each specific debate with the adversarial and government actions that follow within each crisis and gave us a total of 592 days of debate to analyze. Table 1 provides a list of all UK-involved crises, the dates of British involvement, the number of total diplomatic and military actions taken by the UK's primary crisis adversary, and the number of crisis-relevant debates occurring in the House of Commons.

We measure opposition support of the government position by identifying the cumulative level of certainty in speech during each debate day. This has two primary advantages. First, we know from linguistic analysis that politicians have incentives to be vague and dissemble, especially when outcomes remain uncertain. Thus, even when an open speech seemingly supports a government policy position, the level of support may be thin and easily changed to an opposing stance. Identifying the modal level of certainty in political speech overcomes this. Since the debates are measured cumulatively, with both government and opposition speaking, a high level of certainty within the debate will denote both the unity between parties and the level of honesty in the rhetoric.[3] Second, a focus on the overall debate-day allows variation in policy support within the leadership's position as well. The party in power may not always provide strong support for specific government policies, or politicians may seek cover for policies unpopular with their constituencies. Either behavior should send a signal to adversaries and also constrain government behavior according to Schultz

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[3]Simon-Vandenbergen (1997) provides important evidence for our point using interviews of British politicians. While the linguistics literature affirms that politicians have strong incentives to be evasive and non-commital, Simon-Vandenbergen shows that modal certainty levels can help interpret the political function of the evasiveness and, importantly, the level of support expressed for various positions by the speaker.

Table 1: ICB Crises involving Direct UK Participation, 1918-2004

ICB Crisis Number	Crisis Name	Dates	Primary UK Opponent	ICB Stakes/ "Threat to…"	# of Opponent Actions Against UK	# of Crisis-Relevant Debates
8	Third Afghan War	5/41/1919 - 8/8/1919	AFG	Sys/Reg Influence	5	11
26	Chanak	9/23/1922 - 10/11/1922	IRQ	Sys/Reg Influence	1	0
31	Mosul Land Dispute	10/3/1924 - 11/15/1924	IRQ	Economic	2	1
47	Ethiopian War	8/?/1935 - 3/3/1936	ITA	Sys/Reg Influence	0	21
51	Rhineland Remilitarization	3/7/1936 - 4/16/1936	GMY	Grave Damage	0	14
62	Czech May Crisis	5/19/1938 - 5/23/1938	GMY	Grave Damage	1	1
64	Munich	9/12/1938 - 9/30/1938	GMY	Grave Damage	3	1
71	Invasion of Albania	4/7/1939 - 4/19/1939	ITA	Sys/Reg Influence	0	2
73	Tientsin	6/14/1939 - 8/29/1939	JPN	Sys/Reg Influence	3	21
74	Entry into WWII	8/21/1939 - 9/3/1939	GMY	Grave Damage	0	3
76	Finnish War	1/14/1940 - 3/13/1940	GMY	Grave Damage	1	17
77	Invasion of Scandanavia	4/9/1940 - 6/17/1940	GMY	Grave Damage	0	16
78	Fall of Western Europe	5/10/1940 - 6/17/1940	GMY	Grave Damage	3	6
79	Closure of the Burma Road	6/24/1940 - 7/14/1940	JPN	Grave Damage	4	3
81	Battle of Britain	7/10/1940 - 9/15/1940	GMY	Existential	4	8
82	East Africa Campaign	8/19/1940 - 5/17/1940	ITA	Sys/Reg Influence	5	18
83	Balkan Invasions I	10/28/1940 - 11/22/1940	ITA	Sys/Reg Influence	0	10
83.1	Balkan Invasions II	4/6/1940 - 6/1/1940	GMY	Sys/Reg Influence	1	0
84	Mideast Campaign	4/29/1940 - 7/14/1940	GMY	Sys/Reg Influence	8	9
88	Pearl Harbor	12/7/1941 - 2/15/1942	JPN	Grave Damage	5	9
98	Greek Civil War I	12/3/1944 - 1/15/1945	USR	Sys/Reg Influence	2	8
104	Trieste I	5/1/1945 - 6/9/1945	YUG	Sys/Reg Influence	4	1
108	Azerbaijan	11/16/1945 - 5/9/1946	USR	Sys/Reg Influence	1	13
123	Berlin Blockade	6/24/1948 - 5/12/1949	USR	Grave Damage	2	31
128	Sinai Incursion	12/25/1948 - 1/10/1949	ISR	Sys/Reg Influence	1	0
136	Suez Canal	10/8/1951 - 1/30/1952	EGY	Sys/Reg Influence	4	10
145	Dienbienphu	4/11/1954 - 4/27/1954	DRV	Lim. Military	0	4
152	Suez Nationalization/War	7/26/1956 - 11/6/1956	EGY	Grave Damage	2	16
165	Iraq/Lebanon Upheaval	7/14/1958 - 10/?/1958	EGY	Sys/Reg Influence	0	12
168	Berlin Deadline	11/27/1958 - 9/15/1959	USR	Sys/Reg Influence	4	34
183	Kuwaiti Independence	6/30/1961 - 7/13/1961	IRQ	Economic	1	9
185	Berlin Wall	8/13/61 - 10/17/61	USR	Sys/Reg Influence	1	1
207	East Africa Rebellions	1/19/1964 - 1/30/1964	UGA	Sys/Reg Influence	4	6
254	Cod War I	5/14/1973 - 11/13/1973	ICE	Economic	4	30
262	Belize I	11/1/1975 - 11/30/1975	BLZ	Sys/Reg Influence	3	2
263	Cod War II	11/23/1975 - 6/1/1976	ICE	Economic	2	32
279	Belize II	6/25/1977 - 7/28/1977	BLZ	Sys/Reg Influence	4	4
336	Falklands/Malvinas	3/21/1982 - 6/14/1982	ARG	Territorial	8	38
393	Gulf War	11/29/1990 - 4/12/1991	IRQ	Sys/Reg Influence	6	43
429	UNSCOM II	10/31/1998 - 12/20/1998	IRQ	Political	0	12
430	Kosovo	2/20/1999 - 6/10/1999	SER	Sys/Reg Influence	2	30
434	Afghanistan/US	9/11/2001 - 12/7/2001	AFG	Lim. Military	0	23
440	Iraq Regime Change	1/13/2003 - 5/1/2003	IRQ	Grave Damage	0	36
442	Iran Nuclear I	6/13/2003 - 11/15/2004	IRN	Sys/Reg Influence	2	25

(2001a, 95-96).

We also identify two emotional aspects of the general tenor of the debate—the level of anger and anxiety in the language used by legislators. Previous research has shown that increases in the level of anger in the messages conveyed by political actors are significant predictors of increased political aggression on the part of those actors, especially as it pertains to the use of political violence against arch-rival, opponent out-groups (Matsumoto, Hwang and Frank 2013). Crisis opponents of the UK who observe greater levels of anger in Commons debates may be more confident that elite discourse favors the use of force, or at least is clearly predisposed to standing firm. Increased levels of the negative emotion anxiety, which generally reflects worry or nervousness, may indicate a general increase in an actor's concern over the ramifications of a developing situation (e.g., Tausczik and Pennebaker 2010) and also affect the likelihood of escalation by the adversary.

We applied Language Inquiry and Word Count (LIWC) software to measure the certainty, anger, and anxiety in language used during each debate (Tausczik and Pennebaker 2010). The LIWC

software was developed to measure the psychological states of speakers or writers and employs a content-analysis dictionary, mapping individual words into particular emotional and cognitive categories. The software uses lists of words associated with each concept; these lists were chosen and refined through a series of statistical analyses and evaluations by human judges. The higher the proportion of words in a document that match the word lists for a particular concept, the higher the document scores for that concept. In addition to the psychological concepts discussed above, LIWC collects grammatical information, such as the numbers and types of prepositions, articles and helping verbs, the number and types of pronouns used, and the tenses of the verbs. This information provides context for the emotional and cognitive content of the text.

The statistical tests of LIWC's validity involve checking the correlation of the appearance and frequency of words within the same category and comparing LIWC's scores for each psychological, emotional, and cognitive dimension with human ratings of the same dimensions. Correlations within categories check the internal reliability of the categories. Texts that manifest a particular psychological state will tend to use several items from the list of words corresponding to that state. Higher covariance among words pertaining to the same psychological state is evidence that all those words relate to the same psychological state. Cronbach's alpha evaluates the internal reliability of the categories. Generally, these statistics establish that the word lists within the categories of interest do pertain to the theme of the category.[4] We used the LIWC software to produce one observation for each day of legislative debate on a particular crisis with scores for each of three psychological states: anger, anxiety, and certainty.

In addition to estimating the direct effects of these variables on the likelihood of opponent escalation, we include (in separate models) the interaction of the variables with the ICB project's "gravity" score for each crisis as a measure of the UK's stakes in the crisis. From a general perspective, crisis opponents of the UK may simply pay more careful attention to debates surrounding

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[4]Human judges established the external validity of the word lists. The human evaluations used teams of judges to choose words for each category. A team of three judges evaluated each term in each list to determine whether it manifested the psychological category to which it had been assigned. Terms were kept within the respective lists only if two of the three judges agree that the term manifested the relevant psychological state. LIWC has subsequently been compared with human evaluations of the emotional dimensions of essays written by college students (Rude, Gortner and Pennebaker 2004). The high correlations between LIWC scores and human evaluations suggest that LIWC successfully measures the psychological states manifested in texts. LIWC has been successfully used to study legislative debate for several purposes: to measure the level of emotion in debates in the U.S. Congress, to evaluate the complexity of political motivations expressed by U.S. state legislators (Mooney 2012), and to identify differences in speech patterns between male and female legislators (Yu 2014). Overall, LIWC has been viewed as a reliable and valid indicator of sentiment for political texts (Young and Soroka 2012).

high-stakes crises (such as those involving territorial integrity or national survival) than those involving lower stakes (such as economic or lesser policy disputes). More importantly, however, the introduction of a stakes measure allows us to gauge variations in the degree or severity of potential loss facing the UK and its effects upon risk-taking, and the likelihood that legislative signals are indeed informative. The ICB Gravity measure is an increasing-ordinal scale, ranging from zero (economic threats) to six (threats to the existence of the UK). A negative and significant relationship between these interaction terms (and especially Gravity * Certainty) would provide basic support for the general predictions of the signaling arguments outlined above.

Finally, we include four control variables in our logit analyses, one pertaining to Commons debates and three reflecting the strategic environments surrounding crises. We count the number of words used in the debate that immediately precedes each crisis. Since shorter debates are less likely to garner the attention of international actors, this measure accounts for the likely influence of each debate on the crisis situation. Second, we control for World War II with a dummy variable. British crises occurring in the context of World War II disproportionately concern higher stakes, and the tenor of the Commons debates surrounding these crises may exert less influence on crisis adversaries who are already involved in world war. Third, we include a relative power variable between the crisis opponent and the UK, using the Correlates of War Composite Index of National Capabilities score Bremer (1992). We expect that less powerful adversaries would be less likely to escalate crises against the UK. Lastly, we include the ICB ordinal measure of distance between adversaries in the crisis; escalation should be easier when crisis opponents are closer.

Cumulatively, our empirical strategy allows us to address the many deficiencies we outlined in previous empirical work. We account for both issue salience and variation in the clarity of the signal generated by legislative debate, and we do so in a dynamic way that allows change as crises progress. Below, we demonstrate the validity of our measure for predicting British behavior and then assess the effects of legislative signaling on adversary responses.

What are the Effects of Legislative Certainty?

We assess the validity of our linguistic measure of legislative unity by correlating it with British within-crisis escalation across our sample of crises. We identified British crisis escalation by devel-

oping our own dataset of all specific diplomatic and military actions taken by the UK during each crisis. The UK initiated 106 actions in our sample (compared with 138 actions initiated by UK's primary crisis adversaries and 175 actions initiated by either British allies or by crisis opponents). We coded escalatory moves as British actions that matched or exceeded the hostility level of the adversary, using the hostility level categorization developed in **?**. A dummy variable for British escalation is our first dependent variable. Consistent with Schultz (2001*a*), we expect the level of certainty in each debate will predict well government decisions to escalate against adversaries. We also estimated the effects of other linguistic variables as well, and Table 2 reports these findings.

Table 2: Commons Debate Attributes and UK escalation in ICB Crises, 1918-2004: Logit Models

Variable	Model 1.1	Model 1.2	Model 1.3
Word Count	-0.000 (-0.34)	-0.000 (-0.60)	-0.000 (-0.26)
World War II	**1.209* (1.88)**	**1.493* (2.30)**	**1.268* (2.04)**
Relative Power (Opp:UK)	**-4.414** (-2.90)**	**-5.535** (-3.43)**	**-4.340** (-3.30)**
Distance to Crisis from UK	-0.251 (-0.89)	-0.184 (-0.65)	-0.132 (-0.42)
Anger	-0.019 (-0.07)	----	----
Anxiety	----	**2.810* (1.72)**	----
Certainty	----	----	**0.639* (2.24)**
Constant	1.526 (1.25)	1.041 (0.85)	0.021 (0.14)
Pseudo R^2	0.09	0.13	0.12
Wald χ^2	**10.00***	**14.25****	**21.29****

N for all models is 81; Number of Clusters (crises) for all models is 25.
*p < 0.05; **p < 0.01 (one-tailed tests).   Z-Scores in parentheses.

As Schultz's (2001*a*) theory predicts, unity in the legislature—identified by debate certainty—leads to an increased likelihood of escalation in the third model. The restraining effect of dissenting opinion is removed, and the potential signal from each debate correlates with government moves to escalate their actions. Noteworthy is that this effect is not as substantively strong as anxiety during each debate. Rhetoric that expresses anxiety about potential outcomes is associated with

a higher likelihood of government escalation. Meanwhile, anger has no measurable effect. The results for these linguistic variables hold after controlling for World War II and the relative share of capabilities held by the UK, both of which have expected effects on escalation. Neither word count nor distance is statistically significant in any of the models.

Our estimates in Table 2 confirm that legislative debate can provide an informative signal of intention, but does that signal affect adversary behavior? Table 3 assesses this with two sets of tests. Here, our dependent variable is the presence of an escalatory action by one of Britain's primary crisis adversaries. The first three columns report separate tests of the effects of the debate attribute measures without controls for issue salience. The last three columns report interactions of our linguistic measures with ICB's determination of the gravity of the issues at stake in the crisis. Again, issue salience will affect both the type of signal sent and also whether the adversary will pay attention.

We find that the signal sent by the legislature has the potential to affect adversary behavior in only one model—the interaction of certainty with high-stakes crises. Only the distance from the UK is statistically significant in the base models, with an expected result of distance dampening the likelihood of escalatory moves. None of the other variables has an effect. Anger and anxiety also have no effect in the models with interactions. The latter finding is especially interesting when we already know that anxiety correlates with government escalation—that reaction simply has no effect on the adversary.

Our last model provides the test of legislative unity on adversary behavior while controlling for the effects of issue salience. We find that crisis gravity is now associated with adversary's willingness to escalate, as would be expected. However, debate certainty actually *increases* the likelihood that an adversary will escalate, with only a slight dampening of this tendency in higher-stakes crises. Since this is an interaction term, we confirmed that interpretation with marginal effects for each type of crisis stakes (Brambor, Clark and Golder 2006). The results are presented in Figures 1a-1d.

These analyses suggest very important caveats over how legislative certainty moderates escalation. First, it is clear that increasing certainty exerts a positive and statistically significant influence on the likelihood of enemy escalation at several levels of gravity—not only when pertaining to the relatively low-stakes issues of economic, limited military, and political threats (Figure 1a), but also when territory is at stake (Figure 1b). When the stakes of the crisis involved "threats to regional

Table 3: Commons Debate Attributes and Primary Opponent Escalation in ICB Crises involving the UK, 1918-2004: Logit Models
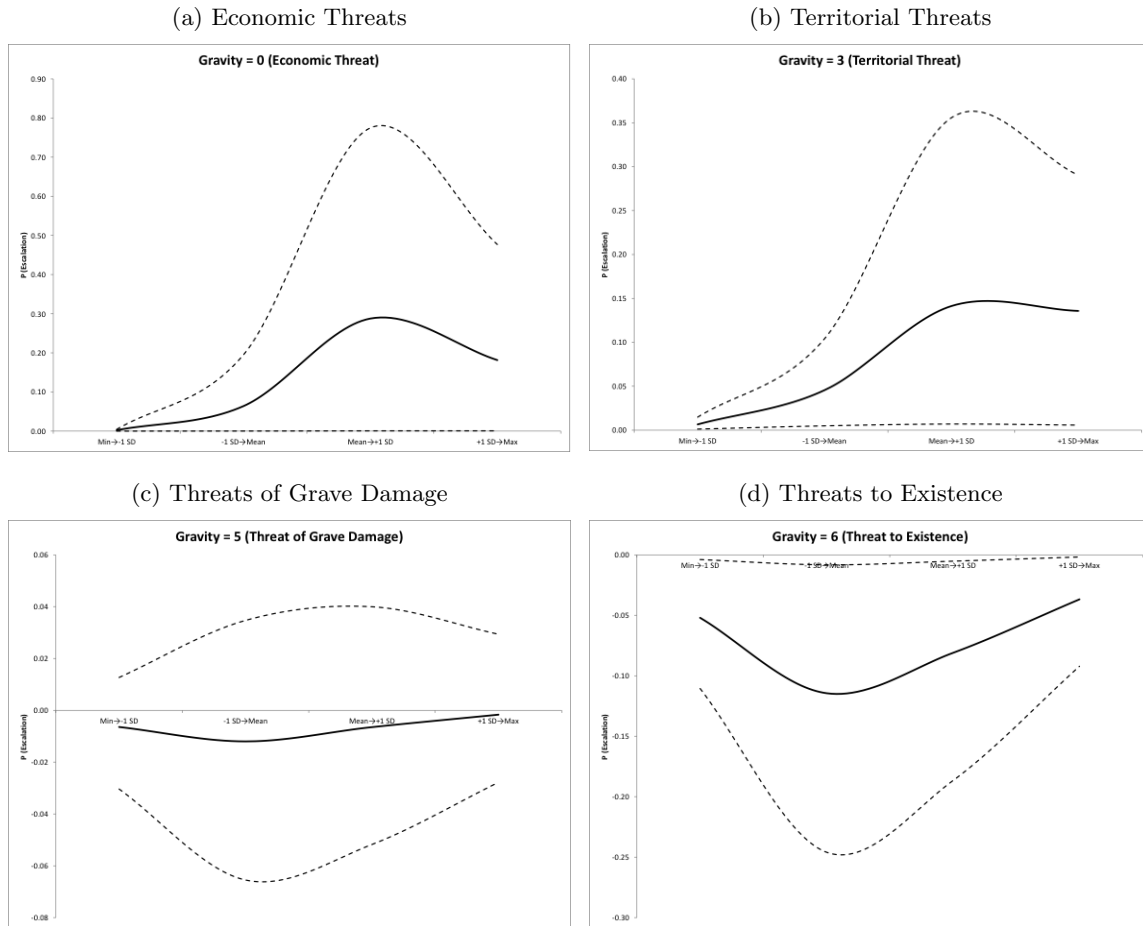
Variable	BASE MODELS			CRISIS STAKES INTERACTIONS		
Word Count	0.000 (0.36)	0.000 (0.06)	0.000 (0.27)	0.000 (0.33)	0.000 (0.76)	0.000 (0.48)
World War II	0.320 (0.59)	0.141 (0.23)	0.181 (0.30)	0.029 (0.04)	-0.103 (-0.14)	-0.077 (-0.10)
Relative Power (Opp:UK)	2.594 (1.60)	2.642 (1.60)	2.609 (1.58)	1.552 (0.78)	1.836 (0.97)	2.322 (1.13)
Distance to Crisis from UK	**-0.742* (-1.87)**	**-0.738* (-1.80)**	**-0.726* (-1.78)**	-0.439 (-1.16)	-0.529 (-1.37)	-0.584 (-1.47)
Crisis Gravity (UK)	----	----	----	0.287 (0.66)	0.562 (0.76)	**1.453** (2.45)**
Anger	-0.325 (-0.76)	----	----	-3.523 (-1.04)	----	----
Anger*Gravity	----	----	----	0.706 (1.08)	----	----
Anxiety	----	0.378 (0.30)	----	----	1.279 (0.15)	----
Anxiety*Gravity	----	----	----	----	-0.175 (-0.10)	----
Certainty	----	----	0.239 (0.55)	----	----	**4.149* (1.69)**
Certainty*Gravity	----	----	----	----	----	**-0.854* (-1.72)**
Constant	-0.810 (-0.80)	-1.075 (-1.21)	-1.297 (-1.39)	-2.267 (-1.34)	-3.596 (-1.13)	**-7.952** (-2.95)**
Pseudo R^2	0.20	0.19	0.20	0.22	0.21	0.23
Wald χ^2	6.77	5.50	6.43	7.72	7.76	**25.98**

*p < 0.05; **p < 0.01 (one-tailed tests).   Z-Scores in parentheses.   N for all models is 62; number of clusters (crises) for all models is 28.

or systemic influence," the modal gravity value for our sample, the relationship between certainty and escalation is statistically insignificant. The same is true for "threats of grave damage" to the UK (Figure 1c), the penultimate level of crisis gravity. Only at the highest level of gravity—when the crisis involves a threat to the very survival of the UK—is the relationship between certainty and escalation negative and significant (Figure 1d). However, only one case in the sample meets that threat level—the Battle of Britain—and most case evidence for that crisis attribute Hitler's shift in strategy to variables other than the signaling capacity of Britain's Parliament. Moreover, in an absolute sense, the substantive negative effect found in the context of existential threat is about one-third as large as the positive effect found in the context of economic threat and similar to the effect of certainty on territorial threat.

In sum, we find that the implied signals of resolve on the part of the House of Commons do not, independently, influence the escalatory behavior of the UK's primary adversaries in interstate crises. These signals are actually associated with emboldened adversaries in low-to-moderate stakes crises and have no effect on adversary behavior in high stakes crises. Only in the crisis involving the

Figure 1: Marginal Effects of Debate Certainty on Likelihood of Opponent Escalation in Crises

(a) Economic Threats

(b) Territorial Threats

(c) Threats of Grave Damage

(d) Threats to Existence

existence of the UK does legislative certainty have a statistically significant de-escalatory effect on adversary behavior, and even here the case evidence suggests that Germany paid scant attention to signals sent by the Commons. Rather than confirm arguments that democracies are better able to inform, sending credible signals to adversaries, we instead affirm recent theoretical work that argues legislative rhetoric provides little useful information to its audiences (Arena 2015).

Discussion and Conclusion

We have presented the first systematic test of the ability of legislatures to signal their intentions that uses the corpus of all foreign policy debates. We focus on Britain from 1918 to 2004, which spans a time period in which Britain was both hegemon and major actor in the international

system. Using linguistic analysis of each debate, we found that legislative unity—measured as the certainty of language in each debate—does predict well the likelihood of escalation by the government. However, that action has little or no effect on the escalatory actions of the adversary.

Our findings should recommend considerable caution in assuming the applicability of at least some signaling expectations to the general foreign policy behavior of democratic states. The prospect (in economic, policy-related, and even territorial crises) of increased belligerence on the part of adversaries given legislative signals of calculated risk-taking propensity, and the apparent general irrelevance of such signals in crises involving international reputation and grave danger to the signaling state, rather clearly contradicts many current theories of how democratic legislatures can signal resolve.

References

Arena, Philip. 2008. "Success breeds success? War outcomes, domestic opposition, and elections." *Conflict Management and Peace Science* 25(2):136–151.

Arena, Philip. 2015. "Crisis bargaining, domestic opposition, and tragic wars." *Journal of Theoretical Politics* 27(1):108–131.

Brambor, Thomas, William Roberts Clark and Matt Golder. 2006. "Understanding interaction models: Improving empirical analyses." *Political analysis* 14(1):63–82.

Brecher, Michael and Jonathan Wilkenfeld. 1997. *A study of crisis.* University of Michigan Press.

Bremer, Stuart A. 1992. "Dangerous Dyads: Conditions Affecting the Likelihood of Interstate War, 1816-1965." *Journal of Conflict Resolution* 36(2):309–341.

Davies, Graeme AM and Robert Johns. 2013. "Audience costs among the British public: the impact of escalation, crisis type, and prime ministerial rhetoric." *International Studies Quarterly* 57(4):725–737.

Fearon, James D. 1994. "Domestic Political Audiences and the Escalation of International Disputes." *American Political Science Review* 88(3):577–592.

Foster, Dennis M. 2006. "An invitation to struggle? The use of force against legislatively vulnerable American presidents." *International Studies Quarterly* 50(2):421–444.

Foster, Dennis M. 2008. "Comfort to Our Adversaries? Partisan Ideology, Domestic Vulnerability, and Strategic Targeting." *Foreign Policy Analysis* 4(4):419–436.

Gibler, Douglas M and Marc L Hutchison. 2013. "Territorial Issues, Audience Costs, and the Democratic Peace: The Importance of Issue Salience." *The Journal of Politics* 75(04):879–893.

Huth, Paul K. 1988. *Extended deterrence and the prevention of war.* Yale University Press.

Matsumoto, David, Hyisung C Hwang and Mark G Frank. 2013. "Emotional language and political aggression." *Journal of Language and Social Psychology* p. 0261927X12474654.

Mooney, Christopher Z. 2012. Legislative Thinking: Responsibility, Motivation, and Cognitive Complexity in US Statehouses. In *APSA 2012 Annual Meeting Paper*.

Rude, Stephanie, Eva-Maria Gortner and James Pennebaker. 2004. "Language use of depressed and depression-vulnerable college students." *Cognition & Emotion* 18(8):1121–1133.

Schelling, Thomas C. 1960. *The strategy of conflict.*

Schultz, Kenneth A. 1998. "Domestic opposition and signaling in international crises." *American Political Science Review* 92(04):829–844.

Schultz, Kenneth A. 1999. "Do democratic institutions constrain or inform? Contrasting two institutional perspectives on democracy and war." *International Organization* 53(02):233–266.

Schultz, Kenneth A. 2001*a*. *Democracy and coercive diplomacy.* Vol. 76 Cambridge University Press.

Schultz, Kenneth A. 2001*b*. "Looking for audience costs." *Journal of Conflict Resolution* 45(1):32–60.

Simon-Vandenbergen, Anne-Marie. 1997. "Modal (un) certainty in political discourse: A functional account." *Language Sciences* 19(4):341–356.

Snyder, Jack and Erica D Borghard. 2011. "The cost of empty threats: A penny, not a pound." *American Political Science Review* 105(03):437–456.

Tausczik, Yla R and James W Pennebaker. 2010. "The psychological meaning of words: LIWC and computerized text analysis methods." *Journal of language and social psychology* 29(1):24–54.

Weeks, Jessica L. 2008. "Autocratic audience costs: Regime type and signaling resolve." *International Organization* 62(01):35–64.

Young, Lori and Stuart Soroka. 2012. "Affective news: The automated coding of sentiment in political texts." *Political Communication* 29(2):205–231.

Yu, Bei. 2014. "Language and gender in Congressional speech." *Literary and Linguistic Computing* 29(1):118–132.