Territorial Claims, Major Power Competition, and the Origins of Enduring Rivalry

Paul R. Hensel
and
Thomas E. Sowers II

Department of Political Science
Florida State University
Tallahassee, FL 32306-2230
(850) 644-7318

http://garnet.acns.fsu.edu/~phensel
phensel@garnet.acns.fsu.edu
tes8319@garnet.acns.fsu.edu

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Abstract: This paper compares two theoretical perspectives have been suggested to explain the origins of enduring rivalries, the basic rivalry level approach and the evolutionary approach. The available evidence offers limited support for both perspectives, although most past studies have been unable to distinguish between the two perspectives convincingly. This paper submits both approaches to more rigorous theoretical and empirical analysis than has been attempted in past studies, focusing on the impact of both competition between major powers and competing claims to territory. The results indicate that both major power status and contention over territorial issues contribute to conflict and rivalry, increasing the likelihood of reaching enduring rivalry and the likelihood of becoming involved in at least one war.

A growing body of research suggests the importance of enduring rivalries, or pairs of states engaged in protracted militarized competition, as sources of interstate conflict. Existing research has highlighted the propensity of rival states to become involved in militarized disputes, crises, and wars, and has shown that rivals account for the majority of all interstate conflict (Goertz and Diehl 1997; Hensel 1998). Given the observed empirical importance of rivalry, it is perhaps surprising that little effort has been devoted to the question of how rivalries come into being.

Two theoretical perspectives have been proposed to account for the development of militarized interstate rivalries. Goertz and Diehl’s (1997, 1998) "Basic Rivalry Level" (BRL) approach is a largely static approach that sees enduring rivalry as essentially predetermined by structural or other factors. The alternative, Hensel's (1996a, 1998) "evolutionary approach," treats rivalries as evolving and moving through stages, with events in the earlier phases of a relationship affecting the likelihood of further movement toward rivalry.

Numerous historical examples can be cited to support each approach. In some cases, rival states appear to behave as enduring rivals from the beginning of their relationship, essentially being "born fighting." In other cases, though, rivalries appear to evolve and come into being over time. Very little research has addressed the question of why different rivalries appear to exhibit such different patterns of development. The present paper seeks to begin answering this question, focusing on the role played by major power status and disputed issues.

We begin by discussing the two major theoretical perspectives on the origins of interstate rivalry. We then formulate and test hypotheses on the origins and development of rivalry. We conclude our paper by discussing the implications of our
results for future research on rivalry.

**Studying the Origins of Rivalry**

Two basic models have been presented to account for the origins of interstate rivalries. The first is the "basic rivalry level" (BRL) approach (Goertz and Diehl 1997, 1998; Goertz and Regan 1997; see also Hensel 1998). Goertz and Diehl (1998) suggest that any given dyadic relationship has a basic rivalry level, essentially an average level of hostility or "normal relations range" for the relationship, which typically results from factors that are specific to the dyad. In the BRL model two adversaries are said to "lock in" to their basic rivalry level early in their relationship, setting the tone for the level of conflict in their overall relationship; their subsequent relations will then fluctuate randomly around that level. The factors that influence the severity of the initial disputes of the rivalry will then influence the BRL that is locked in for the life of the rivalry (Goertz and Diehl 1998).

In contrast to the BRL approach and its focus on the impact of structural factors, the evolutionary approach (Hensel 1996a, 1998) focuses on the impact of past interactions between two adversaries. The primary difference between this approach and Goertz and Diehl's BRL approach is that the evolutionary approach focuses on evolution and change within a period of rivalry. The evolutionary approach asserts that a dyads behavior during the early phase of rivalry would be different than a dyads behavior at an advanced stage of rivalry, regardless of whether or not the dyad ever becomes an enduring rival. This perspective allows for a better explanation of the escalation of conflicts within dyads. Simply because at some point in the future the dyad reaches a threshold set for enduring rivalry does not mean that the dyad should necessarily be expected to exhibit the behavioral patterns of an enduring rivalry from the first conflict. This means that rather than disputes being randomly distributed around an average over the entire length of the conflict, there is a pattern of development of conflict over time as the rivalry evolves through the different phases.

The existing evidence on rivalry offers support for both the BRL and evolutionary models. Goertz and Diehl (1998) find that nearly half of their rivalries exhibit no systematic trend in dispute severity over time; only 26.6 percent of their cases support the escalatory "volcano model." This evidence supports the notion of a BRL, with dispute severity in a rivalry randomly distributed around the basic level. Hensel (1996a, 1998) finds some support for the evolutionary perspective on rivalries, though, noting that relations between rivals change over time. Hensel (1996a) finds that the
probability of two adversaries engaging in recurrent conflict increases significantly as
the adversaries accumulate a longer history of past conflict, and Hensel (1997b) notes
that adversaries with a longer history of conflict tend to become more conflictual in the
non-militarized dimensions of their relationship as well.

The present study differs from past research on the origins and development of
rivalry in several important ways. First, unlike most studies focusing on the BRL model
of rivalry, we identify several specific factors that are thought to contribute to the early
lock-in of rivalry. Goertz and Diehl (1998) examine forty-five rivalries for evidence of
consistency or change in conflict levels, but their analyses are essentially univariate and
descriptive in nature, with no attempt to introduce independent variables that may help
to account for the observed conflict patterns. In the present paper we introduce several
factors that are consistent with the BRL approach and that may contribute to the conflict
patterns of different rivalries. The results of our analyses thus promise to offer a more
appropriate test of the BRL approach than has been provided by current proponents of
the approach, by attempting to account for part of the BRL itself.

Also unlike past studies of rivalry, our analyses focus explicitly on the possibility
that different types of dyads may exhibit different patterns of rivalry. As will be seen
shortly, numerous scholars have suggested that different types of dyads should exhibit
systematically different patterns of conflict behavior. Past scholars have often chosen to
exclude sets of cases that they did not expect to fit the hypothesized relationship;
examples include a focus on major power interactions in Wallace's (1979) study of arms
war. Rather than making case selection decisions on the basis of prior expectations, we
include a wider range of cases in our analyses, which allows us to test explicitly for the
possibility that different cases exhibit different patterns of conflict behavior. In
particular, we search for differences between rivalries involving two major powers, two
minor powers, or a major power and a minor power, and between rivalries that clash
over territorial issues and those only involving non-territorial issues.

Hypotheses on the Origins of Rivalry

We examine the impact of major power status and territorial issues on the
outbreak and intensity of rivalry. The first dimension, the outbreak of rivalry, refers to
the phase of rivalry that is reached by two adversaries in a given conflictual
relationship. Goertz and Diehl (1992, 1995) differentiate between three types of
conflictual relationship, or essentially three different levels of rivalry: isolated conflict,
proto-rivalry, and enduring rivalry. Similarly, Hensel (1996) distinguishes between three different phases of a rivalry relationship -- the early, intermediate, and advanced phases -- which roughly correspond to the time at which a dyad would qualify as isolated conflict, proto-rivalry, and enduring rivalry, respectively.

Our hypotheses and analyses examine the probability that a given conflictual relationship reaches the most severe category, corresponding to Goertz and Diehl's "enduring rivalry" and Hensel's "advanced phase" of rivalry. Dyads that reach this category have a fairly long history of militarized confrontations, which is usually seen as setting these enduring rival dyads apart from all other dyads. Indeed, much of the empirical literature on enduring rivalries focuses exclusively on cases of enduring rivalry (e.g., Huth and Russett 1993; Geller 1993), suggesting that dyads that qualify as enduring rivals (or that reach the advanced phase of rivalry) are qualitatively different from other dyads -- and implying that it would be worthwhile to identify the factors that lead such dyads to such an advanced state of enmity.

Beyond the eventual stage of rivalry that is reached, the seriousness of a conflictual relationship can be measured by the severity of the confrontations that it generates. A conflictual relationship that leads to full-scale interstate war but that ends short of the repeated confrontations composing rivalry is a very serious phenomenon. In some respects, because of the high political, social, economic, and military costs of war, a relationship that leads to war may even be considered more serious than one that qualifies as an enduring rivalry but never produces full-scale war.¹ We thus develop and test hypotheses on the probability that a given relationship will produce at least one full-scale interstate war.

**Hypotheses on Major Power Status**

A sizable literature asserts that relations among major powers are qualitatively different from relations among minor powers in the interstate system, or relations between major and minor powers. Waltz (1979: 72-73), for example, argues that the story and the theory of international politics is written in terms of the great powers, and that the fate of the minor powers in the international system is largely tied to actions of the great powers. Indeed, Waltz (1979: 73) goes so far as to argue that a general theory of international politics -- based as it is (and must be) on the great powers -- only

¹ Goertz and Diehl (1992) note that war is most likely in enduring rivalries, which account for over half of all interstate wars from 1816-1976 and which are much more likely than other types of relationships to generate at least one war. The present paper attempts to go beyond Goertz and Diehl's contribution by accounting for this variation in war propensity, rather than simply reporting it.
applies to interactions among minor powers "insofar as their interactions are insulated from the intervention of the great powers of the system."

Major powers are said to differ from minor powers in many ways, ranging from goals or interests and capability levels to the acceptability and expectations concerning state behavior and the impact of state behavior on other actors (Singer, Bremer, and Stuckey 1972; Bremer 1980; Gochman and Maoz 1984). For these reasons, almost all international relations theorists argue that major powers are more than just minor powers writ large (Gochman and Maoz 1984). As a result of these differences -- for example, because great powers typically possess the capabilities to interact with distant states and because the great powers have traditionally played the role of custodians of international order -- Gochman and Maoz suggest that major powers should be more conflict-prone overall than other types of states. Similarly, Leng (1993) suggests that crises between adversaries of the same power status -- i.e., crises between two major powers or two minor powers -- should be more escalatory than asymmetric crises between a major power and a minor power. In asymmetric crises, he argues, both the major power and the minor power may have reason to believe that they can back down without suffering great reputational costs -- but crises against adversaries of their own relative rank do not allow the same flexibility.

The results of past empirical analyses on the differences between major and minor power adversaries are somewhat mixed. Bremer (1992) finds that dyads including at least one major power are much more war-prone than minor power dyads, echoing an earlier state-level finding that major powers are more conflict-prone than minor powers (Bremer 1980; Gochman and Maoz 1984). Yet Leng (1993) finds that crises between minor powers and major-minor power crises are much more war-prone than crises between major powers, apparently because major powers are more skilled or more experienced at conflict management.

With regard to rivalry more specifically, Wayman and Jones (1991) and Bennett (1996) note that major-major and minor-minor power relationships account for the majority of all rivalries. The twenty-eight rivalries identified by Wayman and Jones include seven rivalries between major powers, fifteen between two minor powers, and only six between a major power and a minor power. Similarly, Bennett's thirty-four rivalries include nine rivalries between two major powers, eighteen rivalries between two minor powers, and only seven between a major power and a minor power. Although this observation does not allow us to compare the overall conflict propensities of states, because these studies do not include conflictual relationships
below the level of enduring rivalry, it does suggest that states of highly unequal power status are unlikely to become rivals.

Thompson (1995: 202) argues that rivalries will be more likely to occur between major powers, and that rivalries between minor powers should be expected to be less frequent and less intense. If this is the case, then it may not be parity that drives conflict (as suggested by Lemke and Kugler 1996) but an interaction between parity and capabilities. The fact that two minor powers are relatively equivalent may not result in the same level of conflict as when two major powers reach parity simply because the minor powers do not have the same level of capabilities and therefore cannot sustain a long period of conflict and hostilities.

**Hypothesis 1A:** Rivalries are more likely to develop between two major powers than between two minor powers or a major and a minor power.

**Hypothesis 1B:** Rivalries between major powers will have greater intensity than other rivalries.

**Hypotheses on Territorial Issues**

Another factor that is beginning to receive careful scholarly attention is the type of issues under contention between two adversaries. The issue(s) driving the disputes between states would also be expected to impact the development of interstate rivalries. The intensity of the rivalry will be dictated by the salience of an issue to the states within the dyad. One type of issue that is seen as particularly salient -- and particularly conflict-prone -- involves contention over territory, which is seen as having great importance to leaders because of its tangible contents, its intangible psychological value, and its importance as an indicator of a state's reputation (Vasquez 1993; Hensel 1996b, 1997). Vasquez (1993), for example, demonstrates that most wars in the modern international system have included either direct or indirect territorial issues. Furthermore, Vasquez (1996b) suggests that most rivalries are between neighbors, and appear to be related to territorial issues.

With regard to rivalry, Vasquez (1993) argues that how a territorial dispute is managed or settled will impact the likelihood of future conflict. Anything less than an overwhelming victory is likely to result in the territorial dispute creating a "long-term hostile relationship," likely leading to future confrontations between the adversaries. Such relationships can easily be seen as potential (or actual) rivalries, particularly when
the adversaries involved are relatively equal and therefore unable to achieve an overwhelming victory.

**Hypothesis 2A:** Rivalries are more likely to develop between states which have disputed territorial claims than between states lacking such claims.

Territorial issues have been shown to be much more escalatory than other types of issues (e.g., Hensel 1996b, 1997). It follows that rivalries with highly escalatory territorial claims are more likely than adversaries lacking such explosive issues to become involved in serious confrontations or war, particularly when the same adversaries have engaged in multiple confrontations over the same issue(s). Vasquez (1996b) argues that rivalries involving contention over territorial issues should be much more apt to result in war than rivalries that do not involve territorial disputes. Indeed, he hypothesizes (1996: 536) that "The main factor that distinguishes rivals that go to war, at some point in their history, from those that do not is the presence of an ongoing territorial dispute."

**Hypothesis 2B:** Rivalries that include territorial issues will exhibit a greater intensity than rivalries that do not include territorial disputes.

**Control Variables**

*Relative Military Capabilities*

We employ two control variables in our analyses. The first, the relative military capabilities of two adversaries, is often used to help define or measure rivalry. Thompson (1995) argues that dyads characterized by capability asymmetry are unlikely to be spatial rivals for very long. Similarly, Vasquez (1993, 1996b; see also Wayman 1996) sees relative equality as an important characteristic of rivalry, arguing that rivalries -- or relations between relative equals -- come out of different motivations and different causal mechanisms than relations between unequals. Vasquez (1993: 82) explicitly includes relative equality in his definition of rivalry as "a competitive relationship among equals," in which

Even if relative equality or parity is not treated as a prerequisite for rivalry, the balance of relative capabilities between two adversaries is likely to affect their prospects for militarized conflict and rivalry. Since enduring rivalries require an extended period of conflict, states with relative equality in capabilities would be best suited to sustain
conflict over time. As Vasquez (1993, 1996) notes, rough parity should prolong a period of conflict because neither side can easily overcome the other in a decisive victory that resolves the issues under contention. In a more asymmetric relationship, one would expect the conflict to be resolved more quickly and therefore not have the opportunity to evolve into a rivalry. Although less directly relevant to rivalry, a substantial literature (see Lemke and Kugler 1996; Vasquez 1996) finds that rough parity tends to be associated with militarized conflict initiation and escalation. In short, a variety of academic literature suggests that military capabilities should be an important control variable, with roughly equal capabilities generally increasing conflict behavior and greater capability disparity dampening escalation.

Like Goertz and Diehl (1993), we prefer to treat the relationship between relative capabilities and rivalry as an empirical question, rather than assuming it away as part of our definition of rivalry. Indeed, one of our primary contributions in this paper is that we explicitly test for differences in conflict behavior among different subgroups of states that qualify as rivals under a common definition. If Wayman, Vasquez, Thompson, Levy, et al., are correct, then we should observe dramatically different conflict behavior between (for example) major-major power dyads and other types of dyads. Alternatively, if conflict patterns are generally similar across these different subgroups, then we may conclude that their differences have been exaggerated and that they should not be analyzed separately.

Contiguity

Our other control variable is the existence of geographic contiguity. Diehl (1985) and Bremer (1992), for example, find that contiguity greatly increases the prospects for escalation in militarized disputes. Similarly, Vasquez (1996) finds that contiguity is closely associated with war in major power rivalries, although an examination of the cases in his data set leads Vasquez to conclude that this association is due primarily to the existence of territorial disputes between the contiguous adversaries. In short, we include contiguity as a potentially important influence on militarized conflict and rivalry. As with relative capabilities, we prefer to treat the impact of contiguity as an empirical question, rather than using it to define a set of cases for analysis (as is commonly done with "politically relevant dyads").

Multiple Conflict Patterns within Rivalry

We should emphasize that there need not be a single pattern that accounts for
the origins of all rivalries. Indeed, based on the work of past scholars, we consider it quite likely that multiple patterns may emerge. Levy (1983: 4), for example, argues that great power wars should be studied separately from other wars "because of the importance of the Great Powers and the distinctiveness of their behavior... If Great Power wars are not analyzed separately, significant patterns of Great Power behavior may be obscured by noise generated by smaller states operating in more restricted regional systems." Similarly, Thompson (1995) argues that scholars of rivalry need to distinguish between the positional and spatial dimensions of rivalries, as well as the regional or global geopolitical milieu in which they occur. Thompson (1995: 196) warns about the potentially serious consequences of ignoring this advice: "if one avoids making such distinctions at the outset, one runs a very high risk of mixing together inherently dissimilar phenomena. The consequent validity of undifferenced analyses of rivalries may be jeopardized."

Levy responds to the dilemma of potentially dissimilar cases by focusing exclusively on wars involving the great powers, which ensures that his findings are relevant to that set of cases, rather than being confounded by including minor powers. Similarly, Vasquez (1993, 1996) requires relative equality between two adversaries before a rivalry can be said to exist, as measured by the major or minor power status of the adversaries. Protracted conflictual relationships between two major powers or two minor powers are termed "rivalries between equals," while such relationships between a major power and a minor power are "protracted conflict between unequals." Vasquez (1996) argues that rivalry between equals is fundamentally different from conflict between unequals, which may follow a logic of imperialism rather than one of rivalry.

Many other scholars persist in treating different types of rivalries as comparable (e.g., Goertz and Diehl 1995, 1998; Bennett 1996). Hensel (1996a) studies the evolution of both major power and minor power rivalries in aggregated analyses, although he also employs separate analyses to ensure that conflict patterns do not differ substantially between the two groups. In the present paper we study all rivalries together in an aggregated analysis, before breaking up the set of cases to identify any possible variation based on the major power status of the participants or the nature of the issues under contention. Thus, our analyses offer a preliminary empirical test of propositions by scholars such as Levy, Thompson, and Vasquez that suggest different types of states will generate different patterns of rivalry or conflict behavior.
Research Design

Spatial-Temporal Domain

The spatial-temporal domain for our empirical analyses is the set of all conflictual dyads in the international system from 1816-1992, as identified by the Correlates of War (COW) project. Consistent with Hensel (1996a, 1998), we begin studying each dyad from the outbreak of the first militarized interstate dispute (Jones, Bremer, and Singer, 1997) between the two states composing the dyad. This allows us to study the impact of our independent variables on the evolution of rivalry, beginning with all potential rivals that have engaged in at least one militarized confrontation.²

Dependent Variables

Interstate Rivalry

Rivalries will be measured following Hensel’s (1996a, 1998) evolutionary approach, which identifies three distinct phases of rivalry that must be experienced before two adversaries can reach what most scholars would consider "enduring rivalry." The early phase, reflecting a period when adversaries are only beginning to confront each other and have not yet begun to view each other as fundamental, long-term rivals, includes the first two disputes between two adversaries. The intermediate phase reflects a time when the adversaries have begun to see each other as potentially serious long-term threats, analogous to Goertz and Diehl’s "proto-rivalry" category, and includes the third through fifth disputes in a given relationship. Finally, all disputes that occur after the fifth dispute are considered to occur in the advanced phase of rivalry, at which point Goertz and Diehl would consider the adversaries to be full-fledged enduring rivals. If there is a fifteen-year gap with no militarized disputes during any of the phases, the rivalry is considered to have ended.

It should be noted that this definition is more continuous than the definitions of rivalry employed by Goertz and Diehl, Bennett, Wayman, and others. Thus, rather than assigning each dyad a label of "enduring rivalry," "proto-rivalry," or some such category, we categorize all militarized conflict dyads as potential rivals and trace their evolution through the early, intermediate, and advanced phases of what may best be seen as a continuous concept of "interstate rivalry." We examine two dimensions of rivalry, beginning with the most advanced phase of rivalry reached by two adversaries

² Two dyadic relationships are excluded from our analyses because of missing capability data for the year of the single militarized dispute making up the entire conflictual relationship: Prussia - Hesse Electoral in 1866, and Albania - Yugoslavia in 1992. These two cases account for less than one-fifth of one percent of the nearly 1200 dyadic relationships in the study, so their exclusion is likely to have little impact on our results.
(as described above). It is important to recognize that not all potential rivalries will reach the intermediate or advanced phase of rivalry; many conflictual relationships stop after one or two disputes. We also study whether or not two adversaries ever engaged in a full-scale interstate war (Small and Singer 1982) at any point during the militarized portion of their relationship.

Independent Variables

Major Power Status

Beyond territory, we consider several other structural or contextual factors that might be thought to lead to or exacerbate interstate rivalry. Major power classification is taken from the COW project's list of major powers in the international system since 1816. For our present purposes, we treat a given dyad’s major power status dichotomously, based on whether or not both members of the dyad are major powers.

Territorial Issues

The territorial issue variable is a dummy variable based on the COW dispute data set's coding of desired status quo revisions. Our territorial issue indicator is assigned a value of one when there is contention over some type of territorial issue(s) in a given militarized dispute, and zero when there is no explicit contention over territory. For the dyad-year level analyses of dispute recurrence, we treat each dyad-year as involving territorial contention if the most recent dispute between two adversaries involved territorial issues. For the aggregated rivalry-level analyses, we measure whether or not a given rivalry ever involved territorial issues in at least one dispute during the rivalry.³

Parity

This paper measures parity using capability data from the COW National Material Capabilities data set. We construct a continuous index of two adversaries' military capabilities, based on the average of their military personnel and military

³ We of course recognize that relying on the militarized dispute issue codings is not a perfect measure of the presence of territorial issues in a given rivalry, because it does not identify dyads that disagree over territorial issues but never turn to militarized means over these issues. A better option would be to use systematic data on territorial claims between states, such as the data currently being collected by the Issue Correlates of War (ICOW) project (Hensel 1998). Once the ICOW territorial claims data has been collected for the entire world and the entire 1816-1996 period, we plan to rerun the present analyses with that data.
expenditures. This results in a variable ranging from 0.5 to 1.0, with 0.5 representing perfect equality between the two sides and 1.0 representing total preponderance by one side. The measure employed in our analyses is the average of two rivals’ relative capabilities over the course of their relationship, which allows us to avoid distortions that may result from measuring capability at a single time point during a rivalry. None the less, we also reran the analyses using the two rivals' relative capabilities at the onset of their rivalry, with nearly identical results.

Contiguity

We measure contiguity by whether two states share a common land or river border, as determined from the COW contiguity data set.

Empirical Analyses

The empirical results in this section were obtained through a series of crosstabs and logistic regression analyses. In general, the tests support our expectations on the development of rivalries. Both major power status and contention over territorial issues appear to increase the probability that a conflictual relationship will reach a more advanced phase of rivalry, as well as increasing the severity of rivalry relationships.

The Outbreak of Rivalry

Hypothesis 1a suggests that major power dyads should be more likely than mixed dyads or minor power dyads to reach the level of full-fledged enduring rivalry (i.e., the "advanced phase" of rivalry). Hypothesis 2a suggests that dyads contending over territorial issues during their rivalry are more likely than non-territorial-issue dyads to reach the advanced phase of rivalry. The evidence in Table 1 supports both expectations with highly statistical significant (p < .001 in every case) crosstabulations of major power status, issue types, and rivalry levels.

As Table 1 indicates, a given conflictual dyad is much more likely to reach the advanced phase of rivalry when the adversaries contend over territorial issues, with 21.0 percent of such dyads and barely three percent of non-territorial-issue dyads reaching the advanced phase. Additionally, one-fourth of all conflictual major-major power dyads reach the advanced phase, as compared to 9.2 percent of all minor-minor

 Previous research (e.g., Hensel 1996) has found no meaningful difference between using the two COW military indicators and a full composite based on all six military, industrial, and demographic indicators in the data set.
power dyads and 6.1 percent of all major-minor power dyads. These differences become even more dramatic when major power status and issue types are combined, with dyads contending over territorial issues being substantially more likely to reach the advanced phase of rivalry within each dyad type. Almost half of all major power dyads contending over territory (45.2 percent) reach the advanced phase, in comparison to only 2.1 percent of major-minor power dyads contending over non-territorial issues.

Table 2 uses logistic regression analysis to analyze the impact of major power status, territorial issues, and several control variables on the probability of reaching the advanced phase of rivalry. The model produces a statistically significant improvement over the null model (p < .001), and supports our expectations about major power status, territory, and the control variables. Consistent with the crosstabs in Table 1, both major power status and contention over territorial issues have a positive and highly significant (p < .001) effect on rivalry level. Additionally, both control variables have a significant impact, with greater disparities in military capabilities decreasing the probability of reaching the advanced phase (p < .05) and contiguity increasing the probability (p < .01).

The results presented in Tables 1 and 2 suggest that major power status and territorial issues both have the hypothesized effect of making enduring rivalry more likely, even after controlling for the effect of several other relevant variables. It is not clear from this analysis, though, whether these factors simply affect the probability of enduring rivalry or whether they actually change the underlying relationship that produces this outcome. Tables 3 and 4 break down the logistic regression analyses from Table 2 by the different dyad types implied by major power status and territorial issues, in order to compare the underlying relationships that lead to rivalry.

Table 3 indicates both similarities and differences in the relationship between major power status and rivalry. All three dyad types (major-major, major-minor, and minor-minor) are significantly more likely to reach enduring rivalry when territorial issues are under contention, indicating that the effects of territorial issues are not limited to states at the top or bottom of the interstate system or to roughly comparable types of adversaries. For major-major power dyads, relative capabilities and contiguity have little systematic impact on rivalry, perhaps because major powers tend to consider each other to be roughly equal in capabilities and because all major powers have sufficient interests and force projection capabilities to become involved in rivalry.
against distant adversaries. Minor-minor power dyads lack the far-reaching interests and capabilities of major powers, leading to the significant and positive effect of contiguity; contiguous minor powers are much more likely to reach enduring rivalry than are more distant minor power adversaries. Major-minor power dyads are not affected systematically by contiguity, perhaps because of the interests and capabilities of the major power in the dyad, but -- unlike the more symmetrical major-major and minor-minor power dyads -- are limited by substantial capability disparities. Although by definition all major-minor power dyads will feature some level of disparity, the greater this disparity, the lower the likelihood of reaching the advanced phase of rivalry.

Table 4 indicates that several important differences also result when comparing dyads contending over territorial and non-territorial issues. Both territorial and other dyads are much more likely to reach enduring rivalry when contiguous, indicating that there is more to the impact of contiguity than the simple question of territory along the common border. Major power status significantly increases the probability of enduring rivalry in dyads contending over territory, with little systematic effect in non-territorial-issue dyads. This result is not surprising, given the relatively small differences in Table 1 between the rivalry behavior of non-territorial dyads of each major power type; none of the dyad types surpasses a 6.3 percent chance of enduring rivalry, somewhat below the probability for the entire set of cases. Finally, greater capability disparities significantly decrease the probability of enduring rivalry in territorial dyads, suggesting that even territorial issues may be short-lived in highly unequal dyads.

In short, both major power status and territorial issues have the hypothesized effect of increasing the probability of enduring rivalry. This effect remains after controlling for several other factors that might be thought to influence conflict behavior, and is largely consistent across subgroups of cases. Several important differences in conflict behavior appear when the sample is divided by major power status or by issue type, though, indicating that -- in at least several basic respects -- conflict patterns may differ between major power and other dyads or between dyads contending over territorial and other issues.

[Table 5 about here]

The Severity of Rivalry

In addition to influencing how far a given rivalry evolves, our hypotheses suggest that major power status and territorial issues should increase the intensity of
the rivalry. This proposition is tested by looking at the probability of at least one war in each rivalry relationship. The crosstabulations presented in Table 5 suggest that both major power status and territorial issues significantly increase the probability of war. War is more than twice as likely for dyads in which territorial issues are at stake (41.6 percent), as well as for major-major power dyads (60.3 percent). Moreover, as with Table 1, the differences are magnified by combining both major power status and issues. War occurs in over three-fourths of all major power dyads contending over territorial issues (77.4 percent), as compared to under twenty percent of all major-minor or minor-minor power dyads involving non-territorial issues.

[Table 6 about here]

The first logistic regression analysis in Table 6, measuring involvement in any type of war during a period of rivalry, is consistent with the crosstabs in Table 5. Both major-major power status and contention over territorial issues significantly increase the probability of at least one war in a given relationship (p < .001), even after controlling for the effects of relative capabilities and contiguity. Furthermore, both great military disparities and contiguity significantly decrease the probability of war (p < .001). The implication that non-contiguous adversaries are more likely to become involved in at least one war appears surprising, given that most research on contiguity has shown an escalatory effect. This surprise is explained, though, by the second model in Table 6, which measures involvement in a "primary war," or a war in which both dyad members were involved from the day the war began. When all later war joiners are excluded and the analyses are run for primary wars only, contiguity shows the expected strong, positive effect on war involvement, and major power status loses its significance. Thus, although major powers and non-contiguous adversaries are more likely to become involved in war overall, most of their war involvement comes from joining ongoing wars, rather than beginning new wars.

[Tables 7 and 8 about here]

Tables 7 and 8 break down the analysis from the first model in Table 6, in order to search for multiple patterns of rivalry severity. The effects of both territorial issues and major power status remain consistent across subgroups. Military disparity has little systematic effect for major-major power dyads or for territorial-issue dyads, with a significant negative effect in the other groups. Finally, contiguity has a significant negative effect for minor-minor power dyads and for non-territorial rivalries, with no effect otherwise. If these models are rerun for primary wars only, to eliminate the effects of joining ongoing wars, then contiguity becomes significant and positive in
every subgroup. No other meaningful change occurs in the three groups in Table 7, while every variable besides contiguity becomes insignificant in Table 8.

As with the earlier analyses of the probability of enduring rivalry, these analyses of the probability of war in rivalry support our hypotheses, even after controlling for other relevant factors. Territorial issues and major power status generally increase the likelihood of at least one war between two adversaries, although the effect of major power status only applies to joining ongoing wars. Great military disparity generally decreases the probability of war, and contiguity appears to decrease the likelihood of joining wars while increasing the likelihood of beginning at least one war.

Conclusions and Implications

Taken together, the results of this paper's empirical analyses offer a great deal of support for our central hypotheses, even after adding control variables or examining subgroups of cases. Major power status tends to produce conflict, with major-major power dyads being more likely than other dyad types to become involved in enduring rivalry and to become involved in interstate war. Contention over territorial issues -- whether in some or all of a dyad's disputes -- consistently exacerbates conflictual relationships, with territorial-issue dyads being much more likely than other dyads to become involved in rivalry and war. Additionally, military disparities generally limit conflict, while contiguity increases the likelihood of rivalry and war.

These results offer a number of important contributions to the scholarly literature on rivalry. First, they offer preliminary insight into several factors that are strongly associated with the outbreak and severity of rivalry. While several scholars have shown the importance of rivalry in terms of the proportion of militarized conflict occurring between rivals (e.g., Goertz and Diehl 1992; Hensel 1998), this paper has endeavored to account for this conflict rather than simply identifying it.

The results of our analyses also support the expectations of scholars such as Vasquez (1996) and Thompson (1995) on certain factors that can lead to rivalry, using different sets of cases. Thompson (1995) does not employ any systematic evaluation of his expectations about rivalry, and Vasquez (1996) studies the role of contiguity and territory using the population of major power enduring rivalries. The present study has examined several central hypotheses drawn from both Vasquez and Thompson, using a much larger set of cases -- including minor powers as well as exclusively major power dyads, and including conflictual dyads that never reached the level of enduring rivalry. For the most part, these additions have allowed our study to extend Vasquez'
and Thompson's arguments to a broader range of applicability. These results also support for the BRL explanation of rivalry, because strong results are obtained by focusing on attributes that predate the rivalry itself.5

Furthermore, our analyses are directly relevant to the claim (by Vasquez, Thompson, Wayman, Levy, and others) that major power dyads are fundamentally different from other dyads. Although there are some differences, in terms of factors that are statistically significant for one group of cases but not for another, there are also many similarities. For example, the role of territorial issues remains consistent in every single analysis, and there are no situations where the effect of a variable reverses direction (and stays significant) for two different groups of cases.

We conclude with several suggestions for future improvements of this paper, as well as more general future research directions. Despite the general strength of our results, several of our measures may be questioned. Our measure of territorial issues is based on whether or not two adversaries engage in a militarized dispute involving territorial issues at any point in their rivalry. Although the occurrence of such a dispute clearly indicates contention over territorial issues, this measure would not be able to identify a territorial claim that endures for many years but never gives rise to militarized conflict over that claim. It would be preferable to employ a long-term data set on territorial claims that does not depend on militarized conflict, such as those discussed by Hensel (1998). The three data sets discussed by Hensel are currently limited geographically or temporally, but this paper's analyses will be rerun once any of those data sets is extended to a sufficiently broad spatial-temporal domain. Our measure of relative capabilities might also be questioned, because it is measured by the average of two states' relative capabilities over the course of their rivalry. None the less, the current analyses were rerun with several alternative measures including the states' capabilities at the onset of their first dispute (i.e., at the beginning of their rivalry), with almost identical results.

Future research on this topic could benefit from alternative conceptions of these measures, as well as from the inclusion of additional factors. Hensel's (1996a) evolutionary approach focuses on the role of interactions within a developing rivalry as sources of subsequent conflict behavior (see also Sowers and Hensel 1997). Stinnett and Diehl (1998) focus primarily on characteristics of the initial confrontation in a potential

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5 Evidence that is consistent with the BRL model should not necessarily be taken as casting doubt on the evolutionary model. None of the analyses run in this paper were able to incorporate both evolutionary and BRL factors in head-to-head competition; one paper that has done so finds partial support for propositions derived from both models (Sowers and Hensel 1997).
rivalry relationship as sources of later conflict behavior and rivalry. The present analyses could be supplemented by including such factors along with major power status, territorial issues, and the control variables employed in the present paper.

Indeed, such supplementary analyses would allow scholars to compare the BRL and evolutionary approaches to rivalry more directly. The present analyses have only been able to address propositions based on the BRL approach, focusing on the role of preexisting factors that predate a rivalry as sources of later conflict behavior during the entire rivalry relationship. These analyses have not been any disaggregated analyses where individual militarized confrontations or other interactions could be studied as sources of further evolution toward rivalry. Once the effects of individual interactions during a potential rivalry are added (as begun by Sowers and Hensel [1997] and Stinnett and Diehl [1998]), then we can begin to compare the two primary models directly.
References


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<td>Int.</td>
<td>Adv.</td>
<td>N</td>
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<tr>
<td>Territorial Issue(s)</td>
<td>190</td>
<td>89 (25.2%)</td>
<td>74 (21.0%)</td>
<td>353</td>
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<tr>
<td>Non-territorial</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issues Only</td>
<td>693</td>
<td>109 (13.2)</td>
<td>27 (3.3)</td>
<td>829</td>
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<tr>
<td>Total</td>
<td>883</td>
<td>198 (16.8)</td>
<td>101 (8.5)</td>
<td>1182</td>
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<tr>
<td>$X^2$ = 141.72</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>409</td>
<td>86 (15.8)</td>
<td>50 (9.2)</td>
<td>545</td>
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<td>Major-Minor</td>
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<tr>
<td></td>
<td>444</td>
<td>95 (16.6)</td>
<td>35 (6.1)</td>
<td>574</td>
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<td>Major-Major</td>
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<td></td>
<td>30</td>
<td>17 (27.0)</td>
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<tr>
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<td>101 (8.5)</td>
<td>1182</td>
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<td><strong>B. Minor-Minor Power Rivalry</strong></td>
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<tr>
<td>Territorial Issue(s)</td>
<td>96</td>
<td>44 (25.3%)</td>
<td>34 (19.5%)</td>
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<td>313</td>
<td>42 (11.3)</td>
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<td><strong>C. Major-Minor Power Rivalry</strong></td>
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<td>Territorial Issue(s)</td>
<td>86</td>
<td>36 (24.3%)</td>
<td>26 (17.6%)</td>
<td>148</td>
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<td></td>
<td></td>
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<td>Issues Only</td>
<td>358</td>
<td>59 (13.9)</td>
<td>9 (2.1)</td>
<td>426</td>
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<td></td>
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<tr>
<td><strong>D. Major-Major Power Rivalry</strong></td>
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<td></td>
<td></td>
</tr>
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<td>Territorial Issue(s)</td>
<td>8</td>
<td>9 (29.0%)</td>
<td>14 (45.2%)</td>
<td>31</td>
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</tr>
<tr>
<td>Issues Only</td>
<td>22</td>
<td>8 (25.0)</td>
<td>2 (6.3)</td>
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<td>(2 d.f., ( p &lt; .001 ))</td>
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Table 2: Probability of Reaching Advanced Phase / Enduring Rivalry

<table>
<thead>
<tr>
<th>Variable</th>
<th>Est. (S.E)</th>
<th>Odds Ratio</th>
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<tbody>
<tr>
<td>Intercept</td>
<td>-2.33 (0.72)***</td>
<td>---</td>
</tr>
<tr>
<td>Major-Major Power Dyad</td>
<td>1.14 (0.35)***</td>
<td>3.11</td>
</tr>
<tr>
<td>Territorial Issues</td>
<td>1.74 (0.25)***</td>
<td>5.68</td>
</tr>
<tr>
<td>Military Disparity</td>
<td>-1.64 (0.83)**</td>
<td>0.19</td>
</tr>
<tr>
<td>Contiguity</td>
<td>0.78 (0.24)***</td>
<td>2.19</td>
</tr>
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</table>

LL (null model): 690.00  
LL (full model): 572.03  
Improvement: 117.98  
Significance: p < .001 (4 d.f.)  
N: 1182

* p < .10; ** p < .05; *** p < .01
### Table 3: Major Power Status and Probability of Enduring Rivalry

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model I</th>
<th>Model II</th>
<th>Model III</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Major-major)</td>
<td>(Major-minor)</td>
<td>(Minor-minor)</td>
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<tr>
<td>Intercept</td>
<td>-2.94 (2.87)</td>
<td>-0.54 (1.31)</td>
<td>-3.19 (1.05)***</td>
</tr>
<tr>
<td>Territorial Issues</td>
<td>2.49 (0.83)***</td>
<td>2.15 (0.41)***</td>
<td>1.17 (0.34)***</td>
</tr>
<tr>
<td>Military Disparity</td>
<td>0.31 (3.96)</td>
<td>-3.75 (1.47)**</td>
<td>-0.88 (1.26)</td>
</tr>
<tr>
<td>Contiguity</td>
<td>0.10 (0.72)</td>
<td>0.32 (0.43)</td>
<td>1.61 (0.40)***</td>
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</table>

LL (null model): 71.40       263.63       334.14  
LL (full model): 57.63       218.47       282.59  
Improvement: 13.77        45.17        51.55  
Significance: p<.001 (3 d.f.)   p<.001 (3 d.f.)   p<.001 (3 d.f.)  
N: 63          574          545  

* p < .10;  ** p < .05;  *** p < .01

### Table 4: Territorial Issues and Probability of Enduring Rivalry

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model I (Some territory)</th>
<th>Model II (Never territory)</th>
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<tr>
<td>Intercept</td>
<td>-0.14 (0.86)</td>
<td>-3.11 (1.25)**</td>
</tr>
<tr>
<td>Major-Major Power Dyad</td>
<td>1.26 (0.41)***</td>
<td>0.68 (0.79)</td>
</tr>
<tr>
<td>Military Disparity</td>
<td>-2.15 (1.03)**</td>
<td>-0.75 (1.45)</td>
</tr>
<tr>
<td>Contiguity</td>
<td>0.66 (0.28)**</td>
<td>1.08 (0.41)***</td>
</tr>
</tbody>
</table>

LL (null model): 362.51       238.03  
LL (full model): 339.94       229.96  
Improvement: 22.57        8.06  
Significance: p<.001 (3 d.f.)   p<.05 (3 d.f.)  
N: 353          829  

* p < .10;  ** p < .05;  *** p < .01
Table 5: Major Power Status, Territorial Issues, and War in Rivalry

<table>
<thead>
<tr>
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<th>At Least One War in Rivalry?</th>
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<tr>
<td></td>
<td>No</td>
<td>Yes</td>
<td>N</td>
<td></td>
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<td>Territorial Issues (s)</td>
<td>206</td>
<td>147 (41.6%)</td>
<td>353</td>
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<tr>
<td>Non-territorial Issues Only</td>
<td>682</td>
<td>147 (17.7)</td>
<td>829</td>
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<td>Total</td>
<td>888</td>
<td>294 (24.9)</td>
<td>1182</td>
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\[X^2 = 75.75 \text{ (2 d.f., } p < .001\)]

<table>
<thead>
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<th>Major-Minor</th>
<th>Major-Major</th>
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<tr>
<td>Territorial Issues (s)</td>
<td>438</td>
<td>425</td>
<td>25</td>
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<tr>
<td>Non-territorial Issues Only</td>
<td>107 (19.6)</td>
<td>149 (26.0)</td>
<td>38 (60.3)</td>
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<td>Total</td>
<td>545</td>
<td>574</td>
<td>63</td>
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</table>

\[X^2 = 50.73 \text{ (2 d.f., } p < .001\)]

<table>
<thead>
<tr>
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<th>Major-Minor</th>
<th>Major-Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>Territorial Issues (s)</td>
<td>125</td>
<td>74</td>
<td>74 (50.0%)</td>
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<tr>
<td>Non-territorial Issues Only</td>
<td>313</td>
<td>351</td>
<td>75 (17.6)</td>
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<td>Total</td>
<td>174</td>
<td>148</td>
<td>148</td>
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\[X^2 = 11.78 \text{ (2 d.f., } p < .001\)]

<table>
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<tr>
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<th>Major-Major</th>
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<tbody>
<tr>
<td>Territorial Issues (s)</td>
<td>7</td>
<td>24 (77.4%)</td>
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<tr>
<td>Non-territorial Issues Only</td>
<td>18</td>
<td>14 (43.8)</td>
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<td>Total</td>
<td>31</td>
<td>32</td>
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</table>

\[X^2 = 7.46 \text{ (2 d.f., } p < .01)\]
### Table 6: Probability of At Least One War in Rivalry

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1 (All wars)</th>
<th>Model 2 (Primary wars only)</th>
</tr>
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<tbody>
<tr>
<td>Intercept</td>
<td>- 0.29 (0.45)</td>
<td>- 3.74 (0.88)***</td>
</tr>
<tr>
<td>Major-Major Power Dyad</td>
<td>1.29 (0.29)***</td>
<td>0.14 (0.52)</td>
</tr>
<tr>
<td>Territorial Issues</td>
<td>1.26 (0.15)***</td>
<td>1.73 (0.31)***</td>
</tr>
<tr>
<td>Military Disparity</td>
<td>- 1.47 (0.53)***</td>
<td>- 0.69 (0.99)</td>
</tr>
<tr>
<td>Contiguity</td>
<td>- 0.53 (0.17)***</td>
<td>1.23 (0.29)***</td>
</tr>
</tbody>
</table>

LL (null model): 1326.05 509.11  
LL (full model): 1209.60 424.52  
Improvement: 116.45 84.59  
Significance: p < .001 (4 d.f.) p < .001 (4 d.f.)  
N: 1182 1182

* p < .10; ** p < .05; *** p < .01
Table 7: Major Power Status and Probability of War in Rivalry

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model I (Major-major)</th>
<th>Model II (Major-minor)</th>
<th>Model III (Minor-minor)</th>
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<tr>
<td></td>
<td>Est. (S.E)</td>
<td>Est. (S.E)</td>
<td>Est. (S.E)</td>
</tr>
<tr>
<td>Intercept</td>
<td>-1.54 (2.50)</td>
<td>1.19 (0.82)</td>
<td>0.76 (0.66)</td>
</tr>
<tr>
<td>Territorial Issues</td>
<td>1.39 (0.57)**</td>
<td>1.50 (0.22)***</td>
<td>0.89 (0.25)***</td>
</tr>
<tr>
<td>Military Disparity</td>
<td>1.74 (3.54)</td>
<td>-3.03 (0.91)***</td>
<td>-3.00 (0.86)***</td>
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<tr>
<td>Contiguity</td>
<td>0.50 (0.69)</td>
<td>-0.02 (0.28)</td>
<td>-0.62 (0.25)**</td>
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LL (null model): 84.64 657.37 539.85
LL (full model): 76.21 590.72 511.10
Improvement: 20.07 66.64 28.75
Significance: p<.04 (3 d.f.) p<.001 (3 d.f.) p<.001 (3 d.f.)
N: 63 574 545

* p < .10; ** p < .05; *** p < .01

Table 8: Territorial Issues and Probability of War in Rivalry

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model I (Territorial Issues)</th>
<th>Model II (Non-Territorial Issues Only)</th>
</tr>
</thead>
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<tr>
<td></td>
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<td>Est. (S.E)</td>
</tr>
<tr>
<td>Intercept</td>
<td>0.21 (0.71)</td>
<td>0.19 (0.57)</td>
</tr>
<tr>
<td>Major-Major Power Dyad</td>
<td>1.61 (0.45)***</td>
<td>1.05 (0.38)***</td>
</tr>
<tr>
<td>Military Disparity</td>
<td>-0.67 (0.83)</td>
<td>-1.99 (0.67)***</td>
</tr>
<tr>
<td>Contiguity</td>
<td>-0.30 (0.23)</td>
<td>-0.80 (0.28)***</td>
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LL (null model): 479.45 774.80
LL (full model): 459.38 746.83
Improvement: 20.07 27.97
Significance: p<.001 (3 d.f.) p<.001 (3 d.f.)
N: 353 829

* p < .10; ** p < .05; *** p < .01