Territory, River, and Maritime Claims in the Western Hemisphere: Regime Type, Rivalry, and MIDs from 1901 to 2000

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Issues remain at the core of armed conflict. Territory, in particular, appears to increase substantially the probability of inter-state violence and is concluded by many to be one of the most critical correlates of war onset. While scholars have called for an issue-based approach to the study of international relations for some time, recent data collection efforts allow the emergence and management of contentious issues over time to be studied more directly. Our argument and evidence suggest that territory is not necessarily contentious by itself, but is contentious in dyadic contexts characterized by rivalry. Using data from the Issue Correlates of War project, which codes specific government assertions of ownership to territory, river, and maritime locations, we find strategic rivalry, coupled with territorial claims, produces some of the most conflict-prone dyads. Further, jointly democratic domestic institutions do not appear to reduce the hazard of violent conflict over territorial issues within the context of rivalry, although they substantially reduce the hazard of violent conflict among states outside the context of rivalry.

In an unregulated system of sovereign states, violent conflict can intermittently erupt. While orthodox international relations theory recognizes and attempts to explain such events, the underlying rationale or issue at stake receives little if any theoretical attention. Indeed, conflict is typically reduced to a struggle for power or an inability to convey effectively one's preferences. Yet states contend over real issues. The US–Mexican war in the mid-nineteenth-century, for example, involved territory and the boundary separating the two countries. More recently, Greece and Turkey have sparred over a maritime frontier that would enable one state or the other to control valuable seafloor resources. Issues

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[1] Author ordering is alphabetical and does not imply differing levels of contribution.

therefore represent a crucial element in the study of international relations that have been largely ignored by extant research, although admittedly this has begun to change in the last few years. Incorporating issues into the study of international interactions will provide a more nuanced and insightful assessment of foreign policy decision making.

Vasquez (1993; see also Diehl 1992) identifies territorial issue disputes as a critical underlying context in international relations generating power politics, rivalry, and eventually the outbreak of war. However, territoriality remains only one context among many that influence the foreign policy decision making of political elites. Indeed, it remains unclear the extent to which territory is the important causal element in conflict escalation or whether security concerns, government ideology, and/or strategic rivalry remain the more proximate reasons for the use of military force. We insist that territory, while frequently contentious, does not by itself generate serious armed conflict. Coupled with the fear, insecurity, and mutual enmity that generally accompany rivalry, though, territory becomes an expedient and useful rationale for the use of military force to accomplish foreign policy (and perhaps even domestic policy) objectives.[2] Bringing with it elements of distrust and zero sum competition, rivalry, in fact, may increase the conflict propensity of all types of contentious issues, not just territorial issues.

If the context of rivalry tends to militarize the resolution of territory, maritime, and river issue claims, then perhaps democratic decision processes can help mitigate the escalatory pressures produced by entrenched strategic competition. Democracies are rarely rivals (Hensel, Goertz, and Diehl 2000) and the most politically mature democratic states appear to have resolved their territorial claims. Still, strategic rivalries exist even among democratic states.[3] Arguably, these cases present a difficult test of democratic peace theory (Hensel et al. 2000), particularly when the issue in contention is territory. Will the dispute resolution qualities of democratic institutions and norms enable even rivals to settle salient issues in contention nonviolently? Or, will the fear and insecurity that characterize enduring rivalry push even democratic leaders into militarized competition?

In what follows, we draw upon work by Vasquez (1993, 1995, 1996), Rasler and Thompson (2006), and Hensel (1996, 2000, 2001) to develop the theoretical connections between issue claims (territory, maritime, and river), rivalry, regime type, and inter-state militarized conflict.[4] We begin, in the next section, by discussing the importance of an issue-based approach for furthering our understanding of international conflict. Arguments regarding the importance of contention over territorial issues and the context within which they occur are then developed, leading to testable hypotheses regarding the militarization of territorial disputes within and outside the context of rivalry. Expectations regarding the potential mitigating effects of democratic regimes are then developed, leading to an additional hypothesis regarding the militarization of territorial disputes by jointly democratic states within and outside the context of rivalry.

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[2] Vasquez (1993) agrees that territorial issues lead to war when accompanied by particular foreign policy practices. Vasquez (1993), Vasquez and Henehan (2001), and Senese and Vasquez (2003) maintain that power politics (alliances, military buildups, and generally hawkish foreign policy actions) tend to push states toward armed conflict (see also Colaresi and Thompson 2005). We agree and contend that rivalry is where such foreign policy behavior is likely to be found.

[3] For example, dyads with issue claims in the Western Hemisphere that were jointly democratic during the rivalry include the US–Great Britain; El Salvador–Honduras; Nicaragua–Costa Rica; Nicaragua–Colombia; Colombia–Venezuela; Venezuela–Guyana; Ecuador–Peru; Bolivia–Chile; Chile–Argentina; Argentina–UK.

[4] Although we are theoretically interested in exploring a wide range of issue categories, the Issue Correlates of War (ICOW) Project currently limits our empirical efforts to comparisons across territory, maritime, and river claims only.

The empirical analysis that follows provides evidence that, compared to maritime and river claims, territorial claims are substantially more likely to result in militarization within the context of rivalry. Outside the context of rivalry, however, it is maritime disputes that are most likely to be militarized. Moreover, the mitigating effect of jointly democratic regimes on militarized conflict is only found to be evident when disputes do not involve territory within the context of rivalry. When states are rivals, or when territory is at issue, the domestic foreign policy processes governing the states involved is not found to exert a significant influence on the likelihood of militarized conflict. We conclude that the evidence collected and presented below supports our contention that the contexts of strategic rivalry and territorial claims, regardless of the type of domestic political institutions, together produce some of the most dangerous dyadic relationships in the international system.

Territory and International Conflict

The limited empirical research on the issues grounding violent conflict has tended to result in ex post determinations of the concerns driving political elites. That is, issue categorizations have tended to follow the militarized incident, rather than starting with issues and seriously examining which ones lead ultimately to the use of military force (see for example Vasquez and Henehan 2001). This type of research design remains fundamentally problematic inasmuch as the dependent variable is used to select cases for empirical analysis (see Diehl 1992). Such a selection mechanism prevents the systematic study of the relationship between specific issues and inter-state conflict and thus potentially brings into question the widely accepted view that territorial issues increase the likelihood of armed aggression (Vasquez 1995; Huth 1996; Senese 1996). The use of an issue claim between states as the unit of analysis, however, enables both an exploration of when (or whether) claims become militarized as well as a comparison across different types of issue claims.

If issues are at the heart of violent inter-state conflict, or perhaps more accurately are the concerns political leaders exploit to justify foreign policy actions, then it seems particularly important to assess elite decisions across distinct incompatibilities. To date, territory is the only issue to have received considerable attention by peace science scholars (Diehl and Goertz 1988; Goertz and Diehl 1992; Ruggie 1993; Kocs 1995; Huth 1996; Hensel 2000). Admittedly, such attention seems warranted given that territorial incompatibilities appear especially conflictual. Most wars involve questions of territory (Vasquez and Henehan 2001). Territorial disputes are more likely to escalate to war than disputes over regime and/or policy issues (Senese and Vasquez 2003). Territorial MIDs have a greater likelihood of fatalities (Senese 1996), and territorial disputes are more likely to generate additional militarized conflict in the future (Hensel 1999). This evidence suggests that territory may be a critical underlying cause of dyadic contention in international politics, perhaps being the issue most likely to generate militarized aggression, enduring rivalry, and eventually war onset.

However, even if one accepts that states must have willingness (substantive issues) as well as opportunity (proximity) to use military force (Most and Starr 1989), a territorial explanation remains indeterminate. Control of strategic resources, such as oil, iron, or rubber may account for the contentious nature of territory if, as Vasquez (1993:145) asserts, ''[I]nterstate wars, arise from attempts by human collectivities to demark territorial units, which form the basis for economic survival.'' Alternatively, the intangible value of territory, having at some point in the evolution of human history taken on a life of its own (Vasquez 1993:142), may be the more critical element pushing decision makers toward aggression. The intangible value of territory may account for why bargaining

apparently breaks down more often over territory. Whereas iron ore deposits or fresh water supplies can be easily divided or valued monetarily, historically and/or religiously important land may establish a psychological attachment that is much more difficult to haggle over (see Hensel 2001; Hensel and Mitchell 2005).[5]

Whereas previous research has been limited in the distinct issues explored and in causal inference, the current study systematically compares the foreign policy behavior of state leaders across territory, maritime, and river issue claims. In this way, the impact of territorial issues on the onset of armed conflict is more clearly assessed as it is plainly judged against maritime and river claims rather than an ambiguously defined zero category. Further, beginning with claims facilitates causal modeling of critical covariates, such as regime type, relative capabilities, and rivalry, on the incidence of militarized disputes.

The Context of Rivalry

Still, Vasquez (2000) acknowledges that the steps or decisions taken by political elites to signal resolve actually lead (sometimes unintentionally) to military hostilities. In particular, arms buildups and alliance formation frequently generate a security dilemma and, as Vasquez (2000:372) notes, ''…instead of producing peace, they increase the prospects of war.'' Of course, one might inquire why such actions taken by states fail to only show defensive strength, but rather also appear to convey hostility as well. Vasquez (2000) insists that fear and insecurity develop in response to even defensive military buildups, and subsequently hawkish leaders emerge that only escalate a simmering dispute. ''The combined effect of hostile external relations and the rise of hard-liners domestically,'' Vasquez (2000:379) writes, ''produces a number of psychological effects that help mobilize the society for war and make it difficult to turn the tide to avoid war at the last minute.'' This ''steps to war'' explanation seemingly locates militarized conflict more in the perceptions and misperceptions of government leaders than in any particular source of contention.

It appears, then, that the context in which territory, maritime, and river claims are managed contributes to their eventual resolution (Huth 1996). Disputes occurring in a geopolitical environment of strategic rivalry, an extended adversarial relationship where security concerns are of paramount importance (Diehl and Goertz 2000:24), contribute to an environment of fear and mistrust that often sets the stage for further militarized aggression. Combine this mistrust with previous bouts of violent conflict and leaders on both sides prepare to respond forcefully to any challenges that might arise. Goertz (1994:210) insists that ''a rivalry sets the stage for escalating tensions in a dispute to culminate in war. Disputes without a violent past are more likely to be resolved peacefully, or at least without resort to all out force.'' Thus, the historical context of interstate relations affects how leaders view current interactions. While past violent conflict tends to characterize many, if not most, rivalries, the anticipation of future military confrontations inhibits attempts to resolve the underlying source or sources of contention (see Goertz and Diehl 2000:226). Indeed, fear of exploitation by a rival naturally commits states to hawkish foreign policies that only exacerbate security concerns and thus prolong the belligerent relationship.

The empirical record confirms that rival dyads are some of the most dangerous in the international system. More than 50% of all armed conflict occurring worldwide emerges in a rivalry context and ''the most serious enduring rivalries are almost eight times more likely to experience war than pairs of states in

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[5] Fearon (1995) suggests issue indivisibilities may be a cause of bargaining breakdown that ends in violent conflict.

isolated conflict'' (Goertz and Diehl 2000:148).[6] Evidence also indicates that escalation in a crisis occurs more rapidly among rival states. As rivalries mature and deepen, recourse to militarized aggression becomes increasingly prevalent. After 14 or more dyadic crises, rival states respond to crisis triggers with armed force nearly 90% of the time (see Prins 2005).[7] Colaresi and Thompson (2002) agree, and using similar ICB data, observe that the risk of a future crisis increases by over four times after the first crisis and by nearly 9 times after the second crisis. These results clearly indicate, as Leng (1983) documented more than two decades ago, that rival states increasingly turn away from accommodative bargaining strategies as a rivalry lengthens and deepens.

Rivals tend to have long histories of tension, fear, and sometimes militarized aggression and as such a lack of trust clearly plagues rival relations. Rival states find diplomatic concessions difficult inasmuch as neither side trusts the other to implement critical provisions of any agreement. Any serious attempt to resolve the fundamental sources of contention between rival states likely will require military actions that alleviate security fears, such as troop redeployments or a discernible decrease in readiness levels. However, how can a state reasonably commit to an agreement that requires steps that will likely place it at a military disadvantage vis-à-vis a rival?[8] States with histories of armed conflict anticipate concessions will be exploited and the obvious result is that rival states rarely reach the bargaining table.[9]

If protracted conflicts are sustained in part by domestic political vulnerability, as noted earlier, then territorial claims may be exploited by elites to stay in power. While war onset among rivals frequently begins with territorial disputes (Diehl 1985), the particular issue of land ownership may be directed by elites more at a domestic political audience rather than at one's rival (see for example Mitchell and Prins 2004). Vasquez (1993), for example, suggests that over time rivalry assumes an actor dimension, taking on an in-group versus out-group quality. In such an environment, the substantive issue or issues become less important to foreign policy decision making than the protracted conflict itself. Thus, territory may be a convenient excuse for escalatory policies designed to avoid the appearance of weakness, both internationally and domestically, as Rasler and Thompson (2006) suggest. As territory generates a deep psychological attachment among the people of a country, it likely becomes the issue of choice for leaders who perceive political incumbency to be in jeopardy.

Indeed, Rasler and Thompson (2006:146) maintain that ''territorial disputes between rivals act as lighting rods for the psychological baggage and mistrust associated with protracted antagonisms.''[10] In such an atmosphere, increasingly coercive actions are taken to demonstrate resolve and achieve political victory. Yet, the critical context pushing states toward armed conflict does not appear to be the particular issue in dispute, be it territorial or some other type of issue, but rather rivalry. If this logic accurately represents the steps to war process hypothesized by Vasquez, then the particular type of issue in dispute may not be as important as the strategic environment in which the issue is framed. Outside the hostile context of rivalry, territorial claims may not be seen as threatening

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[6] This is rather remarkable given that the 63 enduring rivalries coded by Diehl and Goertz (2000) represent less than 6% of all conflictual dyads (see Goertz and Diehl 2000:222).

[7] Diehl and Goertz (2000) also report that enduring rivals have a >50% chance of experiencing war.

[8] See Kydd and Walter (2002) for a similar argument addressing negotiations between state and insurgent forces.

[9] See Lai (2004) for an interesting study of private mobilization for war. If military mobilization can be accomplished in secret, and assuming such one-sided mobilization increases the probability of winning, then negotiated settlements become particularly difficult to generate.

[10] Rasler and Thompson (2006:146) go on to ask, as we do, whether ''the perceptions of threat and hostility [are] more important than the territorial claims.''

the security of states, at least in comparison with maritime and river claims. Thus, outside of rivalry, leaders may be no more likely to militarize a dispute over territory than if it were over any other issue. In fact, Rasler and Thompson (2006) actually observe rivalry-producing territorial claims, and this evidence seemingly indicates that the hostile relationship generates both issue claims and militarized violence. Rasler and Thompson (2006) conclude that the claim may merely be a convenient excuse for prolonging the rivalry itself and thus sustaining security policies that help keep certain elites in power.[11]

Given the nature of the concept of rivalry, making comparisons between rival and non-rival dyads regarding militarized disputes is potentially problematic. It is less problematic, however, to make comparisons within each set of dyads. As explained earlier, there is reason to believe that the relationship between territory and militarized conflict is driven by rivalry. In other words, territory is more likely to lead to conflict than maritime or river issues if dyads are rivals. In non-rival dyads, territory is likely to have no independent influence on the likelihood of conflict. Thus, similar to Rasler and Thompson (2006), we expect territorial claims to increase the likelihood of violent conflict compared to maritime and river claims, but only in the presence of rivalry. This leads to our first two hypotheses:

Hypothesis 1: *In non-rival dyads with existing contentious issues, territory is no more likely than maritime or river issues to increase the likelihood of militarized disputes.*

Hypothesis 2: *In rival dyads with existing contentious issues, territory is more likely than maritime or river issues to lead to a militarized dispute.*

Regime Type

While rivalry and territory together may propel leaders down a path toward armed conflict, a country's regime type may condition the influence of these two critical factors on foreign policy responses to contentious inter-state disputes. Democratic polities, for instance, may help assuage fears of exploitation that motivate elite decisions to demonstrate resolve through military force. Indeed, the transparency of democratic regimes offers even rival leaders a window into each other's policy discussions and decisions, alleviating uncertainty regarding sincere preferences. Furthermore, ''democratic norms such as those favoring peaceful conflict resolution or friendly relations with other democratic states that respect their citizens' rights—whether held by leaders, their constituents, or both—may even work to halt the development of initial conflicts between democracies'' (Hensel et al. 2000:1175–1176).

There is no shortage of arguments leading to the expectation of peaceful relations between democratic countries. However, democratic leaders faced with a contentious issue involving another democratic state that is a rival may find accommodative policies politically difficult and thus run a higher risk of war by refusing measures designed to build confidence and establish trust. If opposition parties can portray such concessions as unpatriotic or as evidence of political weakness, democratic leaders likely will find a more hawkish foreign policy orientation electorally appealing.

Consider that while an orthodox norms or institutions explanation for the democratic peace suggests liberal pacifism at each stage of a bargaining process,

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[11] Colaresi (2004) observes rivalry shielding leaders from domestic punishment. Leaders of rival states not only get deselected from power for acting dovishly, but these same leaders also rarely get punished for foreign policy failures.

Fearon (1994) maintains that audience cost pressures may push democratic leaders toward more aggressive policies in the face of a challenge. Democratic initiation may be highly unlikely, but democratic escalation, particularly in rivalry, may offer electoral rewards. Reed (2000), for example, observes joint democracy having no effect on the escalation of militarized disputes to war, but strong and robust pacifying effects on conflict onset. Thus, particular types of democracies, which are already predisposed to use force, select themselves into disputes and then proceed to escalate to armed conflict. Rivalry represents just such a condition where democratic constraints and more efficient signaling may have little impact on crisis bargaining.

Hensel et al. (2000) find that democratic dyads are less likely to experience rivalry. However, once in a rivalry, the influence of democratic norms and institutions are less than obvious. Senese (1997), Reed (2000), Lemke and Reed (2001), Colaresi (2004), Mitchell and Prins (2004), and Lektzian and Souva (2009) all find evidence that domestic political dynamics do not make democracies statistically different from nondemocracies in terms of conflict escalation. That is, the primary pacifying effect of democratic institutions is to reduce the likelihood of a dispute or rivalry from occurring, not from escalating. Hensel et al.'s (2000:1181) study of rivalry and the democratic peace reached a similar conclusion, stating that ''the impact of democracy on rivalry is primarily evident at the outset. That is, joint democracy is most effective at preventing the beginning of rivalries between two states. Once a rivalry has begun, though, the pacifying effect of democracy appears to weaken.''

Thus, where dyadic trust is low because of rivalry and claims have already been initiated over territory, we contend that there will be no mitigating effect of joint democracy on militarized conflict. In other words, issues and the context within which disputes take place are potentially as important as the structure of domestic institutions. If this expectation is borne out, it would extend Hensel et al.'s (2000:1184) conclusion that ''the dynamics driving the rivalries may be stronger than any pacifying effects of joint democracy, at least in the short term after a democratic transition'' to the even more contentious issue of territorial conflict within a rivalry.

Hypothesis 3: *Jointly democratic dyads within the context of rivalry will behave relatively similar to other types of regimes with regard to the militarization of disputes over territory, maritime, and river issues.*

Research Design and Methods

Three objectives guide the empirical analysis. First, we want to know if, in the Western Hemisphere, certain types of issue claims are more likely to lead to violent confrontations than other types of issues.[12] While extant empirical evidence appears to show territorial issues with a higher underlying probability of armed conflict, two important weaknesses cast doubt on these results. First, many studies examine issues ex post by defining issues in contention only after a violent confrontation has emerged. Second, most studies that model conflict escalation single out territory, but collapse all non-territorial issue categories together. Both research designs present some limitations in drawing inferences about the conflictual nature of certain types of issues. The use of issue claim data here allows for a direct comparison across three different issues while also offering a unit of

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[12] As mentioned earlier, the ICOW Project currently codes only territory, maritime, and river claims. As a result, our empirical investigation is limited to comparisons across these three distinct issues. We acknowledge that many other incompatibilities exist that pose problems for political leaders. We hope that future research will begin to systematically document the full range of issues confronting policymakers in international politics.

analysis defined by the contentious issue and not armed conflict. In this way, the models presented below are better able to assess whether territory independently increases the probability of military force compared to maritime and river issues or whether the issue is activated only in certain types of environments, such as in rivalries.

The second objective is to explore how rivalry may condition the use of military force in claim dyads. That is, within the context of rivalry, are certain types of issues more likely to be militarized than others? Additionally, does a model of MID onset among dyads with issue claims hold for rivals and non-rivals alike, or do we need different explanatory variables for these more hostile and competitive dyadic relationships? We certainly expect rivals to have a higher probability of militarized conflict as conflict is essentially part of the definition of rivalry.[13] However, is this conflict over a certain type of issue, and if samples are split to look at rival and non-rival dyads, will critical covariates such as power, alliances, democracy, and past violence impact MID onset among rivals the same way as they do non-rivals?

A final objective is to investigate the proposed pacifying effect of democratic domestic institutions. Will jointly democratic regimes be able to avoid militarizing disputes when the stakes are very high, such as when the issue involves territory, and the other disputant is considered a rival? Or, will electoral demands cause democratic leaders to shelve accommodative policies to foster an image of toughness and resilience?

Estimator

We estimate a Cox proportional hazard model on time until MID onset within the context of a contentious issue claim. The dependent variable in Cox regression models is the hazard rate or risk of event occurrence at a given point in time (here, MID onset). Covariates in the model are employed to explain an increase or decrease in the likelihood of event occurrence. Essentially, then, our dependent variable is militarized conflict, but rather than use a logistic estimator that handles time in an ad hoc manner, we explicitly model time in the estimator. We choose a proportional hazard model as our focus is on correctly modeling the relationship of the covariates to the hazard of militarized dispute activity, and not on the particular form of duration dependency (Box-Steffensmeier and Jones 2004).

In the Cox model, the hazard rate for the ith individual is:

$$h_i(t) = h_0(t) \exp(\beta' x), \qquad (1)$$

where $h_0(t)$ is the baseline hazard function and $\beta' x$ represents the covariates and regression parameters. Rather than report coefficient estimates, the models in the paper present hazard ratios for the hazard of one event compared to another, which are calculated as (Box-Steffensmeier and Jones 2004:48):

$$\frac{h_i(t)}{h_0(t)} = \exp(\beta'(x_i - x_j)) \qquad (2)$$

Previous research by Rasler and Thompson (2006) uses a unified model of the escalation of militarized disputes and war while controlling for temporal dependence by using cubic splines and peace years (see Beck, Katz, and Tucker 1998). As the concept of rivalry denotes long-term or entrenched hostility and mistrust,

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[13] Militarized conflict actually *is* the definition of rivalry used by Diehl and Goertz. However, the existence of armed aggression may also indirectly influence Thompson's coding as well.

we estimate such over-time behavior in a model specifically designed to address the time until events occur.[14] Moreover, right-censoring is a potential problem with temporal analyses where data are limited. Right-censoring refers to cases that have not yet ended during the time frame utilized in the analysis. The Cox regression model easily handles right-censored observations through the partial likelihood function in the estimation. Surviving observations enter the partial likelihood function and therefore information on cases that did not experience a MID in the time frame under study is included in the model.

Additionally, our models include an unmeasured, random variable (frailty) in the hazard functions to account for variation or heterogeneity among individuals in a cluster (based on claim dyads). We model the shared frailty as gamma distributed with mean one and variance θ. "In this setting, a random effect is a continuous variable that describes excess risk or frailty for distinct categories, such as individuals or families" (Therneau and Grambsch 2000:231). In other words, "a Cox model with shared frailty is simply a random-effects Cox model" (Cleves, Gould, Gutierrez, and Marchenko 2004:148). Compared to a traditional Cox proportional hazard model, the difference is simply the inclusion of an additional parameter, θ, for the random effects. The frailty model can be written in terms of the log hazard function as

$$\log[h_{ij}(t; X_{ij}|\theta_i)] = \log[h_0(t)] + \theta_i + b'x_{ij} \tag{3}$$

"Because θ_i remains the same in the ith cluster, the association between failure and covariates within each cluster in this model is assumed to have a symmetric pattern" (Lee and Wang 2003:375). If θ were to equal zero, the shared frailty model would simply reduce to the standard Cox model.

Unit of Analysis and Dependent Variable

Until recently, systematic data on issue claims did not exist. However, the Issue Correlates of War (ICOW) project is rectifying this problem (Hensel 2001). The ICOW project searches military and diplomatic histories, as well as news reports to gather information on contending claims to territory, river, and maritime locations (see Hensel 2001). ICOW relies on "evidence of contention involving official representatives of two or more nation-states over the issue type in question" (Hensel 2001:90). The ICOW project conceives of the claim as the principal unit of analysis.

Beginning with ICOW data, we generate a dataset of all claim dyads in the Western Hemisphere. So, the unit of analysis is the dyad year, but only for those states in the Western Hemisphere with issue claims and only for the duration of those claims. Dyads remain in the analysis until a claim is resolved, at which time they drop out. This means that our data have the potential to contain multiple failures (MIDs) per subject (dyad with a claim). To account for multiple failures, conditional risk sets are created based on the methodology of Prentice, Williams, and Peterson (1981). We group the data on dyadic issue claims and count the time until the occurrence of a militarized dispute over the claim. After each successive militarized dispute, we restart the counter until the next militarized dispute, based on the logic that the study of total elapsed time from the beginning of entry is "appropriate only when the repeated events are thought to be developing simultaneously" (Lipschutz and Snapinn 1997; Box-Steffensmeier and Jones 2004:159).

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[14] Goertz and Diehl (2000) insist that states in rivalry learn from previous encounters and thus the past must be taken into account when explaining rival decision making.

Perhaps, the most important empirical innovation in this research is the use of a measure of militarized conflict directly connected to the issue claim in contention. Rasler and Thompson (2006) call for such a measure and insist it is particularly appropriate for testing the relationship between issues and armed conflict. However, ultimately their analyses rely upon a general measure of militarized incidents and not one that codes only conflict directly related to the issue in contention. This is important because the Issue Correlates of War (ICOW) data used here enables us to model the influence of three different types of issue claims (territory, maritime, and river) and thus compare decision making across these unique issues. Starting with claims also guarantees that states are actually interacting and this helps ensure that the comparisons we make across issues and the rivalry context are reasonable. Also, as a result of their use of a more general measure of militarized disputes, Rasler and Thompson's (2006) finding demonstrates that within the context of rivalry, disputed territory tends to be associated with an increased number of military disputes *over any type of issue.* By contrast, the analysis presented here more directly addresses whether a particular type of issue claim is likely to be militarized within the context of rivalry.

Our data are comprised of time varying covariates measured annually, producing a total time at risk for all subjects in the study of 7,819 years. These observations provide 210 dyads with claims in the Western Hemisphere and 235 MID onset failures. Ninety-five percent of the dyads have claims that last longer than 1 year, but only 72% last longer than 10 years, and only 46% remain after 30 years. Only two dyads last longer than 145 years. Both involve the UK. The first involved a territorial dispute between the two colonies of Dutch and British Guyana that was resolved in 1966. The second involves the UK and Argentina dispute over the Malvinas Islands that continues to this day.

Independent Variables

Two datasets of rivalry exist. Thompson (2001) defines rivalry based on whether one country perceives another country as a threat. Thompson's coding of rivalry relies upon historical accounts and news reports to infer a hostile relationship between two governments. Diehl and Goertz (2000) use a dispute density approach to rivalry classification where six militarized disputes over a 20-year period define an enduring rivalry. Each dataset has its advantages and disadvantages, but for the analyses below, we utilize Thompson's list of strategic rivals. Thompson's list provides 173 rivalries globally from 1816 to 2000. In the Western Hemisphere, we have only 57 strategic rivalries coded, which accounts for 27% of the dyads and 33% of the cases. As Thompson defines rivalries based on perception of threat between states and not number of militarized incidents, rivalries are coded as ongoing until there is evidence for ''significant de-escalation in threat perceptions and hostility'' (Thompson 2001:566).

Issue distinctions include territorial, river, and maritime claims. We operationalize joint democracy using the Polity-4 datafile (Marshall and Jaggers 2002). A state is coded as a democracy if its democracy minus autocracy index score is six or greater. Accordingly, the variable joint democracy equals one if both states in the dyad are democratic, zero otherwise.[15]

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[15] We do not take up the question of whether ''fully institutionalized'' democracies fight over territory within the context of rivalry (Mitchell and Prins 1999) because, while there are ten jointly democratic dyads with democracy levels of 6 or greater, there are no cases of rivalry between two fully democratic dyads at the level of 10. Therefore, it is impossible for two fully institutionalized democracies to have disputes within the context of rivalry in our dataset.

Control Variables

The models presented below also include a set of covariates that theory and empirical evidence indicate are important in explaining violent conflict. From the ICOW project, issue salience and past conflict occurrence are modeled. Hensel, Mitchell, Sowers, and Thyne (2008) found that within issue salience, recent militarized conflict and failed peaceful efforts increase the likelihood of armed conflict regardless of the type of issue. Because of the potential for these variables to be correlated with both our dependent variable and our main theoretical independent variable, it is important to include them in statistical models to prevent biasing coefficients (King, Keohane, and Verba 1994). Salience measures the importance of the issue claim under contention on an annual basis and ranges from 0 to 12 with higher scores indicating greater levels of significance to the parties. Settlement attempts are coded as number of failed attempts in the previous 5 years over the claim in question, while past conflict is measured as the number of MID onsets over the claim in the previous 5 years.

Additionally, we include several variables from the International Relations conflict literature found to be associated with the occurrence of military conflict, and potentially related to our main independent variable. First, to measure a state's military power, we employ the Correlates of War Composite Capabilities Index (CINC) (Jones, Bremer, and Singer 1996). The literature on the relationship between balance of power and military conflict is extensive. Empirically, power preponderance has generally been found to be negatively related to dyadic conflicts (Bremer 1992). We create a relative power measure defined as the natural log of the stronger state's power divided by the weaker state's power (Bremer 1992; Oneal, Oneal, Maoz, and Russett 1996). Higher values on this variable indicate a greater imbalance of power. Thus, we expect to find a negative relationship between this variable and conflict in our models. Additionally, alliances may serve as indicators of bilateral satisfaction (Lemke and Reed 1996) or common interests among states (Bueno De Mesquita 1981), thus influencing the types of issues over which states disagree and the nature of conflict that ensues. To control for this influence, we include a dichotomized indicator for the presence of an alliance, which comes from the Correlates of War project (Gibler 2004). Finally, we control for the impact of distance. Dyads that are farther apart are both less likely to have a territorial dispute and face greater difficulty in trying to bring arms to bear on a situation. We use contiguity as the measure of proximity. Our measure includes states bordering each other by land or by <150 miles of open water. Empirical evidence indicates that these states account for most wars over the last 200 years (see Vasquez 1995).

Empirical Results

Descriptive Evidence

Table 1 breaks down the claim dyads by issue type and rivalry from 1901 to 2000. The shorter temporal period is necessary as collection of river and maritime claims does not begin until 1901. To compare across issues, particularly with the Cox duration models, we need an origin time that is the same for each category of claim. What we observe is that in the Western Hemisphere from 1901 to 2000, there are 176 dyads with claims and a total of 180 MID onset failures. Eighty-six of these claim dyads, or 49%, are over territory, while 67 and 23 cover maritime and river issues, respectively. Of the 180 militarized disputes, 115 or 66% occur over territorial claims. Maritime claim dyads generated 60 MID onsets, while river claim dyads only 5. Consistent with the findings of others regarding the positive relationship between territorial disputes and military conflict, territorial claim dyads are seen to be generally more likely to experience militarized violence

TABLE 1. Breakdown of Issue Type, Rivalry, and Number of Militarized Disputes, 1901–2000

	Territorial Claim Dyads	*Maritime Claim Dyads*	*River Claim Dyads*	*Totals*
All Dyads	86	67	23	176
No. of MIDs	115	60	5	180
No. of Fatal MIDs	25	2	0	27
Non-Rival Claim Dyads	68	62	18	148
No. of MIDs	21	47	4	72
No. of Fatal MIDs	2	1	0	3
Rival Claim Dyads	27	13	8	48
No. of MIDs	94	13	1	108
No. of Fatal MIDs	23	1	0	24

than either maritime or river claim pairs. A *t*-test confirms the high probability of dispute occurrence for claims over territory.

Table 1 also categorizes claim dyads by the context of rivalry. There are 148 claim dyads by states not in rivalry and 48 claim dyads in rivalry as defined by Thompson.[16] Of the 148 non-rival claim dyads, 68 are over territory, which is about 46%. For rivals, 27 out of 48 claim dyads cover territory (or about 56%). A *t*-test indicates that rival claim dyads are statistically more likely to be over territorial issues. This may indicate some endogeneity in the categorizing of rivals and issue claims. If territorial claims are used to code rivalry, then we would expect to observe rivals having more claims on average. The question of interest here, however, is not whether territorial claims define rivalry, but whether claim dyads over territorial issues lead to militarized conflict and if rivalry helps explain which ones.

Of the 68 non-rival territorial claim dyads, 21 militarized disputes emerge. For rivals, however, the number is much larger. There are 27 rival claim dyads from 1901 to 2001 and 94 MID onsets occur. Rivalry, then, accounts for 31% of territorial claim dyads, but 82% of the militarized disputes associated with these territorial claim dyads. Further, of the 21 MID onsets among non-rival territorial claim dyads, only 2 are fatal (involve military deaths): Peru against Brazil in 1902 and Guatemala and El Salvador in 1935. For rival territorial claim dyads, 23 out of 94 MIDs are fatal. Thus, rivals see more militarized conflict and more fatal militarized conflict even when looking at just claim dyads. If territory is the explanation for violence, then there should be no difference between non-rivals and rivals with regard to MID onset. That is, even among non-rivals, territorial issues should lead to violent conflict. Further, if rivalry explains armed conflict, then presumably many more disputes would erupt over maritime and river claims. Yet, even among rivals, maritime and river issues seem to generate little serious armed conflict. This general accounting of rivalry, issues, and militarized conflict provides strong initial support for our first two hypotheses by showing that it appears to be rivalry and territory together that produces the violent inter-state conflict we observe in the Western Hemisphere in the twentieth-century.[17]

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[16] Note that Table 1 double counts some claim dyads, as dyads can be characterized as rival and non-rival depending on the beginning and ending dates established by Thompson.

[17] We investigated this relationship across time within claim dyads and found that territory and rivalry together make militarized disputes more likely than just territory by itself and that this is true whether it was the first claim, or a subsequent claim in a multiple claim dyad. Additionally, we found evidence that the likelihood of future claims being militarized was not greatly influenced by whether an initial claim in a multiple claim dyad was over territory. This helps rule out the possibility that the importance of territory is being obscured because an initial territorial claim is making all subsequent claims of any type more likely to be militarized.

Interestingly, a large number of MID onsets among non-rival claim dyads occur over maritime issues. In fact, for non-rivals, there are over twice as many militarized disputes associated with maritime claims than territorial claims. The United States accounts for 21 of the 47 MIDs associated with maritime claims, but that leaves 26 disputes distributed across dyads such as Guatemala-Mexico, Honduras-Nicaragua, and Suriname-Guyana. Many of these disputes also involve former colonizers and other sea-faring nations. Further, most probably involve maritime boundaries and fishing fleets. As only 1 of the 47 MIDs associated with non-rival maritime claim dyads is fatal, states must not consider such violations to be as salient or threatening as ones associated with territorial claims.

Multivariate Full Sample Models

Table 2 presents the results of six Cox proportional hazard models with MID onset representing event failure. Thus, we are modeling time until a militarized dispute associated with the issue claim. The first thing we note is that all of the models in Table 2 (and Table 3) are shared frailty models. In all of these models, likelihood ratio tests of the estimated frailty variance ($H_0:\theta = 0$) are rejected at the $p < .01$ level indicating significant within group correlation.

The interpretation of the hazard ratios is the same as in other models, except that they are conditional on a fixed value of frailty that is estimated. ''Once the optimal θ is obtained, it is held fixed… For this reason, the standard errors of the main regression parameters (or hazard ratios, if displayed as such) are treated as conditional on θ fixed at its optimal value. That is, when performing inference on these coefficients it is with the caveat that you are treating θ as known'' (Cleves et al. 2004:152).

In Table 2, Models 1, 3, and 5 estimate the hazard of a militarized dispute over territorial, maritime, and river claims, along with a set of conflict control variables, respectively. In Model 1, territorial claims are found to be associated with neither an increased nor decreased hazard for militarized disputes. In Model 3, maritime claims are found to generally have an increased hazard of militarized disputes, compared to territorial and river claims. The hazard is increased by about 82% and the difference is statistically significant. River claims, by contrast, are found to face the smallest hazard of militarization out of the three issue types. River claims only have about 31% of the hazard of militarization as other issues. This result is significant at the $p < .05$ level.[18]

In Models 2, 4, and 6 of Table 2, we interact each issue type with the presence of rivalry. The base group for comparison in Model 2 is when territory and rivalry both equal zero. The results in these models reveal that territorial claims outside the context of rivalry are significantly less likely to escalate to the militarized level than are other issues. The hazard of a militarized dispute for territorial issues outside the context of rivalry is only about 31.5% of the hazard of other issues outside the context of rivalry.[19] So, maritime and river claims are more likely than territorial claims to generate militarized conflict among states not in rivalry. This provides support for Hypothesis 1. Outside the context of rivalry, and compared to other issue claims, there is no evidence to indicate that territorial claims are particularly likely to lead to militarized conflicts. In fact, the

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[18] Additionally, we ran a model with n-1 dummy variables for territory, maritime, and river claims in pairwise comparisons. Compared to river and maritime claims individually, territory is not significant. Maritime disputes have a hazard of militarization that is four times as high as river disputes and the relationship is significant at the $p < .05$ level. We present the models as we do in Table 2 because it helps focus attention on each issue compared to the absence of the issue.

[19] All of the coefficients reported in our models are exponentiated, which gives them the interpretation of the ratio of the hazards for a one-unit change in the corresponding covariate. Keep in mind that a hazard ratio equal to one corresponds to a coefficient equal to zero because $\exp(0) = 1$ (Cleves et al. 2004).

TABLE 2. Cox Model of Militarized Dispute Failure 1901–2000

	Model 1 Haz. Rat. (ZScore)	Model 2 Haz. Rat. (ZScore)	Model 3 Haz. Rat. (ZScore)	Model 4 Haz. Rat. (ZScore)	Model 5 Haz. Rat. (ZScore)	Model 6 Haz. Rat. (ZScore)
Territorial Claim	0.846 (0.48)	0.315 (2.62)***				
Territorial Claim*Rivalry		9.381 (3.79)***				
Maritime Claim			1.821 (1.64)*	3.986 (3.30)***		
Maritime Claim*Rivalry				0.114 (3.65)***		
River Claim					0.313 (1.89)**	0.385 (1.33)*
River Claim*Rivalry						0.598 (0.38)
Rivalry		0.483 (1.59)*		3.542 (2.98)***		1.263 (0.66)
Salience	1.118 (1.83)**	1.068 (1.08)	1.123 (1.87)**	1.096 (1.51)*	1.128 (1.98)**	1.113 (1.70)**
Failed Settlement Attempts (Past 5 years)	1.380 (4.24)***	1.363 (4.06)***	1.396 (4.38)***	1.378 (4.22)***	1.381 (4.25)***	1.374 (4.14)***
Number of MID Onsets (Past 5 years)	1.201 (1.76)*	1.175 (1.54)*	1.195 (1.71)**	1.176 (1.55)*	1.190 (1.66)**	1.192 (1.68)**
Contiguity (150)	1.072 (0.21)	0.950 (0.15)	1.262 (0.67)	1.169 (0.45)	1.148 (0.43)	1.078 (0.23)
Power Ratio [ln(strong state/weak state)]	0.830 (2.07)**	0.878 (1.36)*	0.830 (2.04)**	0.878 (1.34)*	0.830 (2.09)**	0.847 (1.74)**
Alliance	1.199 (0.74)	1.083 (0.33)	1.119 (0.46)	1.037 (0.15)	1.328 (1.21)	1.334 (1.24)
Joint Democracy	0.733 (1.14)	0.781 (0.91)	0.683 (1.40)*	0.747 (1.07)	0.760 (1.04)	0.794 (0.84)†
θ (SE)	1.414 (0.450)***	1.075 (.378)***	1.443 (.450)***	1.080 (.375)***	1.352 (.431)***	1.290 (.430)***
Observations	5152	5152	5152	5152	5152	5152
Number of groups	162	162	162	162	162	162

(*Notes.* Robust z statistics in parentheses; standard errors are adjusted to account for correlation within dyadic claim groups.
*$p < .10$; **$p < .05$; ***$p < .01$. One-tailed significance tests.
Each model and each variable passes a test of proportional hazards based on Schoenfeld residuals, with no individual rho significant at $p < .05$.
Each model also passes a link test (Cleves et al. 2004: 175) for correct model specification.
†rho on the Schoenfeld residual for this variable has $p = .0484$.)

TABLE 3. Cox Model of Militarized Dispute Failure 1901–2000

	Non-Rival Claim Dyads			Rival Claim Dyads		
	Haz. Rat. (Z-Score)	Haz. Rat. (Z-Score)	Haz. Rat. (Z-Score)	Haz. Rat. (Z-Score)	Haz. Rat. (Z-Score)	Haz. Rat. (Z-Score)
Territorial Claim	0.388 (1.87)**			2.451 (1.82)**		
Maritime Claim		3.183 (2.46)**			0.471 (1.48)*	
River Claim		0.406 (1.17)			0.416 (0.73)	
Salience	1.054 (0.46)	1.098 (0.84)	1.141 (1.13)	1.070 (0.84)	1.078 (0.93)	1.065 (0.73)
Failed Settlement Attempts (Past 5 years)	1.221 (1.31)*	1.243 (1.42)*	1.227 (1.34)*	1.282 (2.62)***	1.286 (2.66)***	1.306 (2.82)***
Number of MID Onsets (Past 5 years)	1.810 (2.05)**	1.754 (1.93)**	1.794 (2.03)**	1.172 (1.33)*	1.175 (1.35)*	1.162 (1.25)*
Contiguity (150)	0.834 (0.40)	1.034 (0.07)	0.814 (0.44)	1.321 (0.47)	1.396 (0.56)	1.574 (0.75)
Power Ratio [ln(strong state/weak state)]	0.796 (1.86)**	0.799 (1.82)**	0.772 (2.12)**	1.041 (0.22)	1.052 (0.27)	1.085 (0.43)
Alliance	1.606 (1.16)	1.535 (1.07)	2.250 (2.12)**	0.947 (0.17)	0.893 (0.35)	0.891 (0.34)
Joint Democracy	0.559 (1.48)*	0.532 (1.59)*	0.612 (1.24)	1.213 (0.44)	1.184 (0.39)	1.012 (0.03)
θ (SE)	1.235*** .724	1.185*** .695	1.435*** .794	1.213*** .379	.801*** .392	.9370*** .430
Observations	3575	3575	3575	1577	1577	1577
Groups	134	134	134	45	45	45

(*Notes.* Robust z statistics in parentheses; $*p < .10$; $**p < .05$; $***p < .01$. One-tailed significance tests.
Each model and each variable passes a test of proportional hazards based on Schoenfeld residuals, with no individual rho significant at $p < .05$.
Each model also passes a link test (Cleves et al. 2004:175) for correct model specification.)

evidence points in the opposite direction. However, in support of Hypothesis 2, rival dyads that have claims over issues not involving territory are substantively less likely to escalate to armed conflict, and this relationship is also statistically significant.

In interpreting the coefficient on the interaction term, recall that in the Cox model the linear predictor $x\beta_x$ is the logarithm of the relative hazard exp $(x\beta_x)$ (Cleves et al. 2004). Cleves et al. (2004) use the log relative hazard (LRH) to denote this linear predictor, so that, for example, in our model the interaction variable and constituent parts are modeled as

$$\text{LRH} = \beta_1 \text{ Territory} + \beta_2 \text{ Rivalry} + \beta_3 \text{ Territory} * \text{Rivalry} + \dots \beta_x \text{ Additional Variables} \tag{4}$$

which implies that

$$\frac{\partial \text{LRH}}{\partial \text{Territory}} = \beta_1 + \beta_3 \text{ Rivalry} \tag{5}$$

If $\beta_3 > 0$, the hazard of a militarized dispute for issues involving territory increases within the context of rivalry. If $\beta_3 < 0$ it would indicate that the hazard decreases within the context of rivalry. Taking the log of the hazard ratios and plugging into Equation (5) gives

$$\frac{\partial \text{LRH}}{\partial \text{Territory}} = -1.155 + 2.239 \text{ Rivalry} = 1.084 \text{ Rivalry} \tag{6}$$

Exponentiating this coefficient gives the hazard ratio (2.956) for territory and rivalry compared to rivalry alone. This means that rivals are almost 3 times as likely to militarize disputes when they are over territory than when they are over other types of issues.

Doing the same thing for rivalry gives

$$\frac{\partial \text{LRH}}{\partial \text{Rivalry}} = \beta_2 + \beta_3 \text{ Territory} \tag{7}$$

If $\beta_3 > 0$, the hazard of a militarized dispute for rivals increases when the issue at dispute involves territory. If $\beta_3 < 0$ it would indicate that the hazard decreases within the context of territorial issues. Taking the log of the hazard ratios and plugging into Equation (7) gives us

$$\frac{\partial \text{LRH}}{\partial \text{Rivalry}} = -0.728 + 2.239 \text{ Territory} = 1.511 \text{ Territory} \tag{8}$$

Exponentiating this coefficient gives the hazard ratio (4.531) for territory and rivalry compared to territory outside the context of rivalry. This means that the hazard for a militarized dispute over territory is more than 4.5 times as great when it occurs within the context of rivalry.[20] Taken together, these results provide strong evidence that it is dyads with both territorial claims and rivalry that, together, produce the most conflict prone situations.

Turning to maritime claims, the pattern is also quite interesting. The base group for comparison in Model 4 is when maritime and rivalry both equal zero. Changing maritime claims from 0 to 1 in this model reveals that maritime disputes outside the context of rivalry are significantly more likely to escalate to armed conflict than non-maritime claims outside of rivalry. The hazard of a

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[20] Incidentally, as the hazard ratio on a product term interaction is essentially a ratio of predicted hazard ratios (Jaccard 2001:22) it can be calculated as the hazard ratio for territory and rivalry compared to rivalry alone divided by the hazard ratio for territory outside the context of rivalry 2.956/0.315 = 9.38. Likewise, the hazard ratio for territory and rivalry compared to territorial issues outside of rivalry divided by the hazard ratio for rivalry dyads not disputing over territory equals (4.531/0.483 = 9.38).

militarized dispute for maritime issues outside the context of rivalry is nearly 4 times the hazard of militarization for other types of issues. Additionally, rival dyads that have claims over issues not involving maritime issues are substantively and significantly more likely to escalate to the military level than they are over a maritime issue. In Model 2 we saw that, within the context of rivalry, states predominantly fight over territory. However, Model 4 shows us that outside the context of rivalry, states are significantly more likely to fight over maritime issues (3.5 times as likely). Taken together, these results again produce strong support for our first two hypotheses.

We can interpret the interaction term in Model 4 by following the same methodology used previously.

$$\frac{\partial \text{LRH}}{\partial Maritime} = \beta_1 + \beta_3 Maritime \qquad (9)$$

If $\beta_3 > 0$, the hazard of a militarized dispute for maritime issues increases within the context of rivalry. If $\beta_3 < 0$ it would indicate that the hazard decreases within the context of rivalry. Taking the log of the hazard ratios and plugging them into Equation (9) and exponentiating the resulting coefficient produces a hazard ratio of 0.455 for maritime and rivalry compared to rivalry alone. This means that rivals are only about 45% as likely to militarize disputes when they are over maritime issues as when they are over other types of issues. For maritime and rivalry compared to maritime issues outside the context of rivalry the exponentiated coefficient is 0.405. This means that the hazard for a militarized dispute between rivals over a maritime issue is about 40% of the hazard for non-rivals.[21]

Finally, when compared to territorial and maritime disputes, river disputes are significantly less likely to escalate to the militarized level when they occur outside the context of rivalry. Outside of the context of rivalry, maritime disputes are the most likely to be militarized and territorial disputes are the least likely. Within the context of rivalry, maritime disputes are the least likely to be militarized and territory is the most likely.

Table 2 also shows issue salience to play an important role in MID occurrence across the different models. Generally, the more salient the claim at stake, the greater the hazard that a militarized dispute over that claim will erupt. Past behavior also influences present decision making. Both the number of failed settlement attempts and MID onsets in the past 5 years are positively related to violent conflict. As the number of settlement failures and past MIDs increases, so too does the hazard of a current-year MID onset. These results are all consistent with those of previous research by Hensel et al. (2008), who found that within issue salience, recent militarized conflict and failed peaceful efforts all significantly increase the likelihood of armed conflict regardless of the type of issue.

As for the additional controls, in contradiction to findings in most previous research, contiguity is insignificant across all models. We speculate that as many of the non-rival claims involve maritime issues and blue-water fishing fleets, the general lack of significance for contiguity makes some substantive sense. In Table 3, we run separate models for rivals and non-rivals and see that in general, contiguity slightly increases the hazard of militarization within rivalry and decreases it outside of rivalry, although the relationship is not statistically significant using standard confidence levels. Additionally, as our data are comprised of issue claims in the Western Hemisphere, and not all possible dyads, the diminished effect of contiguity is not altogether unexpected. All dyads in the data have already established an ability to interact and have disputes with one another, so

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[21] Once again, the hazard ratio on the product term in Model 4 can be calculated as 0.455/3.986 = 0.114, or 0.405/3.542 = 0.114.

the contiguous dyads are not expected to be as different from the non-contiguous dyads with regard to their likelihood of engaging in military disputes as one would find in a dataset comprising all possible dyads. Additionally, relative power reaches significance in all six models estimated. The results indicate that disputes are more likely to occur among states with more equal capabilities. In other words, as expected, the hazard of MID occurrence tends to decrease as preponderance increases. The alliance variable is insignificant across all specifications. Further investigation into the control variables is likely to reveal differences in their effect within and outside the context of rivalry or when interacted with the issue over which the dispute arose. We take up the first part of this investigation in Table 3, where we estimate separate models for rivals and non-rivals. We leave investigations of the interaction of some of these additional controls with the type of issue in dispute to future research.

   The final variable in the models of Table 2, joint democracy, has been the subject of much empirical research and is of substantive interest in this analysis as well. While others have found a pacifying effect of joint democracy on the onset of militarized disputes, the models in Table 2 show a negative, yet mostly insignificant, relationship between joint democracy and the hazard of armed conflict. Before concluding that democratic political processes have little influence on the militarization of issue claims, two important points should be made. First, care should be exercised in interpreting these results, because these models evaluate the hazard of militarization *over an existing issue claim*, occurring between both rivals and non-rivals. Second, the Polity score cutoff of 6 masks some of the pacifying effect of democratic institutions. In fact, if a cutoff of eight on the democracy index is used, democracy has a very strong, consistent, and mollifying impact on MID onset. Therefore, the most institutionalized democratic states in the Western Hemisphere are able to avoid violent conflict even when confronting salient issue claims outside the context of rivalry.

   In Tables 3, 4, and 5, we will continue to investigate whether jointly democratic dyads behave any differently than mixed regime dyads inside and outside of the increasingly escalatory environment of rivalry.

Multivariate Split Sample Models

As an additional test of the robustness of the findings in Table 2, we run a set of models where rivalry is not used to create a right hand side variable. Rather, rivalry is used as a selection mechanism to ascertain whether a model of MID onset works as well for rival dyads as it does for non-rival dyads. In this way, we hope to establish the robustness of the results in Table 2 and avoid potential questions regarding endogeneity problems arising as a result of possibly coding rivalry based on knowledge of militarized conflict. In other words, while the interaction models of Table 2 establish that there are differences between rivals and non-rivals regarding the militarization of different issues, the additional models investigate whether different underlying models should be used to estimate dispute behavior inside and outside of rivalry.

   Table 3 demonstrates that when we select on non-rival and rival claim dyads, we find broad support for the main empirical findings established in Table 2. First, as in Table 2, maritime issues are more likely than other issues to lead to a militarized dispute for non-rivals, but less likely for rivals. For non-rivals, maritime issues are more than three times as likely to be militarized as are other issues, and for rival dyads maritime issues only have about 50% the hazard of militarization as other types of disputes.

   It may seem surprising that maritime issues are more likely to be militarized than territorial issues, outside the context of rivalry. But maritime issues represent disagreements among states over territorial waters and exclusive economic

TABLE 4. The Effect of Joint Democracy, Territory, and Rivalry on the Hazard of Militarized Disputes

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Joint Democracy*Territory*Rivalry		3.145 (1.50)*	5.531 (1.83)**	2.066 (1.19)	1.049 (0.10)	3.267 (1.70)**	4.563 (2.28)**	1.268 (0.38)
Joint Democracy*Non-Territory*Rivalry	0.318 (1.50)*		1.759 (0.56)	0.657 (0.62)	0.334 (1.65)**	1.039 (0.05)	1.451 (0.49)	0.403 (1.32)*
Joint Democracy*Territory*Non-Rivalry	0.181 (1.83)**	0.568 (0.56)		0.374 (1.16)	0.190 (1.97)**	0.591 (0.57)	0.825 (0.23)	0.229 (1.74)**
Joint Democracy*Non-Territory* Non-Rivalry	0.484 (1.19)	1.522 (0.62)	2.677 (1.16)†		0.508 (1.52)*†	1.581 (0.84)	2.208 (1.55)*	0.613 (1.30)*
Mixed Regime*Territory*Rivalry	0.953 (0.10)	2.998 (1.65)**	5.274 (1.97)**	1.970 (1.52)*†		3.115 (2.05)**	4.350 (2.95)***	1.209 (0.41)
Mixed Regime*Non-Territory*Rivalry	0.306 (1.70)**	0.963 (0.05)	1.693 (0.57)	0.633 (0.84)	0.321 (2.05)**		1.397 (0.51)	0.388 (1.72)**
Mixed Regime*Territory*Non-Rivalry	0.219 (2.28)**	0.689 (0.49)	1.212 (0.23)	0.453 (1.55)*	0.230 (2.95)***	0.716 (0.51)		0.278 (2.62)***
Mixed Regime*Non-Territory* Non-Rivalry	0.789 (0.38)	2.481 (1.32)*	4.364 (1.74)**	1.630 (1.30)*	0.827 (0.41)	2.577 (1.72)**	3.599 (2.62)***	
Observations	5152	5152	5152	5152	5152	5152	5152	5152

(*Notes.* Robust z statistics in parentheses; the hazard ratio of $\theta = 1.072$, SE = 0.380***; number of groups for estimation = 162.

*$p < .10$; **$p < .05$; ***$p < .01$. One-tailed significance tests.

†Each model and each variable is subjected to a test of proportional hazards based on Schoenfeld residuals. No individual rho's are significant at $p < .05$. There are only three exceptions and they are marked with a †.

Each model also passes a link test (Cleves et al. 2004:175) for correct model specification.

The models also include all of the control variables from Tables 2 and 3. The hazard ratios and z-scores do not change from model to model, so we only include them one time here to avoid clutter in our table. Salience 1.068 (1.08); Failed Settlement Attempts (5 years) 1.346 (3.83)***; Number of MID Onsets (5 years) 1.81 (1.59); Contiguity 0.983 (0.05); Power Ratio [ln(strong state/weak state)] 0.871 (1.43); Alliance 1.069 (0.27).)

TABLE 5. The Role of Democracy, Rivalry, and Issue Claims in Decisions to Use Force

Scenario	Context	Hazard Ratio
Non-Joint Democracy → Joint Democracy	(1) Rivalry and Territory	1.05 (n.s.)
	(2) Rivalry and Non-Territory	1.04 (n.s.)
	(3) Non-Rivalry and Territory	0.83 (n.s.)
	(4) Non-Rivalry and Non-Territory	0.61*
Non-Rivalry → Rivalry	(5) Joint Democracy and Territory	5.53**
	(6) Joint Democracy and Non-Territory	0.66 (n.s.)
	(7) Non-Joint Democracy and Territory	4.35***
	(8) Non-Joint Democracy and Non-Territory	0.39**
Non-Territory → Territory	(9) Rivalry and Joint Democracy	3.14*
	(10) Rivalry and Non-Joint Democracy	3.12**
	(11) Non-Rivalry and Joint Democracy	0.37 (n.s.)
	(12) Non-Rivalry and Non-Joint Democracy	0.28***

(*Notes.* The number in parenthesis to the left of the context represents the row number for reference.
*$p < .10$; **$p < .05$; ***$p < .01$. One-tailed significance tests.)

zones, and these can be substantively and politically important concerns. International law recognizes 12 nautical mile limits off a country's coast for state boundaries, but differences among states exist on how far an EEZ extends after the 12-mile limit.[22] The Third United Nations Convention on the Law of Sea in 1982 recognized officially the concept of an EEZ and established 200 nm as the limit of a country's EEZ, but some states have either not signed on to the treaty or have yet to ratify it.

For rival states, as we found in Table 2, territorial claims are the most violent and are more than two and a half times as likely to lead to militarization. Outside the context of rivalry, again confirming the results of Table 2, territorial issues only have about 40% the hazard of militarization as maritime and river disputes. The overall results of Table 3 strongly confirm the support found in Table 2 for our first two hypotheses.

Finally, outside the context of rivalry the coefficient on joint democracy is less than one and statistically significant in both the territory and maritime models. Within the context of rivalry, however, the coefficient is greater than one but statistically insignificant. Thus, we see that outside of the context of rivalry, democratic institutions tend to function as expected to mitigate the hazard of militarization in issue claim dyads. However, in dyads with established claims and rivalry together, democracy does not mitigate the escalation of the dispute. Once again, though, the Polity cutoff of 6 makes some difference to the observed results. There are few rivalries between fully institutionalized democratic states (9 or 10 on the democracy index), but the few cases in the dataset show no militarized disputes erupting. There are 10 MID onsets for democratic rivals when the Polity cutoff of eight is used, with five of these occurring between Colombia and Venezuela over Los Monjes and the Gulf of Venezuela. As of 2001, neither of these territorial claims had been resolved. For non-rivals, using a Polity cutoff of 8 shows a very strong and pacifying effect for democratic institutions. It appears, then, that the overall weaknesses of the joint democracy findings in Table 2 were largely a result of low-level democracies and especially low-level democratic rivals. In general, democratic institutions and processes reduce the escalation of issue claims to militarized violence outside the context of rivalry.

Turning to the remaining variables in the models, we see that there are similarities and differences between rival and non-rival claim dyads. Extending the

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[22] Some states also dispute the 12 nautical mile territorial limit and insist state boundaries go much farther out to sea.

findings of Hensel et al. (2008) to rivalry, we see that failed settlement attempts and previous MID onsets both significantly increase the hazard of militarization whether the dyads are rivals or not. However, in our split sample, issue salience loses significance in both sets of models. Other factors, such as contiguity and alliance ties, have little effect on armed conflict by rivals and non-rivals alike once a claim has been issued. Power, however, does appear to play a role outside the context of rivalry. In fact, outside the context of rivalry, preponderance tends to reduce the hazard of militarization. Within the context of rivalry, this is not true. Vasquez (1993) notes that rivalry can only exist when states are close to parity, and this may account for why power ratios do not matter as much when we only look at rival dyads.

Overall, the analysis in Table 3 points to the fact that substantive and significant differences exist between the models for rival and non-rival dyads. Thus, the processes generating disputes in these different contexts may be substantially different. While these additional variables function as controls in our models, they certainly could be the focus of substantive investigation in future research.

Rivalry, Territory, and the Democratic Peace Proposition

We begin this section on the effect of joint democracy on militarized disputes within claim dyads by providing a few simple descriptive statistics. First, after removing dyads for which data are missing on regime type, there are 162 disputes, produced by 81 distinct dyads with claims in the Western Hemisphere from 1901 to 2000. The 162 disputes were largely between dyads that were not jointly democratic. Only 40 of the 162, or about 25%, of the disputes were initiated by jointly democratic dyads. However, an additional consideration is that many dyads switched status during the course of the dispute. In fact, the Western Hemisphere experienced a great deal of democratization during the twentieth-century. During the initial year of all disputes, only 12 of 81 dyads with regime information for both states were joint democracies. In the final year of all disputes, 40 out of 81 dyads were jointly democratic.

Because of this democratization, there are substantially more claims within democratic dyads than there are claims that were initiated when both states were democratic. This also changes the percentage of claims by joint democracies from around 25% to about 42% (89/214). One way to think about this is that when these regimes democratized, they did not give up their claims just because the dyad was now jointly democratic. Most of the dyads that had disputes as non-joint democratic dyads maintained those disputes even after the dyad became jointly democratic. So the claims were not resolved simply by democratizing.

Most of the claims, whether by jointly democratic regimes or not, take place outside of the context of rivalry. For joint democracies only about 17% (15/89) of disputes take place between rivals, and for mixed regimes the number is about 29% (36/125). This underscores the fact that while rivalries may be contentious, most dyads are not in rivalry, and most of the claims made in the Western Hemisphere during this period did not take place within the context of rivalry. What is important is determining whether rivalry conditions the foreign policy behavior of states in response to these disputes, and whether democratic political structures are better able to handle these disputes without escalating them to the militarized level.

The models in Table 4 investigate the behavior of jointly democratic and mixed regimes with regard to territorial disputes within the context of rivalry and outside of that context.[23] In Table 2, we interacted rivalry with each issue

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[23] We include Table 4 so that the reader can see the full model, although the interpretation of the model occurs in Table 5.

type and found that the hazard of military conflict over territory within rivalry was very high. In Table 5, we focus specifically on territorial disputes within and outside the context of rivalry and investigate whether jointly democratic dyads are better at avoiding the militarization of these disputes. The three-way interaction of democracy, territory, and rivalry could be analyzed as in Table 2. However, Wooldridge (2006:239) recommends that for comparing differential effects among groups, such as democracy, territory, and rivalry compared to nondemocracy, territory, and rivalry, n−1 groups should be included in the model, with the omitted group as the reference category. This leads to the creation of the following variables in Table 5:

Joint Democracy	Territorial Claim	Rivalry	Variable Name
1	1	1	Dem-Terr-Rival
1	1	0	Dem-Terr-Nonrival
1	0	1	Dem-Nonterr-Rival
1	0	0	Dem-Nonterr-Nonrival
0	1	1	Nondem-Terr-Rival
0	1	0	Nondem-Terr-Nonrival
0	0	1	Nondem-Nonterr-Rival
0	0	0	Nondem-Nonterr-Nonrival

The creation of these groups allows us to compare any of these categories to the omitted base group. The models do not change from specification to specification, but the substantive and statistical significance of each category is seen clearly compared to the omitted reference group of interest. The results achieved in this manner are equivalent to those that would be produced by including interactions and their constituent parts. In fact, Table 2 could be re-estimated in this manner with exactly the same results.[24] The advantages of using the method suggested by Wooldridge are that (i) estimates of the differences between any of the above groups are easily obtained by omitting the group of interest, and (ii) the significance of the difference is immediately available.

Looking at Table 5, which summarizes the results of Table 4, we see first that the effect of jointly democratic regimes is insignificant within the context of rivalry. This is true regardless of whether the issue at dispute is territorial. For disputes involving both rivalry and territory, the effect of joint democracy is insignificant. For disputes involving non-territorial issues and rivalry, the effect of joint democracy is also insignificant. As expected by Hypothesis 3, jointly democratic dyads tend to behave relatively similarly, with regard to the militarization of disputes within rivalry, to non-jointly democratic regimes.

The next two rows of Table 5 change the context to non-rivalry. Here, we see that when the dispute is between non-rivals and over territory, joint democracy substantively decreases the hazard of militarization, but the effect is not significant. It is only when we move outside of the highly charged context of rivals disputing over territory, in row 4 of Table 5, that we find a significantly pacifying effect of jointly democratic institutions.

Next, in rows 5–8 of Table 5, rivalry is shown to have a significant effect on the militarization of issue claims. Democracies engaged in a territorial dispute with a rival face a hazard of militarization that is five and a half times greater than for a democracy in a non-rival dyad with a territorial dispute. For non-jointly democratic dyads the hazard is also greatly increased, being 4.35 times

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[24] Table 2 can be recreated in this manner, for the significant interactions, with the accompanying dataset and Stata do files.

larger. However, when territory is not involved, rival dyads are actually less likely to militarize disputes. This is generally true regardless of regime type, but it is only significant for non-jointly democratic dyads. Non-jointly democratic dyads only face 40 percent the hazard of militarization of disputes over territory when they are with a rival country compared to when they are with a non-rival country.

Finally, we see that territory significantly increases the hazard of militarization for jointly democratic and non-jointly democratic dyads within a rivalry, and generally decreases the hazard when the dispute is outside the context of rivalry. As was the case for rivalry, territorial disputes significantly decrease the hazard of militarization for mixed regimes outside of rivalry but the effect is insignificant for joint democracies.

In sum, when the claim is over territory, moving from non-rival to rival increases the chances of military conflict regardless of regime type (rows 5 and 7). When the dispute is not over territory, rivalry does not have the effect of increasing the propensity for militarization (rows 6 and 8). Likewise, territorial disputes, in the presence of rivalry, are more likely to be militarized regardless of regime type (rows 9 and 10). Outside the context of rivalry, territory does not increase militarization (rows11 and 12). Finally, in support of Hypothesis 3, joint democratic regimes are only found to reduce militarization when neither rivalry nor territory are involved (row 4).

Conclusion

Issues remain at the core of armed conflict. Territory, in particular, appears to increase substantially the probability of inter-state violence and is concluded by many to be one of the most critical correlates of war onset. We acknowledge that territorial claims are especially salient issues in inter-state relations and thus likely to generate considerable attention by state leaders. Yet, most issue claims never result in violent conflict. In fact, even territorial claims escalate to force only a third of the time and fatal militarized disputes occur in fewer than 12% of such claims. What accounts for such variation?

Our evidence from the Western Hemisphere indicates that strategic rivalry, coupled with territorial claims, produces some of the most conflict prone dyads in the international system. While fewer than 33% of territorial claims escalate to force, over 70% of territorial claims occurring in the context of rivalry generate militarized disputes, with nearly a third of these conflicts resulting in battle deaths. In the absence of rivalry, territorial claims are in fact not especially violent. These results generally support conclusions drawn by Rasler and Thompson (2006), but the analyses also suggest that the role of regime type is more nuanced than previous evidence has indicated. Outside of rivalry, democratic institutions and processes substantially reduce the hazard of militarized conflict, but inside rivalry, no significant regime differences are observed. Further, extant research has largely been unable to model armed conflict over the specific territorial issues in contention. Our analyses, however, relate directly to militarized disputes concerning the contentious claims. Thus, the evidence presented here more accurately captures leader decision making over salient issues.

Future studies might continue to explore the relationship between strategic rivalry, territorial claims, and regime type, by selecting specific countries that transitioned from autocracy to democracy. Indeed, these are very hard cases for the democratic peace and therefore offer a test of the limits of liberal institutions and processes. Our evidence suggests that most institutionalized democratic states successfully resolve contentious issues nonviolently, even perhaps inside the context of rivalry. Further, and more importantly, mature democratic states resolve the fundamental conflicts that generated the rivalry in the first place. Clearly, though, the processes by which emerging liberal values and institutions

enable leaders to resolve salient issues without resort to force needs to be better specified, as well as how long these processes take, and whether the agreements remain durable.

Additionally, if territorial claims and the context of rivalry work together to produce violent conflict, then addressing both must be part of any efforts at conflict resolution. Settling a claim will not be possible without other measures designed to build trust and reduce insecurities, while attempts to reduce mutual suspicion cannot hope to succeed without a resolution of the underlying source or sources of contention.

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