

Web Appendix: Contiguous States, Stable Borders and the Peace between Democracies

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Outline of the Web Appendix

This Web Appendix supports my published response with three additional pieces of related material. First, in the next section, I provide an edited version of the research design and results from Chapter 7 of my book, *The Territorial Peace*, that analyzes the effects of territorial issues on the observation of the democratic peace. I include it here because it presents yet another replication of the basic argument contested by Park and Colaresi. Once again, using an entirely different specification of territorial issues, I find strong evidence that the statistical significance of joint democracy is eliminated as a predictor of fatal disputes after proxies for territorial threat are included in the model.

The second section provides a brief discussion of the use of interaction terms in the arguments made by Park and Colaresi. The overall point of this section is largely irrelevant for the overall Bordering on Peace debate since, as I point out in the published version of my response, I have not considered non-contiguous dyads as relevant to the *Territorial Peace* argument for some time. Nevertheless, the cavalier introduction of interactions for such variables as mountainous terrain and ethnic borders should be discussed and also emphasizes well why borders should only be thought of in terms of contiguity.

The third section provides robustness checks that were discussed in the published version of the response. All data for my response are included in my Dataverse replication site. The data for the response published by *International Studies Quarterly* and the robustness checks described here are included as part of the study associated with the response, see TBD. The separate replication data from Gibler (2012, Chapter 7) that is discussed here is available at <http://dvn.iq.harvard.edu/dvn/study?globalId=hdl:1902.1/19415>.

Finally, I conclude with a very brief discussion of the overall debate and assess the evidence for a *Territorial Peace*.

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1 Yet Another Replication of the Bordering-on-Peace Argument

I introduced many behavioral indicators in Gibler (2012) because the perceived stability or legitimacy of borders can change substantially over time, and geographic indicators are not usually sensitive to these changes. I therefore think a better operationalization of border stability (detailed below) includes several, behavioral indicators of conditions likely to affect the legitimacy of previously drawn borders.

First, I assume that land-contiguous dyads that shared the same colonial masters are also likely to have poorly defined borders. Since imperial states had little need to differentiate among their colonial holdings, contiguous states gaining their independence from the same country often suffer from poor border definition. For example, French West Africa eventually became the independent states of Benin, Guinea, Mali, Cote d'Ivoire, Mauritania, Niger, Senegal, and Burkina Faso, but only after comprising administrative units within the French federation of West African states. Benin and Niger also shared a border with Nigeria, a former British colony, and the need to demarcate territories between France and Britain probably necessitated clearer border definition between these states than between the former French colonies.¹

To operationalize this predictor of border salients, I use CIA Factbook data to identify the colonial heritage of each country, 1816 to 2000. Dyads of contiguous states that share the same colonial heritage are coded as 1 and 0 otherwise.

Second, I control for the capability ratio within the dyad. The power parity literature (Kugler and Lemke 1996, Geller 2000) has demonstrated that conflict is likely when dyads are at or near parity, and I agree with Wayman (1996) and Vasquez (1995) that territorial renegotiations are a likely mechanism connecting power differentials and conflict. Large differences in power would suggest that a border is unlikely to undergo renegotiation regardless of how the border was previously defined. When a dyad approaches parity, latent territorial claims can be forwarded, upsetting the stability of the dyadic border; this makes transitions in power dangerous when they become linked to ill-defined borders. I therefore include in the analyses the capability ratio of the weaker state to the stronger state, using the latest version of the Composite Index of National Capabilities from the Correlates of War Project (Singer, Bremer and Stuckey 1972).

Third, I also control for the number of years since the last dispute as well as the age of the border. While I should include spells of peace to properly estimate coefficients in binary, cross-sectional time-series studies like this one (Beck, Katz and Tucker 1998, Carter and Signorino 2010), I also believe that the length of peace constitutes a theoretically interesting variable. Traditional, realist theories often assume a constant rate of conflict over time, but it is probably more reasonable to expect that peaceful past relations are likely to condition future relations. This is especially true for borders since revisionism of past territorial distributions is a major cause of dispute recurrence.² Stable borders are also a function of age generally: old states whose

¹This measure may be overwhelmed by the strong correlation between former colonial status and poverty—a strong predictor of non-democracy. I therefore ran separate analyses that controlled for the effects of wealth in the analyses by also adding the natural logarithm of the smaller per capita gross domestic product (GDP) in the dyad. The results I present here remain substantively the same in each analysis.

²Measuring time since last territorial dispute best captures this argument. However, I measure time since last dispute (of any kind) in order to correct for temporal dependence in estimating the dependent variable of any dispute onset.

borders have long been settled and whose neighbors accept the legitimacy of their borders should also perceive a lower territorial threat. Old states should also be less aggressive in desiring the capture of territory as well, as their border relations are an accepted norm. I define the age of the border using a count variable for the number of years since the last system entry date in the dyad (Stinnett et al. 2002), and I define the spell of peace as the time since last Militarized Interstate Dispute (Ghosn, Palmer and Bremer 2004). I control for temporal dependence in the analyses by including the square and cube terms of the peace spell (Carter and Signorino 2010).

Fourth, political events in neighboring states often put in question the legitimacy of international borders (Vasquez 1995). The outbreak of civil war may lead regional leaders to fear that violence will spread or that victorious regimes might wish to redraw previous territorial divisions. I use the onset of an intra-state war as an indicator of states likely to experience border instability, using Correlates of War definitions (Sarkees and Wayman 2010) and lag the variable one year prior to the year examined.

Fifth, there have been over eight hundred instances in which two states have actually transferred territories between them since 1816 (Tir et al. 1998). Jaroslav Tir and I have demonstrated that peaceful territorial transfers significantly reduce the level of threat and militarization in the dyad (Gibler and Tir 2010). I therefore include a dichotomous variable for the presence of a peaceful transfer in the dyad during the 5 years prior to the dyad-year examined. I also include a similar variable for violent transfers during the previous 5 years. Violent transfers should increase the level of threat for both states, assuming the losing state is capable of launching a viable counter to the transfer.³

Sixth, territorial disputes of course represent threats to the states involved. I therefore code for the presence of *any* territorial dispute that targets either state in the dyad during the 5 years prior to the year examined. I use Maoz's (2005) dyadic dispute data to identify territorial disputes among neighbors, with contiguity again based on Correlates of War definitions (Stinnett et al. 2002). I also use Huth and Allee's (2002) data as a robustness check for samples that include only 20th Century cases.

My seventh threat variable identifies the highest level of militarization among neighboring states. High levels of militarization often signify threats or the potential for threats to the homeland territories. I use the Composite Index of National Capabilities from the Correlates of War Project (Singer, Bremer and Stuckey 1972) to identify the number of military personnel in the state and divide that number by the total population listed in the dataset. The highest level of militarization among neighbors is then lagged by one year prior to the year examined.

Finally, I include two alliance-based measures as controls. Forming an alliance demonstrates at least a modicum of cooperation between the two states, and it is possible that, in some cases, that cooperation is strong enough to reduce the level of threat that may emanate from an alliance partner. I define allied dyads using the Correlates of War Formal Interstate Alliance Dataset (Gibler and Sarkees 2004) and create a dummy variable for the presence of an alliance. I also control for the presence of an active defense pact with all neighbors since I have demonstrated

³The caveat in this sentence is important. Vasquez (2009, 1993), for example, argues that overwhelming victories often promote future peace and reduced territorial threat in the dyad. Operationally, I use 5-year lags for all the threat variables, but the results remain quite similar if I employ 10-year lags instead.

that such regional pacts can reduce external threats and the level of militarization within the state (Gibler and Wolford 2006).

Dependent variable

The dependent variable is the presence of a fatal Militarized Interstate Dispute, using Correlates of War definitions of disputes experiencing at least one military fatality (Ghosn, Palmer and Bremer 2004). I include any dyadic dispute, but only for its first year, and I exclude dyads that join an ongoing MID.

Consistent with the argument outlined above, I believe that stable borders should increase the likelihood of joint democracy while also decreasing the likelihood of conflict. Moreover, failing to include controls for the likelihood of territorial issues will introduce bias into estimates of the effects of joint democracy on conflict, possibly resulting in the observation of a spurious relationship.

Sample Selection

My sample includes all contiguous dyads from 1816 to 2001. By including observations as recent as 2001, I can compare the effects of the Cold War to other periods; this is important since Farber and Gowa (1997), among others, have argued that the democratic peace may be a function of interest similarity during that period of intense bipolarity. More important for purposes of testing the argument I sketched above is the inclusion of the 11 post-Cold War years when the norms of self-determination biased states toward entering the international system as democracies. Indeed, as Gleditsch (2002) demonstrates, a higher percentage of states entered the system as democracies during this period than during any other decade. The 1990s also witnessed the relaxation of norms against self-determination and changes in the territorial status quos that were previously guaranteed by superpowers (Germany and the former Soviet Republics), each of which I equate with border instability.

I focus on contiguous dyads because my argument is about borders. Those states that have a high level of territorial threat directed against their homeland are likely to be centralized and, of course, conflict prone. Removing that threat from their agenda makes the states more likely to be democratic and peaceful *with their neighbors*. The removal of territorial threat does not necessarily imply peace with non-contiguous states, however. States may have settled their borders but still have the ability and desire to project their power across the globe, as the United States has done since the Cold War. Further, a state at territorial peace may even find an interest in targeting another state at territorial peace, in a different part of the world.

Borders, Joint Democracy, and International Conflict

I estimate the effects of joint democracy and border stability on conflict using six separate logit models, covering the years 1816 to 2001 and 1919 to 1995, with the shorter sample using Huth and Allee (2002) definitions of territorial disputes. In all cases, the dependent variable is fatal MID onset, and the independent variables include democracy, several common controls for conflict and the proxies for border stability.

I measure democracy using both a “weak link” specification based on the lowest Polity IV score in the dyad (Dixon 1994, Russett and Oneal 2001) and a dummy variable for joint democracy, in

which the lowest Polity IV score in the dyad is 7 or above. I use both specifications because, if my argument is correct, the border variables should accurately predict the observance of joint democracy in the dyad; therefore, the inclusion of the border variables in the same model with joint democracy as an independent variable may introduce multicollinearity into the models. While not a large problem given the sample sizes in the analyses, the multicollinearity is unnecessary since my theory predicts only that joint democracy is likely, not the level of democracy in each state of the dyad. In other words, strong borders constitute a near necessary condition for the observance of joint democracy in the dyad, but variations in border strength do not predict variations in regime type. Thus, while the border variables are highly correlated with joint democracy, the weak link specification has a more modest relationship with geography.⁴

An even better reason for also using the weak link specification is that recent research suggests it is superior to the dichotomous, joint democracy indicator for measuring the conflict effects of dyadic democracy. Developed by Dixon (1994), and used interchangeably with joint democracy by Russett and Oneal (2001), among others, Dixon and Goertz (2005) demonstrate through a series of empirical tests that, “dyadic relations depend primarily on the behavioral constraints of the less democratic state no matter how tightly constrained its more democratic partner.” In any case, as is clear from the results in Table 1, the results are robust to each specification of democracy.

The first model provides a baseline for the lowest democracy score specification and demonstrates that democracy reduces the likelihood of conflict, even after controlling for parity, alliances, and temporal dependence. Each variable is statistically significant, and the results suggest that parity increases conflict while the presence of an alliance decreases conflict.

Models 2 through 3 add the border control variables to the basic specification. The control variables remain substantively unchanged in these two models, but the low democracy score in the dyad is no longer statistically significant at any conventional level. This change in effect of democracy suggests the proxies for stable borders are (1) strongly correlated with democracy in the dyad and (2) account for democracy’s peace-inducing effects.

The border variables themselves are also consistent with my theoretical expectations. Civil wars and the presence of two colonies with the same colonial master both predict fatal conflict in each model. Territorial transfers are also related to conflict as peaceful transfers are more likely to be followed by peaceful relations while violent transfers seem to breed additional violence. A defense pact with all neighbors reduces conflict in the full, 1816-2000 model but not the post-World War I model that uses the Huth and Allee (2002) data. Surprisingly, older borders are associated with more fatal MIDs than younger borders.⁵

Among the territorial threat variables, the highest level of militarization among neighbors predicts fatal conflict well. In models not reported here, the inclusion only of a territorial dispute variable, or a claim identified by Huth and Allee (2002), suggests that territorial threats are indeed conflict prone at a statistically significant rate. However, that may be due to the conflation of claims and low-level disputes with highly militarized conflicts. As the above models

⁴Joint democracy and the weak link specification are highly correlated but empirically distinct measures of democracy in my dataset. For example, joint democracy is correlated with the weak link specification at 0.767 in the sample that includes all years, 1816 to 2001, and 0.778 in the sample that includes 1919 through 1995.

⁵This finding led me to introduce the square term of border age detailed in the published version of this response.

Table 1: International Borders and Fatal Militarized Disputes

	(1)	(2)	(3)	(4)	(5)	(6)
	1816-2000	1816-2000	1919-1995	1816-2000	1816-2000	1919-1995
Low Democracy Score	-0.014* (0.007)	-0.011 (0.008)	-0.009 (0.009)			
Joint Democracy Dummy				-0.311† (0.163)	-0.060 (0.166)	-0.097 (0.173)
Capability Ratio	0.777*** (0.134)	0.756*** (0.148)	0.764*** (0.164)	0.778*** (0.134)	0.770*** (0.148)	0.779*** (0.164)
Allied	-0.649*** (0.104)	-0.588*** (0.118)	-0.802*** (0.136)	-0.632*** (0.104)	-0.575*** (0.118)	-0.790*** (0.135)
Peace Years	-0.456*** (0.039)	-0.409*** (0.035)	-0.443*** (0.049)	-0.454*** (0.039)	-0.409*** (0.035)	-0.443*** (0.049)
Peace Years ²	0.013*** (0.002)	0.012*** (0.002)	0.013*** (0.003)	0.013*** (0.002)	0.012*** (0.002)	0.013*** (0.003)
Peace Years ³	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
Natural Log of Dyad Duration		0.223*** (0.031)	0.221*** (0.037)		0.226*** (0.032)	0.225*** (0.036)
Intra-State War in Either State		0.191† (0.100)	0.230* (0.111)		0.193† (0.100)	0.233* (0.110)
Same Colonial Master		0.241* (0.107)	0.393** (0.123)		0.228* (0.107)	0.391** (0.124)
Peaceful Territorial Transfer		-0.464* (0.181)	-0.540** (0.197)		-0.475** (0.181)	-0.546** (0.197)
Violent Territorial Transfer		0.467*** (0.123)	0.457*** (0.131)		0.451*** (0.122)	0.447*** (0.131)
Defense Pact with All Neighbors		-0.495† (0.270)	-0.381 (0.286)		-0.533* (0.267)	-0.414 (0.279)
Highest Neighbor Militarization		13.507*** (1.615)	12.078*** (2.643)		13.385*** (1.612)	12.240*** (2.638)
Either Targeted in Territorial MID		0.386*** (0.095)			0.386*** (0.095)	
Territorial MID x Militarization		3.382 (3.350)			3.426 (3.368)	
Huth and Allee (2002) Dispute			0.014 (0.119)			0.020 (0.119)
Huth and Allee Dispute x Militarization			18.070*** (4.084)			17.919*** (4.077)
Constant	-1.839*** (0.092)	-3.203*** (0.135)	-3.066*** (0.168)	-1.754*** (0.081)	-3.153*** (0.133)	-3.038*** (0.176)
N	19,026	19,026	13,702	19,026	19,026	13,702

Dependent variable is the initiation of a fatal MID in the dyad. Analyses includes all contiguous dyads, estimated using logistic regression with robust standard errors. Coefficients listed with standard errors in parentheses. † ($p < 0.10$), * ($p < 0.05$), ** ($p < 0.01$), *** ($p < 0.001$)

demonstrate, the inclusion of an interaction term identifies the dangerous claims. Disputes or claims are not enough, it would seem, to constitute serious threats to homeland territories. This finding is consistent with the argument that conflicting claims do not always imply salient threats to the states involved.⁶

Models 4-6 repeat the prior models using the joint democracy dummy variable. For each model the results are quite similar to the lowest democracy specification. In fact, there are only minor changes in comparison to Models 1-3, as once again joint democracy is again statistically significant ($p < 0.10$) in the baseline model but disappears once controls are added for stable borders. (In Models 5 and 6 the coefficient is actually smaller than the standard error.) These results again provide rather convincing evidence that, at least among contiguous states, the peaceful effects of democracy are spurious to stable borders.

2 Theoretical Importance of Base Terms and Interactions

I believe there are serious problems with the empirical approach introduced by Park and Colaresi of interacting every single variable with contiguity. Frankly, some of these interactions seem bizarre to me. I would have never thought that variables such as power ratios, peace spells, peace spell splines, dyadic duration, etc. . . , which are all pretty standard controls in similar models of conflict, should be interacted with contiguity. I felt I had to include those variables as controls in the original article (Gibler 2007), and so I pitched the interpretation of these measures as border related. However, these variables were always meant to be controls in the general model; that is why they and the border salient variables were distinctly labeled in each table. Note, for example, that I mentioned in the original article that I would rather have included just territorial MID peace spells rather than all peace spells; I could not include only territorial MIDs because I was controlling for temporal dependence, not the border relationship in the dyad (page 520 of the 2007 article and footnote 6). Indeed, I never intended, nor have I ever seen, these variables applied differently to contiguous states, necessitating an interaction term.

Perhaps an argument could be made that the border salient variables require an interactive term, but the theoretical implication of this approach would again be very strange. Including the interaction term, as Park and Colaresi do, would suggest that, for example, the differences in mountainous terrain between the United States and China would somehow affect their propensity for conflict with each other. Why? That does not make sense theoretically. The same logic applies to differences in colonial masters. Finally, the ethnic border was specifically meant for dyads that had populations that were separated by a border but seeking a greater homeland in the other state of the dyad. Are there really very many cases of this occurring in non-contiguous states? If there are many empirical cases, then this may be the best argument for an interaction term, but the theoretical support for even this link would be thin. Note also that the ethnic border without an interaction term has been used by influential works in the past (see, for example, Huth's (1998) treatment of ethnicities—he only marks a dummy variable as positive if the land border separates a similar ethnic group, which is what I did in my original article).⁷

The authors' argue that inclusion of the base component in an interaction is necessary whenever the base term is statistically significant (Brambor, Clark and Golder 2006). However, the dataset

⁶See my discussion in Gibler (2012, Chapter 1) on identifying territorial threats to the state.

⁷Colaresi has also used interactions without including base terms, see, for example, Colaresi and Thompson (2005).

is quite large (100k-500k cases, depending upon the model), and the confidence in mean estimates will be high given the number of observations. Most independent variables will be statistically significant with this large sample (for this point, see Gelman and Hill 2007, Chapter 20), and, again, theory should be used as a guide in interpreting coefficient effects (see, for example, the debate on this discussed by Palmer and Whitten 2003).

As an example of my point, I randomly chose five letters of the alphabet (l, m, n, o, and p), and created dummy variables for each state whose name began with that letter, based on Correlates of War listings of state names. Using all non-directed dyads from 1946 to 2001 and a dependent variable of MID onset in the dyad, I then used each dummy variable to predict conflict in five separate models. In four cases the dummy variable was statistically significant at $p < 0.05$, while “o” was a perfect predictor. Of course state names don't predict conflict, but there is also no way that differences in mountainous terrain among non-contiguous states do either. Including these base terms, or any variable in a model, should be a theoretical decision. Absent a good justification for why the interaction terms might be related to the dependent variable, the variables should not be included in the model.

Again, this point is irrelevant to the overall debate because of the focus of the *Territorial Peace* on contiguous dyads. Nevertheless, this discussion highlights the difficulties of applying inferences from border controls to relations between states in non-contiguous dyads. For better treatments of these processes, see, for example, Gibler and Miller (2012) and Miller and Gibler (2011).

3 Additional Robustness Checks for the Published Response

Tables 2 through 4 provide the robustness checks described in the printed response. Table 2 uses the spline specification for temporal dependence and demonstrates that there is no effect on the conclusion that the border proxies render the relationship between democracy and peace statistically insignificant. The only changes between Table 2 of this Appendix and Table 1 of the printed response is that the different colonial master and ethnic border variables are now no longer statistically significant ($p < 0.05$) in the full sample.

Table 3 uses the log of the absolute terrain difference and finds that the civil war variable is now statistically significant in the post-Cold War sample. Different colonial masters and ethnic borders are again no longer significant with the cubic spline specification. Terrain differences are also insignificant for the post-Cold War sample. Nevertheless, democracy has no effect on conflict in the analyses that include proxies for border stability.

Finally, Table 4 changes the colonial master variable to same colonial master, and, as I describe in the printed response, this variable is not statistically significant in any of the analyses. Otherwise, all other variables behave as described in Tables 2 and 3. I still find that this specification of borders renders statistically insignificant the relationship between democracy and peace.

4 Conclusions

The original Bordering-on-Peace argument has been confirmed in three separate studies with alternate codings of the key explanatory variable(s). I have operationalized border stability using geographic salients (Gibler 2007) and (Gibler 2014), territorial transfers (Gibler and Tir 2010),

and regional territorial “hot spots” (Gibler and Braithwaite 2013), and the results have been consistent across each specification. This suggests that territorial peace theory is a robust predictor of peace and conflict in the dyad. Further, by endogenizing the emergence of jointly democratic dyads to a series of factors that affect democracy and conflict behavior, my results suggest that what scholars know as the democratic peace may be, in fact, a stable border peace. This is the first step toward looking at international conflict a little bit differently.

A stable border peace implies that democratic states are more peaceful with their neighbors, but this is not due to any quality inherent in democratic government; rather, the development path necessary for democratization selects democracies into a group of states that have settled borders, few territorial issues, and, thus, little reason for war against neighbors. With only minor, non-territorial issues remaining for these states, mediation and arbitration become both easier and more likely for democracies, while the need for defensive alliances, military buildups, and aggressive crisis bargaining also decreases.

Because borders are international institutions (Simmons 2003), they affect the development paths of both states in the dyad, and stabilized borders that decrease the need for militarization and centralization in one state also tend to demilitarize and decentralize the neighboring state. “Zones of peace” can thus be understood as the contagion effect of stabilized borders, as democracies cluster in time and space following the removal of territorial issues. This clustering of peaceful states, a neighborhood effect (Maoz 2010), should also affect the economic development of the states involved. With less money needed for guns, spending for butter increases, and trade across settled borders poses less of a risk.

While this debate has focused on relations among neighboring, contiguous states, the next piece of the territorial peace puzzle involves explaining how peaceful relations with neighbors affects foreign policy decisions abroad. States that are free from neighbors’ threats are uniquely privileged. Freed from constant homeland defense, their leaders face few serious threats to state and interests, and the disputes that do escalate to conflict abroad are much more likely to be matters of choice. I have begun to explain the implications of these incentives in several published pieces [see (Gibler and Miller 2012, Miller and Gibler 2011, Gibler 2012)] and have begun a larger project that examines the constraints placed upon leaders by neighboring rivals and the effects of those constraints on foreign policy decision making. The key point emphasized by this debate is that the *Territorial Peace* affects the peace between neighbors, producing a stable border peace. However, extending that argument to non-contiguous states requires more than simply the introduction of interaction terms.

Table 2: The Effect of Borders on Joint Democracy and Conflict, 1945 to 2001
(using splines of peace years rather than square and cube terms)

	1946-2001	1946-1989	1990-2001	1946-2001
Lowest Democracy Score in Dyad	-0.021* (0.011)	0.002 (0.010)	-0.021 (0.014)	-0.009 (0.011)
Smallest GDP of dyad (logged)		-0.080** (0.029)	0.000 (0.030)	-0.067* (0.030)
Controls				
Capability ratio within dyad (weaker over stronger)		0.217 (0.160)	-0.103 (0.306)	0.181 (0.225)
Years since last MID outbreak	-0.439*** (0.052)	-0.467*** (0.045)	-0.160* (0.081)	-0.406*** (0.056)
Spline 1	12.70*** (2.776)	14.03*** (2.863)	-1.214 (5.313)	10.97*** (2.960)
Spline 2	-17.90*** (4.307)	-20.15*** (4.535)	3.444 (8.492)	-15.39*** (4.570)
Spline 3	5.100** (1.790)	6.312** (2.005)	-3.405 (3.865)	4.321* (1.874)
Border Strength Variables				
Civil war onset in at least one state of dyad		0.196 (0.138)	0.678* (0.283)	0.268* (0.129)
Duration of dyad		0.020*** (0.005)	0.032*** (0.007)	0.021*** (0.005)
Duration of dyad squared		-0.000*** (0.000)	-0.000*** (0.000)	-0.000** (0.000)
Border Salient Variables				
Different colonial master before independence		-0.313* (0.130)	0.153 (0.221)	-0.218 (0.146)
Ethnic border (border separates ethnic group from its brethren across the border)		0.146 (0.095)	0.439* (0.173)	0.177 (0.130)
Terrain differences (absolute difference % mountainous more versus less mountainous state)		0.005* (0.002)	0.009* (0.004)	0.006* (0.003)
Constant	-1.256*** (0.138)	-1.410*** (0.151)	-2.937*** (0.306)	-1.683*** (0.256)
<i>N</i>	11,268	8,302	2,861	11,163

Logit Regression models with standard errors in parentheses. Dependent variable is Correlates of War MID onset, and samples include contiguous dyads only.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3: The Effect of Borders on Joint Democracy and Conflict, 1945 to 2001
(using log of absolute difference of mountainous terrain)

	1946-2001	1946-1989	1990-2001	1946-2001
Lowest Democracy Score in Dyad	-0.021* (0.011)	0.004 (0.010)	-0.019 (0.014)	-0.007 (0.011)
Smallest GDP of dyad (logged)		-0.077** (0.029)	0.006 (0.030)	-0.060* (0.030)
Controls				
Capability ratio within dyad (weaker over stronger)		0.248 (0.159)	-0.155 (0.302)	0.188 (0.225)
Years since last MID outbreak	-0.439*** (0.052)	-0.466*** (0.045)	-0.163* (0.081)	-0.405*** (0.055)
Spline 1	12.70*** (2.776)	14.10*** (2.865)	-1.162 (5.302)	10.97*** (2.939)
Spline 2	-17.90*** (4.307)	-20.27*** (4.538)	3.393 (8.473)	-15.39*** (4.539)
Spline 3	5.100** (1.790)	6.373** (2.005)	-3.426 (3.856)	4.321* (1.863)
Border Strength Variables				
Civil war onset in at least one state of dyad		0.184 (0.138)	0.649* (0.283)	0.253* (0.127)
Duration of dyad		0.018*** (0.005)	0.032*** (0.007)	0.019*** (0.005)
Duration of dyad squared		-0.000*** (0.000)	-0.000*** (0.000)	-0.000** (0.000)
Border Salient Variables				
Different colonial master before independence		-0.272* (0.130)	0.129 (0.218)	-0.189 (0.141)
Ethnic border (border separates ethnic group from its brethren across the border)		0.129 (0.095)	0.459** (0.171)	0.169 (0.132)
Terrain differences (ln of absolute difference % mountainous more versus less mountainous state)		0.076*** (0.021)	0.058 (0.032)	0.070** (0.027)
Constant	-1.256*** (0.138)	-1.425*** (0.146)	-2.816*** (0.291)	-1.669*** (0.243)
<i>N</i>	11,268	8,302	2,861	11,163

Logit Regression models with standard errors in parentheses. Dependent variable is Correlates of War MID onset, and samples include contiguous dyads only.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4: The Effect of Borders on Joint Democracy and Conflict, 1945 to 2001
(using same colonial master specification of border)

	1946-2001	1946-1989	1990-2001	1946-2001
Lowest Democracy Score in Dyad	-0.021* (0.010)	0.006 (0.010)	-0.018 (0.014)	-0.006 (0.011)
Smallest GDP of dyad (logged)		-0.081** (0.030)	-0.013 (0.030)	-0.067* (0.030)
Controls				
Capability ratio within dyad (weaker over stronger)		0.305 (0.160)	-0.060 (0.306)	0.253 (0.243)
Years since last MID outbreak	-0.439*** (0.052)	-0.469*** (0.045)	-0.163* (0.081)	-0.407*** (0.057)
Spline 1	12.70*** (2.776)	14.15*** (2.864)	-0.885 (5.329)	11.04*** (2.983)
Spline 2	-17.90*** (4.307)	-20.34*** (4.537)	2.935 (8.519)	-15.50*** (4.602)
Spline 3	5.100** (1.790)	6.384** (2.006)	-3.214 (3.880)	4.360* (1.882)
Border Strength Variables				
Civil war onset in at least one state of dyad		0.196 (0.138)	0.651* (0.283)	0.264* (0.130)
Duration of dyad		0.022*** (0.004)	0.035*** (0.007)	0.022*** (0.005)
Duration of dyad squared		-0.000*** (0.000)	-0.000*** (0.000)	-0.000** (0.000)
Border Salient Variables				
Same colonial master before independence		-0.010 (0.010)	-0.357 (0.203)	-0.112 (0.174)
Ethnic border (border separates ethnic group from its brethren across the border)		0.140 (0.095)	0.424* (0.174)	0.169 (0.133)
Terrain differences (ln of absolute difference % mountainous more versus less mountainous state)		0.006* (0.002)	0.007 (0.004)	0.007* (0.003)
Constant	-1.256*** (0.138)	-1.479*** (0.150)	-2.811*** (0.289)	-1.728*** (0.234)
<i>N</i>	11,268	8,302	2,861	11,163

Logit Regression models with standard errors in parentheses. Dependent variable is Correlates of War MID onset, and samples include contiguous dyads only.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

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