

# APPENDIX: A Random Item Response Model of External Territorial Threat, 1816-2010

## Contents

<b>Additional Replications with the Territorial Threat Measure</b>	<b>A-2</b>
Territorial Threat and Militarization . . . . .	A-2
Territorial Threat and the Removal of Veto Players . . . . .	A-2
Territorial Threat and Women's Legislative Representation . . . . .	A-4
<b>A Comparison with Previous/Alternate Measures of Territorial Threat</b>	<b>A-5</b>
<b>An Assessment of Correlation Matrices Across the Statistical Analyses</b>	<b>A-11</b>
<b>An Exploration of Variation in the Territorial Threat Measure in Spatial Rivalries and Territorial Claims</b>	<b>A-13</b>
<b>References</b>	<b>A-15</b>

## **Additional Replications with the Territorial Threat Measure**

The manuscript offers evidence that the latent territorial threat measure derived from the random item response model is a valid measure of territorial threat. Exploratory analyses suggest the output of the model is intuitive across time and space. The replication of Hong and Kim (2019) offers more evidence of the validity of the measure while also providing a caveat about the exact relationship among territorial threat, exclusive ideologies, and mass killing episodes. This section of the appendix provides even more construct validity exercises through replication. The central takeaway here is a user should be confident in both the validity of the measure as well as the bulk of territorial conflict scholarship that has argued for territorial threat's effects on all features of domestic politics.

### *Territorial Threat and Militarization*

Gibler (2012) links territorial threat and militarization as an important component of his territorial peace argument and Table 5.1 in Gibler (2012) offers illustrative evidence to support this part of the argument. The onset of a contiguous territorial MID has a positive and statistically significant effect on changes in the number of military personnel from the previous year, and this effect is discernibly greater than the effect of a contiguous, non-territorial MID. This analysis appears to lean on the `revtype1` and `revtype2` variables to code whether a dispute is over territory, and follow-up analyses from Gibler demonstrate these variables are so poorly coded that they cannot be used for this kind of analysis (Gibler 2017).

I offer a simple replication of Table 5.1 in Gibler (2012) that drops the other conflict indicators for my estimate of territorial threat. The dependent variable is the change in the size of military personnel for the state from the previous year. The control variables include whether the state is a major power, whether there is a dispute onset in the observation year, the total population of the state, the difference in military expenditures from the previous year, and the size of the military personnel from the previous year. The only other change is to eschew Gibler's state fixed effects for state random effects.

The results of this replication is in Table A.1, where Model 1 measures territorial threat as the threat level from the year prior to the observation year and Model 2 measures territorial threat as the difference from the year before the observation year and the year before that. The results are substantively the same as what Gibler provides in Table 5.1, as is the substantive takeaway from Gibler's argument. States with higher levels of territorial threat (Model 1) and states with increases in territorial threat (Model 2) are more likely to see increases in the size of military personnel. Gibler's analysis leaned on the information available in the CoW-MID data, which his follow-up analyses suggested were unusable for this kind of analysis. My measure of territorial threat offers more confidence in Gibler's (2012) original findings.

### *Territorial Threat and the Removal of Veto Players*

Gibler's (2012) territorial peace argument places major emphasis on the effect of territorial threat on the domestic political constitution of a state. In his telling, territorial threat requires a large, land-based army in order to deter threats to the homeland. The unique nature of this threat and its salience provide opportunity for state leaders to coalesce power around their position. A swift defense of territory requires discretionary authority and state leaders are eager to maximize this moment as an opportunity to secure their own tenure as well. Autocracy is the end result of an environment rife with threats to the territorial integrity of the state. Chapter 6 of Gibler (2012) tests this argument of territorial threat's effects on domestic political institutions. In particular, Table 6.3 looks at the effect of territorial threat on the number of veto players in the state from 1975 to 2000. As above, Gibler's proxies for territorial threat are multiple in the absence of a single, valid measure available at

Table A.1: A Mixed Effects Model of Change in Military Personnel, 1816-2010

	<b>Model 1</b>	<b>Model 2</b>
Territorial Threat (Lag)	37.576* (4.464)	
Territorial Threat (Diff. from Prev. Year)		52.250* (3.762)
State is a Major Power	85.932* (8.289)	81.434* (8.117)
Dispute Onset in Obs. Year	4.941 (4.510)	10.768* (4.466)
Total Population (Lag)	35.616* (4.890)	35.356* (4.797)
Military Expenditure (Diff. from Prev. Year)	66.533* (3.680)	65.685* (3.676)
Military Personnel (Lag)	−120.540* (5.041)	−111.996* (4.962)
Constant	−7.749* (2.601)	−10.142* (2.548)
sd(State)	13.465	12.392
Number of States	216	215
Num. Obs.	13,390	13,257

+  $p < 0.1$ , \*  $p < 0.05$

Table A.2: Territorial Threat and Changes in Veto Players, 1975-2010

	<b>Model 1</b>
Territorial Threat	−0.565* (0.235)
Polarization	0.597* (0.140)
GDP per Capita	0.079 (0.211)
Level of Democracy	0.117* (0.012)
Militarization	0.575 (7.838)
Num.Obs.	2207
+ p < 0.1, * p < 0.05	

the time. His results use the minimum age of the border, the militarization of the neighbor, rivalry status, and even nuclear weapons as stand-ins for the concept that interests him (i.e. territorial threat).

I elect to recreate a more streamlined version of this analysis that uses more current data. I use the most recent version of the *Database of Political Institutions* data set (Cruz, Keefer, and Scartascini 2021) for both the dependent variable (the number of checks on the chief executive) and an important covariate (the level of polarization in government). I use the `{peacesciencer}` package (Miller n.d.) to add important covariates for the level of democracy in the state (Polity, Marshall and Elzinga-Marshall 2017), estimated GDP per capita (logged) for the state (Anders, Fariss, and Markowitz 2020), and the militarization of the state as the size of the military over the total population (Singer, Bremer, and Stuckey 1972, v. 5.0). The estimation of procedure here must account for what amounts to a longitudinal argument that Gibler (2012) is advancing. As territorial threat increases in the state, the number of checks on the executive decrease. Thus, the model is a panel longitudinal model where all covariates are changes from their state means over the time frame (with added state fixed effects). All inputs are additionally lagged a year to account for temporal endogeneity.

The results of Table A.2 are consistent with what Gibler (2012) reports in his Table 6.3. Increasing polarization coincides with an increase of checks and balances on the executive, which is consistent with the literature. Further, increasing democratization of a state coincides with increasing the number of checks and balances on the chief executive (which is no surprise). Importantly, territorial threat has a negative and statistically significant effect on the number of veto players in a state. Increasing territorial threat coincides with a decrease in the number of veto players, which is consistent with the territorial peace argument.

#### *Territorial Threat and Women's Legislative Representation*

Kang and Kim (2020) extend the territorial threat scholarship to the domestic politics of gender. They advance an argument that acknowledges that states facing external threats are states that have less opportunity for women to find themselves in positions of power. This typically follows because external threats require some kind of “aggressive” response for the sake of defense, amounting to a bias against women. Women are typically less likely to be in the military, less likely to be in the defense sector, and are otherwise disadvantaged politically under conditions of threat that favor more “masculine” values (e.g. Tir and Bailey 2018). Their time-series cross-sectional analysis of 101 democracies finds that territorial threats, and not other forms of threat, are responsible

Table A.3: Territorial Threat and Women's Legislative Representation (1985-2010)

	<b>Model 1</b>	<b>Model 2</b>
Territorial Rivalry	−0.074* (0.025)	
Territorial Threat		−0.118* (0.038)
Non-territorial Rivalry	0.008 (0.031)	−0.005 (0.027)
PR System	0.060* (0.019)	0.033* (0.016)
GDP per Capita	0.157* (0.016)	0.144* (0.018)
Level of Democracy	0.022 (0.044)	0.051 (0.037)
CEDAW	0.017 (0.011)	0.005 (0.013)
Civil War	0.022 (0.014)	0.013 (0.015)
Post-Civil War	0.002 (0.018)	0.006 (0.017)
Num.Obs.	1995	1995

+ p &lt; 0.1, \* p &lt; 0.05

for this phenomenon. States with territorial rivalries ultimately have fewer women in parliament.

Table A.3 is a replication of Table 1.2. The dependent variable is the percentage of seats held by women in the lower or single house national legislature. The control variables are whether the state has a non-territorial rivalry, whether the state has a proportional representation system, the level of democracy, the natural log of GDP per capita, the state's CEDAW status, and whether the state is in an ongoing civil war and/or within a five-year window since the conclusion of a civil war. The model is panel-longitudinal with state fixed effects.

Model 1 offers a near identical replication of what the authors report in Model 2 of Table 1. Here, we observe that states with territorial rivalries have fewer women in parliament than states without territorial rivalries. There is, by contrast, no discernible effect of non-territorial rivalries on representation for women in parliament. The only other significant effect is for that of proportional representation systems. These systems increase opportunities for women to hold political power relative to majoritarian or "first-past-the-post" systems like the United States and United Kingdom have. Model 2 simply replaces the territorial rivalry variable with a more informative and continuous measure of territorial threat. The effect is statistically significant and negative.

### A Comparison with Previous/Alternate Measures of Territorial Threat

The measure that I offer here underwent one important change through the peer-review process and resulted in another alternate specification because of the peer-review process.<sup>1</sup> The version submitted for peer-review

<sup>1</sup>The measure additionally changed with newer/revised measures of fatalities. Gibler and Miller (Forthcoming) provide a truly dyad-year data set of fatalities in militarized confrontations, which offers a major improvement from the GML conflict data (Gibler, Miller,

used a sampling frame of all politically relevant, directed dyad-years. However intuitive this approach, given the prominence of this sampling frame in the conflict literature (c.f. Lemke and Reed 2001), a further review showed this process resulted in a few important omissions from the data. Consider Table A.4 and Table A.5. Table A.4 lists all spatial rivalries in Thompson and Dreyer (2012) where all or part of the rivalry occurred in a politically irrelevant dyad. Table A.5 lists all territorial claims involving politically irrelevant dyads.<sup>2</sup> Some of these observations may truly be minor and inconsequential. For example, the Dutch-Venezuelan dispute over Aves Island is a function of the Dutch colonial footprint (in the now independent Suriname and the overseas territories in the Antillean island chain) and the disputed island itself is remote from *both* mainland Venezuela and the Dutch overseas territories. However, many are important observations. The Spanish-American territorial claims were important matters for both the foreign policies of Spain and the United States in the 19th century. Additionally, the Germany-Russia rivalry is a clearly major rivalry, though part of the rivalry occurs after World War I when neither side was a major power and Poland/the Baltic states buffered the two rivals. In some cases, these observations are even omitted because of contiguity quirks in the Correlates of War data.<sup>3</sup> Thus, I opt for a universal directed dyad-year sampling frame and use the distance indicators to weight observations accordingly.

Table A.4: Spatial Rivalries Between Politically Irrelevant Dyads

No.	Rivalry	Start Year	End Year	Region	Type 1	Type 2
25	Afghanistan-Iran 1	1816	1937	Central Asia	spatial	
32	Spain-United States	1816	1819	North America	spatial	positional
37	Colombia-Peru	1827	1935	South America	spatial	
44	Chile-Peru	1832	1929	South America	positional	spatial
63	Bulgaria-Greece	1878	1947	Southeast Europe	spatial	positional
67	Ottoman Empire-Serbia	1878	1918	Southeast Europe	spatial	
68	Greece-Serbia	1879	1953	Southeast Europe	spatial	
74	Germany-Russia 2	1890	1945	European GPs	spatial	positional
118	Indonesia-Netherlands	1951	1962	Southeast Asia	spatial	
134	Mauritania-Morocco	1960	1969	West Africa	spatial	positional
153	South Yemen-Yemen	1967	1990	Gulf	ideological	spatial

Table A.5: Territorial Claims Involving Politically Irrelevant Dyads

Tgt.	Chal.	Claim No.	Claim	Claim Period(s)
230	2	8	Oregon Country	1816-1821
230	2	14	Florida	1816-1821
230	2	16	Texas	1816-1821
385	20	34	Sverdrup Islands	1922-1930
390	20	36	Hans Island	1971-2001

and Little 2016) used in the first version. The revised fatality estimates offer more information about territorial threat for states in a given year and given an ongoing spatial rivalry or territorial claim.

<sup>2</sup>For convenience's sake for the illustration, the periods associated with claims that are still ongoing are listed as ending in 2001.

<sup>3</sup>For example, there is a claim against Lebanon by Jordan between 1946 and 1957. Absent a direct border or a sea/ocean buffer, Correlates of War codes the two states as not at all contiguous by its definition though the minimum distance between the two states is just 46.2 kilometers.

230	2	40	Cuba	1848-1898
2	41	46	Navassa Island	1859-1914; 1935-2001
41	2	48	Mole St. Nicholas	1889-1915
42	2	50	Samana Bay	1894-1904
390	2	52	Virgin Islands	1865-1917
2	100	56	Quita Sueno-Roncador-Serrana	1890-1972
100	91	56	Quita Sueno-Roncador-Serrana	1899-1928
100	93	56	Quita Sueno-Roncador-Serrana	1900-1928; 1979-2001
100	91	57	Serranilla Bank & Bajo Nuevo	1982-1986
100	93	58	San Andres y Providencia	1900-1930; 1979-2001
93	100	70	Mosquito Coast	1900-1928
93	100	84	Mangles (Corn) Islands	1900-1928
100	135	106	Leticia	1932-1935
100	135	106	Loreto	1839-1922
210	101	110	Aves (Bird) Island	1854-1866
101	210	118	Los Roques	1850-1856
110	210	120	Corentyn/New River Triangle	1966-1975
210	140	126	Tumuc-Humac	1852-1906
130	2	131	Galapagos Islands	1854-1855; 1892-1906
130	140	132	Amazonas-Ica	1904-1922
135	230	134	Chincha Islands	1864-1866
135	155	154	Tacna-Arica	1879-1884
290	260	284	Western Poland (Danzig-Pomerania-Upper Silesia)	1955-1972
325	640	370	Dodecanese Islands	1920-1923; 1939-1945
235	434	416	San Joao de Ajuda	1961-1961
230	471	500	Equatorial Guinea	1963-1963
325	530	562	Eastern Ogaden	1911-1936
325	530	562	Italian Somaliland	1941-1947
220	530	564	Afambo	1944-1947
220	530	564	Djibouti	1966-1966
325	530	568	Eritrea	1945-1947
211	235	602	Congo River Islands	1922-1935
211	235	602	Dilolo Boot	1926-1927
235	211	602	Duizi Valley Strip	1909-1927
255	235	608	Kionga Triangle & Southern German East Africa	1916-1919
235	553	618	Southwestern Mozambique	1968-1968
435	600	672	Mauritania	1960-1970
230	435	674	Western Sahara	1974-1975
600	230	676	Northern & Southern Morocco	1904-1912
325	651	692	Bardiyah & Al Jaghub	1946-1950
660	663	741	Lebanon	1946-1957
220	710	807	Kwangchou-wan	1921-1945
235	710	816	Lappa-Dom Joao-Wongkam Islands	1901-1910
235	710	816	Macao	1860-1887; 1972-1999
630	700	900	Musa Abad	1919-1935

235	750	926	Goa-Daman-Diu-Dadra-Nagar Haveli	1948-1961
750	235	926	Goa-Daman-Diu-Dadra-Nagar Haveli	1954-1974
750	771	930	Tin Bigha Corridor & Bengali Enclaves	1971-2001
771	750	930	Muhurir Char & Bengali Enclaves	1971-2001
220	800	958	Battambang-Siemreap-West Bank Mekong	1939-1941
220	800	958	Dan Sai-Cardamoms Peninsula-Ko Chang-Ko Kut	1906-1907
210	235	974	Oecussi Enclave Border	1909-1914
235	210	974	Laurantuca-Woure-Pamangkaju	1859-1859
235	210	974	Tahakay & Tamiru Ailala	1893-1904
235	850	974	East Timor	1974-1975
850	235	974	East Timor	1975-1999
210	850	976	West Irian	1949-1962
713	816	984	Spratly Islands	1975-2001
713	817	984	Spratly Islands	1954-1975
713	820	984	Southern Spratly Islands	1979-2001
816	840	984	Kalayaan (Eastern Spratly Islands)	1975-2001
817	840	984	Kalayaan (Eastern Spratly Islands)	1971-1975

Additionally, a reviewer asked why this measure of territorial threat uses a fundamentally arbitrary distance categories that combines the Correlates of War contiguity data with a data set on capital-to-capital distances when data on the minimum distance between dyads is available. The short answer here is the version I submitted for review came when the most recent version of the minimum distance data (c.f. Weidmann and Gleditsch 2010) had a left bound at 1946. This would have significantly narrowed the temporal domain for analyses of territorial threat. However, Schvitz et al. (2021) recently released an update to the minimum distance data that push the left bound of the temporal domain to 1886. This allowed me to re-estimate the models of territorial threat with an alternate distance weight (i.e. the inverted minimum distance between states in the dyad) that still has substantial pre-WWII coverage.

This creates three different estimates of territorial threat. The first is the one I initially submitted for peer review, which started with a directed politically relevant dyad-year sampling frame and uses the 10-category distance weights outlined in the manuscript. The second is the one intended for publication and wide use, which starts with a universal directed dyad-year sampling frame and again uses the 10-category distance weights outlined in the manuscript. The third uses the universal directed dyad-year sampling frame but uses the minimum distance data for weights. This third version of territorial threat has a shorter temporal domain (1886-2010) than the other two.

Figure A.1 is a correlation matrix of these three alternate territorial threat measures that offers two basic takeaways. First, the older territorial threat measurement that I originally submitted for peer review still correlates highly with the updated measurements, as high as  $\sim .78$  in the correlation between the older measure and main measure I present in the updated manuscript. The important difference in sampling frame, will account for the bulk of the differences between the two measures, though Table A.4 and Table A.5 do well to make the case about the importance of the universal directed dyad-year sampling frame. Second, the distance category that I use may be arbitrary, but the estimates of territorial threat are not sensitive to using minimum distance as an alternative weight. The two measures of territorial threat correlate at  $.97$ , suggesting the measures are functionally the same.<sup>4</sup>

<sup>4</sup>Indeed, a correlation between the different values of dyadic minimum distance and the distance category is  $-0.919$ , suggesting the distance category I construct is a useful stand-in for minimum distance until the International Conflict Research team that maintains



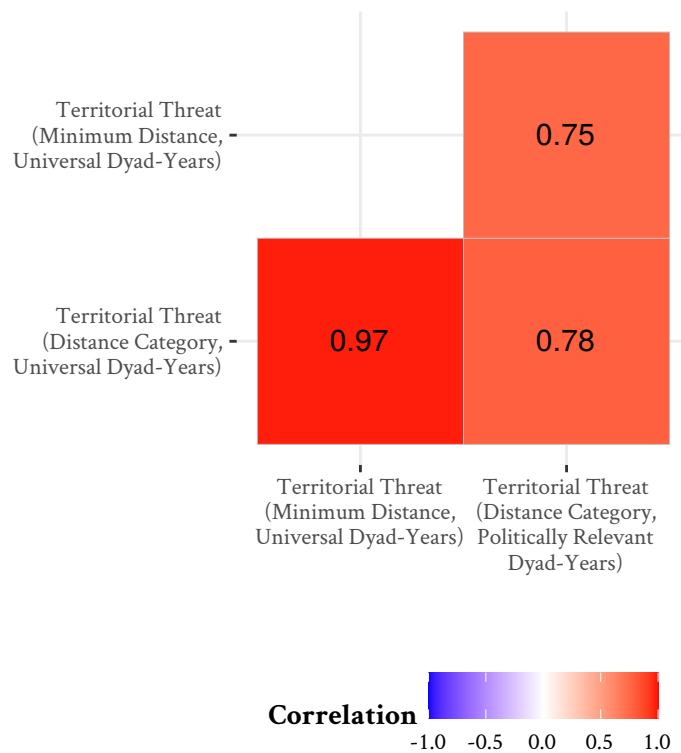


Figure A.1: A Correlation Matrix of Three Alternate Territorial Threat Measures

Figure A.2 is a faceted dot-whisker plot of the replications presented in the manuscript and the appendix, alternating the territorial threat measure I present for wide use with the one that leans on the minimum distance variable for weights. For the sake of clarity, I focus on just the models terms of territorial threat (or, in the case of the analysis of mass killing onsets, the interaction and the exclusionary ideology variable as well). Overall, the results are basically the same no matter the territorial threat measure except in the analysis of changes in military personnel. There, the use of the minimum distance measure of territorial threat suggests a much larger effect of territorial threat on changes in military personnel. Recall, however, that the minimum distance data extend only to 1886 whereas the distance categories allow for territorial threat to be estimated for all states from 1816 onward. The difference in magnitude is in part a function of the difference in temporal domain. As a matter of null hypothesis testing, the results are effectively the same.

---

the CShapes data ultimately extend the temporal domain of their data to 1816.

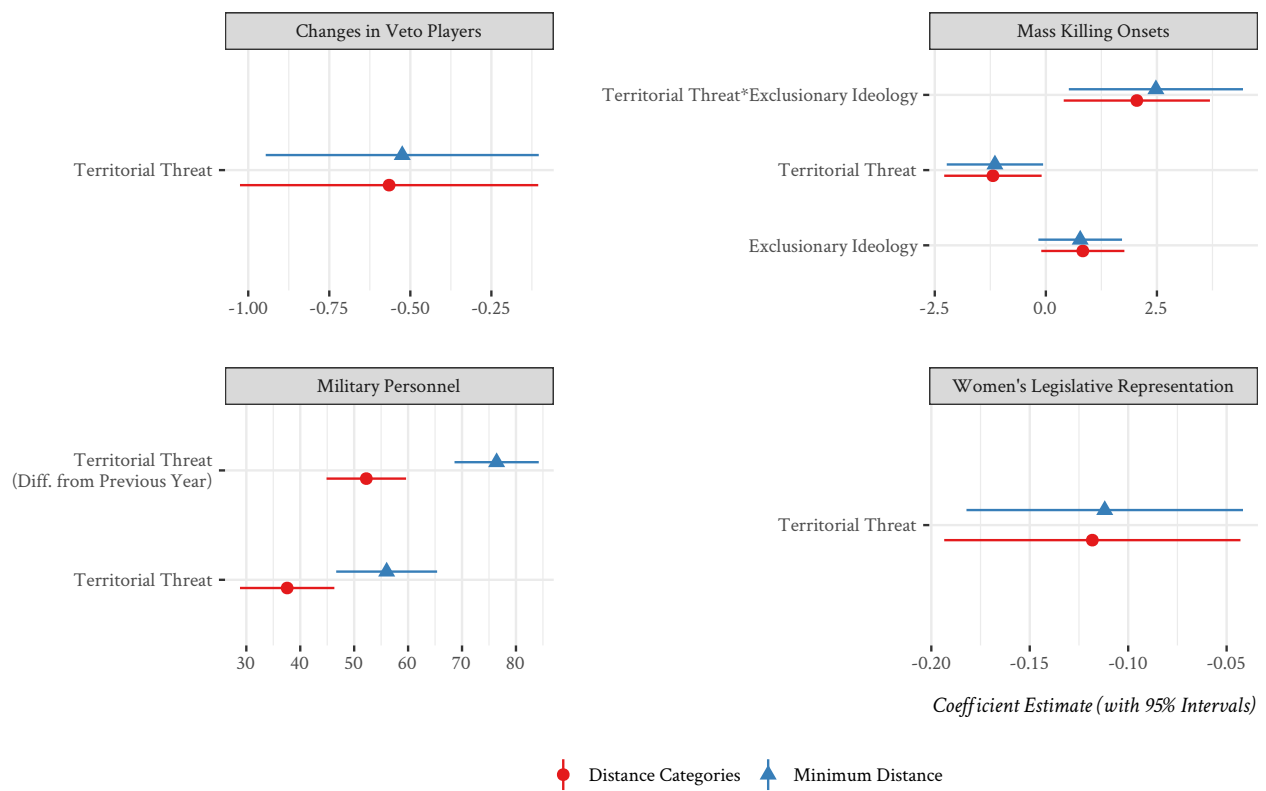


Figure A.2: A Comparison of the Replications with Two Alternate Territorial Threat Measures

## An Assessment of Correlation Matrices Across the Statistical Analyses

A reviewer expressed an interest in seeing if there was a collinearity problem in the replications I conduct. This is a fair request. The latent territorial threat measure, for example, indirectly includes information about militarization the extent to which it includes information about troop deaths in militarized conflicts among spatial rivalries or dyadic pairings with territorial claims. This might imply a strong correlation between the territorial threat measure and either military personnel data or war indicators included as control variables. I check for collinearity issues as Figure A.3 and Figure A.4 in this appendix. Figure A.3 contains two correlation matrices of the replications of the Gibler (2012) models of changes in military personnel and changes in veto players. Figure A.4 contains two correlation matrices of the Hong and Kim (2019) and Kang and Kim (2020) analyses.

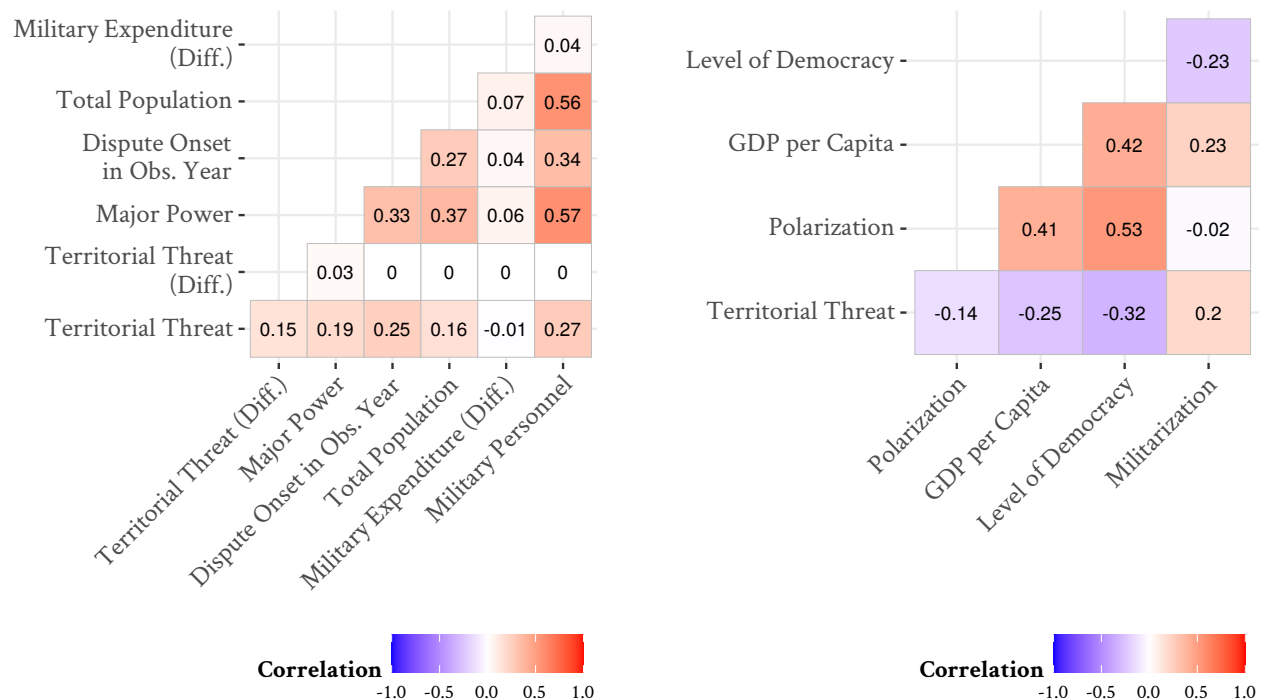


Figure A.3: Correlation Matrices for Replications of Table 5.1 (L) and Table 6.3 (R) in Gibler (2012)

The main concern in both these figures is whether the territorial threat measure I generate is so highly correlated with anything else on the right-hand side of the respective regression equations to amount to an estimation problem. Figure A.3 and Figure A.4 suggest this is not the case. The highest correlation observed for the territorial threat measure in the replication of Table 5.1 in Gibler (2012) is  $\sim .25$  (whether there was a dispute onset in the observation year), though this is not that high of a correlation at all. Likewise, the strongest correlation of the territorial threat in the replication of Table 6.3 in Gibler (2012) is with the estimate of democracy in the observation year ( $\sim -.32$ ), though this is well below a level of concern for statistical estimation. There are some stronger correlations observed in Figure A.4 for the territorial threat measure. The highest correlation for the territorial threat measure in Hong and Kim (2019) is with the territorial rivalry variable. This is neither a surprise (i.e. information about spatial rivalries is part of the measure I generate for latent territorial threat) nor is it an estimation problem (because I offer a continuous, latent territorial threat measure as an improvement on a binary, information-poor spatial rivalry indicator). The most interesting correlation for territorial

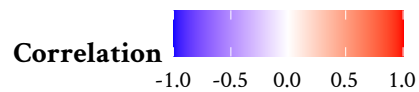
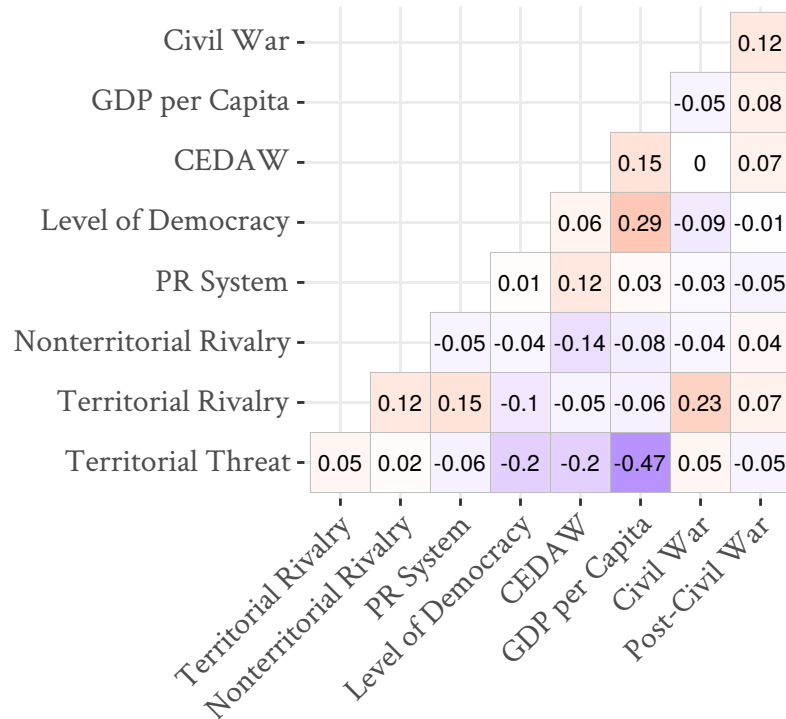
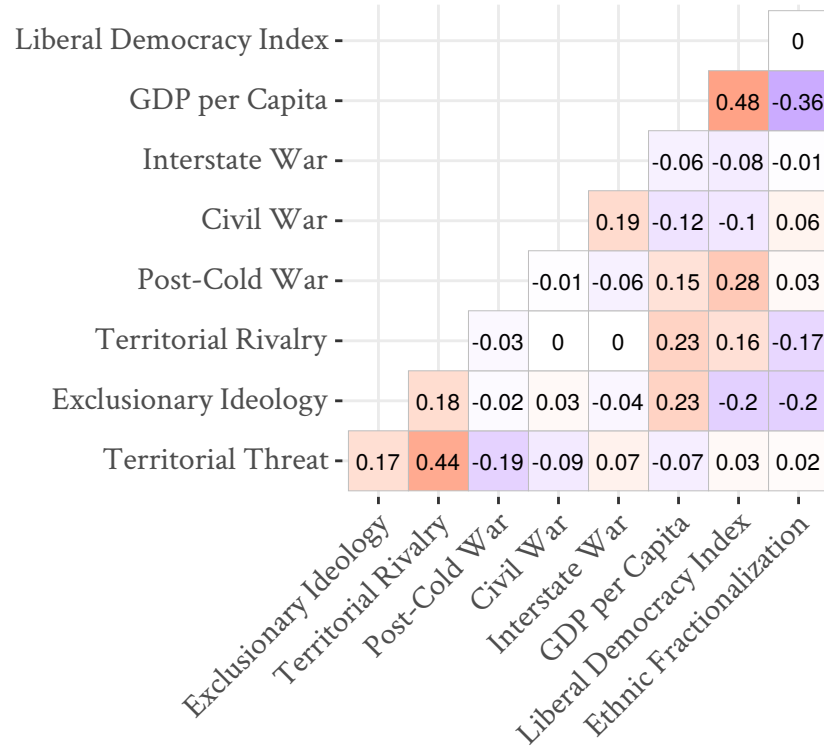


Figure A.4: Correlation Matrices for Replications of Hong and Kim (2019) (T) and Kang and Kim (2020) (B)

threat is observed in the Kang and Kim (2020) analysis is with the estimate they provide of GDP per capita. That correlation is about -.47. This is below any level of concern for collinearity. The different correlations observed in Hong and Kim (2019) and Kang and Kim (2020), despite having much of the same underlying variables, can be a function of the different temporal domain (i.e. 1951-2010 in Hong and Kim (2019) and 1985-2010 in Kang and Kim (2020)) and the different units of analysis. Kang and Kim (2020) analyzes all available state-years in the narrower time frame whereas Hong and Kim (2019) are interested in observations of state failure (a rare event) across a longer time frame. Ultimately, the correlation matrices provided in Figure A.3 and Figure A.4 suggest two things. First, there are no major estimation problem in the analyses communicated in the paper and appendix. Second, the measure of territorial threat is indeed a distinct measure that is not ultimately just some other readily available indicator.

## **An Exploration of Variation in the Territorial Threat Measure in Spatial Rivalries and Territorial Claims**

The benefit of the latent territorial threat measurement I create is it illustrates the huge variation fundamental to the concept of territorial threat that is evident from the figures in the manuscript but is otherwise concealed when using a binary indicator like spatial rivalries or territorial claims. Consider the summary statistics in Table A.6. Here, I take the full state-year data on territorial threat and add in information about whether a state was in at least one spatial rivalry in the observation year and whether they were targeted in at least one territorial claim in the ICOW data in the observation year. This creates four groups of observations: 1) states with neither claimed territory nor a spatial rivalry (e.g. New Zealand, Samoa), 2) states in a spatial rivalry, but do not appear in the ICOW data as the target of a territorial claim<sup>5</sup>, 3) states targeted in a territorial claim, but do not appear in the Thompson and Dreyer (2012) as in a spatial rivalry<sup>6</sup>, and 4) states in a spatial rivalry that are also targeted in a territorial claim (e.g. India, Pakistan). I then grab a mean of the territorial threat measure, a 90% interval around the mean of the data, and the observed minimum and maximum.

Table A.6 points to important variation in territorial threat that is missed when using binary indicators of territorial threat like spatial rivalries or territorial claims. To be fair, the means make sense, given the categories. The mean for state-year observations with a claim and a spatial rivalry is greater than the mean for state-year observations with either a claim or spatial rivalry (but not both). Those two means are greater than the mean for state-year observations neither targeted in a territorial claim nor with a spatial rivalry. However, the variation is huge. Argentina has not dropped the claim on British territory (the Falkland islands) and Thompson and Dreyer (2012) still suggest a spatial rivalry between the two, but the United Kingdom's territorial threat estimates in the 21st century do not suggest much of a threat at all. Likewise, Bahrain is in a spatial rivalry with Qatar in which it is also targeted by Qatar over the Hawar Islands and Zubarah. However, the last militarized confrontation between Qatar and Bahrain was in 1986 (c.f. Gibler and Miller Forthcoming), suggesting Bahrain does not sense much of a current threat from Qatar. Further, there are even some observations of severe territorial threat for states that are neither the target of a territorial claim nor in a spatial rivalry. The highest observations in that group belong to Austria shortly after World War I. Given Austria's very existence shortly after World War I, these high values of territorial threat are perfectly intuitive.

---

<sup>5</sup>For example, Thompson and Dreyer (2012) list Kuwait as in a spatial rivalry with Iraq since 1961 to 2010 and there are three targeted territorial claims for Kuwait in the ICOW data. However, the last claim in which Kuwait was targeted (over the Qaruh & Umm al-Maradim Islands with Saudi Arabia) ends in July 2000. This creates 10 years for Kuwait in which it is still in a spatial rivalry but with no active territorial claim. Incidentally, the "Kuwait" territorial claim in the ICOW data that is ostensibly the core of the spatial rivalry in Thompson and Dreyer (2012) ends in November 1994.

<sup>6</sup>The United States has an active, however obscure, claim on Canadian territory (Machias Seal Island), but there is clearly no rivalry relationship between the United States and Canada.

Table A.6: Summary Statistics of Territorial Threat by Intersection of Spatial Rivalry and Territorial Claim

	<b>Mean</b>	<b>Min.</b>	<b>Lower Bound (90%)</b>	<b>Upper Bound (90%)</b>	<b>Max.</b>
No Claim, No Spatial Rivalry	-0.022	-1.276	-0.511	0.121	1.403
No Claim, but a Spatial Rivalry	0.195	-0.084	0.005	0.558	3.094
No Spatial Rivalry, but a Claim	0.265	-1.210	-0.074	0.941	3.550
Claim and Spatial Rivalry	0.609	-0.368	0.082	1.619	6.948

This type of heterogeneity also emerges in the data that Hong and Kim (2019) compile and analyze. Table A.7 offers a summary similar to Table A.6, but confined to just the observations that Hong and Kim (2019) include in their Model 3 of their Table 1. The difference in means is intuitive, but there is overlap. There are observations of territorial threat in the cases without a spatial (“territorial”) rivalry that are greater than the mean of observations with a spatial rivalry. Figure A.5 will emphasize this variation as well. Figure A.5 is a ridgeline plot of the distribution of latent territorial threat by rivalry status for all observations in the main results of Hong and Kim (2019). It is clear that status with a spatial (territorial) rivalry generally have higher values of territorial threat, but the overlap is evident. The median (50th percentile) territorial threat in state-years without a spatial rivalry is greater than the 5th percentile of territorial threat for states with a territorial rivalry. Likewise, the median territorial threat for states with a spatial rivalry is less than the 90th percentile for state-years without a spatial rivalry. Important variation is not evident when measuring territorial threat by reference to a binary “there”/“not there” indicator like spatial rivalries.

Table A.7: Summary Statistics of Territorial Threat by Intersection of Spatial Rivalry and Territorial Claim

	<b>Mean</b>	<b>Min.</b>	<b>Lower Bound (90%)</b>	<b>Upper Bound (90%)</b>	<b>Max.</b>
No Spatial Rivalry	0.014	-0.943	-0.645	0.267	0.558
Spatial Rivalry	0.258	-0.006	0.028	0.697	1.771

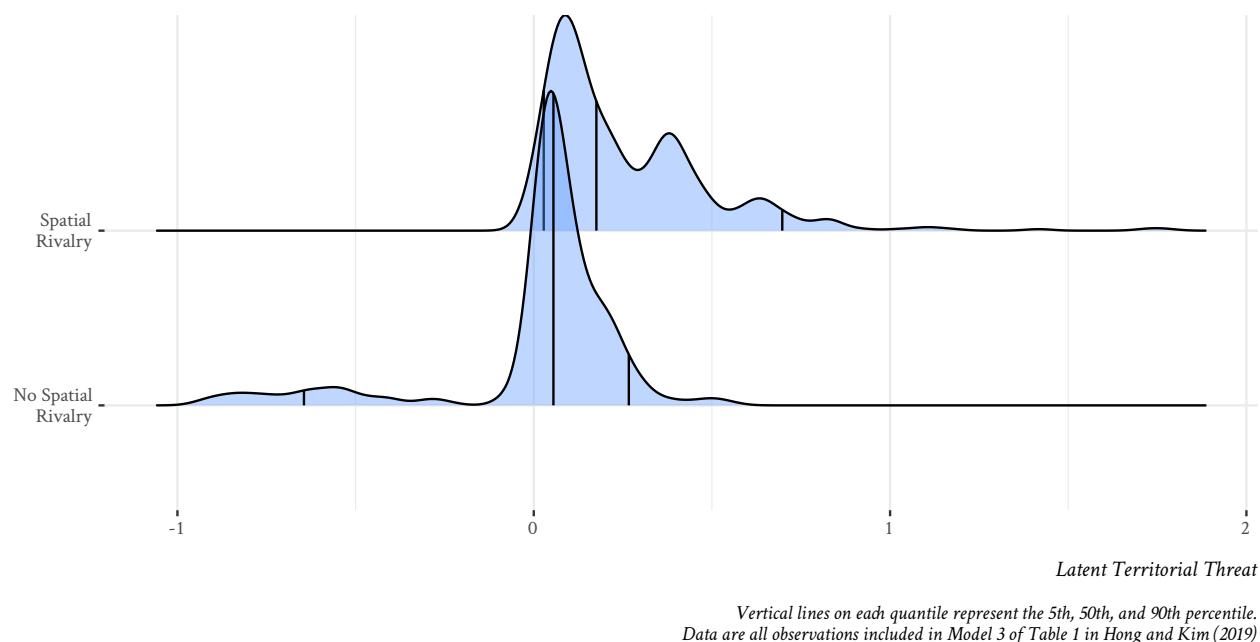


Figure A.5: Ridgeline Plots of Territorial Threat by Rivalry Status in Hong and Kim (2019)

## References

- Anders, Therese, Christopher J. Fariss, and Jonathan N. Markowitz. 2020. "Bread Before Guns or Butter: Introducing Surplus Domestic Product (SDP)." *International Studies Quarterly* 64(2): 392–405.
- Cruz, Cesi, Philip Keefer, and Carlos Scartascini. 2021. *DPI2020 Database of Political Institutions: Changes and Variable Definitions*. Washington, DC: Inter-American Development Bank Research Department.
- Gibler, Douglas M. 2012. *The Territorial Peace: Borders, State Development, and International Conflict*. New York, NY: Cambridge University Press.
- . 2017. "What They Fight for: Specific Territorial Issues in Militarized Interstate Disputes, 1816–2001." *Conflict Management and Peace Science* 34(2): 194–211.
- Gibler, Douglas M., and Steven V. Miller. Forthcoming. "The Militarized Interstate Confrontation (MIC) Dataset, 1816–2010." *Journal of Conflict Resolution*.
- Gibler, Douglas M., Steven V. Miller, and Erin K. Little. 2016. "An Analysis of the Militarized Interstate Dispute (MID) Dataset, 1816–2001." *International Studies Quarterly* 60(4): 719–30.
- Hong, Mi Hwa, and Nam Kyu Kim. 2019. "How Do External Territorial Threats Affect Mass Killing?" *Journal of Peace Research* 56(4): 529–44.
- Kang, Alice J., and Nam Kyu Kim. 2020. "Territorial Threat and Women's Legislative Representation." *Democratization* 27(2): 340–58.
- Lemke, Douglas, and William Reed. 2001. "The Relevance of Politically Relevant Dyads." *Journal of Conflict Resolution* 45(1): 126–44.

- Marshall, Monty G., and Gabrielle Elzinga-Marshall. 2017. *Global Report 2017: Conflict, Governance and State Fragility*. Vienna, VA: Center for Systemic Peace.
- Miller, Steven V. “`{peacesciencer}`: An R Package for Quantitative Peace Science Research.” *Conflict Management and Peace Science*.
- Schvitz, Guy et al. 2021. “Mapping The International System, 1886-2017: The CShapes 2.0 Dataset.” *Journal of Conflict Resolution*. <https://journals.sagepub.com/doi/full/10.1177/00220027211013563>.
- Singer, J. David, Stuart A. Bremer, and John Stuckey. 1972. “Capability Distribution, Uncertainty, and Major Power War, 1820-1965.” In *Peace, War and Numbers*, ed. Bruce Russett. Beverly Hills, CA: Sage Publications, Inc.
- Thompson, William R., and David R. Dreyer. 2012. *Handbook of International Rivalries, 1494-2010*. Washington DC: CQ Press.
- Tir, Jaroslav, and Maureen Bailey. 2018. “Painting Too ‘Rosie’ a Picture: The Impact of External Threat on Women’s Economic Welfare.” *Conflict Management and Peace Science* 35(3): 248–62.
- Weidmann, Nils B., and Kristian Skrede Gleditsch. 2010. “Mapping and Measuring Country Shapes: The Cshapes Package.” *R Journal* 2(1): 18–24.