<u>Supplemental Appendix A</u> List of Disputed Issues in Sample Minimum of one MID onset over an issue-dyad

| Dyad                | Dispute Name                      | Starting<br>Challenger | Overall<br>Start | Overall<br>End | Issue-<br>Dyads | Sample<br>MIDs | $\mathbf{Ongoing?}^{\dagger}$ |
|---------------------|-----------------------------------|------------------------|------------------|----------------|-----------------|----------------|-------------------------------|
| TERRITORIAL         | DISPUTES (1885-2000) <sup>*</sup> |                        | -                | -              |                 |                |                               |
| USA-UKG             | Alaska                            | UKG                    | 1872             | 1903           | 1               | 1              |                               |
| NIC-COL             | San Andrés y Providencia          | NIC                    | 1900             | 2001           | 1               | 2              | Y                             |
| GUA-UKG             | Belize                            | GUA                    | 1868             | 1981           | 1               | 5              |                               |
| BLZ-GUA             | Belize                            | GUA                    | 1981             | 2001           | 1               | 2              | Y                             |
| GUA-SAL             | Cordillera Monte Cristo           | GUA                    | 1935             | 1938           | 1               | 1              |                               |
| HON-SAL             | Bolsones                          | SAL                    | 1899             | 1992           | 1               | 1              |                               |
| HON-NIC             | Cayo Sur - Media Luna             | NIC                    | 1998             | 2001           | 1               | 1              | Y                             |
| COL-VEN             | Los Monjes                        | COL                    | 1951             | 2001           | 1               | 3              | Y                             |
| COL-PER             | Loreto                            | PER                    | 1839             | 1935           | 1               | 1              |                               |
| VEN-GUY             | Essequibo                         | VEN                    | 1966             | 2001           | 1               | 7              | Y                             |
| GUY-SUR             | Corentyn/New River Triangle       | SUR                    | 1975             | 2001           | 1               | 2              | Y                             |
| ECU-PER             | Oriente-Mainas                    | ECU                    | 1854             | 1998           | 2               | 14             |                               |
| BOL-PAR             | Chaco Boreal                      | BOL                    | 1878             | 1938           | 1               | 10             |                               |
| PER-CHL             | Tacna-Arica                       | CHL                    | 1879             | 1929           | 1               | 2              |                               |
| CHL-ARG             | Los Andes                         | CHL                    | 1896             | 1904           | 1               | 1              |                               |
| CHL-ARG             | Beagle Channel                    | ARG                    | 1904             | 1985           | 1               | 19             |                               |
| ARG-URU             | Río de La Plata                   | ARG                    | 1882             | 1973           | 1               | 1              |                               |
| ARG-UKG             | Falkland Is. and Dependencies     | ARG                    | 1841             | 2001           | 1               | 3              | Y                             |
| UKG-SPN             | Gibraltar                         | SPN                    | 1816             | 2001           | 1               | 1              |                               |
| USA-RUS             | West Berlin                       | RUS                    | 1948             | 1971           | 1               | 2              |                               |
| GFR-GDR             | West Berlin                       | GDR                    | 1958             | 1972           | 1               | 2              |                               |
| Total: Terri        | tory                              |                        |                  |                | 22              | 81             |                               |
| <b>RIVER DISPUT</b> | ES (1900-2000)                    |                        | -                | -              | -               |                | -                             |
| NIC-COS             | San Juan River                    | COS                    | 1982             | 2001           | 1               | 1              | Y                             |
| ARG-URU             | Uruguay River (La Plata)          | ARG                    | 1900             | 1973           | 1               | 1              |                               |
| SYR-ISR             | Jordan River                      | SYR                    | 1951             | 1966           | 2               | 2              |                               |
| SYR-ISR             | Hasbani-Baniyas (Jordan)          | ISR                    | 1964             | 1966           | 1               | 1              |                               |
| TUR-SYR             | Euphrates River                   | SYR                    | 1964             | 2001           | 1               | 2              | Y                             |
| IRN-IRQ             | Shatt al-Arab                     | IRN                    | 1932             | 1990           | 5               | 9              |                               |
| Total: River        | ^                                 |                        |                  |                | 11              | 16             |                               |

## (continued from previous page)

| Dyad         | Dispute Name                 | Starting<br>Challenger | Overall<br>Start | Overall<br>End | Issue-<br>Dyads | Sample<br>MIDs | $\mathbf{Ongoing?}^{\dagger}$ |
|--------------|------------------------------|------------------------|------------------|----------------|-----------------|----------------|-------------------------------|
| MARITIME DIS | SPUTES (1900-2000)           |                        |                  |                |                 |                |                               |
| USA-CAN      | Dixon Entrance               | CAN                    | 1920             | 2001           | 1               | 1              | Y                             |
| CAN-USA      | US-Canada Pacific Salmon     | CAN                    | 1914             | 1999           | 1               | 3              |                               |
| USA-RUS      | Bering Sea                   | RUS                    | 1900             | 2001           | 1               | 2              | Y                             |
| USA-RUS      | Mid-Atlantic Coast           | RUS                    | 1965             | 1990           | 1               | 1              |                               |
| CAN-FRN      | St. Pierre and Miquelon      | CAN                    | 1971             | 2001           | 1               | 2              | Y                             |
| CAN-SPN      | Turbot War                   | SPN                    | 1994             | 1995           | 1               | 1              |                               |
| HON-NIC      | Gulf of Fonseca              | HON                    | 1912             | 2001           | 1               | 5              | Y                             |
| HON-NIC      | HON-NIC Caribbean Sea        | NIC                    | 1999             | 2001           | 1               | 1              | Y                             |
| MEX-GUA      | Mexico-Guatemala Fishing     | MEX                    | 1956             | 1976           | 1               | 1              |                               |
| USA-PAN      | Panama Canal Zone Outlets    | USA                    | 1959             | 1995           | 1               | 1              |                               |
| USA-ECU      | Ecuadorian Pacific Claims    | USA                    | 1952             | 2001           | 1               | 8              | Y                             |
| USA-PER      | Peruvian Pacific Claims      | USA                    | 1947             | 2001           | 1               | 4              | Y                             |
| USA-CHL      | Chilean Pacific Claims       | USA                    | 1952             | 1986           | 1               | 1              |                               |
| TRI-VEN      | Gulf of Paria                | VEN                    | 1962             | 2001           | 1               | 3              | Y                             |
| COL-VEN      | Gulf of Venezuela            | COL                    | 1955             | 2001           | 1               | 4              | Y                             |
| GUY-SUR      | Courantyne                   | SUR                    | 1975             | 2001           | 1               | 1              | Y                             |
| BRA-FRN      | Lobster War                  | FRN                    | 1963             | 1964           | 1               | 1              |                               |
| CHL-ARG      | Beagle Channel               | ARG                    | 1900             | 1985           | 1               | 5              |                               |
| ARG-BUL      | Argentina-USSR Fishing Disp. | BUL                    | 1967             | 1986           | 1               | 1              |                               |
| ARG-RUS      | Argentina-USSR Fishing Disp. | RUS                    | 1967             | 1986           | 1               | 2              |                               |
| ARG-UKG      | Falklands                    | ARG                    | 1966             | 2001           | 1               | 4              | Y                             |
| UKG-ICE      | Cod War (12 miles)           | UKG                    | 1958             | 1961           | 1               | 2              |                               |
| UKG-ICE      | Cod War (50 miles)           | UKG                    | 1971             | 1973           | 1               | 1              |                               |
| UKG-ICE      | Cod War (200 miles)          | UKG                    | 1975             | 1976           | 1               | 1              |                               |
| UKG-DEN      | Faroe Islands/Greenland      | DEN                    | 1958             | 1964           | 1               | 1              |                               |
| NOR-DEN      | Jan Mayen                    | DEN                    | 1958             | 1997           | 1               | 2              |                               |
| FRN-SPN      | Bay of Biscay                | SPN                    | 1976             | 2001           | 1               | 1              | Y                             |
| IRE-SPN      | Irish Box                    | SPN                    | 1984             | 2001           | 1               | 2              | Y                             |
| GRC-TUR      | Aegean Sea                   | GRC                    | 1964             | 2001           | 1               | 12             | Y                             |
| POL-RUS      | Sea of Okhotsk               | RUS                    | 1991             | 2001           | 1               | 2              |                               |
| RUS-SWD      | Baltic Sea                   | SWD                    | 1950             | 1989           | 1               | 1              |                               |
| RUS-UKR      | Black Sea                    | UKR                    | 1993             | 2001           | 1               | 1              | Y                             |
| Total: Mari  | time                         |                        |                  |                | 32              | 78             |                               |
| Total: River | r + Maritime                 |                        |                  |                | 43              | 94             |                               |

† Ongoing as of 12/2001\* To obtain sufficient data, territorial issue-dyads starting before 1885 must experience two MID onsets.

# **Supplemental Appendix B** Variable Descriptive Statistics

| SUPPLEMENTAL TABLE 1. Descriptive Statistics |         |          |       |        |  |  |  |  |
|--|---------|----------|-------|--------|--|--|--|--|
|  | Mean    | St. Dev. | Min   | Max    |  |  |  |  |
| Main Variables                               |         |          |       |        |  |  |  |  |
| Dispute time (mths.)                         | 409.046 | 405.616  | 0.008 | 2042   |  |  |  |  |
| Mil. length (mths.)                          | 3.760   | 8.794    | 0.033 | 97.133 |  |  |  |  |
| Instruments                                  |         |          |       |        |  |  |  |  |
| Multilateral claim                           | 0.429   | 0.496    | 0     | 1      |  |  |  |  |
| Multilateral MID                             | 0.046   | 0.209    | 0     | 1      |  |  |  |  |
| Third party alliance                         | 0.669   | 0.472    | 0     | 1      |  |  |  |  |
| Power ratio                                  | 0.743   | 0.222    | 0.159 | 0.999  |  |  |  |  |
| <u>Controls</u>                              |         |          |       |        |  |  |  |  |
| Democracy (mean)                             |         |          |       |        |  |  |  |  |
| @ TIME                                       | 2.346   | 5.258    | -9    | 10     |  |  |  |  |
| @ LENGTH                                     | 2.763   | 5.568    | -9    | 10     |  |  |  |  |
| Interdependence (mean)                       |         |          |       |        |  |  |  |  |
| @ TIME                                       | 0.215   | 0.135    | 0.039 | 0.855  |  |  |  |  |
| @ LENGTH                                     | 0.223   | 0.134    | 0.037 | 0.684  |  |  |  |  |
| Shared IGO mshps.                            |         |          |       |        |  |  |  |  |
| @ TIME                                       | 32.314  | 17.725   | 0     | 68     |  |  |  |  |
| @ LENGTH                                     | 36.623  | 18.524   | 0     | 75     |  |  |  |  |
| Contiguity                                   |         |          |       |        |  |  |  |  |
| @ TIME                                       | 0.760   | 0.428    | 0     | 1      |  |  |  |  |
| @ LENGTH                                     | 0.766   | 0.425    | 0     | 1      |  |  |  |  |
| Major power dyad?                            |         |          |       |        |  |  |  |  |
| @ TIME                                       | 0.280   | 0.450    | 0     | 1      |  |  |  |  |
| @ LENGTH                                     | 0.280   | 0.450    | 0     | 1      |  |  |  |  |
| Militarization count                         | 4.629   | 4.572    | 1     | 19     |  |  |  |  |
| Linked issue                                 | 0.503   | 0.501    | 0     | 1      |  |  |  |  |
| Territorial issue?                           | 0.463   | 0.500    | 0     | 1      |  |  |  |  |

### **SUPPLEMENTAL TABLE 1. Descriptive Statistics**

N = 175 for all variables (aggregate estimation sample)

#### **Supplemental Appendix C**

The Importance of the SEM Estimation Strategy

We would not have uncovered the counterintuitive  $\alpha_{\text{TIME}}$  results, or the empirical support for Hypotheses 1 and 2, if we had used a standard Weibull model to estimate  $\alpha_{\text{TIME}}$ . Recall that I argue that DISPUTE TIME is endogenous, as it is a function of expectations about MILITARIZATION LENGTH. However, also recall that standard Weibull models treat DISPUTE TIME as exogenous, which will yield biased estimates of  $\alpha_{\text{TIME}}$ .

| SUPPLEMENTAL TABLE 2. E                     | SUPPLEMENTAL TABLE 2. Estimation with SEM vs. Estimation with Standard Weibulls |                                 |                              |                                  |  |  |
|---|---|---------------------------------|------------------------------|----------------------------------|--|--|
|   | Model A   | Model 1                         | Model B                      | Model 3                          |  |  |
|   | <i>Territory</i><br>Weibull   | <i>Territory</i><br>SEM Results | <i>Mar./River</i><br>Weibull | <i>Mar./River</i><br>SEM Results |  |  |
| Militarization Length                       |   |                                 |                              |                                  |  |  |
| $lpha_{	ext{TIME}}$                         | 0.186*  | 0.291**                         | -0.186**                     | -0.101                           |  |  |
|   | (0.137)   | (0.143)                         | (0.088)                      | (0.095)                          |  |  |
| Multilateral MID <sup>†</sup>               | -1.049  | -1.220                          | -1.494                       | -1.414                           |  |  |
|   | (0.847)   | (0.880)                         | (0.974)                      | (0.979)                          |  |  |
| Third party alliance <sup>†</sup>           | 0.365   | 0.276                           | 0.277                        | 0.119                            |  |  |
|   | (0.633)   | (0.650)                         | (0.647)                      | (0.651)                          |  |  |
| Power ratio <sup><math>\dagger</math></sup> | -2.250  | -2.272                          | -0.924                       | -1.112                           |  |  |
|   | (1.399)   | (1.401)                         | (1.371)                      | (1.369)                          |  |  |
| Democracy (mean)                            | -0.126***   | -0.141***                       | -0.040                       | -0.023                           |  |  |
|   | (0.046)   | (0.047)                         | (0.046)                      | (0.047)                          |  |  |
| Interdependence (mean)                      | 4.389***  | 4.564***                        | 3.892**                      | 4.129**                          |  |  |
|   | (1.507)   | (1.493)                         | (1.714)                      | (1.724)                          |  |  |
| Shared IGO mshps.                           | -0.007  | -0.006                          | -0.031                       | -0.036*                          |  |  |
|   | (0.015)   | (0.015)                         | (0.021)                      | (0.021)                          |  |  |
| Contiguity                                  | 1.607   | 1.943                           | 0.194                        | 0.066                            |  |  |
|   | (1.481)   | (1.534)                         | (0.597)                      | (0.600)                          |  |  |
| Major power dyad?                           | 1.187   | 1.221                           | -1.108                       | -1.359*                          |  |  |
|   | (1.146)   | (1.179)                         | (0.765)                      | (0.788)                          |  |  |
| Militarization count                        | -0.006  | -0.038                          | 0.247**                      | 0.217**                          |  |  |
|   | (0.056)   | (0.061)                         | (0.101)                      | (0.103)                          |  |  |
| Linked issue                                | -1.605***   | -1.712***                       | 0.791                        | 0.824                            |  |  |
|   | (0.414)   | (0.425)                         | (0.510)                      | (0.518)                          |  |  |
| Constant                                    | 0.278   | -0.296                          | 1.623                        | 1.854                            |  |  |
|   | (1.962)   | (1.987)                         | (1.414)                      | (1.427)                          |  |  |
| $\lambda_1^{-1}$                            | 0.761***  | 0.757***                        | 0.641***                     | 0.639***                         |  |  |
|   | (0.069)   | (0.069)                         | (0.052)                      | (0.053)                          |  |  |

(continued from previous page)

| Dispute Time   |          |           |          |          |
|--|----------|-----------|----------|----------|
| $lpha_{ m MIL}$  |          | -0.077*   |          | -0.130*  |
|  |          | (0.056)   |          | (0.093)  |
| Multilateral claim <sup><math>\dagger</math></sup>                                 |          | -0.753*** |          | -0.705** |
|  |          | (0.206)   |          | (0.347)  |
| Democracy (mean)   |          | 0.007     |          | -0.049   |
| • · · · ·  |          | (0.025)   |          | (0.034)  |
| Interdependence (mean)   |          | -1.244    |          | -0.217   |
|  |          | (0.950)   |          | (1.301)  |
| Shared IGO mshps.  |          | 0.009     |          | -0.005   |
| -  |          | (0.006)   |          | (0.012)  |
| Contiguity   |          | -2.046*** |          | 1.816*** |
|  |          | (0.621)   |          | (0.531)  |
| Major power dyad?  |          | -0.865    |          | 0.731    |
|  |          | (0.581)   |          | (0.562)  |
| Militarization count   |          | 0.073***  |          | 0.301*** |
|  |          | (0.023)   |          | (0.096)  |
| Linked issue   |          | 0.095     |          | -0.542   |
|  |          | (0.199)   |          | (0.391)  |
| Constant   |          | 7.781***  |          | 3.833*** |
|  |          | (0.828)   |          | (0.824)  |
| $\lambda_2^{-1}$   |          | 1.397***  |          | 0.714*** |
| -  |          | (0.135)   |          | (0.062)  |
| $H_0:  \alpha_{\text{TIME}}  =  \alpha_{\text{MIL}}  (p, \text{Wald}_{1\text{T}})$ |          | 0.046**   |          | 0.432    |
| N  | 81       | 81        | 94       | 94       |
| Log-Likelihood   | -151.627 | -258.112  | -189.406 | -379.228 |

\* =  $p \le 0.10$ , \*\* =  $p \le 0.05$ , \*\*\* =  $p \le 0.01$ , two-tailed for all variables except  $\alpha$ 's (one-tailed) † = instruments;  $\lambda^{-1}$ : inverse of Weibull shape parameter. Unclustered standard errors reported in parentheses.

To illustrate this point, Supplemental Table 2 shows the model results when they are estimated using a standard Weibull. Model A contains the standard Weibull results for the sample of disputes over territorial issues, which is comparable to Model 1 in the main results table. When the  $\alpha$ 's from the SEM are oppositely signed, as they are in Model 1, the Weibull estimate of  $\alpha_{\text{TIME}}$  will be attenuated toward zero, making the effect seem smaller than it truly is (Hays and Kachi 2009, 10). Model A shows this attenuation bias clearly.  $\alpha_{\text{TIME}}$  is weakly significant, and its effect is smaller in magnitude than the SEM's bias-corrected estimate of  $\alpha_{\text{TIME}}$ .

It is equal to 0.186 in Model A (p = 0.087, one-tailed), compared to 0.291 in Model 1 (p = 0.021, one-tailed).

Model B contains the estimates from the sample of disputes over maritime and river issues, which is comparable to Model 3 in the main results table. When the  $\alpha$ 's from the SEM are signed identically, as they are in Model 3, the Weibull estimate of  $\alpha_{\text{TIME}}$  will be inflated (Hays and Kachi 2009, 10). The estimate will be larger in magnitude when compared to the parameter's unbiased estimate. The inflationary bias in  $\alpha_{\text{TIME}}$  is evident in Model B. The model's coefficient, -0.186, is larger in magnitude than the coefficient in Model 3, where  $\alpha_{\text{TIME}} = -0.101$ . Also,  $\alpha_{\text{TIME}}$  is statistically significant in Model B (p = 0.018, one-tailed), whereas it is not in Model 3 (p = 0.145, one-tailed).

While  $\alpha_{\text{TIME}}$ 's statistical significance is not contrary to Hypothesis 2, it leads to an inaccurate substantive conclusion. Model B's results suggest that the passage of time has a beneficial effect in maritime and territorial disputes. However, we know from Model 3 that time has a neutral effect. This highlights one of the dangers of inflation bias. Inflated estimates can induce Type I errors—we may reject the null hypothesis when we should not. The dangers of attenuated estimates are less egregious, as attenuation can induce Type II errors—we do not reject the null when we should—which is still incorrect, but the lesser of the two evils. *Ex ante*, we cannot know whether the bias in  $\alpha_{\text{TIME}}$  will be attenuating or inflationary. It is evident only when we examine the results from the SEM. This highlights the importance of the estimation strategy, and how pivotal it is for obtaining accurate estimates of  $\alpha_{\text{TIME}}$ .

6

#### Supplemental Appendix D Regarding Selection Bias

In the main text, I make the assertion that omitting peaceful issue-dyads biases me against finding evidence supportive of my hypotheses. This appendix provides the backing for my claim. Using Monte Carlo simulations, I show that the omission of these dyads does indeed produce a bias against finding support for both Hypothesis 1 ( $\alpha_{\text{TIME}} > 0$ ) and for Hypothesis 2 ( $\alpha_{\text{TIME}} \leq 0$ ).

To begin, I generate simulated data using 7 different values of  $\alpha_{\text{TIME}}$  and 7 different values  $\alpha_{\text{MIL}}$ , resulting in 49 possible combinations.<sup>1</sup> I refer to these values as the "true" values, for discussion purposes. The data generating processes take the following form:

| $y_i = \alpha_{\text{TIME}} y_j + 0.5x - 3z_1 + \lambda_1^{-1} \epsilon_1$ | $\epsilon_1 \sim TIEV(0, \lambda_1)$ |
|--|--------------------------------------|
| $y_i = \alpha_{\text{MIL}} y_i + 4x + 6z_2 + \lambda_2^{-1} \epsilon_2$    | $\epsilon_2 \sim TIEV(0, \lambda_2)$ |

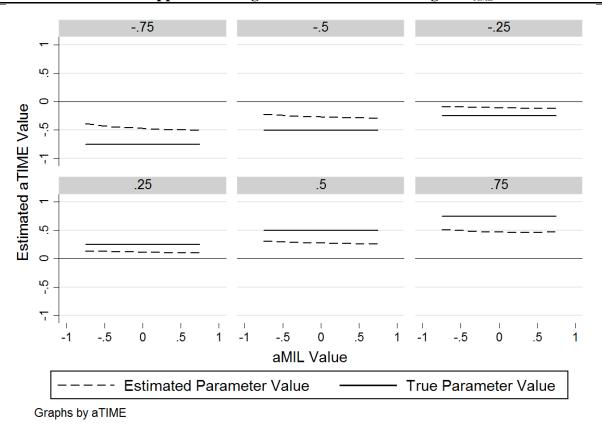
After I generated the data (N = 500), I impose a censoring rule. If an anticipatory, gametheoretic logic holds, it suggests that we will rarely observe long militarization lengths ( $y_i$ ), because states will generally avoid such costly engagements. I keep only observations whose  $y_i$ values fall at or below  $y_i$ 's 50<sup>th</sup> percentile.<sup>2</sup> I then estimate the SEM using the remaining 250 observations, to see how the estimates of  $\alpha_{\text{TIME}}$  would be biased. For each of the 49 possible

<sup>&</sup>lt;sup>1</sup> I used 0.5, 1, and 1.5 as the possible values for the two shape parameters. The patterns I discuss hold regardless of  $\lambda_1$ 's or  $\lambda_2$ 's value.

<sup>&</sup>lt;sup>2</sup> The number of observations and the censoring percentage were chosen based on the properties of my full dataset containing all issue-dyad DISPUTE TIMEs, regardless of whether a militarization occurred or not ( $N = \sim 360$ ). Only 175 DISPUTE TIMEs experience a militarization (i.e., my SEM estimation sample; 48.6%), meaning that approximately 51.4% of my observations are censored.

parameter combinations for  $\alpha_{\text{TIME}}$  and  $\alpha_{\text{MIL}}$ , I repeat this procedure 1000 times and average the estimated parameters across all the repetitions.

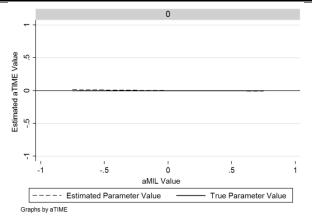
Supplemental Figures 1 and 2 illustrate the main output from the simulations. The header of each graph reports  $\alpha_{\text{TIME}}$ 's true value, which is also plotted as a solid line; the two figures display seven graphs in total. The dotted line represents the estimated value for  $\alpha_{\text{TIME}}$  (*y*-axis), when averaged across the 1000 repetitions, for the seven different true values of  $\alpha_{\text{MIL}}$ .



#### Supplemental Figure 1. Effect of Censoring on $\alpha_{\text{TIME}}$

The shaded title of each individual graph denotes the "true" value of  $\alpha_{\text{TIME}}$  used in the simulation.

Supplemental Figure 2. Effect of Censoring on  $\alpha_{\text{TIME}}$ ,  $\alpha_{\text{TIME}} = 0$ 



We can evaluate the bias in terms of the position of the various lines. Of interest to us is where the dotted line is ( $\alpha_{\text{TIME}}$ 's estimated value), in relation to: (1) the solid line, the true value of  $\alpha_{\text{TIME}}$  for a given scenario; and (2) the *x*-axis, where  $\alpha_{\text{TIME}}$ 's estimated value is equal to 0 (i.e., no effect). There are two possibilities:

- 1. If the dotted line appears between the solid line and the *x*-axis, then the estimate has attenuation bias.  $\alpha_{\text{TIME}}$ 's estimate is closer to zero than it is in truth. This biases us *against* finding statistical significance.
- 2. If the dotted line is farther away from the *x*-axis than the solid line, then the estimate has inflation bias.  $\alpha_{\text{TIME}}$ 's estimate is further away from zero than it is in truth. This biases us *toward* finding statistical significance.

Of the two, the second possibility is far more dangerous. We would conclude that the estimate is statistically different from zero, when in truth, it is not.

Two things are evident from the figures. First, for all non-zero values of  $\alpha_{\text{TIME}}$ , the estimate of  $\alpha_{\text{TIME}}$  always suffers from attenuation bias. Across all six graphs in Supplemental Figure 1, the dotted line always appears between the solid line and the *x*-axis. Second, as a corollary,  $\alpha_{\text{TIME}}$ 's estimate is unaffected by the value of  $\alpha_{\text{MIL}}$ , though there is some minute variation in the size of the attenuation bias within each graph.

Both suggest that censoring biases us *against* finding support for any hypothesis in which the effect of MILITARIZATION LENGTH on DISPUTE TIME is posited to be non-zero. This is the case for Hypothesis 1, regarding the pernicious effect of DISPUTE TIME in territorial disputes. The fact that I find statistical significance is thus encouraging. The implications are similar for Hypothesis 2, regarding the beneficial/neutral effect of time's passage in maritime and river disputes. The hypothesis suggests either a negative relationship between DISPUTE TIME and MILITARIZATION LENGTH, or no relationship at all. More succinctly, the coefficient should not be positive. Broadly speaking, the same maxim from above holds—we are biased against finding a statistically significant, negative coefficient.

#### Supplemental Appendix E Robustness Checks

The main results are robust to a number of alternative specifications. Supplemental Table 3 contains abbreviated results for almost a dozen such models. Details about each model's specification are provided in the interpretation key underneath Supplemental Table 3. Here, I provide an overview of the various models.

|           | SUPPLEMENTAL TABLE 3. Abbreviated Robustness Checks |         |           |           |         |              |            |  |
|-----------|---|---------|-----------|-----------|---------|--------------|------------|--|
| Issue     |   | Main    | (1)       | (2)       | (3)     | (4)          | (5)        |  |
| Type      |   | Results | FUNCTFORM | DISTANCE  | ALLY    | PSETTLE      | MILRUNTIME |  |
|           | $\alpha_{\text{TIME}}$                              | 0.291** | 0.283**   | 0.287**   | 0.301** | 0.245**      | 0.352***   |  |
| N         |   | (0.143) | (0.143)   | (0.174)   | (0.145) | (0.146)      | (0.126)    |  |
| Territory | $lpha_{ m MIL}$                                     | -0.077* | -0.069*   | -0.077*   | -0.074  | -0.026       | -0.064*    |  |
| err       |   | (0.056) | (0.054)   | (0.058)   | (0.060) | (0.054)      | (0.050)    |  |
| Η         | $Wald_{1T}$   | 0.046   | 0.047     | 0.081     | 0.037   | 0.045        | 0.006      |  |
|           | N   | 81      | 81        | 81        | 81      |              | 81         |  |
|           | $\alpha_{\text{TIME}}$                              | -0.101  | -0.097    | -0.106    | -0.103  | -0.124       | -0.081     |  |
| /er       |   | (0.095) | (0.093)   | (0.099)   | (0.097) | (0.100)      | (0.094)    |  |
| Mar/River | $lpha_{ m MIL}$                                     | -0.130* | -0.131*   | -0.127*   | -0.129* | -0.100       | -0.093     |  |
| ar/       |   | (0.093) | (0.084)   | (0.094)   | (0.094) | (0.094)      | (0.095)    |  |
| M         | $Wald_{1T}$   | 0.432   | 0.412     | 0.451     | 0.439   | 0.446        | 0.471      |  |
|           | Ν   | 94      | 94        | 94        | 94      | 94           | 94         |  |
|           |   | (6)     | (7)       | (8)       | (9)     | (10)         | (11)       |  |
|           |   | DEMSW7  | OTHERISS  | FMIDCOUNT | DEML    | $INTERDEP_L$ | STRATRIV   |  |
|           | $\alpha_{\mathrm{TIME}}$                            | 0.283** | 0.273**   | 0.294**   | 0.188*  | 0.268**      | 0.297**    |  |
| Z         |   | (0.145) | (0.146)   | · · · ·   | (0.130) | (0.147)      | (0.148)    |  |
| Territory | $lpha_{ m MIL}$                                     | -0.080* | -0.055    | -0.080*   | -0.056  | -0.074*      | -0.070     |  |
| err       |   | (0.057) | (0.054)   | (0.053)   | (0.054) | (0.055)      | (0.053)    |  |
| H         | Wald <sub>1T</sub>                                  | 0.056   | 0.046     | 0.045     | 0.130   | 0.068        | 0.042      |  |
|           | <u>N</u>  | 81      | 81        | 81        | 81      | 81           | 81         |  |
|           | $\alpha_{\text{TIME}}$                              | -0.100  | -0.098    | -0.110    | -0.123  | -0.087       | -0.112     |  |
| /er       |   | (0.097) | (0.087)   | (0.089)   | (0.097) | (0.098)      | (0.097)    |  |
| Riv       | $lpha_{ m MIL}$                                     | -0.130* | -0.129*   | -0.123*   | -0.117  | -0.139*      | -0.116     |  |
| Mar/River |   | (0.094) | (0.090)   | (0.090)   | (0.094) | (0.094)      | (0.093)    |  |
| Μ         | $Wald_{1T}$   | 0.430   | 0.421     | 0.466     | 0.486   | 0.380        | 0.491      |  |
|           | N   | 94      | 94        | 94        | 94      | 94           | 94         |  |

SUPPLEMENTAL TABLE 3. Abbreviated Robustness Checks

#### (continued from previous page)

|                  |                                      | (12)<br>~threats  | (13)<br>WH & E    | (14)<br>WH only  |  |
|------------------|--------------------------------------|-------------------|-------------------|------------------|--|
|                  | $\alpha_{	ext{TIME}}$                | 0.360**           |                   | 0.311**          |  |
| N                |                                      | (0.156)           |                   | (0.152)          |  |
| Territory        | $\alpha_{ m MIL}$                    | -0.095*           |                   | -0.068           |  |
| erri             |                                      | (0.060)           |                   | (0.058)          |  |
| Ē                | Wald <sub>1T</sub>                   | 0.025             |                   | 0.034            |  |
|                  | Ν                                    | 79                |                   | 76               |  |
|                  | $\alpha_{\text{TIME}}$               | -0.087            | -0.239**          | -0.263**         |  |
| er               |                                      | (0.096)           | (0.129)           | (0.117)          |  |
|                  |                                      |                   |                   |                  |  |
| Riv              | $lpha_{ m MIL}$                      | -0.127            | -0.020            | 0.032            |  |
| ar/Riv           | $lpha_{ m MIL}$                      | -0.127<br>(0.103) | -0.020<br>(0.077) | 0.032<br>(0.076) |  |
| <u>Mar/River</u> | $\alpha_{MIL}$<br>Wald <sub>1T</sub> |                   |                   |                  |  |

\* =  $p \le 0.10$ , \*\* =  $p \le 0.05$ , \*\*\* =  $p \le 0.01$ , one-tailed. Shaded row indicates the key parameter of interest. (2)-(11) are included as regressors in both equations. Main results (used as baseline specifications): Model 1 (territory); Model 3 (maritime/river). Unclustered standard errors reported in parentheses.

#### Supplemental Table 3 Interpretation Key:

(1). FUNCTFORM: SEM identified off functional form and control variables in the MILITARIZATION LENGTH equation. The variables in  $z_1$  and  $z_2$  are included as regressors in both equations.

(2). DISTANCE: Capital-to-capital distance in miles, logged.

- (3). ALLY: 1 if state pair has defensive, offensive, or neutrality pact in place at t, 0 otherwise.
- (4). PSETTLE: Running count of peaceful settlement attempts over the claim-dyad, to date.
- (5). MILRUNTIME: Time spent in MIDs over this issue-dyad, to date; exchanged for MIDCOUNT.
- (6). DEMSW7: Democratization. Coded 1 if either state has Polity $2 \ge 7$  in *t* and same state had Polity2 < 7 in t 5.
- (7). OTHERISS: Number of other ongoing claims between the two states at t, inspired by Mitchell and Thies (2011).
- (8). FMIDCOUNT: Count of fatal MIDs over this claim-dyad, to date.
- (9). DEM<sub>L</sub>: DEMOCRACY; weak-link coding instead of dyadic mean. Lowest Polity2 score in the dyad.
- (10). INTERDEP<sub>L</sub>: INTERDEPENDENCE; weak-link coding instead of dyadic mean. Lowest dyadic value of (total dy. trade/state GDP).
- (11). STRATRIV: 1 if state pair are strategic rivals (Thompson and Dreyer 2011)
- (12). ~THREATS: Excludes MIDs that do not escalate beyond threats of force from the sample.
- (13). WH & E: Sample includes disputes from the Western Hemisphere and *all* of Europe only.
- (14). WH ONLY: Sample includes disputes from the Western Hemisphere.

First, the results are not sensitive to the selection of instruments (Supplemental Table 3, (1)). Technically, the SEM can be identified off functional form and off the common set of control variables (x), as the value of the x's in each equation are recorded at different points in time.<sup>3</sup> At best, these assumptions are tenuous, which is why I use instruments to identify the SEM. However, by temporarily accepting them, we can include the set of variables in  $z_1$  and  $z_2$  as regressors in *both* equations, allowing us to see if the main results are sensitive to the choice of instruments. The first abbreviated model of Supplemental Table 3 shows that  $\alpha_{\text{TIME}}$  stays positive and significant in the territorial sample, and stays insignificant in the maritime/river sample.

Second, my argument relies on the implicit assumption that there is a fundamental difference in kind, not degree, between disputes over territorial issues and disputes over maritime and river issues. Hensel et al. (2008) advance an argument as to why this is so. I estimate the SEM on two separate samples of disputed issues on this theoretical basis. However, one potential criticism of this decision relates to the possibility of variation in issue salience *within* these samples. The notion is not at odds with my argument. Nonetheless, it is possible that the supportive evidence of my argument is a product of this within-group heterogeneity in salience.

I assess this possibility by including a measure of within-group salience as a regressor. I use ICOW's issue-salience index, which ranges from 0-12 (Hensel and Mitchell 2007, 16–22), to create a normalized index. The normalization is necessary because the index's components vary by issue type. I calculate issue-specific *z*-scores by computing the index's mean and standard deviation *for each issue type*. Positive values of the normalized index represent disputes of

<sup>&</sup>lt;sup>3</sup> E.g., the value of the control variables is recorded at Figure 1, Point A (or Point C) for the DISPUTE TIME equation, and Figure 1, Point B for the MILITARIZATION LENGTH equation.

greater importance, relative to the average issue of that type. Supplemental Table 4 shows that my main results are largely substantively unaffected by the addition (dark shaded cells).

Finally, I deliberately used as few control variables as possible, in order to reduce the estimating burden on the SEM. Each sample size is somewhat small, and the SEM estimates a number of parameters. I used extant research to choose my controls, but one can imagine additional variables that may also impact MILITARIZATION LENGTH. Examples include the distance between *i* and *j*, whether *i* and *j* are allies, the number of previous peaceful settlement attempts over the dispute, and whether *i* and *j* are engaged in disputes over other issues. Using the main specifications as a baseline, the results are unaltered if I add each variable to the righthand side of both equations (Supplemental Table 3, (2)-(8)). Further, switching to a "weak-link" operationalization of DEMOCRACY or INTERDEPENDENCE has no effect on the results (Supplemental Table 3, (9) and (10), respectively). This is a common way to operationalize these variables in previous research. In addition, the results are unaffected if we exclude militarizations involving only threats of military force from the estimation sample (Supplemental Table 3, (12)). Militarizations involving only threats tend to be extremely short, raising questions about whether my argument would apply to these types of militarizations. My two hypotheses are still supported if I focus solely on militarizations involving additional activities, such as troop mobilizations or border clashes, as I would expect.

|   | Model 1   | With Salience | Model 3    | With Salience |
|---|-----------|---------------|------------|---------------|
|   | Territory | Territory     | Mar./River | Mar./River    |
| Militarization Length – Eq. [2a]            |           |               |            |               |
| $lpha_{ m TIME}$                            | 0.291**   | 0.300*        | -0.101     | -0.152*       |
|   | (0.143)   | (0.184)       | (0.095)    | (0.099)       |
| Multilateral MID <sup>†</sup>               | -1.220    | -1.053        | -1.414     | -1.471        |
|   | (0.880)   | (0.893)       | (0.979)    | (0.950)       |
| Third party alliance <sup>†</sup>           | 0.276     | 0.235         | 0.119      | 0.023         |
|   | (0.650)   | (0.664)       | (0.651)    | (0.641)       |
| Power ratio <sup><math>\dagger</math></sup> | -2.272    | -2.521*       | -1.112     | -0.486        |
|   | (1.401)   | (1.513)       | (1.369)    | (1.378)       |
| Democracy (mean)                            | -0.141*** | -0.128***     | -0.023     | -0.024        |
|   | (0.047)   | (0.049)       | (0.047)    | (0.046)       |
| Interdependence (mean)                      | 4.564***  | 4.504***      | 4.129**    | 4.632***      |
|   | (1.493)   | (1.514)       | (1.724)    | (1.664)       |
| Shared IGO mshps.                           | -0.006    | -0.007        | -0.036*    | -0.051***     |
|   | (0.015)   | (0.015)       | (0.021)    | (0.020)       |
| Contiguity                                  | 1.943     | 1.567         | 0.066      | 0.071         |
|   | (1.534)   | (1.613)       | (0.600)    | (0.584)       |
| Major power dyad?                           | 1.221     | 0.850         | -1.359*    | -1.143        |
|   | (1.179)   | (1.419)       | (0.788)    | (0.749)       |
| Militarization count                        | -0.038    | -0.025        | 0.217**    | 0.234**       |
|   | (0.061)   | (0.060)       | (0.103)    | (0.099)       |
| Linked issue                                | -1.712*** | -1.785***     | 0.824      | 0.349         |
|   | (0.425)   | (0.503)       | (0.518)    | (0.555)       |
| Normalized Salience Index                   |           | -0.072        |            | 0.203**       |
|   |           | (0.163)       |            | (0.094)       |
| Constant                                    | -0.296    | 0.779         | 1.854      | 0.694         |
|   | (1.987)   | (2.751)       | (1.427)    | (1.474)       |
| $\lambda_1^{-1}$                            | 0.757***  | 0.759***      | 0.639***   | 0.663***      |
|   | (0.069)   | (0.069)       | (0.053)    | (0.055)       |

|                       | Within Course Collins on Debugter and Cheele |
|-----------------------|--|
| SUPPLEMENTAL IABLE 4. | Within-Group Salience Robustness Check       |

| <u>spute Time – Eq. [2b]</u>  |           |           |          |           |
|---|-----------|-----------|----------|-----------|
| $lpha_{ m MIL}$   | -0.077*   | -0.052    | -0.130*  | -0.129*   |
|   | (0.056)   | (0.053)   | (0.093)  | (0.089)   |
| Multilateral claim <sup>†</sup>   | -0.753*** | -1.138*** | -0.705** | -0.099    |
|   | (0.206)   | (0.211)   | (0.347)  | (0.364)   |
| Democracy (mean)  | 0.007     | 0.003     | -0.049   | -0.068**  |
|   | (0.025)   | (0.023)   | (0.034)  | (0.034)   |
| Interdependence (mean)  | -1.244    | -0.280    | -0.217   | -0.556    |
|   | (0.950)   | (0.800)   | (1.301)  | (1.165)   |
| Shared IGO mshps.   | 0.009     | 0.024***  | -0.005   | -0.003    |
| -   | (0.006)   | (0.007)   | (0.012)  | (0.011)   |
| Contiguity  | -2.046*** | -0.853    | 1.816*** | 1.615***  |
|   | (0.621)   | (0.638)   | (0.531)  | (0.462)   |
| Major power dyad?   | -0.865    | 0.083     | 0.731    | 0.885*    |
|   | (0.581)   | (0.587)   | (0.562)  | (0.506)   |
| Militarization count  | 0.073***  | 0.039*    | 0.301*** | 0.240***  |
|   | (0.023)   | (0.022)   | (0.096)  | (0.091)   |
| Linked issue  | 0.095     | 0.249     | -0.542   | -1.035*** |
|   | (0.199)   | (0.171)   | (0.391)  | (0.368)   |
| Normalized Salience Index   |           | 0.234***  |          | 0.338***  |
|   |           | (0.061)   |          | (0.084)   |
| Constant  | 7.781***  | 4.487***  | 3.833*** | 1.395     |
|   | (0.828)   | (1.135)   | (0.824)  | (0.957)   |
| $\lambda_2^{-1}$  | 1.397***  | 1.524***  | 0.714*** | 0.771***  |
| -2  | (0.135)   | (0.146)   | (0.062)  | (0.067)   |
| $\alpha_{1}:  \alpha_{\text{TIME}}  =  \alpha_{\text{MIL}}  (p, \text{Wald}_{1\text{T}})$ | 0.046**   | 0.063     | 0.432    | 0.446     |
|   | 81        | 81        | 94       | 9.110     |
| g-Likelihood  | -258.112  | -251.353  | -379.228 | -369.57   |

(continued from previous page)

\* =  $p \le 0.10$ , \*\* =  $p \le 0.05$ , \*\*\* =  $p \le 0.01$ , two-tailed for all variables except  $\alpha$ 's (one-tailed); † = instruments.  $\lambda^{-1}$ : inverse of Weibull shape parameter. Unclustered standard errors reported in parentheses.

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