Words of War: Negotiation as a Tool of Conflict

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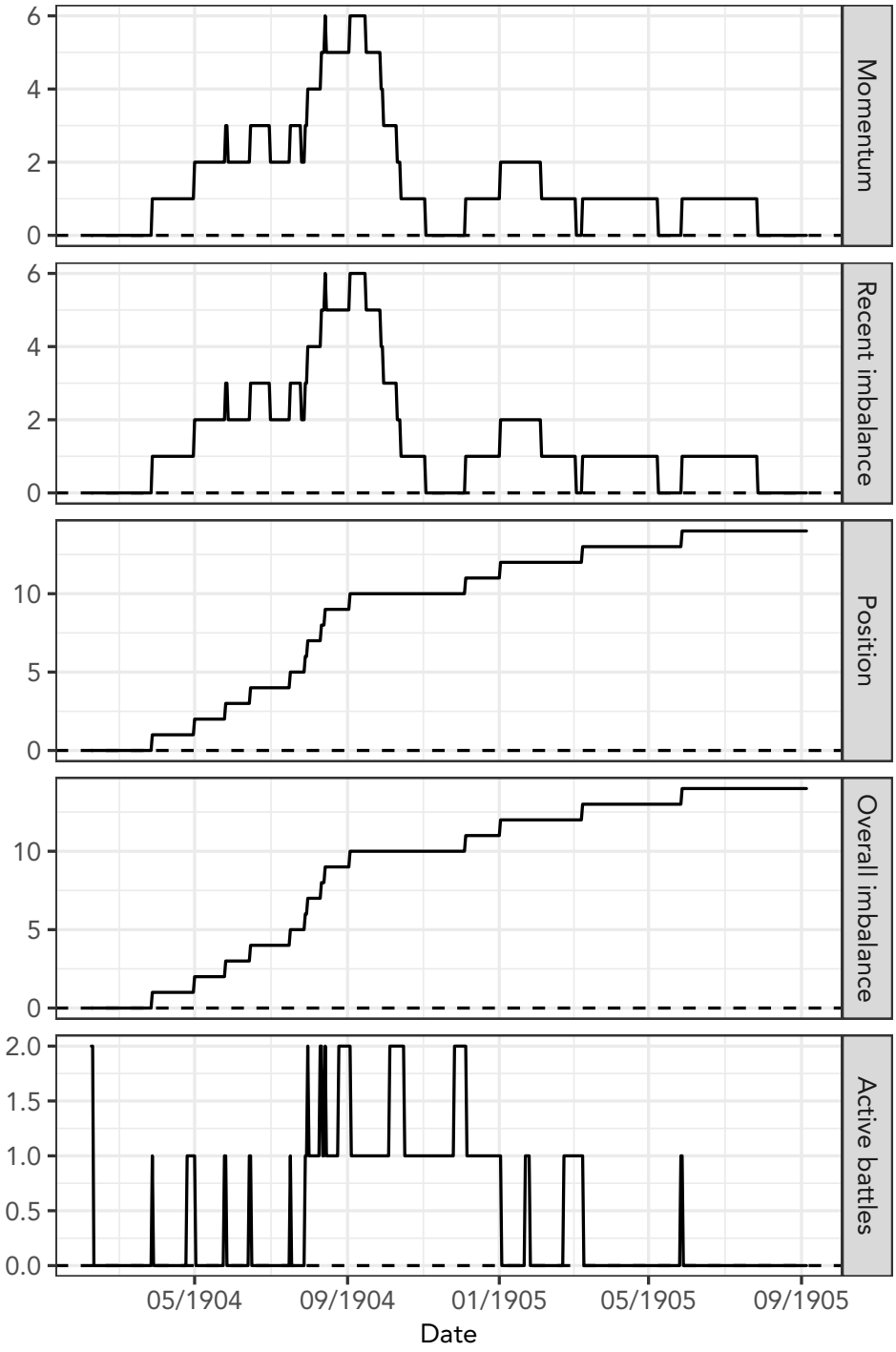
1 Additional Results for Chapter 2

1.1 Measures of Fighting in the Russo-Japanese War

Figure 2.3 in the main text illustrates how my measures of battlefield activity capture World War I and provides a brief qualitative overview that aligns with the patterns found in my data. For additional reference, Figure A1 illustrates the battlefield during the Russo-Japanese War. Japan initiated hostilities on February 8, 1904 by launching a surprise attack on a Russian fleet at Port Arthur. Since Japan is the war initiator, positive values of position and momentum indicate Japanese battlefield victories. Notably, the lines represent momentum and recent imbalance are identical, as are the lines for position and overall imbalance. This is due to the fact that Japan is recorded as winning every battle in the war. Japan's biggest string of successes arises in the summer of 1904. On land, the Japanese won victories in the battle of Tashihchiao and the Yangtze Pass, which allowed imperial forces to move toward the key cities of Liaoyang and Mukden. On the sea, Japanese forces had the upper hand in naval clashes in the Yellow Sea and off the coast of Ulsan in the Korean peninsula, repelling two Russian efforts to break through a Japanese blockade on Port Arthur.[1] The figures indicate that levels of fighting fell somewhat in 1905. The final meaningful battle of the war took place in the Tsushima Strait between Korea and the southern tip of Japan during late May. It was once Japanese forces handily crushed the Russian fleet in this clash that Tsar Nicholas II seriously began considering a peace agreement to settle the war. The Treaty of Portsmouth would be signed a little more than three months later.

[1] Clodfelter 2017, 357-358.

Figure A1: Five measures of the battlefield in the Russo-Japanese War.



2 Descriptive Statistics for Quantitative Data

Tables A1 and A2 report the descriptive statistics for all key variables that are quantitatively analyzed in Chapters 2, 3, and 4. The minimum observed value for number of states is 0 because several wars feature pauses in fighting that the COW Project deems to be temporary gaps in the war.

Variable	**Min.**	**1Q**	**Med.**	**Mean**	**3Q**	**Max.**
Recent imbalance	0.000	0.000	1.000	1.379	1.000	25.000
Overall imbalance	0.000	1.000	3.000	7.382	7.000	138.000
Issue salience	0.000	2.000	2.000	2.493	3.000	4.000
CINC ratio	0.007	0.302	0.524	0.558	0.830	0.994
Outside major allies	0.000	0.000	0.000	0.723	1.000	9.000
Number of states	0.000	2.000	2.000	4.070	4.000	16.000
Completed battles (logged)	0.000	1.386	2.303	2.322	3.091	6.107
Active battles	0.000	0.000	0.000	1.038	1.000	23.000
Active battles trend	-2.000	-0.001	0.000	0.002	0.001	5.000

Table A1: Summary statistics for continuous variables.

Variable	**0 / No**	**1 / Yes**
Post-1945	23,721 (0.644)	13,123 (0.356)
Negotiation	30,512 (0.828)	6,332 (0.172)
Internal negotiation	30,705 (0.888)	4,139 (0.112)
External negotiation	34,651 (0.940)	2,193 (0.060)
Contiguity	16,657 (0.452)	20,187 (0.548)
Democratic initiator	30,384 (0.825)	6,450 (0.175)
Nuclear	31,628 (0.859)	5,206 (0.141)
Major	18,059 (0.490)	18,775 (0.510)
Minor power war	19,540 (0.530)	17,294 (0.470)
Opponent diplomatic rep.	21,849 (0.593)	14,985 (0.407)
Major allies	21,251 (0.577)	15,583 (0.423)
Ceasefire	34,906 (0.948)	1,928 (0.052)

Table A2: Summary statistics for binary variables. Proportions in parentheses.

3 Additional Results for Chapter 3

3.1 The 1945 Line

Two tests help to identify the year(s) in which patterns of negotiation undergo a systemic change. The first is a structural break test. For each year, I calculate the total number of days that feature negotiations, as well as the number of individual wars and active war-days associated with each year. I then use a structural break point model to identify the year(s) when the negotiation count measure changes, while also accounting for the number of active wars and active war-days each year.

Table A3 reports the Bayesian information criteria (BIC) and relevant break points (years) for models that range between zero and four break points. The model with the lowest BIC, which exhibits the best overall fit, features two break points at 1945 and 1972.

Table A3: Results of structural break point models.

m	0	1	2	3	4
BIC	2,107	2,088	2,008	2,020	2,033
Years	N/A	1947	1945	1852	1852
			1972	1945	1881
				1972	1945
					1972

The second test involves a series of logistic regressions. For each year Y between 1824 and 2002, I regress my binary negotiation variable on a dummy variable that takes the value 0 on all war-days up but not including January 1 of year Y and the value 1 on all war-days from January 1 of year Y onward. This generates 179 different models—one for each year. Figure A2 displays the BICs for each of these models as the year Y is shifted one year at a time. The two models with the lowest BICs, which represent the best fits, are those in which Y equals 1945 and 1946.

Figure A2: BIC measures for a series of logistic regressions splitting the negotiation data by year.

3.2 Multistate Models

In this section, I provide the complete quantitative results for the multistate models that are only presented using coefficient plots in the main text. Recall that the main analysis uses a measure of recent battlefield imbalance that is based on the previous 60 days of conflict. This section shows that my primary results fold firm even when using shorter and longer temporal windows of 30 and 90 days respectively.

3.2.1 Full 60-Day Results

Table A4 supplies the full set of results for the multistate models illustrated using a coefficient plot in Figure 3.2. The model analyzes negotiation dynamics in pre-1945 wars. Table A5 repeats the same exercise with post-1945 wars, which were reflected using a coefficient plot in Figure 3.3. Both models use a measure of recent imbalance that is calculated using the previous 60 days of hostilities.

Table A4: Results of multistate models for pre-1945 wars, using 60-day recent imbalance measure. Standard errors in parentheses and hazard rates in brackets.

	Transition			
	Start Neg.	End neg.	Vict./def.	Neg. settle
Recent imbalance	0.141***	0.030	0.039	0.238***
	(0.038)	(0.047)	(0.100)	(0.067)
	[1.151]	[1.030]	[1.040]	[1.269]
Overall imbalance	−0.006	−0.004	0.032**	−0.018
	(0.012)	(0.011)	(0.015)	(0.036)
	[0.994]	[0.996]	[1.033]	[0.982]
Issue salience	−0.530***	−0.139	−0.470	−0.695***
	(0.130)	(0.183)	(0.318)	(0.253)
	[0.589]	[0.871]	[0.625]	[0.499]
Contiguity	0.174	0.702**	0.371	1.101***
	(0.219)	(0.316)	(0.482)	(0.412)
	[1.191]	[2.017]	[1.449]	[3.009]
CINC ratio	0.431	−0.564	0.468	−1.877**
	(0.433)	(0.588)	(1.006)	(0.835)
	[1.538]	[0.569]	[1.596]	[0.153]
Democratic initiator	−0.159	0.167	0.854	−0.394
	(0.297)	(0.351)	(0.597)	(0.596)
	[0.853]	[1.182]	[2.349]	[0.674]
Number of states	−0.069	0.192***	−0.164	−0.256*
	(0.047)	(0.062)	(0.131)	(0.137)
	[0.933]	[1.212]	[0.849]	[0.774]
Opp. dip. representation	0.113	−0.202	0.077	−1.078**
	(0.220)	(0.283)	(0.472)	(0.451)
	[1.120]	[0.817]	[1.080]	[0.340]
Major allies	−0.354	0.480	0.082	0.414
	(0.229)	(0.332)	(0.543)	(0.416)
	[0.702]	[1.616]	[1.086]	[1.513]
Completed battles	−0.065	−0.434***	−0.212	0.055
	(0.119)	(0.156)	(0.272)	(0.303)
	[0.937]	[0.648]	[0.809]	[1.057]
−2× log-likelihood	2,663.021			

*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$

Table A5: Results of multistate models for post-1945 wars, using 60-day recent imbalance measure. Standard errors in parentheses and hazard rates in brackets.

	Transition			
	Start neg.	End neg.	Vict./def.	Neg. settle
Recent imbalance	0.088	−0.051	0.665***	0.796**
	(0.108)	(0.155)	(0.125)	(0.321)
	[1.092]	[0.950]	[1.945]	[2.216]
Overall imbalance	0.051	0.063	0.026	−0.024
	(0.033)	(0.040)	(0.079)	(0.151)
	[1.052]	[1.066]	[1.026]	[0.977]
Issue salience	−0.172	0.183	−0.331	−0.469
	(0.207)	(0.283)	(0.427)	(0.771)
	[0.842]	[1.201]	[0.718]	[0.626]
Contiguity	1.251**	0.818	1.075	1.413
	(0.539)	(0.633)	(0.716)	(2.391)
	[3.495]	[2.266]	[2.929]	[4.107]
CINC ratio	0.835	−1.445**	2.729***	−2.048
	(0.626)	(0.691)	(0.984)	(2.775)
	[2.305]	[0.236]	[15.323]	[0.129]
Democratic initiator	0.879**	0.254	0.206	−0.714
	(0.406)	(0.460)	(0.826)	(1.663)
	[2.409]	[1.289]	[1.228]	[0.490]
Nuclear	−0.490	−1.590***	−0.581	−0.088
	(0.465)	(0.463)	(0.701)	(1.403)
	[0.613]	[0.204]	[0.559]	[0.916]
Number of states	0.204***	−0.018	−0.013	−0.195
	(0.075)	(0.077)	(0.143)	(0.185)
	[1.227]	[0.983]	[0.987]	[0.823]
Opp. dip. representation	0.798**	0.553	1.606***	1.197
	(0.351)	(0.379)	(0.593)	(1.448)
	[2.222]	[1.738]	[4.981]	[3.309]
Major allies	−0.046	1.078***	0.217	0.936
	(0.285)	(0.365)	(0.479)	(1.068)
	[0.955]	[2.939]	[1.243]	[2.550]
Completed battles	−0.540***	−0.523**	−0.535	1.268**
	(0.209)	(0.250)	(0.410)	(0.572)
	[0.583]	[0.593]	[0.586]	[3.553]
−2× log-likelihood	1,654.161			

*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$

3.2.2 Full 30-Day Results

Tables A6 and A7 report the results of multistate models that use a measure of recent imbalance based on the previous 30 days of conflict (as opposed to the 60 used in the main analysis). The use of a 30-day temporal window does not substantively affect my findings.

Table A6: Results of multistate models for pre-1945 wars, using 30-day recent imbalance measure. Standard errors in parentheses and hazard rates in brackets.

	Transition			
	Start neg.	End neg.	Vict./def.	Neg. settle
Recent imbalance	0.213***	0.049	0.118	0.200***
	(0.045)	(0.050)	(0.134)	(0.066)
	[1.237]	[1.050]	[1.125]	[1.221]
Overall imbalance	−0.001	−0.004	0.033**	0.008
	(0.011)	(0.010)	(0.014)	(0.022)
	[0.999]	[0.996]	[1.033]	[1.008]
Issue salience	−0.512***	−0.145	−0.469	−0.758***
	(0.132)	(0.182)	(0.313)	(0.260)
	[0.599]	[0.865]	[0.626]	[0.468]
Contiguity	0.176	0.685**	0.379	1.181***
	(0.218)	(0.315)	(0.476)	(0.413)
	[1.192]	[1.985]	[1.461]	[3.259]
CINC ratio	0.438	−0.582	0.497	−1.790**
	(0.434)	(0.590)	(1.019)	(0.849)
	[1.549]	[0.559]	[1.645]	[0.167]
Democratic initiator	−0.144	0.152	0.810	−0.263
	(0.299)	(0.350)	(0.596)	(0.575)
	[0.866]	[1.164]	[2.249]	[0.768]
Number of states	−0.086*	0.188***	−0.186	−0.233*
	(0.050)	(0.063)	(0.135)	(0.138)
	[0.918]	[1.207]	[0.830]	[0.792]
Opp. dip. representation	0.110	−0.214	0.062	−0.957**
	(0.218)	(0.283)	(0.472)	(0.437)
	[1.116]	[0.807]	[1.064]	[0.384]
Major allies	−0.363	0.449	0.095	0.327
	(0.229)	(0.336)	(0.536)	(0.433)
	[0.696]	[1.566]	[1.099]	[1.387]
Completed battles	−0.042	−0.426***	−0.227	0.156
	(0.118)	(0.158)	(0.272)	(0.280)
	[0.959]	[0.653]	[0.797]	[1.169]
−2× log-likelihood	2,663.43			

*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$

Table A7: Results of multistate models for post-1945 wars, using 30-day recent imbalance measure. Standard errors in parentheses and hazard rates in brackets.

	Transition			
	Start neg.	End neg.	Vict./def.	Neg. settle
Recent imbalance	0.224*	0.014	0.522***	0.950***
	(0.133)	(0.176)	(0.152)	(0.321)
	[1.251]	[1.014]	[1.685]	[2.586]
Overall imbalance	0.055*	0.066*	0.008	−0.073
	(0.033)	(0.039)	(0.072)	(0.152)
	[1.057]	[1.068]	[1.008]	[0.930]
Issue salience	−0.159	0.194	−0.271	−0.297
	(0.207)	(0.282)	(0.411)	(0.722)
	[0.853]	[1.214]	[0.763]	[0.743]
Contiguity	1.335**	0.815	0.691	1.281
	(0.542)	(0.631)	(0.748)	(2.369)
	[3.802]	[2.259]	[1.996]	[3.601]
CINC ratio	0.788	−1.467**	2.484**	−1.960
	(0.603)	(0.693)	(1.106)	(2.791)
	[2.198]	[0.231]	[11.984]	[0.141]
Democratic initiator	0.892**	0.242	−0.190	−0.804
	(0.406)	(0.459)	(0.879)	(1.554)
	[2.439]	[1.274]	[0.827]	[0.447]
Nuclear	−0.461	−1.599***	−0.357	0.073
	(0.452)	(0.459)	(0.755)	(1.201)
	[0.631]	[0.202]	[0.700]	[1.076]
Number of states	0.200***	−0.015	0.043	−0.281
	(0.074)	(0.077)	(0.138)	(0.185)
	[1.221]	[0.985]	[1.044]	[0.755]
Opp. dip. representation	0.702**	0.547	1.905***	0.768
	(0.354)	(0.383)	(0.710)	(1.498)
	[2.018]	[1.728]	[6.717]	[2.155]
Major allies	−0.059	1.068***	0.303	0.893
	(0.285)	(0.365)	(0.465)	(1.104)
	[0.943]	[2.910]	[1.354]	[2.442]
Completed battles	−0.569***	−0.540**	−0.231	1.525***
	(0.208)	(0.247)	(0.396)	(0.578)
	[0.566]	[0.583]	[0.794]	[4.596]
−2× log-likelihood	1,662.744			

*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$

Figure A3: Coefficient plots for multistate models of negotiation in pre-1945 wars, using 30-day recent imbalance measure ($N = 23,711$).

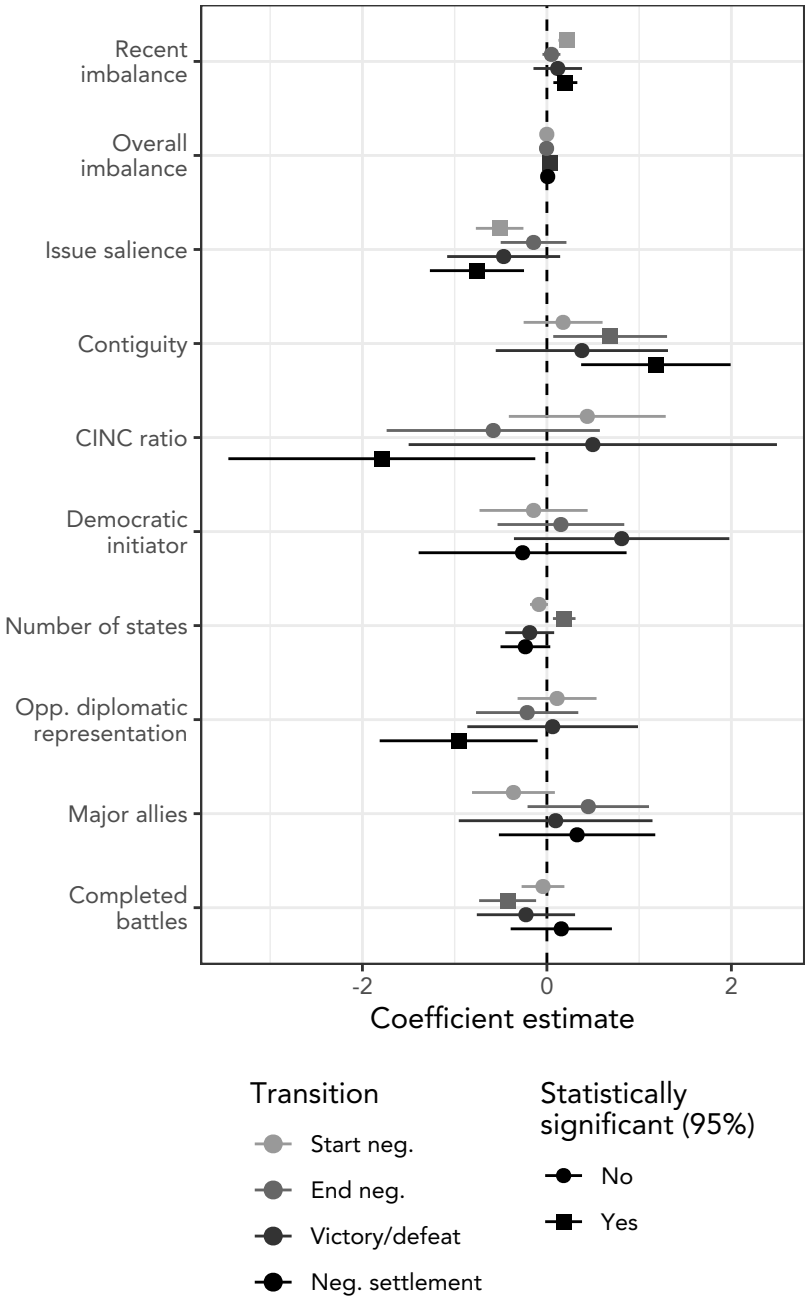
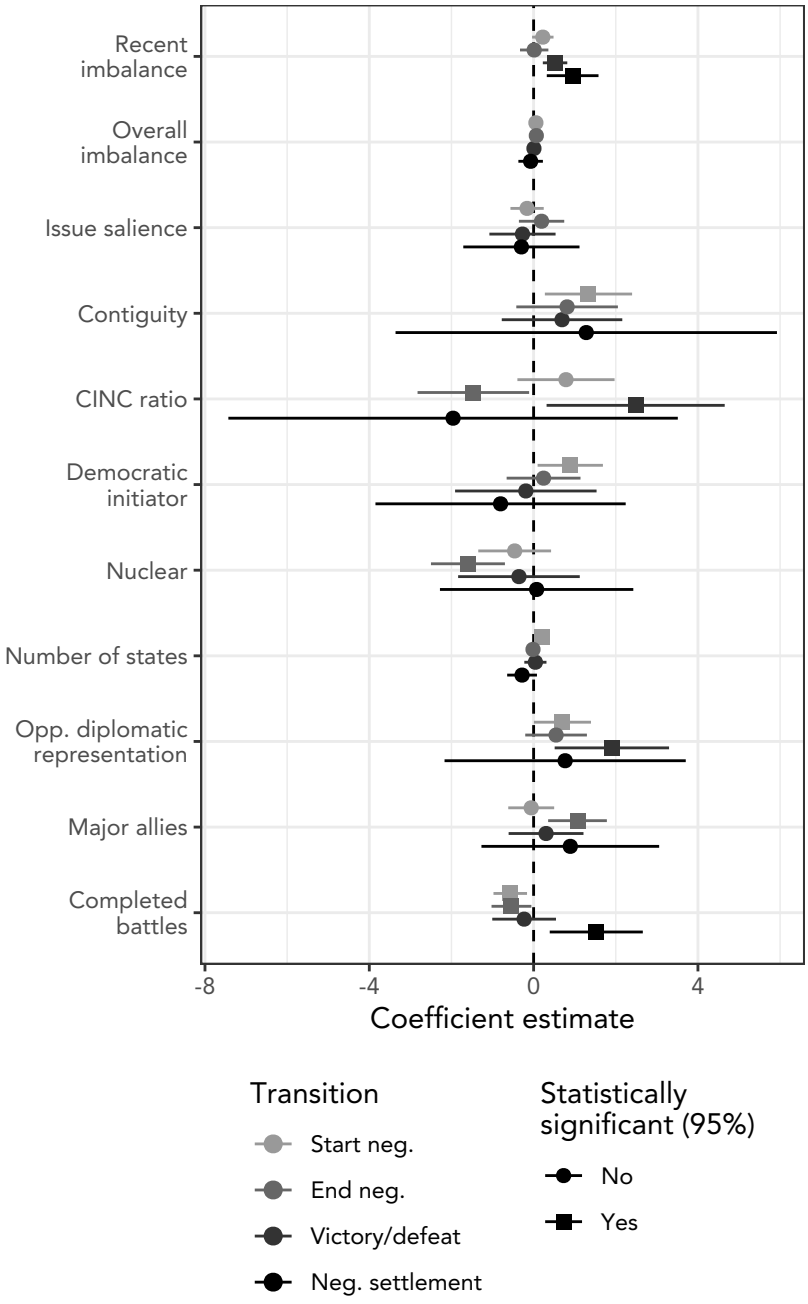


Figure A4: Coefficient plots for multistate models of negotiation in post-1945 wars, using 30-day recent imbalance measure ($N = 13,123$).



3.2.3 Full 90-Day Results

Tables A8 and A9 report the results of multistate models that use a measure of recent imbalance based on the previous 90 days of conflict (as opposed to the 60 used in the main analysis). One change emerges from using the 90-day window: The effect of recent imbalance on negotiated settlement in post-1945 wars is statistically significant at the 90% level.

Table A8: Results of multistate models for pre-1945 wars, using 90-day recent imbalance measure. Standard errors in parentheses and hazard rates in brackets.

	Transition			
	Start neg.	End neg.	Vict./def.	Neg. settle
Recent imbalance	0.099^{***}	0.055	-0.040	0.148^{***}
	(0.033)	(0.035)	(0.095)	(0.046)
	[1.104]	[1.057]	[0.961]	[1.160]
Overall imbalance	-0.007	-0.008	0.038^{**}	-0.008
	(0.012)	(0.011)	(0.016)	(0.029)
	[0.993]	[0.992]	[1.038]	[0.992]
Issue salience	-0.539^{***}	-0.126	-0.507	-0.741^{***}
	(0.130)	(0.182)	(0.320)	(0.254)
	[0.584]	[0.882]	[0.602]	[0.477]
Contiguity	0.185	0.642^{**}	0.423	1.143^{***}
	(0.218)	(0.314)	(0.479)	(0.419)
	[1.203]	[1.900]	[1.527]	[3.135]
CINC ratio	0.442	-0.612	0.460	-1.825^{**}
	(0.433)	(0.587)	(0.993)	(0.841)
	[1.556]	[0.542]	[1.584]	[0.161]
Democratic initiator	-0.148	0.169	0.910	-0.306
	(0.297)	(0.350)	(0.601)	(0.588)
	[0.863]	[1.184]	[2.485]	[0.737]
Number of states	-0.062	0.194^{***}	-0.139	-0.150
	(0.047)	(0.061)	(0.132)	(0.118)
	[0.940]	[1.214]	[0.870]	[0.860]
Opp. dip. representation	0.127	-0.244	0.132	-1.069^{**}
	(0.219)	(0.285)	(0.466)	(0.448)
	[1.136]	[0.784]	[1.141]	[0.343]
Major allies	-0.344	0.455	0.138	0.474
	(0.230)	(0.324)	(0.545)	(0.424)
	[0.709]	[1.576]	[1.148]	[1.607]
Completed battles	-0.070	-0.454^{***}	-0.166	-0.018
	(0.119)	(0.156)	(0.269)	(0.280)
	[0.933]	[0.635]	[0.847]	[0.983]
$-2\times$ log-likelihood	2,669.342			

$^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

Table A9: Results of multistate models for post-1945 wars, using 90-day recent imbalance measure. Standard errors in parentheses and hazard rates in brackets.

	Transition			
	Start neg.	End neg.	Vict./def.	Neg. settle
Recent imbalance	0.092	−0.031	0.687***	0.601*
	(0.096)	(0.148)	(0.126)	(0.322)
	[1.096]	[0.969]	[1.987]	[1.824]
Overall imbalance	0.053	0.063	0.035	−0.038
	(0.033)	(0.040)	(0.079)	(0.145)
	[1.054]	[1.065]	[1.036]	[0.963]
Issue salience	−0.171	0.187	−0.353	−0.756
	(0.206)	(0.283)	(0.422)	(0.750)
	[0.843]	[1.206]	[0.703]	[0.469]
Contiguity	1.257**	0.815	1.095	0.757
	(0.535)	(0.633)	(0.720)	(2.092)
	[3.515]	[2.259]	[2.989]	[2.131]
CINC ratio	0.882	−1.460**	2.738***	−1.722
	(0.622)	(0.690)	(0.972)	(2.840)
	[2.416]	[0.232]	[15.456]	[0.179]
Democratic initiator	0.864**	0.260	0.303	−0.815
	(0.403)	(0.464)	(0.777)	(1.835)
	[2.372]	[1.297]	[1.354]	[0.443]
Nuclear	−0.527	−1.588***	−0.594	−0.015
	(0.465)	(0.462)	(0.692)	(1.371)
	[0.591]	[0.204]	[0.552]	[0.985]
Number of states	0.208***	−0.019	−0.025	−0.168
	(0.075)	(0.079)	(0.146)	(0.183)
	[1.231]	[0.981]	[0.975]	[0.845]
Opp. dip. representation	0.816**	0.542	1.661***	1.345
	(0.347)	(0.384)	(0.546)	(1.434)
	[2.260]	[1.720]	[5.262]	[3.837]
Major allies	−0.032	1.077***	0.266	0.749
	(0.285)	(0.365)	(0.469)	(1.047)
	[0.969]	[2.937]	[1.304]	[2.115]
Completed battles	−0.558***	−0.520**	−0.616	1.104*
	(0.212)	(0.258)	(0.422)	(0.626)
	[0.573]	[0.595]	[0.540]	[3.016]
−2× log-likelihood	1,655.39			

*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$

Figure A5: Coefficient plots for multistate models of negotiation in pre-1945 wars, using 90-day recent imbalance measure ($N = 23,711$).

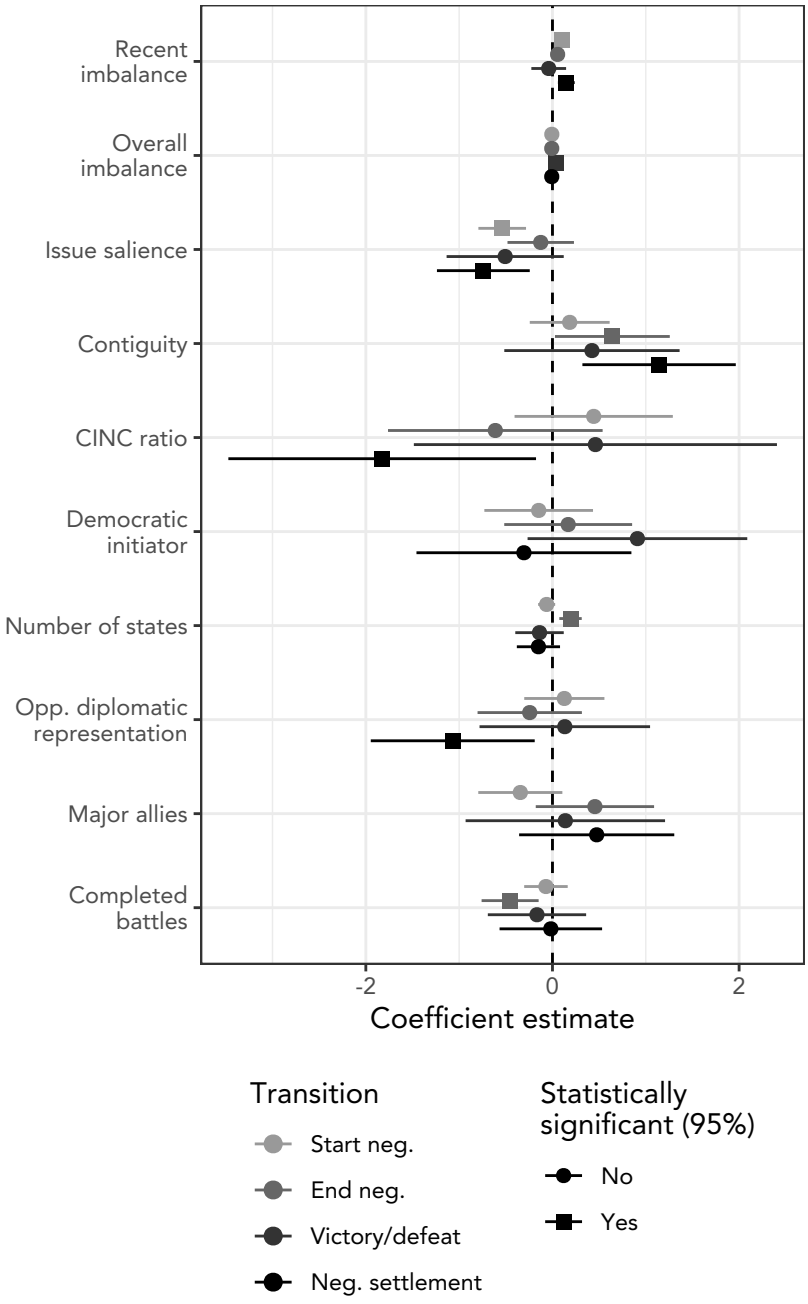
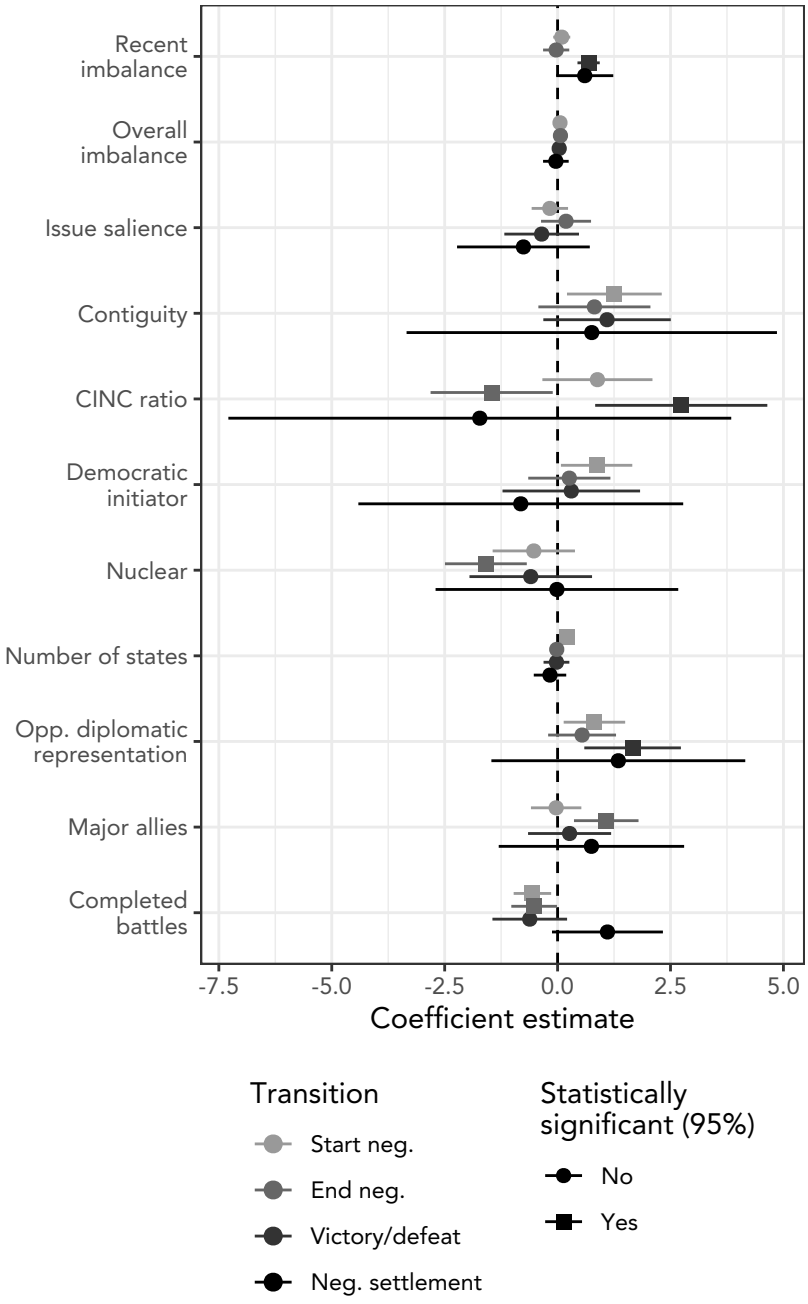


Figure A6: Coefficient plots for multistate models of negotiation in post-1945 wars, using 90-day recent imbalance measure ($N = 13,123$).



3.3 Hazard Models

Table A10 reports the complete set of estimated coefficients for Cox proportional hazard models that analyze the impact of negotiation on war termination. The results in this table are represented visually using a coefficient plot in Figure 3.5 in the main text.

Table A10: Results of Cox proportional hazard models on war termination.

	Dependent variable:	
	War termination	
	(1)	(2)
Negotiation	1.977***	
	(0.235)	
Internal negotiation		2.466***
		(0.260)
External negotiation		1.045**
		(0.376)
Issue salience	−0.402***	−0.328*
	(0.144)	(0.148)
Contiguity	0.277	0.372
	(0.250)	(0.253)
CINC ratio	−0.090	0.045
	(0.428)	(0.430)
Democratic initiator	−0.036	−0.112
	(0.294)	(0.304)
Nuclear	0.758*	0.959**
	(0.362)	(0.363)
Number of states	−0.115*	−0.161**
	(0.065)	(0.069)
Opp. diplomatic representation	−0.017	−0.146
	(0.278)	(0.282)
Major allies	0.248	0.255
	(0.248)	(0.257)
Completed battles	2.606***	2.933***
	(0.694)	(0.723)
Recent imbalance	0.236***	0.253***
	(0.077)	(0.078)
Overall imbalance	−0.239*	−0.322**
	(0.138)	(0.142)
Observations	36,834	36,834
Clustered SEs (War)	✓	✓

*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$

3.4 Alternative Measure of Capabilities

Capabilities measured using the Composite Index of National Capability (CINC) score, which come from the National Material Capabilities dataset (Singer et al. 1972), are commonplace in interstate conflict literature. My main analysis accordingly uses the ratio of CINC scores between the initiator and target as a proxy for pre-war expectations regarding the relative capabilities among the belligerents. However, recent advances in conflict scholarship have created measures of capabilities that improve upon CINC scores on both theoretical and empirical fronts.

One notable contribution is the Dispute Outcome Expectations (DOE) score by Carroll and Kenkel (2019). Their measure is produced by training an ensemble of supervised machine learning models on the Militarized Interstate Disputes (MID) dataset. The models generate predicted probabilities of the outcomes of hypothetical disputes between all country dyads in every year between 1816 and 2012.[2] Carroll and Kenkel show that their DOE scores outperform CINC scores in predicting disputes and accounting for power. Carroll and Kenkel also note that the use of DOE scores is not advised when the dependent variable is the outcome of war. My analysis does not focus on which side wins, but one might argue that the distinction between negotiated settlements and victory/defeat is still correlated with whether a clear victor exists. As such, the analyses presented below should be interpreted with some mild caution.

Irrespective of appropriateness, DOE scores can replace the CINC measures in my quantitative analysis. In wars with only two belligerents, I simply calculate:

$$Pr(\text{Initiator wins}) - Pr(\text{Target wins}) = Pr(\text{Target loses}) - Pr(\text{Initiator loses})$$

DOE scores are dyadic, so additional calculations are needed in wars with more than one state on a side. For each belligerent $b \in \{1, 2, ...\}$ on the initiator's side, I first determine the probability of actor $X_{init,b}$ winning or losing in a hypothetical dyadic war against each of their opponents $X_{targ,b}$. I calculate the average across these dyadic probabilities of victory and loss to generate a measure of capabilities for state $X_{init,b}$. I then produce an overall measure of power for the initiating side by calculating the average across all belligerents' average probabilities of victory and loss. Finally, I calculate the same difference specified above, except using these aggregated probabilities.

Tables A11 and A12 supply results from multistate models that replicate the analysis in Chapter 3 after replacing the CINC ratio with the DOE measure. Figures A7 and A8 are coefficient plots that convey the same information. The primary findings are not impacted by this alternative gauge of pre-war expectations. One minor change is that the impact of recent imbalance on negotiated settlement in post-1945 wars is statistically significant at the 90% level. However, it is also worth noting that the standard errors associated with DOE scores in post-1945 wars are extremely large, which again suggests the need for additional caution when interpreting the model.

[2]Souva 2023 produces another measure of material military power based on states' armaments. However, his dataset starts in 1865, which would force the analysis to drop 17 wars.

Table A11: Results of multistate models for pre-1945 wars, replacing CINC ratios with DOE scores. Standard errors in parentheses and hazard rates in brackets.

	Transition			
	Start neg.	End neg.	Vict./def.	Neg. settle
Recent imbalance	0.145^{***}	0.007	0.047	0.203^{***}
	(0.039)	(0.050)	(0.097)	(0.065)
	[1.156]	[1.008]	[1.048]	[1.225]
Overall imbalance	−0.009	0.003	0.031^{**}	−0.009
	(0.012)	(0.012)	(0.015)	(0.031)
	[0.991]	[1.003]	[1.031]	[0.991]
Issue salience	-0.573^{***}	−0.029	−0.510	-0.511^{*}
	(0.132)	(0.186)	(0.315)	(0.279)
	[0.564]	[0.971]	[0.601]	[0.600]
Contiguity	0.114	0.915^{***}	0.371	1.137^{**}
	(0.225)	(0.349)	(0.474)	(0.461)
	[1.121]	[2.498]	[1.449]	[3.116]
DOE score	−0.657	1.563	−0.027	0.415
	(0.752)	(1.096)	(1.604)	(1.675)
	[0.518]	[4.775]	[0.973]	[1.515]
Democratic initiator	−0.078	0.129	0.923^{*}	−0.247
	(0.283)	(0.345)	(0.556)	(0.581)
	[0.925]	[1.138]	[2.517]	[0.782]
Number of states	−0.076	0.180^{***}	−0.173	-0.220^{*}
	(0.047)	(0.061)	(0.131)	(0.124)
	[0.927]	[1.198]	[0.841]	[0.802]
Opp. dip. representation	0.034	0.009	0.047	-0.700^{*}
	(0.218)	(0.276)	(0.458)	(0.418)
	[1.034]	[1.009]	[1.048]	[0.497]
Major allies	−0.225	0.242	0.146	0.248
	(0.234)	(0.336)	(0.558)	(0.479)
	[0.798]	[1.274]	[1.158]	[1.281]
Completed battles	−0.095	-0.378^{**}	−0.232	0.176
	(0.118)	(0.151)	(0.269)	(0.277)
	[0.910]	[0.685]	[0.793]	[1.192]
$-2\times$ log-likelihood	2,667.186			

$^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

Table A12: Results of multistate models for post-1945 wars, replacing CINC ratios with DOE scores. Standard errors in parentheses and hazard rates in brackets.

	Transition			
	Start neg.	End neg.	Vict./def.	Neg. settle
Recent imbalance	0.087	−0.101	0.633***	0.598*
	(0.097)	(0.155)	(0.146)	(0.335)
	[1.091]	[0.904]	[1.883]	[1.818]
Overall imbalance	0.059*	0.053	−0.172	0.221
	(0.033)	(0.039)	(0.156)	(0.162)
	[1.061]	[1.054]	[0.842]	[1.247]
Issue salience	−0.205	0.375	−0.640	−0.593
	(0.202)	(0.243)	(0.396)	(0.799)
	[0.814]	[1.455]	[0.527]	[0.553]
Contiguity	0.784*	1.580***	0.554	0.442
	(0.457)	(0.496)	(0.707)	(2.842)
	[2.191]	[4.857]	[1.741]	[1.556]
DOE score	11.328	−8.782	10.289	4.247
	(7.290)	(11.240)	(15.245)	(33.601)
	[83135.947]	[0.000]	[29412.822]	[69.881]
Democratic initiator	0.943**	0.003	1.371**	−10.672
	(0.385)	(0.411)	(0.584)	(9.146)
	[2.567]	[1.003]	[3.941]	[0.000]
Nuclear	−0.240	−1.519***	0.337	0.129
	(0.404)	(0.441)	(0.589)	(1.251)
	[0.787]	[0.219]	[1.401]	[1.137]
Number of states	0.132**	0.025	−0.135	−0.223
	(0.059)	(0.070)	(0.121)	(0.144)
	[1.142]	[1.025]	[0.874]	[0.800]
Opp. dip. representation	0.757**	0.789**	1.346***	1.898
	(0.336)	(0.362)	(0.482)	(1.445)
	[2.131]	[2.202]	[3.840]	[6.673]
Major allies	0.022	1.280***	0.488	0.633
	(0.285)	(0.362)	(0.487)	(1.089)
	[1.022]	[3.596]	[1.630]	[1.884]
Completed battles	−0.504**	−0.603***	−0.053	1.486**
	(0.210)	(0.226)	(0.369)	(0.726)
	[0.604]	[0.547]	[0.948]	[4.422]
−2× log-likelihood	1,661.825			

*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$

Figure A7: Coefficient plots for multistate models of negotiation in pre-1945 wars, replacing CINC ratios with DOE scores ($N = 23,711$).

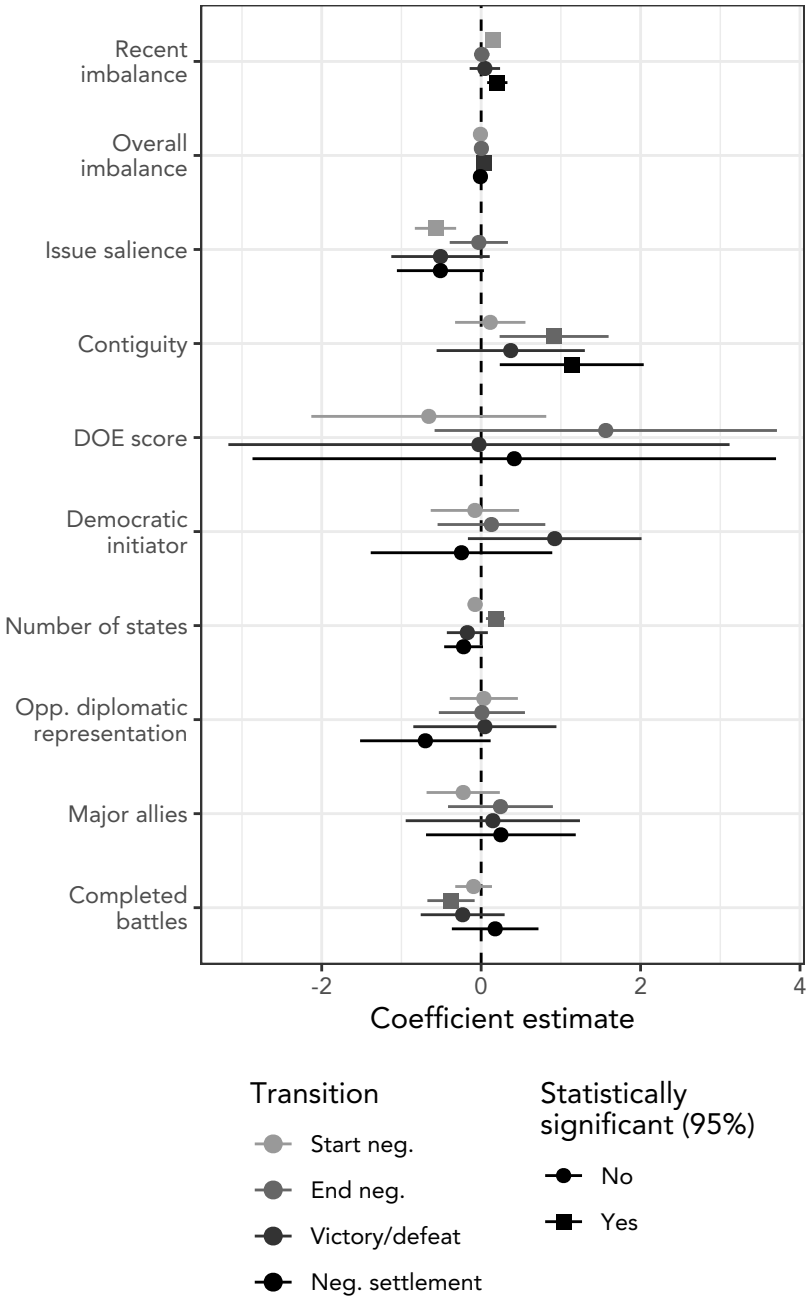


Figure A8: Coefficient plots for multistate models of negotiation in post-1945 wars, replacing CINC ratios with DOE scores ($N = 13,123$).

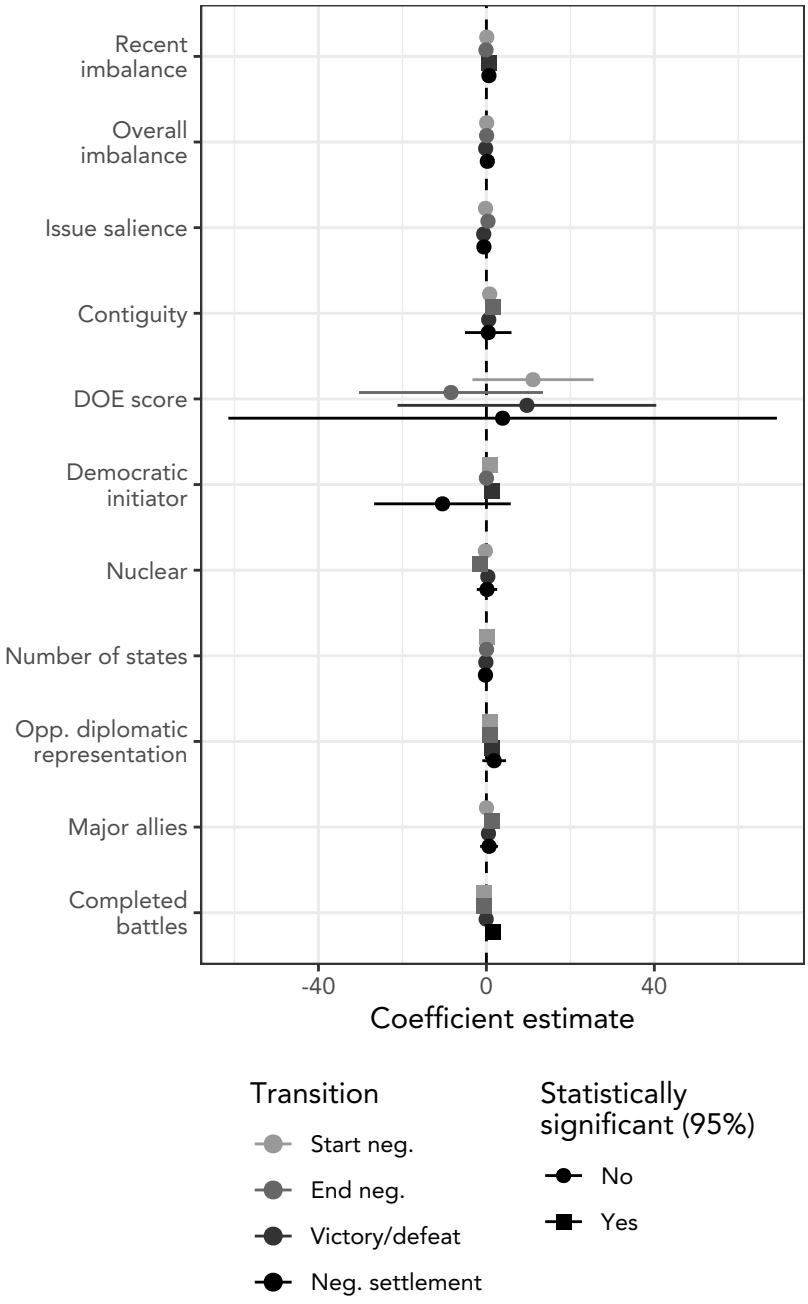


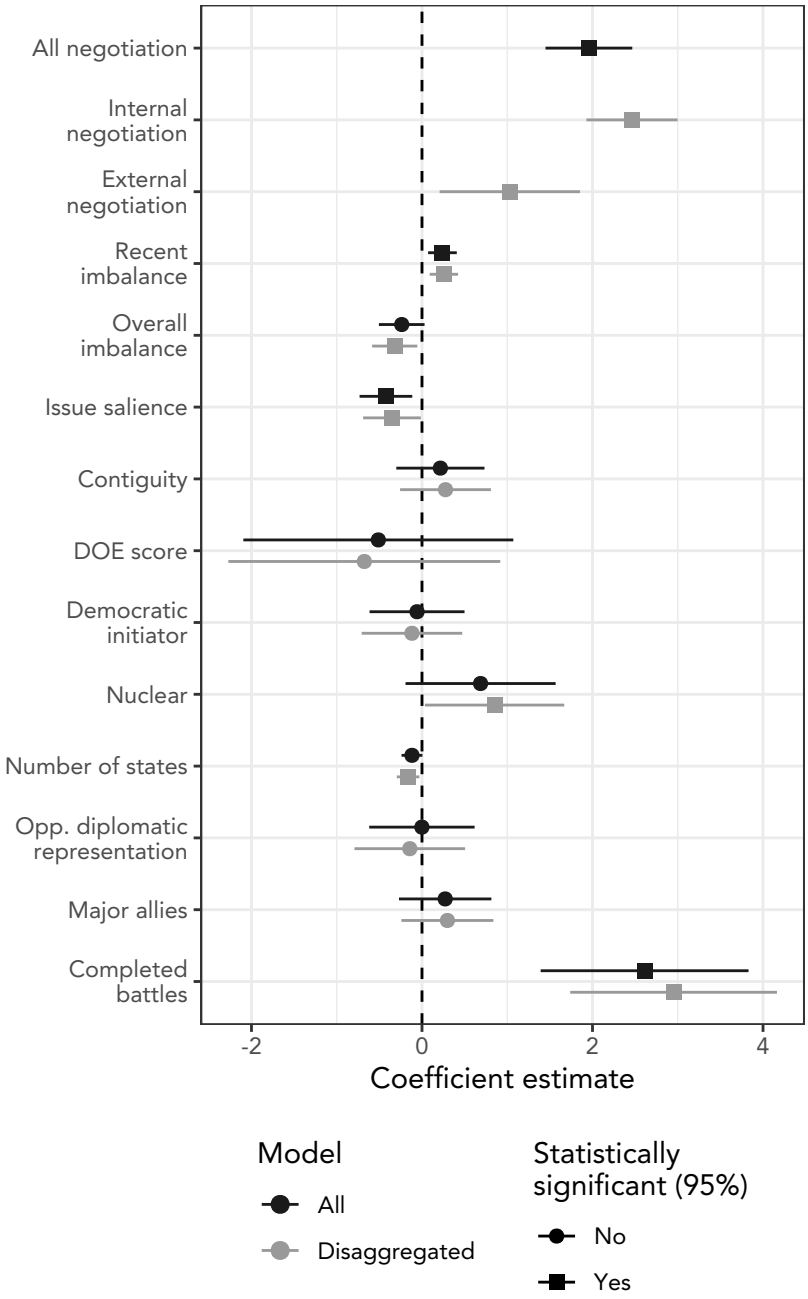
Table A13 replicates the hazard models in Chapter 3, again replacing CINC ratios with DOE scores. The main results, which show the differential impacts of internal and external negotiations, are not impacted.

Table A13: Results of Cox proportional hazard models on war termination, replacing CINC ratios with DOE scores.

	Dependent variable:	
	War termination	
	(1)	(2)
Negotiation	1.958***	
	(0.233)	
Internal negotiation		2.463***
		(0.259)
External negotiation		1.031**
		(0.373)
Issue salience	−0.423***	−0.352**
	(0.147)	(0.149)
Contiguity	0.216	0.276
	(0.270)	(0.271)
DOE score	−0.512	−0.676
	(0.818)	(0.819)
Democratic initiator	−0.058	−0.118
	(0.291)	(0.300)
Nuclear	0.687	0.851**
	(0.379)	(0.381)
Number of states	−0.117*	−0.163**
	(0.065)	(0.068)
Opp. diplomatic representation	−0.001	−0.143
	(0.267)	(0.273)
Major allies	0.272	0.298
	(0.250)	(0.257)
Completed battles	2.611***	2.951***
	(0.696)	(0.727)
Recent imbalance	0.240***	0.257***
	(0.077)	(0.078)
Overall imbalance	−0.238*	−0.320**
	(0.138)	(0.142)
Observations	36,834	36,834
Clustered SEs (War)	✓	✓

*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$

Figure A9: Hazard models of war termination, replacing CINC ratios with DOE scores ($N = 36,834$).



3.5 Minor Power Wars

Table A14 presents full results of a multistate model that analyzes the impact of minor power wars (wars without any major powers) on the onset of internal and external negotiations. Note that Figure 3.6 in the main text visually reports the estimates from the first and third columns of Table A14.

Table A14: Results of multistate models on minor power wars. Standard errors in parentheses and hazard rates in brackets.

	Transition			
	Start Int. Neg.	End Int. Neg.	Start Ext. Neg.	End Ext. Neg
Minor power war	−0.344	−1.052**	1.433***	0.372
	(0.268)	(0.470)	(0.400)	(0.536)
	[0.709]	[0.349]	[4.191]	[1.451]
Recent imbalance	0.092**	0.006	0.055	−0.341**
	(0.040)	(0.049)	(0.110)	(0.153)
	[1.096]	[1.006]	[1.056]	[0.711]
Overall imbalance	0.000	−0.002	−0.148**	0.053
	(0.010)	(0.011)	(0.067)	(0.069)
	[1.000]	[0.998]	[0.863]	[1.055]
Issue salience	−0.458***	−0.023	−0.449***	0.196
	(0.126)	(0.191)	(0.164)	(0.272)
	[0.633]	[0.978]	[0.639]	[1.216]
Contiguity	−0.040	1.779***	0.474	0.516
	(0.221)	(0.427)	(0.301)	(0.469)
	[0.961]	[5.923]	[1.607]	[1.675]
CINC ratio	−0.061	−0.664	−0.170	−0.730
	(0.395)	(0.509)	(0.470)	(0.520)
	[0.941]	[0.515]	[0.844]	[0.482]
Democratic initiator	0.697***	0.577	0.094	−0.243
	(0.249)	(0.398)	(0.341)	(0.500)
	[2.008]	[1.780]	[1.099]	[0.785]
Nuclear	0.732**	−1.296**	1.532***	−1.658**
	(0.356)	(0.589)	(0.529)	(0.648)
	[2.079]	[0.274]	[4.627]	[0.190]
Number of states	−0.007	0.074	−0.038	0.102
	(0.041)	(0.056)	(0.078)	(0.082)
	[0.993]	[1.077]	[0.963]	[1.108]
Opp. dip. representation	0.407*	0.191	0.202	−0.025
	(0.220)	(0.301)	(0.270)	(0.374)
	[1.503]	[1.210]	[1.224]	[0.975]
Major allies	−0.003	0.320	0.364	1.533***
	(0.215)	(0.368)	(0.271)	(0.350)
	[0.997]	[1.377]	[1.440]	[4.634]
Completed battles	−0.136	−0.298*	−0.130	−0.544***
	(0.116)	(0.157)	(0.172)	(0.207)
	[0.873]	[0.743]	[0.878]	[0.580]
−2× log-likelihood	3,580.621			

*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$

3.6 Third-Party Diplomatic Interventions

Table A15 supplies the full results of a Cox proportional hazard model that analyzes the determinants of third-party diplomatic interventions in post-1945 wars. These estimates are summarized in Figure 3.7 in the main text. Recall that the data for these third-party interventions comes from the International Conflict Management (ICM) dataset.[3] To satisfy the proportional hazards assumption, the model is stratified by the binary variable indicating whether belligerents had diplomatic representation at the time of conflict.

Table A15: Results of a Cox proportional hazard model on third-party diplomatic intervention in post-1945 wars.

	Dependent variable:
	Third-party diplomatic intervention
Minor power	1.999^{***}
	(0.587)
Recent imbalance	0.305
	(0.228)
Overall imbalance	-0.021
	(0.029)
Issue salience	-0.058
	(0.160)
Contiguity	-0.622^{*}
	(0.269)
CINC ratio	1.032^{*}
	(0.449)
Democratic initiator	0.540
	(0.262)
Nuclear	1.327^{*}
	(0.610)
Number of states	-0.002
	(0.053)
Major allies	0.490^{*}
	(0.243)
Completed battles	-0.577
	(0.244)
Observations	11,398
Clustered SEs (War)	✓

$^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

[3] Bercovitch 1999; Bercovitch and Fretter 2004; Bercovitch and Jackson 2001; Gartner and Bercovitch 2006.

4 Additional Results for Chapter 4

4.1 Full Poisson Regression Results

Table A16 presents results of Poisson regressions that investigate the relationship between negotiations and the number of active battles. These results are visually summarized in the form of a coefficient plot in Figure 4.1 of the main text.

Table A16: Results of Poisson regressions.

	Dependent variable:	
	Active battles	
	(1)	(2)
All negotiation	-0.359^{***}	
	(0.079)	
Internal negotiation		-0.561^{***}
		(0.195)
External negotiation		-0.058
		(0.162)
Ceasefire	-0.685^{*}	-0.728^{*}
	(0.399)	(0.412)
Recent imbalance	0.025^{***}	0.025^{***}
	(0.009)	(0.009)
Overall imbalance	0.002	0.002
	(0.001)	(0.001)
CINC ratio	-0.577	-0.520
	(0.462)	(0.457)
Democratic initiator	0.163^{***}	0.158^{***}
	(0.037)	(0.036)
Major power	1.486^{**}	1.493^{**}
	(0.711)	(0.705)
Nuclear	-0.121	-0.113
	(0.488)	(0.490)
Number of states	0.086^{**}	0.086^{**}
	(0.038)	(0.038)
Opp. dip. representation	0.957^{***}	0.956^{***}
	(0.286)	(0.282)
Major allies	0.031	0.046
	(0.138)	(0.134)
Completed battles	-0.020	-0.014
	(0.086)	(0.087)
Active battle trend	0.739^{***}	0.746^{***}
	(0.248)	(0.248)
Constant	-4.315^{***}	-4.342^{***}
	(0.853)	(0.859)
Observations	36,834	36,834
War FEs	✓	✓
Clustered SEs (War)	✓	✓

$^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

4.2 Changing Battlefield Trends

4.2.1 Full 60-Day Results

Table A17 is a full accounting of results summarized by Figure 4.2 in the main text. Note that these models look at up to 60 days before and after each negotiation period that fails to terminate conflict.

Table A17: Results of ordinary least squares regressions analyzing changes in battlefield measures, using all negotiations and a 60-day temporal window around failed negotiations.

	Dependent variable:		
	Recent imb.	Momentum	Inconsistency
	(1)	(2)	(3)
Post-negotiation	0.225^{***}	-0.232^{***}	-0.013^{***}
	(0.027)	(0.028)	(0.002)
Negotiation	0.097^{**}	-0.020	-0.001
	(0.049)	(0.051)	(0.003)
Time trend	-0.0002^{***}	-0.0004^{***}	-0.0002^{***}
	(0.00004)	(0.00004)	(0.00000)
Constant	1.309^{***}	1.606^{***}	0.041^{***}
	(0.129)	(0.135)	(0.009)
Observations	14,126	14,126	13,008

$^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

Table A18: Results of ordinary least squares regressions analyzing changes in battlefield measures, using the first negotiation in each war and a 60-day temporal window around failed negotiations.

	Dependent variable:		
	Recent imb.	Momentum	Inconsistency
	(1)	(2)	(3)
Post-negotiation	1.045^{***}	-0.264^{**}	-0.035^{***}
	(0.104)	(0.109)	(0.006)
Negotiation	0.237^{*}	0.476^{***}	0.038^{***}
	(0.131)	(0.138)	(0.008)
Time trend	-0.001	-0.005^{***}	-0.0002^{***}
	(0.001)	(0.001)	(0.0001)
Constant	0.337	1.867^{***}	0.070^{***}
	(0.225)	(0.236)	(0.015)
Observations	4,861	4,861	4,203

$^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

Table A19: Results of ordinary least squares regressions analyzing changes in battlefield measures, using all negotiations after the first in each war and a 60-day temporal window around failed negotiations.

	Dependent variable:		
	Recent imb.	Momentum	Inconsistency
	(1)	(2)	(3)
Post-negotiation	-0.133^{***}	-0.111^{***}	-0.010^{***}
	(0.030)	(0.031)	(0.002)
Negotiation	0.007	-0.012	-0.0003
	(0.048)	(0.050)	(0.003)
Time trend	-0.0002^{***}	-0.001^{***}	-0.0001^{***}
	(0.00004)	(0.00004)	(0.00000)
Constant	1.564^{***}	1.597^{***}	0.035^{***}
	(0.147)	(0.153)	(0.010)
Observations	9,265	9,265	8,805

$^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

4.2.2 Full 30-Day Results

The primary findings regarding changing battlefield trends in Chapter 4 analyze all war-days that fall within 60 days of any negotiation periods that do not successfully terminate war. Tables A20, A21, and A22 replicate the same analysis using a shorter 30-day window. Figure A10 presents coefficient plots that mirror Figure 4.2 in the main text. My substantive findings are unchanged.

Table A20: Results of ordinary least squares regressions analyzing changes in battlefield measures, using all negotiations and a 30-day temporal window around failed negotiations.

	Dependent variable:		
	Recent imb.	Momentum	Inconsistency
	(1)	(2)	(3)
Post-negotiation	0.165^{***}	-0.092^{**}	-0.012^{***}
	(0.038)	(0.039)	(0.002)
Negotiation	0.085	0.338^{***}	-0.019^{***}
	(0.079)	(0.081)	(0.005)
Time trend	-0.0001^{**}	-0.001^{***}	-0.0001^{***}
	(0.0001)	(0.0001)	(0.00000)
Constant	1.218^{***}	1.421^{***}	0.042^{***}
	(0.172)	(0.177)	(0.011)
Observations	7,652	7,652	6,908

$^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

Table A21: Results of ordinary least squares regressions analyzing changes in battlefield measures, using the first negotiation in each war and a 30-day temporal window around failed negotiations.

	Dependent variable:		
	Recent imb.	Momentum	Inconsistency
	(1)	(2)	(3)
Post-negotiation	1.271^{***}	-0.379^{***}	-0.032^{***}
	(0.111)	(0.116)	(0.008)
Negotiation	0.234	0.652^{***}	0.017
	(0.149)	(0.157)	(0.010)
Time trend	-0.008^{***}	0.003	-0.0003^{**}
	(0.002)	(0.002)	(0.0001)
Constant	-0.225	0.922^{***}	0.069^{**}
	(0.267)	(0.281)	(0.027)
Observations	2,844	2,844	2,385

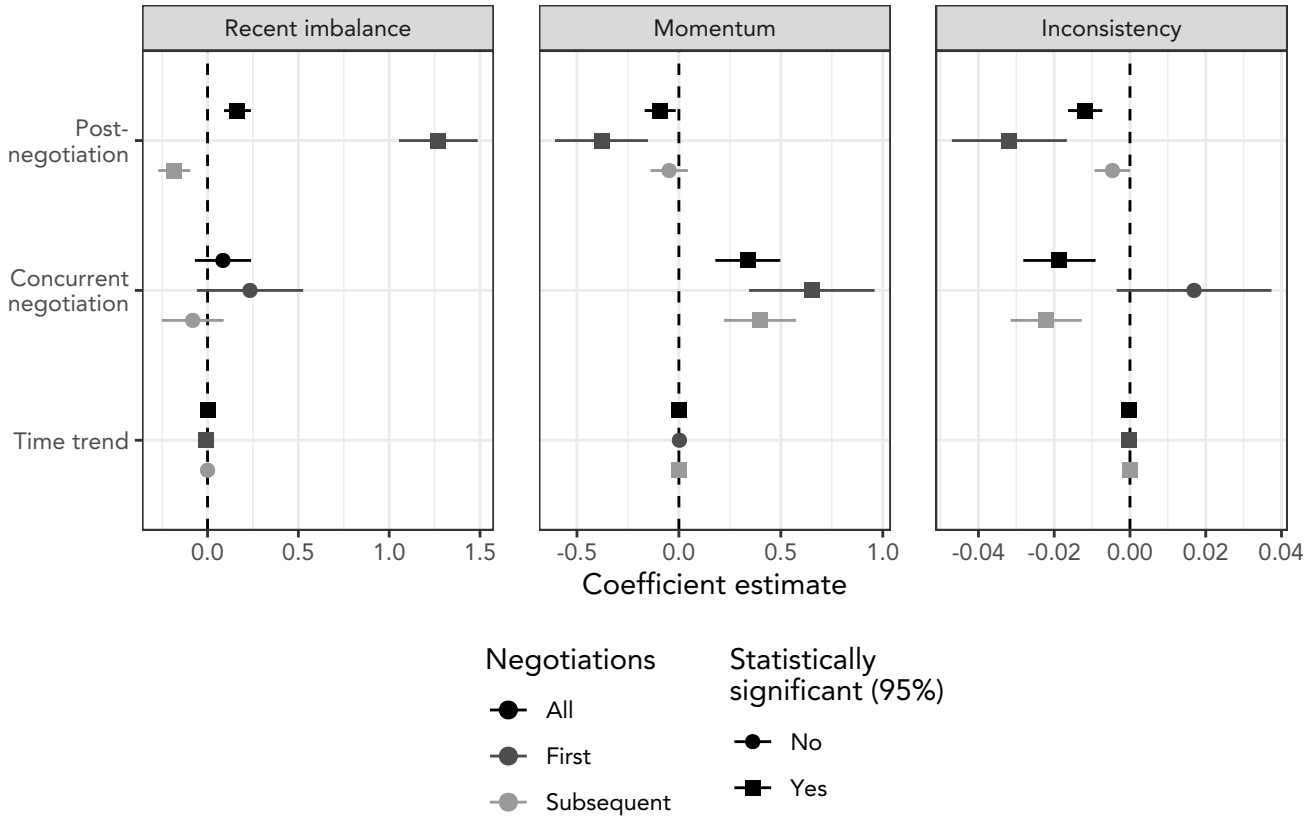
$^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

Table A22: Results of ordinary least squares regressions analyzing changes in battlefield measures, using all negotiations after the first in each war and a 30-day temporal window around failed negotiations.

	Dependent variable:		
	Recent imb.	Momentum	Inconsistency
	(1)	(2)	(3)
Post-negotiation	-0.183^{***}	-0.048	-0.005^{*}
	(0.045)	(0.047)	(0.002)
Negotiation	-0.082	0.398^{***}	-0.022^{***}
	(0.087)	(0.090)	(0.005)
Time trend	-0.0001	-0.001^{***}	-0.0001^{***}
	(0.0001)	(0.0001)	(0.00000)
Constant	1.747^{***}	1.755^{***}	0.035^{***}
	(0.200)	(0.208)	(0.010)
Observations	4,808	4,808	4,523

$^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

Figure A10: Coefficient plots for OLS models of changes in battlefield outcomes after failed negotiations, using a 30-day temporal window. Bands represent 95% confidence intervals.



4.2.3 Full 90-Day Results

The primary findings regarding changing battlefield trends in Chapter 4 analyze all war-days that fall within 60 days of any negotiation periods that do not successfully terminate war. Tables A23, A24, and A25 replicate the same analysis using a longer 90-day window. Figure A11 presents coefficient plots that mirror Figure 4.2 in the main text. My substantive findings are unchanged.

Table A23: Results of ordinary least squares regressions analyzing changes in battlefield measures, using all negotiations and a 90-day temporal window around failed negotiations.

	Dependent variable:		
	Recent imb.	Momentum	Inconsistency
	(1)	(2)	(3)
Post-negotiation	0.205^{***}	-0.219^{***}	-0.014^{***}
	(0.022)	(0.023)	(0.001)
Negotiation	-0.046	0.031	-0.008^{***}
	(0.036)	(0.038)	(0.002)
Time trend	-0.0002^{***}	-0.0004^{***}	-0.0002^{***}
	(0.00003)	(0.00003)	(0.00000)
Constant	1.174^{***}	1.416^{***}	0.045^{***}
	(0.106)	(0.111)	(0.008)
Observations	20,079	20,079	18,646

$^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

Table A24: Results of ordinary least squares regressions analyzing changes in battlefield measures, using the first negotiation in each war and a 90-day temporal window around failed negotiations.

	Dependent variable:		
	Recent imb.	Momentum	Inconsistency
	(1)	(2)	(3)
Post-negotiation	1.299^{***}	-0.540^{***}	-0.029^{***}
	(0.087)	(0.091)	(0.005)
Negotiation	-0.023	0.631^{***}	0.027^{***}
	(0.101)	(0.106)	(0.006)
Time trend	-0.005^{***}	-0.0004	-0.0003^{***}
	(0.001)	(0.001)	(0.00005)
Constant	0.551^{***}	1.849^{***}	0.061^{***}
	(0.186)	(0.194)	(0.012)
Observations	6,611	6,611	5,825

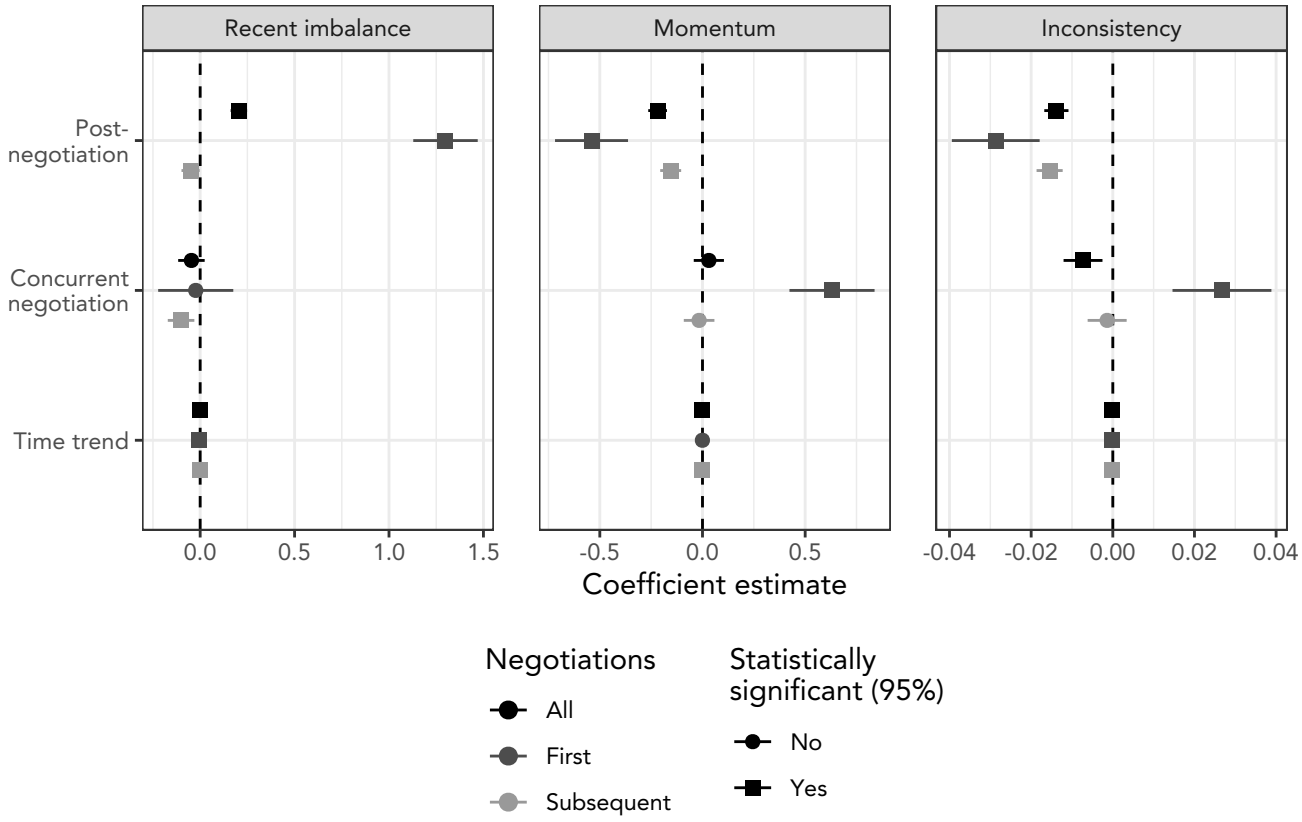
$^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

Table A25: Results of ordinary least squares regressions analyzing changes in battlefield measures, using all negotiations after the first in each war and a 30-day temporal window around failed negotiations.

	Dependent variable:		
	Recent imb.	Momentum	Inconsistency
	(1)	(2)	(3)
Post-negotiation	-0.051^{**}	-0.155^{***}	-0.015^{***}
	(0.025)	(0.026)	(0.002)
Negotiation	-0.101^{***}	-0.016	-0.001
	(0.036)	(0.038)	(0.002)
Time trend	-0.0002^{***}	-0.001^{***}	-0.0001^{***}
	(0.00003)	(0.00003)	(0.00000)
Constant	1.180^{***}	1.216^{***}	0.037^{***}
	(0.126)	(0.133)	(0.010)
Observations	13,468	13,468	12,821

$^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

Figure A11: Coefficient plots for OLS models of changes in battlefield outcomes after failed negotiations, using a 90-day temporal window. Bands represent 95% confidence intervals.



4.3 Placebo Tests

My statistical findings show strong changes in battlefield trends following negotiation periods that do not terminate wars. Some may question whether these findings are simply a consequence of the battlefield becoming more balanced over the natural course of time, or perhaps even a consequence of a reversion to the mean.

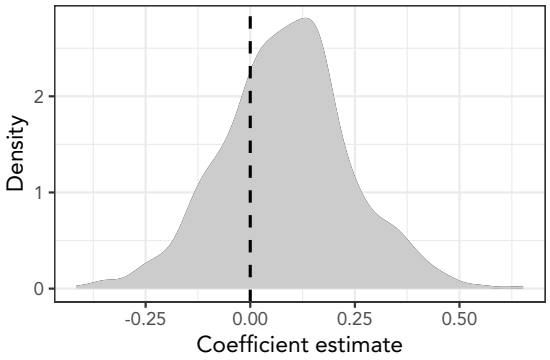
I address these possibilities using placebo tests, which proceed in several steps. I begin by randomly selecting a war, with the probability of a war being chosen being weighted by the proportion of war-days the conflict constitutes in the overall data. I then draw a random sequence of consecutive days from the war. The string of consecutive days can range from 1 to 30 days. I treat this sequence as a hypothetical negotiation period and then consider the 60 days before and after this period to be hypothetical pre-negotiation and post-negotiation phases respectively. If the pre-negotiation or post-negotiation phase is shorter than 60 days, I use all the days in my analysis. Gathering 150 of these triples results in a simulated dataset with a very similar structure to my real data, except negotiations are randomly assigned throughout. I then run an OLS regression on the data and extract the estimated coefficient for the effect of the post-negotiation period on battlefield activity. I repeat this process 1,000 times to produce bootstrapped estimates for the post-negotiation effect.

Table A26 reports the key statistics that emerge from this bootstrapping exercise. Figure A12 fully illustrates the distributions. The results verify that the passage of time itself is insufficient to understand reversals of fortune. For each of the measures of fighting, the associated 95% confidence interval includes the value 0, providing no evidence of a statistically meaningful effect.

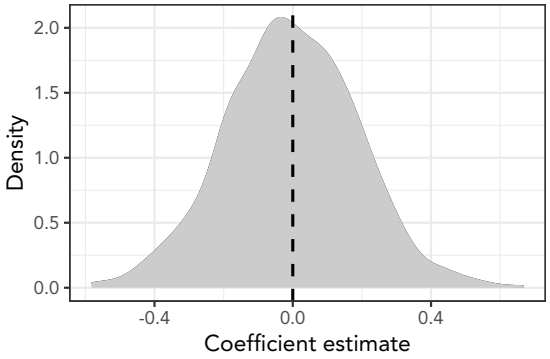
Table A26: 95% confidence intervals for placebo tests.

Measure	**Lower**	**Mean**	**Upper**
Recent imbalance	−0.218	0.085	0.392
Momentum	−0.378	−0.004	0.356
Inconsistency	−0.024	−0.007	0.008

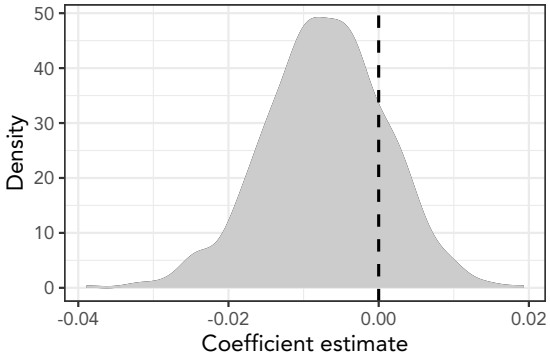
Figure A12: Bootstrapped estimates for the effect of the post-negotiation period on different battlefield measures using fully specified model with war fixed effects.



(a) Recent imbalance



(b) Momentum



(c) Inconsistency

4.4 Alternative Measure of Capabilities

Table A27 replaces the Poisson regressions from Chapter 4, replacing the CINC ratios with Dispute Outcome Expectations (DOE) scores from Carroll and Kenkel 2019.[4] Figure A13 presents the same results in a coefficient plot that mirrors Figure 4.1 in the main text. Findings are not affected.

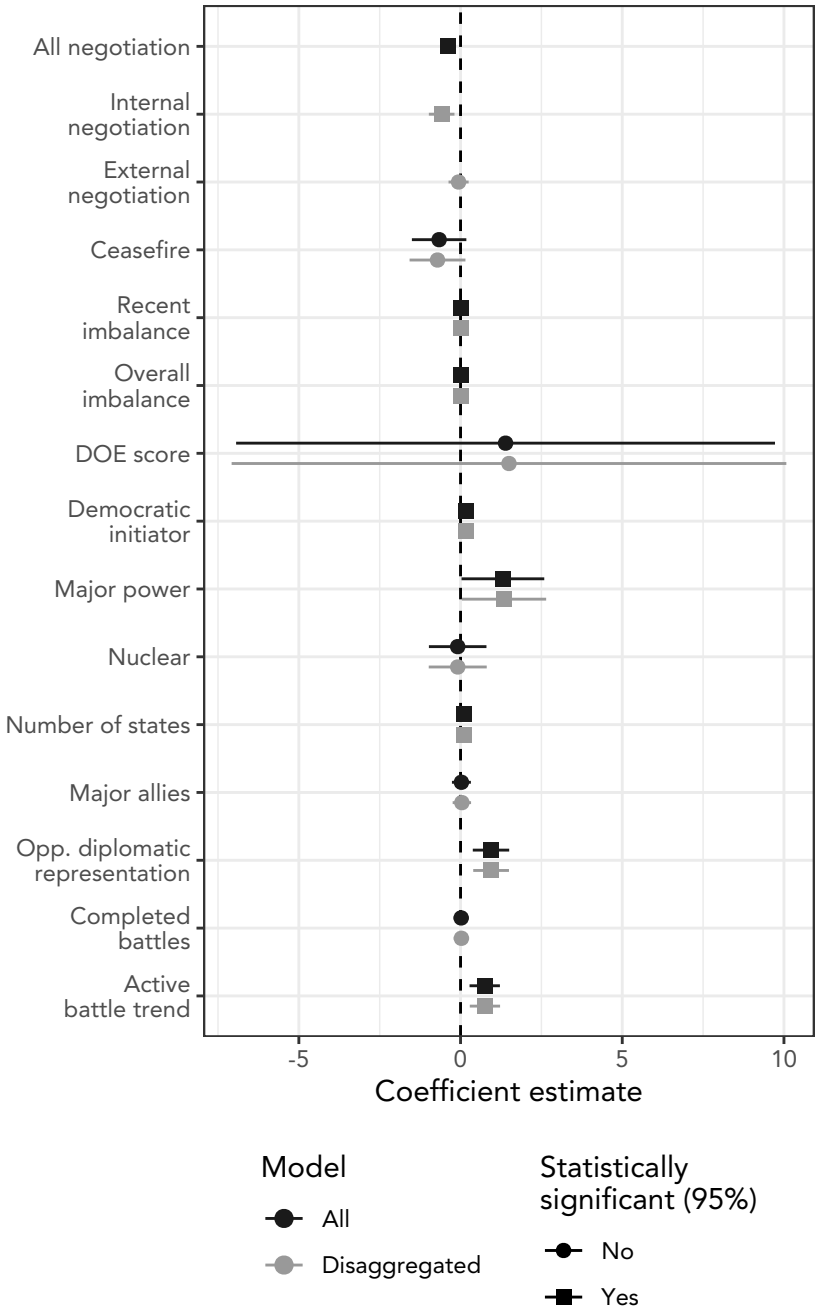
Table A27: Results of Poisson regressions, replacing CINC ratios with DOE scores.

	Dependent variable:	
	Active battles	
	(1)	(2)
All negotiation	−0.375***	
	(0.085)	
Internal negotiation		−0.584***
		(0.202)
External negotiation		−0.061
		(0.158)
Ceasefire	−0.663	−0.712
	(0.430)	(0.441)
Recent imbalance	0.025***	0.025***
	(0.009)	(0.009)
Overall imbalance	0.003***	0.003***
	(0.001)	(0.001)
DOE score	1.392	1.498
	(4.251)	(4.376)
Democratic initiator	0.180***	0.174***
	(0.053)	(0.051)
Major power	1.310**	1.344**
	(0.652)	(0.665)
Nuclear	−0.089	−0.087
	(0.454)	(0.457)
Number of states	0.095**	0.094**
	(0.039)	(0.040)
Opp. dip. representation	0.941***	0.945***
	(0.287)	(0.282)
Major allies	0.027	0.040
	(0.149)	(0.145)
Completed battles	0.019	0.026
	(0.119)	(0.122)
Active battle trend	0.748***	0.754***
	(0.239)	(0.239)
Constant	−5.502**	−5.554**
	(2.464)	(2.547)
Observations	36,834	36,834
War FEs	✓	✓
Clustered SEs (War)	✓	✓

*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$

[4]See Appendix 3.4 for more discussion of the DOE score.

Figure A13: Coefficient plots for Poisson models of active battles with war fixed effects, replacing CINC ratios with DOE scores ($N = 36,834$).



Tables A28, A29, and A30 replicate Tables A17, A18, and A19, but each adds a fourth column that shows the results for the inconsistency measure created using DOE scores instead of CINC ratios. (As such, the first three columns of these three tables are identical to what is presented in the main text; they are provided again here for easier reference.) Figure A14 is the corresponding coefficient plot. (Again, note that the first three panels are identical with Figure 4.2 in the main text.)

We see continued evidence that failed negotiations are associated with a drop in inconsistency, as measured using DOE scores. This alternate measure of inconsistency, however, appears to provide similarly negative results regardless of whether we look at the first negotiation or any subsequent negotiations. The divergent result stems from differences in the two measures for a handful of wars where CINC ratios would suggest that the war initiator should have an overwhelmingly high probability of victory (due to having far more observable capabilities than the target), whereas the DOE scores suggest more balanced probabilities. One reason for this difference may be that inconsistency measured using DOE scores is larger than inconsistency measured using CINC scores in more than two-thirds of all observations. As such, changes in battlefield outcomes following failed negotiations—which ostensibly reveal more information that should help belligerents converge in their expectations regarding the conflict's trajectory—may have a bigger effect on the DOE-based inconsistency measure (since the newly revealed information is closing a larger gap between battlefield outcomes and pre-war expectations), even in later stages of conflict.

Finally, I note that if I rerun the same placebo test described in Appendix 4.3 using the measure of inconsistency created using DOE scores, the average coefficient is -0.008, and the 95% confidence interval is $[-0.024, 0.007]$. As this interval contains zero, these additional results provide no evidence of a statistically significant effect simply based on the passage of time.

Table A28: Results of ordinary least squares regressions analyzing changes in battlefield measures, using all negotiations and a 60-day temporal window around failed negotiations.

	Dependent variable:			
	Recent imb.	Momentum	Inconsistency	Inconsist. (DOE)
	(1)	(2)	(3)	(4)
Post-negotiation	0.225^{***}	-0.232^{***}	-0.013^{***}	-0.026^{***}
	(0.027)	(0.028)	(0.002)	(0.002)
Negotiation	0.097^{**}	-0.020	-0.001	-0.026^{***}
	(0.049)	(0.051)	(0.003)	(0.003)
Time trend	-0.0002^{***}	-0.0004^{***}	-0.0002^{***}	0.0001^{***}
	(0.00004)	(0.00004)	(0.00000)	(0.00000)
Constant	1.309^{***}	1.606^{***}	0.041^{***}	0.469^{***}
	(0.129)	(0.135)	(0.009)	(0.010)
Observations	14,126	14,126	13,008	13,008

$^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

Table A29: Results of ordinary least squares regressions analyzing changes in battlefield measures, using the first negotiation in each war and a 60-day temporal window around failed negotiations.

	Dependent variable:			
	Recent imb.	Momentum	Inconsistency	Inconsist. (DOE)
	(1)	(2)	(3)	(4)
Post-negotiation	1.045^{***}	-0.264^{**}	-0.035^{***}	-0.029^{***}
	(0.104)	(0.109)	(0.006)	(0.007)
Negotiation	0.237^{*}	0.476^{***}	0.038^{***}	-0.022^{**}
	(0.131)	(0.138)	(0.008)	(0.009)
Time trend	-0.001	-0.005^{***}	-0.0002^{***}	0.00003
	(0.001)	(0.001)	(0.0001)	(0.0001)
Constant	0.337	1.867^{***}	0.070^{***}	0.487^{***}
	(0.225)	(0.236)	(0.015)	(0.017)
Observations	4,861	4,861	4,203	4,203

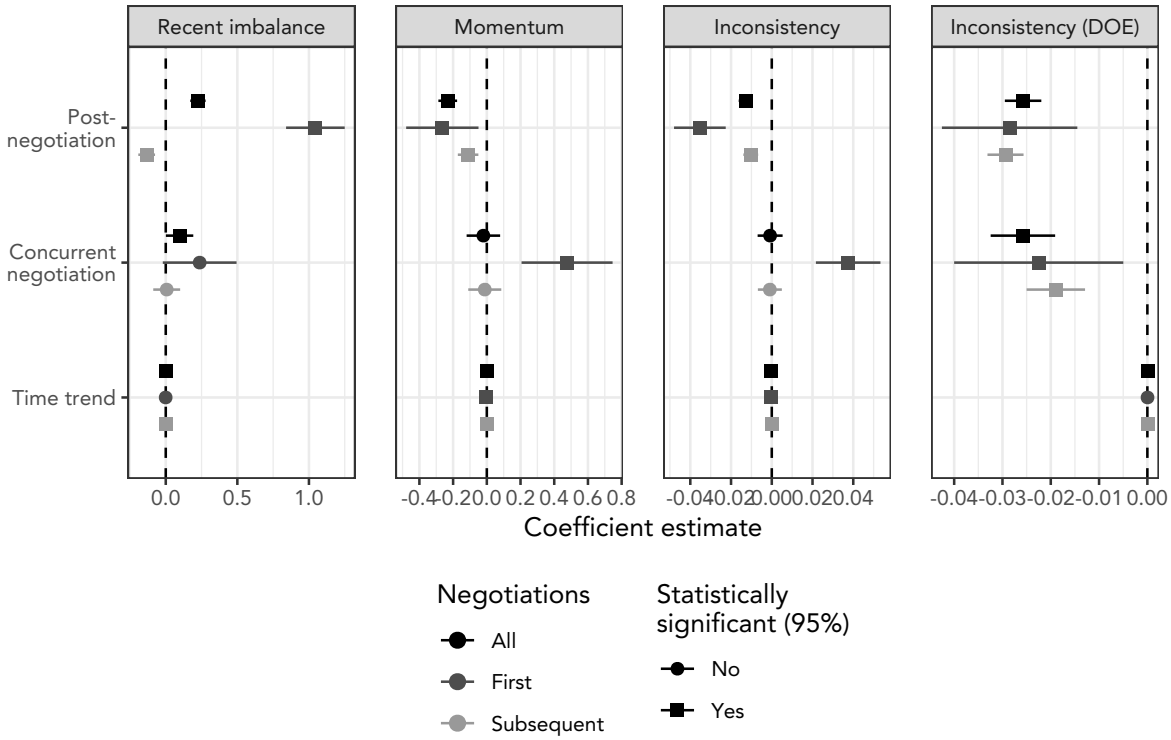
$^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

Table A30: Results of ordinary least squares regressions analyzing changes in battlefield measures, using all negotiations after the first in each war and a 60-day temporal window around failed negotiations.

	Dependent variable:			
	Recent imb.	Momentum	Inconsistency	Inconsist. (DOE)
	(1)	(2)	(3)	(4)
Post-negotiation	-0.133^{***}	-0.111^{***}	-0.010^{***}	-0.029^{***}
	(0.030)	(0.031)	(0.002)	(0.002)
Negotiation	0.007	-0.012	-0.001	-0.019^{***}
	(0.048)	(0.050)	(0.003)	(0.003)
Time trend	-0.0002^{***}	-0.001^{***}	-0.0001^{***}	0.00004^{***}
	(0.00004)	(0.00004)	(0.00000)	(0.00000)
Constant	1.564^{***}	1.597^{***}	0.035^{***}	0.469^{***}
	(0.147)	(0.153)	(0.010)	(0.010)
Observations	9,265	9,265	8,805	8,805

$^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

Figure A14: Coefficient plots for OLS models of changes in battlefield outcomes after failed negotiations, using a 60-day temporal window. Results for inconsistency calculated using DOE scores included. Bands represent 95% confidence intervals.



5 Additional Results for Chapter 6

5.1 Model Metrics

Table A31 lists the performance metrics for five supervised learning models that were applied to the negotiation data. While I use the Kappa statistic to choose the best model, note that the more straightforward accuracy statistic also identifies the random forest model as the best predictive model based on out-of-sample performance. (As a point of reference, a null model that predicts every statement to be sincere would have an accuracy rate of 0.61.) The random forest model also provides the strongest balance of sensitivity. Three other models do just as well or better in terms of specificity, with support vector machines exhibiting the best performance on that metric. Nevertheless, the random forest appears to be the best choice on all other dimensions.

Table A31: Performance metrics for candidate supervised learning models.

Model	Accuracy	Kappa	Sensitivity	Specificity
Random forest	0.865	0.678	0.852	0.870
Gradient boosting	0.825	0.578	0.759	0.849
Neural network	0.825	0.564	0.704	0.870
Naive Bayes	0.820	0.543	0.667	0.877
Support vector machine	0.820	0.527	0.611	0.897

5.2 Descriptive Statistics

Table A32 supplies descriptive statistics for all continuous measures used in the analysis. Table A33 presents descriptive statistics for all categorical and binary measures.

Variable	Min.	1Q	Med.	Mean	3Q	Max.
Recent imbalance	0.000	0.019	0.031	0.031	0.410	0.090
Recent casualties	4.018	4.670	5.193	5.217	5.718	6.390
Recent UNC ground gains	0.002	0.006	0.041	0.039	0.054	0.116
Recent UNC ground losses	0.003	0.006	0.009	0.010	0.011	0.025
Recent UNC casualties	3.976	4.613	5.106	5.129	5.570	6.226
Recent Communist POWs	0.141	0.615	1.166	1.279	1.787	3.043
Report length (logged)	6.390	7.917	7.987	7.878	8.036	8.377
Combat sorties (logged)	2.708	5.826	6.188	5.962	6.377	6.849

Table A32: Summary statistics for continuous variables.

Variable	0 / No	1 / Yes
Sincere negotiation behavior	5,260 (0.389)	8,266 (0.611)
Winter	8,247 (0.610)	5,279 (0.390)
Eisenhower	11,795 (0.872)	1,731 (0.128)
Post-Stalin	11,938 (0.883)	1,588 (0.117)
Communist delegation	6,733 (0.498)	6,793 (0.502)
Plenary level	11,730 (0.867)	1,796 (0.133)
Sub-delegation level	8,999 (0.665)	4,527 (0.335)
Staff level	9.547 (0.706)	3,979 (0.294)
Other levels	10,302 (0.762)	3,224 (0.238)

Table A33: Summary statistics for discrete variables. Proportions in parentheses.

5.3 Regression Results

5.3.1 Full 60-Day Results

Table A34 presents the results of the four logistic regressions described and summarized in Chapter 6. Model 1 is the full model with all statements. Model 2 limits the data to only statements from 1951 and 1952, which is the time period in which UNC operations reports include information on air sorties. Model 3 limits the analysis to only statements made by the UNC; Model 4 looks only at statements by the Communist delegation.

Note that Models 1 and 2 are visually represented as coefficient plots in Figure 6.5 of the main text; Models 3 and 4 are reflected in Figure 6.6 of the main text.

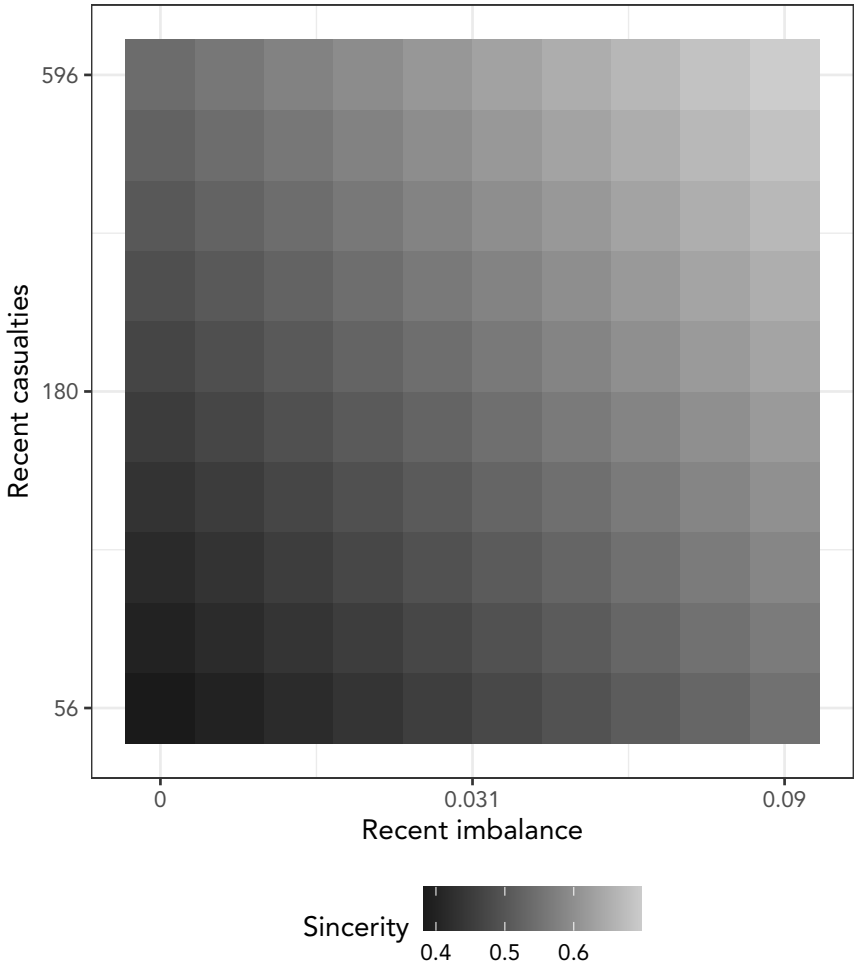
A more intuitive way to understand these results is to plot predicted probabilities. I can do so using Model 1 from Table A34. I keep the delegation fixed as the United Nations Command and hold all other variables at mean or median values. I then vary the values of recent imbalance and recent casualties to their lowest and highest values. Table 6.4 in the book presents predicted probabilities for the lowest and highest values. Figure A15 uses a heat map to illustrate predicted probabilities for all observed values of recent imbalance and casualties.

Table A34: Full statistical results for models presented in Chapter 6.

	Dependent variable:			
	Sincere negotiation behavior			
	All	Through 1952	UNC	Communists
	(1)	(2)	(3)	(4)
Recent imbalance	0.138***	0.140***		
	(0.043)	(0.045)		
Recent casualties	0.178***	0.176***		
	(0.045)	(0.046)		
Recent UNC ground losses			0.165**	
			(0.068)	
Recent UNC casualties			0.108	
			(0.073)	
Recent Communist ground losses				0.172
				(0.109)
Recent Communist POWs				0.225**
				(0.101)
Winter	0.002	0.006	−0.007	0.058
	(0.040)	(0.041)	(0.052)	(0.059)
Report length	−0.041	0.091	−0.088	−0.021
	(0.051)	(0.110)	(0.072)	(0.071)
Eisenhower	−0.267***		−0.253**	−0.261***
	(0.076)		(0.117)	(0.096)
Post-Stalin	0.472***		0.329***	0.586***
	(0.063)		(0.097)	(0.077)
Combat sorties		0.020		
		(0.032)		
1952 election	−0.023	−0.027	−0.024	0.024
	(0.025)	(0.027)	(0.030)	(0.037)
Communist delegation	−0.119*	−0.118*		
	(0.064)	(0.069)		
Sub-delegation level	−0.066	−0.134	−0.026	0.079
	(0.104)	(0.105)	(0.164)	(0.145)
Staff level	0.646***	0.576***	0.675***	0.781***
	(0.094)	(0.104)	(0.146)	(0.136)
Other levels	0.994***	0.910***	1.012***	1.140***
	(0.100)	(0.107)	(0.140)	(0.144)
Constant	0.143*	0.093	0.117	−0.098
	(0.073)	(0.087)	(0.106)	(0.099)
Observations	13,526	11,757	6,733	6,793
Clustered SEs (Speaker-meeting-day)	✓	✓	✓	✓

*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$

Figure A15: Heat map of predicted probabilities using Model 1 in Table A34.



5.3.2 Full 30-Day and 90-Day Results

Table A35 replicates the main models from Chapter 6 using measures of recent imbalance and casualties over the previous 30 or 90 days conflict. Figure A16 presents coefficient plots that summarize Models 1 and 2 (30-day windows), while Figure A18 summarizes Models 3 and 4 (60-day windows).

The impact of recent imbalance is not statistically significant using a 30-day window. This suggests that there was a time lag longer than 30 days between the moment belligerents learned about imbalance or movement on the battlefield and the moment belligerents adjusted their negotiation behavior based on this information.

Figures A17 and A19 display heat maps of predicted probabilities using Models 1 and 3, which use battlefield measures with 30-day and 90-day windows respectively.

Table A35: Full statistical results for models using 30-day and 90-day measures of battlefield activity.

	Dependent variable:			
	Sincere negotiation behavior			
	All	Through 1952	All	Through 1952
	(1)	(2)	(3)	(4)
Recent imbalance (30-day)	0.059	0.055		
	(0.050)	(0.051)		
Recent casualties (30-day)	0.214***	0.219***		
	(0.045)	(0.047)		
Recent imbalance (90-day)			0.112**	0.116**
			(0.046)	(0.048)
Recent casualties (90-day)			0.198***	0.194***
			(0.045)	(0.045)
Winter	0.018	0.026	−0.016	−0.012
	(0.042)	(0.044)	(0.039)	(0.040)
Report length	−0.066	0.015	−0.041	0.095
	(0.051)	(0.111)	(0.050)	(0.109)
Eisenhower	−0.332***		−0.272***	
	(0.076)		(0.076)	
Post-Stalin	0.448***		0.471***	
	(0.063)		(0.064)	
Combat sorties		−0.002		0.022
		(0.031)		(0.032)
1952 election	−0.059**	−0.065**	−0.022	−0.025
	(0.024)	(0.027)	(0.024)	(0.027)
Communist delegation	−0.119*	−0.118*	−0.119*	−0.118*
	(0.064)	(0.069)	(0.064)	(0.069)
Sub-delegation level	−0.123	−0.195*	−0.072	−0.138
	(0.107)	(0.109)	(0.102)	(0.104)
Staff level	0.574***	0.500***	0.666***	0.598***
	(0.092)	(0.103)	(0.095)	(0.105)
Other levels	0.873***	0.787***	0.999***	0.916***
	(0.092)	(0.099)	(0.102)	(0.109)
Constant	0.211***	0.215***	0.137*	0.086
	(0.075)	(0.082)	(0.074)	(0.087)
Observations	13,526	11,757	13,526	11,757
Clustered SEs (Speaker-meeting-day)	✓	✓	✓	✓

*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$

Figure A16: Coefficient plots of logistic regressions concerning Korean War negotiation sincerity, using a 30-day temporal window.

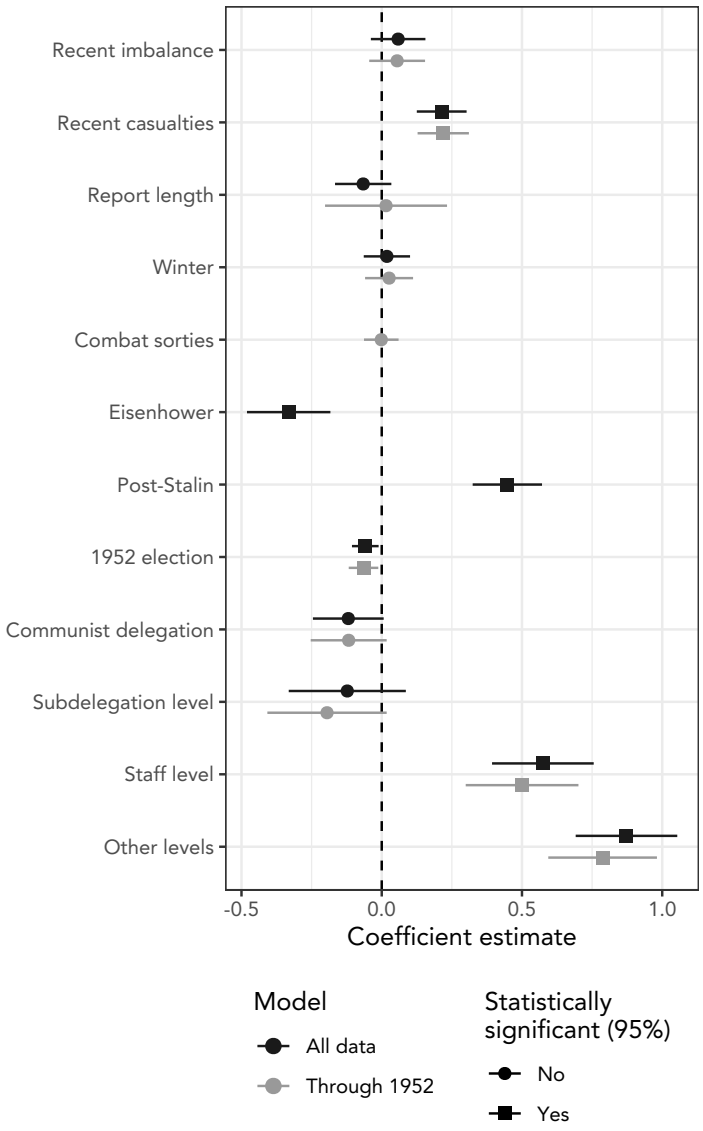


Figure A17: Heat map of predicted probabilities using Model 1 in Table A35 (30-day window).

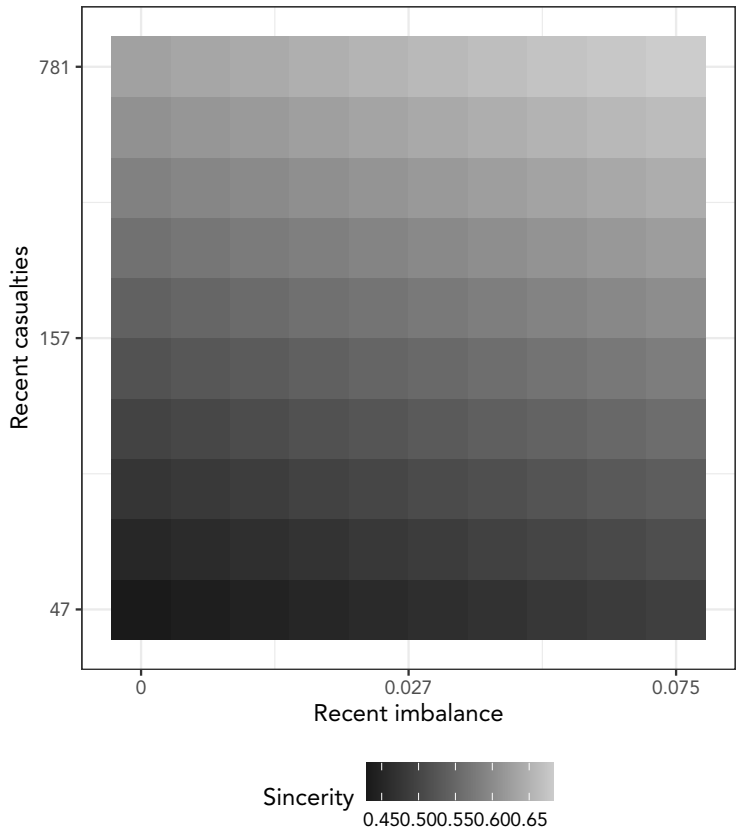


Figure A18: Coefficient plots of logistic regressions concerning Korean War negotiation sincerity, using a 30-day temporal window.

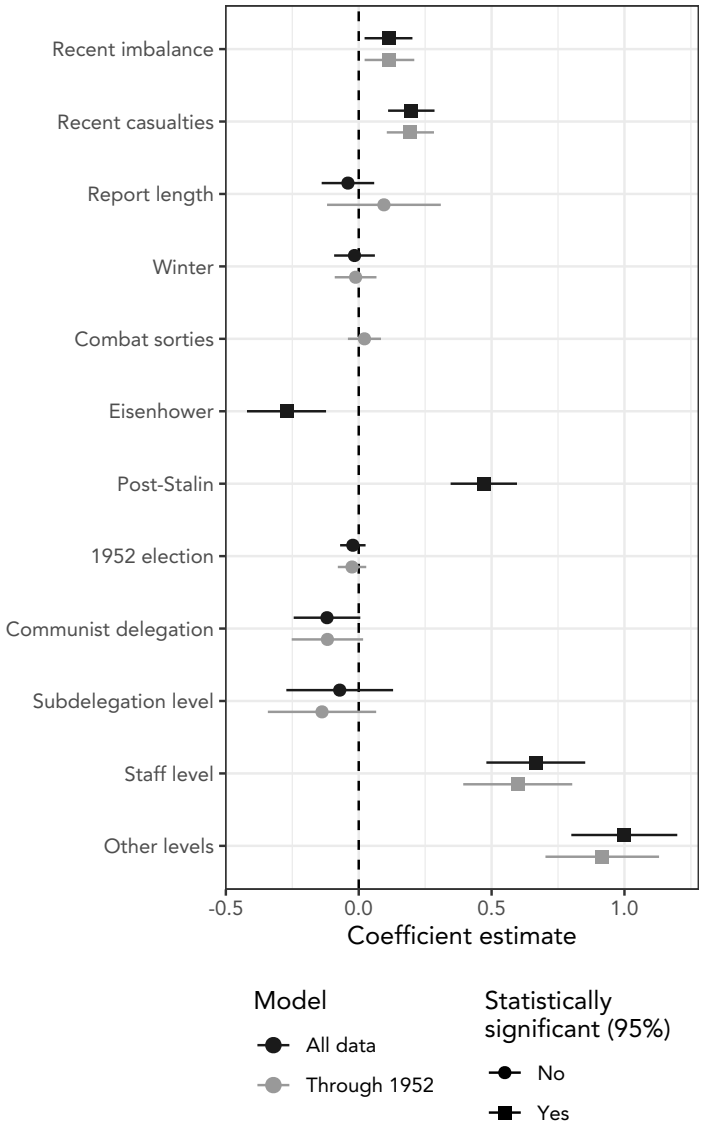
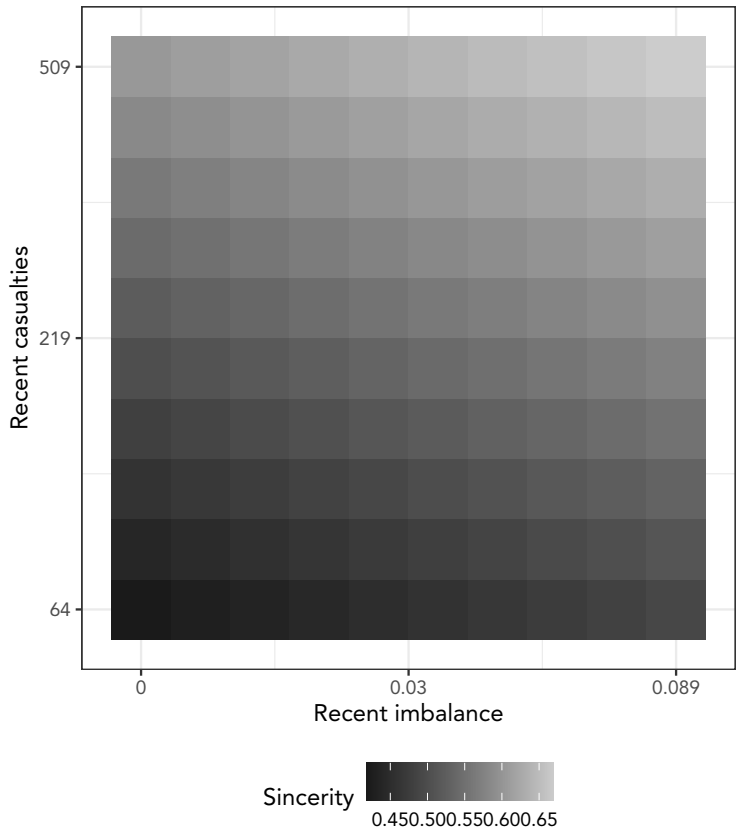


Figure A19: Heat map of predicted probabilities using Model 3 in Table A35 (90-day window).



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