

Online Appendices

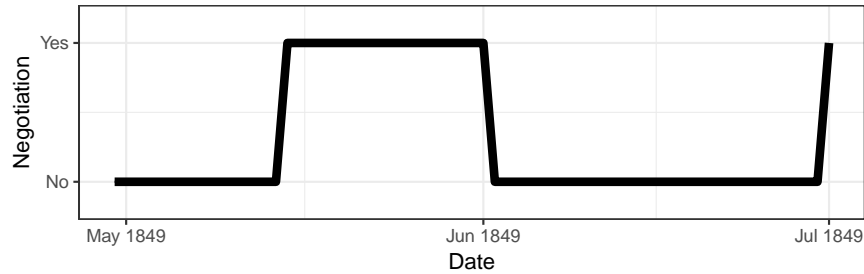
for

“Talking while Fighting:
Understanding the Role of Wartime Negotiation”

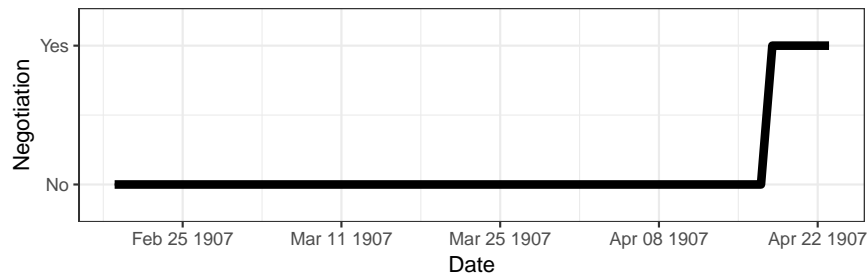
Appendix A: Three Additional Wars

In the main text, I provide plots that track negotiations in four wars using my binary negotiation variable. I explain one of these—the Korean War—in detail. This appendix provides brief descriptions for the three remaining conflicts, which are displayed in Figure 1.

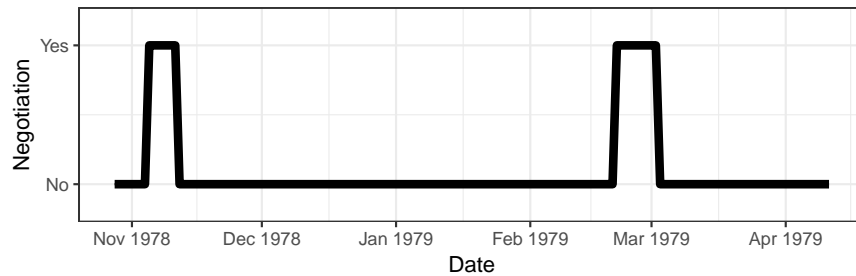
Figure 1. Plots of negotiations for three wars.



(a) Roman Republic (1849)



(b) Fourth Central American War (1907)



(c) Ugandan-Tanzanian War (1978-1979)

The War of the Roman Republic started on April 30, 1849 when Giuseppe Garibaldi repulsed French forces, which were helping Pope Pius IX to dislodge the Roman Republic—a republican government that declared itself a replacement of the Papal States. On May 15, French diplomat Ferdinand de Lesseps arrived in Rome to begin negotiations with Giuseppe Mazzini, one of the triumvirs of the republic. Talks ended on May 31, with France apparently agreeing to ally with the Roman Republic to fight against a common adversary: Austria. However, this negotiation period proved to be a ruse that France exploited to buy time. French troops began a siege days later and forced the new government to relent. A second negotiation period occurred on July 1 and 2, during which the two sides negotiated and signed a truce that disestablished the Roman Republic.¹

¹Trevelyan, George. 1912. *Garibaldi's Defence of the Roman Republic*. London: Longmans, Green and Company.

The Fourth Central American War began on February 19, 1907 when Nicaragua initiated hostilities against Nicaragua and El Salvador. Diplomatic cables from the *Foreign Relations of the United States* indicate that as fierce fighting trended in Nicaragua's favor, all three belligerents asked for the United States and Mexico to mediate a peace.² Both Mexico and the United States agreed, and talks opened in Amapala on April 18 between foreign ministers of Nicaragua and El Salvador. Five days later, representatives signed a treaty, ending the one negotiation period and overall conflict.³

Lastly, the Ugandan-Tanzanian War presents a case where negotiations took place but hostilities ended through a military victory. Fighting broke out on October 28, 1978 as Ugandan forces attempted to annex several hundred square miles of Tanzanian territory. The first negotiation period began on November 5 when a delegation led by Philip Obang (Sudanese ambassador to the Organization of African Unity, or OAU) and Peter Onu (Assistant Secretary General to the OAU) arrived in Kampala to speak with Ugandan president Idi Amin, who agreed to a withdrawal plan. The effort fell flat on November 11, when the Tanzanian government rejected the OAU's proposal.⁴ A second negotiation period started on February 21, 1979, when the OAU convened an ad hoc Mediation Committee prior to their Council of Ministers conference. Representatives from Uganda and Tanzania both participated in this meeting but reached no agreement.⁵ The OAU declared this effort a failure on March 2, 1979. By April 11, Tanzanian forces took the city of Kampala and deposed Idi Amin, ending the war.

²Foreign Relations of the United States. 1909. *Foreign Relations of the United States with the Annual Message of the President Transmitted to Congress December 3, 1906. Volume II.* Washington, DC: Government Printing Office.

³Stuart, Graham. 1922. *Latin America and the United States.* New York: Century Company.

⁴Roberts, George. 2014. "The Uganda-Tanzania War, the Fall of Idi Amin, and the Failure of African Diplomacy, 1978-1979." *Journal of Eastern African Studies* 8(4): 692-709.

⁵Avirgan, Tony and Martha Honey. 1982. *War in Uganda: The Legacy of Idi Amin.* Westport, CT: Lawrence Hill & Company.

Appendix B: Negotiation Periods

Table 1 lists the number of distinct negotiation periods and days recorded in each war. Wars are split apart by historical era and listed in chronological order according to start date.

Table 1. Number of negotiation periods and days per war.

Pre-1945	Periods	Days	Post-1945	Periods	Days
Franco-Spanish	1	1	First Kashmir	5	145
First Russo-Turkish	1	6	Arab-Israeli	1	114
Mexican-American	2	30	Korean	3	488
Austro-Sardinian	1	1	Off-shore Islands	0	0
First Schleswig-Holstein	5	190	Sinai War	0	0
Roman Republic	2	19	Soviet Invasion of Hungary	0	0
La Plata	0	0	IfniWar	1	1
Crimean	2	258	Taiwan Straits	1	53
Anglo-Persian	2	64	Assam	2	25
Italian Unification	1	5	Vietnam War, Phase 2	8	2,157
First Spanish-Moroccan	1	3	Second Kashmir	0	0
Italian-Roman	0	0	Six Day War	0	0
Neapolitan	1	4	War of Attrition	2	70
Franco-Mexican	1	1	Football War	1	1
Ecuadorian-Colombian	0	0	Bangladesh	0	0
Second Schleswig-Holstein	2	88	Yom Kippur War	0	0
Lopez	2	30	Turco-Cypriot	1	21
Naval War	1	13	War over Angola	1	4
Seven Weeks	2	6	Second Ogaden War, Phase 2	2	8
Franco-Prussian	3	13	Vietnamese-Cambodian	2	2
First Central American	1	5	Ugandan-Tanzanian	2	17
Second Russo-Turkish	1	18	Sino-Vietnamese Punitive	0	0
War of the Pacific	4	157	Iran-Iraq	9	65
Conquest of Egypt	0	0	Falkland Islands	3	39
Sino-French	3	156	War over Lebanon	1	74
Second Central American	1	1	War over the Aouzou Strip	2	70
First Sino-Japanese	2	13	Gulf War	1	3
Greco-Turkish	1	1	Bosnian Independence	2	10
Spanish-American	1	26	Azeri-Armenian	6	20
Boxer Rebellion	0	0	Cenepa Valley	3	8
Sino-Russian	0	0	Badme Border	10	135
Russo-Japanese	1	28	War for Kosovo	2	58
Third Central American	1	2	Kargil War	2	25
Fourth Central American	1	6	Invasion of Afghanistan	0	0
Second Spanish-Moroccan	0	0	Invasion of Iraq	0	0
Italian-Turkish	8	145			
First Balkan	3	74			
Second Balkan	2	8			
World War I	8	90			
Estonian Liberation	4	46			
Latvian Liberation	2	16			
Russo-Polish	7	111			
Hungarian Adversaries	0	0			
Second Greco-Turkish	3	63			
Franco-Turkish	3	111			
Lithuanian-Polish	3	18			
Manchurian	2	8			
Second Sino-Japanese	4	78			
Chaco	5	360			
Saudi-Yemeni	1	2			
Conquest of Ethiopia	0	0			
Third Sino-Japanese	5	351			
Changkufeng	2	2			
Nomonhan	1	8			
World War II	1	15			
Russo-Finnish	3	54			
Franco-Thai	2	14			

Appendix C: Descriptive Statistics

Below are descriptive statistics for all wars, also broken down to pre-1945 and post-1945. Table 2 provides some summaries of several features of war, such as their average length, proportion of time spent in negotiations, and so on. Tables 3 and 4 present summary statistics of the variables used in the statistical analysis.

Table 2. Summary statistics at the war level.

		Min.	1Q	Med.	Mean	3Q	Max.
War length (days)	<i>All</i>	5.00	59.75	152.00	402.15	443.00	3735.00
	<i>Pre-1945</i>	7.00	67.00	181.00	416.20	507.00	2175.00
	<i>Post-1945</i>	5.00	31.00	93.00	374.90	262.50	3735.00
Negotiation periods	<i>All</i>	1.00	1.00	1.50	2.05	3.00	10.00
	<i>Pre-1945</i>	1.00	1.00	2.00	2.42	3.00	8.00
	<i>Post-1945</i>	1.00	1.00	2.00	2.92	3.00	10.00
Negotiation length (days)	<i>All</i>	1.00	3.00	9.00	33.49	29.00	1306.00
	<i>Pre-1945</i>	1.00	2.75	9.00	23.44	29.75	192.00
	<i>Post-1945</i>	1.00	3.00	9.00	49.49	27.00	1306.00
Prop. w/ negotiations	<i>All</i>	0.00	0.04	0.14	0.20	0.33	0.75
	<i>Pre-1945</i>	0.00	0.05	0.09	0.15	0.23	0.52
	<i>Post-1945</i>	0.00	0.04	0.20	0.29	0.50	0.75
First neg. (prop. of war)	<i>All</i>	0.00	0.13	0.45	0.48	0.80	1.00
	<i>Pre-1945</i>	0.00	0.28	0.60	0.57	0.93	1.00
	<i>Post-1945</i>	0.02	0.05	0.23	0.32	0.50	1.00

Table 3. Summary statistics for continuous variables.

		Min.	1Q	Med.	Mean	3Q	Max.
Issue salience	<i>All</i>	0.00	2.00	2.00	2.49	3.00	4.00
	<i>Pre-1945</i>	0.00	2.00	2.00	2.31	3.00	4.00
	<i>Post-1945</i>	0.00	2.00	2.00	2.82	4.00	4.00
CINC ratio	<i>All</i>	0.01	0.30	0.52	0.55	0.82	0.99
	<i>Pre-1945</i>	0.02	0.31	0.52	0.55	0.80	0.99
	<i>Post-1945</i>	0.01	0.28	0.53	0.56	0.93	0.99

Table 4. Summary statistics for binary variables.

		0 (No)	1 (Yes)
Negotiation	<i>All</i>	30,517 (0.828)	6,332 (0.172)
	<i>Pre-1945</i>	21,007 (0.885)	2,719 (0.115)
	<i>Post-1945</i>	9,510 (0.725)	3,613 (0.275)
Contiguity	<i>All</i>	16,658 (0.452)	20,191 (0.548)
	<i>Pre-1945</i>	10,817 (0.456)	12,909 (0.544)
	<i>Post-1945</i>	5,841 (0.445)	7,282 (0.555)
Democratic belligerent	<i>All</i>	26,592 (0.722)	10,257 (0.278)
	<i>Pre-1945</i>	17,451 (0.736)	6,275 (0.264)
	<i>Post-1945</i>	9,141 (0.697)	3,982 (0.303)
Major/Nuclear belligerent	<i>All</i>	16,241 (0.441)	20,608 (0.599)
	<i>Pre-1945</i>	9,791 (0.413)	13,935 (0.587)
	<i>Post-1945</i>	7,513 (0.573)	5610 (0.427)

Appendix D: The 1945 Line

In the main text, I describe a structural break test where the time series of interest is the total number of war-days featuring negotiations in each year between 1823 and 2003. The tests incorporate measures for the total number of wars and the total number of war-days in each year. The model with the best (lowest) Bayesian information criterion identifies two breaks at 1945 and 1972. This appendix presents more comprehensive results.

Table 5 shows statistics for model fit for m breaks, where m can range from 0 to 5. Note that the BIC is lowest for $m = 2$. Table 6 identifies the same structural breaks but includes the 95% confidence intervals. The intervals lend even more support for the $m = 2$ model. Confidence intervals become very large with higher numbers of breaks. In the case of $m = 3$, the model fails to identify a valid lower bound for the 1852 break. All models with at least two breaks feature narrow bounds around 1945 and 1972.

Table 5. Results from structural break test.

m	0	1	2	3	4	5
BIC	2,107.018	2,088.846	2,009.317	2,021.055	2,034.270	2,048.244
Year(s)		1947	1945 1972	1852 1945 1972	1852 1881 1945 1972	1852 1881 1914 1945 1972

Table 6. Structural breaks with 95% confidence intervals. Each entry is [lower bound, identified break, upper bound].

m					
1	[1923, 1947, 1951]				
2	[1941, 1945, 1946]	[1971, 1972, 1976]			
3	[1714, 1852, 1866]	[1941, 1945, 1946]	[1971, 1972, 1976]		
4	[1830, 1852, 1857]	[1850, 1881, 1905]	[1941, 1945, 1946]	[1971, 1972, 1976]	
5	[1830, 1852, 1857]	[1865, 1881, 1888]	[1897, 1914, 1933]	[1941, 1945, 1946]	[1971, 1972, 1976]

The main text also mentions a series of bivariate regressions where I regress the negotiation indicator on a dummy variable that takes the value 1 for all war days after a year Y , where Y ranges from 1824 (one year after the Franco-Spanish War) to 2002 (one year before the Invasion of Iraq). This results in 179 models, each of which has a Bayesian information criterion (BIC) that reflects model fit. Figure 2 displays these BICs according to cutoff year Y . The model featuring the lowest BIC either uses the cutoff $Y = 1945$ or $Y = 1946$ (the BICs are equal). Given that no wars start between 1940 and 1947, these are equivalent results that both highlight an inflection point around 1945.

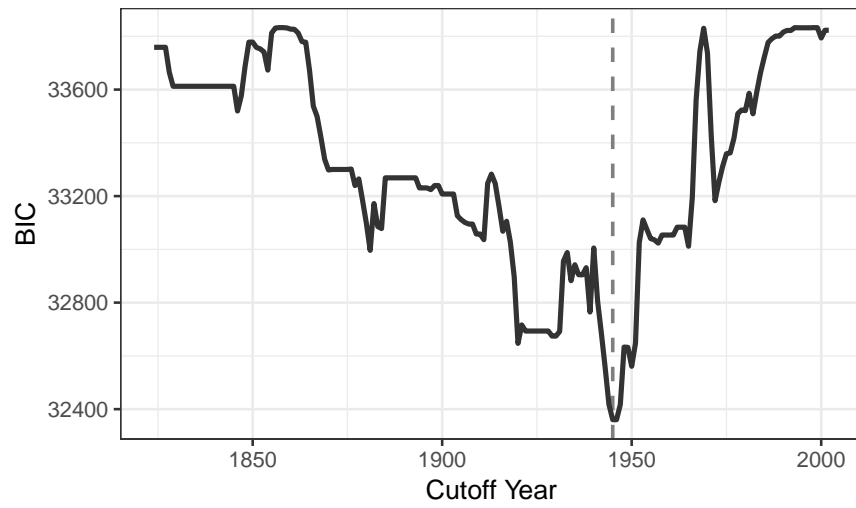


Figure 2. BICs for bivariate logistic regressions. Outcome variable is negotiation, and explanatory variable is an indicator taking the value 1 for all war-days after year Y . Vertical dotted line represents 1945.

Appendix E: Additional Analysis

Table 2 in the main text shows that the rate of wartime negotiations rose from 11.5% before 1945 to 27.5% after 1945. We can explore this point further.

Table 7 delves deeper and uses the war-day as the unit of analysis. I regress the occurrence of a negotiation on the post-1945 indicator. Models 1 and 2 use logistic regressions with a lagged outcome variable. Both the bivariate and full models indicate that post-1945 wars have a higher propensity for negotiations compared to pre-1945 wars.

The logistic models face convergence issues when introducing both the post-1945 variable and war fixed effects. Because we are simply interested in the marginal effect of being a post-1945 war on negotiation, Models 3 and 4 circumvent this by using an ordinary least squares regression with war random effects.⁶ The estimated impact of being a post-1945 war is positive and statistically significant across both specifications. Given that we find substantively similar results across all four models, we gain further confidence that specific model choice is not responsible for this finding.

In both Models 2 and 4, wars with relatively more capable initiators tend to experience higher levels of negotiation. Active battles also decrease the likelihood of negotiation. This may indicate that belligerents are less willing to bargain verbally when they are fighting and hoping to learn the outcomes of these hostilities. Interestingly, post-Cold War conflicts do not appear to have a significantly different level of negotiation, suggesting that the adjusted costs to negotiating and avoiding escalation are not a mere artifact of bipolarity.

The results thus far makes clear that the nature of wartime diplomacy underwent a systemic shift in 1945, which was characterized by a significant increase in the rate of negotiations during war.

⁶Angrist, Joshua D. and Jörn-Steffen Pischke. 2009. *Mostly Harmless Economics: An Empiricist's Companion*. Princeton: Princeton University Press.

Table 7. Results of regressions on the effect of the post-1945 environment on negotiation frequency.

	<i>Dependent variable:</i>			
	Negotiation			
	<i>Logistic</i>		<i>OLS</i>	
	(1)	(2)	(3)	(4)
Lagged DV	8.783*** (0.112)	8.631*** (0.115)		
Post-1945	0.467*** (0.111)	0.501*** (0.138)	0.084** (0.041)	0.222*** (0.083)
Issue salience		0.012 (0.081)		-0.049 (0.043)
Contiguity		-0.344** (0.145)		0.181** (0.082)
CINC ratio		0.575*** (0.212)		0.346*** (0.018)
Democracy		-0.090 (0.146)		-0.276*** (0.009)
Major/Nuclear		0.306** (0.142)		0.625*** (0.012)
Time trend		-0.064 (0.046)		0.036*** (0.002)
Constant	-5.257*** (0.088)	-5.198*** (0.379)	0.130*** (0.025)	-0.515*** (0.103)
Observations	36,757	36,757	36,849	36,849
Clustered SEs (War)	✓	✓		
War REs			✓	✓

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