

Appendix

TABLE A1. Sensitivity of Gartzke (2007) to confounding by decade

Exposure (X)	Outcome (Y)	Year	N	RR_{XY}^{obs}	IMF Financial Openness		Trade Dependence		GDP		GDP*Contiguity		Affinity	
					RR_{XU}	RR_{UY}	RR_{XU}	RR_{UY}	RR_{XU}	RR_{UY}	RR_{XU}	RR_{UY}	RR_{XU}	RR_{UY}
Joint Democracy (Gartzke)	Absence of MIDs	1950-59	33864	3.27			6.66	0.77	2.78	1.88	0.44	19.46	1.26	2.62
Joint Democracy (Gartzke)	Absence of Deadly MIDs	1950-59	33864	5.19			6.66	0.88	2.78	1.84	0.44	14.91	1.26	3.26
Joint Democracy (Gartzke)	Absence of War	1950-59	33864	Inf			6.66	2.54	2.78	90.62	0.44	2.97	1.26	4.03
Joint Democracy (Cederman)	Absence of MIDs	1950-59	33864	2.50			3.53	0.77	2.33	1.88	0.58	19.46	1.13	2.62
Joint Democracy (Cederman)	Absence of Deadly MIDs	1950-59	33864	2.35			3.53	0.88	2.33	1.84	0.58	14.91	1.13	3.26
Joint Democracy (Cederman)	Absence of War	1950-59	33864	Inf			3.53	2.54	2.33	90.62	0.58	2.97	1.13	4.03
Joint Democracy (Gartzke)	Absence of MIDs	1960-69	74787	9.55	1.54	2.92			2.91	1.48	0.49	38.19	1.77	1.61
Joint Democracy (Gartzke)	Absence of Deadly MIDs	1960-69	74787	Inf	1.54	Inf			2.91	0.89	0.49	111.61	1.77	1.43
Joint Democracy (Gartzke)	Absence of War	1960-69	74787	Inf	1.54	Inf			2.91	5.50	0.49	13.19	1.77	3.65
Joint Democracy (Cederman)	Absence of MIDs	1960-69	74787	5.27	1.21	2.92			2.04	1.48	0.64	38.19	1.19	1.61
Joint Democracy (Cederman)	Absence of Deadly MIDs	1960-69	74787	13.81	1.21	Inf			2.04	0.89	0.64	111.61	1.19	1.43
Joint Democracy (Cederman)	Absence of War	1960-69	74787	Inf	1.21	Inf			2.04	5.50	0.64	13.19	1.19	3.65
Joint Democracy (Gartzke)	Absence of MIDs	1970-79	105947	1.87	1.53	1.81	3.78	0.49	4.65	1.23	0.39	63.46	0.86	0.99
Joint Democracy (Gartzke)	Absence of Deadly MIDs	1970-79	105947	6.01	1.53	2.73	3.78	0.78	4.65	1.83	0.39	45.40	0.86	0.68
Joint Democracy (Gartzke)	Absence of War	1970-79	105947	Inf	1.53	Inf	3.78	1.32	4.65	2.79	0.39	34.66	0.86	0.85
Joint Democracy (Cederman)	Absence of MIDs	1970-79	105947	1.66	1.34	1.81	1.76	0.49	2.72	1.23	0.56	63.46	0.88	0.99
Joint Democracy (Cederman)	Absence of Deadly MIDs	1970-79	105947	2.47	1.34	2.73	1.76	0.78	2.72	1.83	0.56	45.40	0.88	0.68
Joint Democracy (Cederman)	Absence of War	1970-79	105947	6.78	1.34	Inf	1.76	1.32	2.72	2.79	0.56	34.66	0.88	0.85
Joint Democracy (Gartzke)	Absence of MIDs	1980-89	127212	1.36	1.38	2.48	5.13	0.30	6.85	0.64	0.38	74.12	0.63	2.10
Joint Democracy (Gartzke)	Absence of Deadly MIDs	1980-89	127212	4.81	1.38	3.22	5.13	0.35	6.85	0.95	0.38	109.28	0.63	1.63
Joint Democracy (Gartzke)	Absence of War	1980-89	127212	Inf	1.38	5.67	5.13	1.44	6.85	0.11	0.38	69.39	0.63	1.00
Joint Democracy (Cederman)	Absence of MIDs	1980-89	127212	1.66	1.19	2.48	1.58	0.30	3.90	0.64	0.57	74.12	0.75	2.10
Joint Democracy (Cederman)	Absence of Deadly MIDs	1980-89	127212	<u>0.52</u>	1.19	3.22	1.58	0.35	3.90	0.95	0.57	109.28	0.75	1.63
Joint Democracy (Cederman)	Absence of War	1980-89	127212	Inf	1.19	5.67	1.58	1.44	3.90	0.11	0.57	69.39	0.75	1.00
Joint Democracy (Gartzke)	Absence of MIDs	1990-92	44746	1.71	1.39	1.25	3.47	0.31	4.37	0.23	0.45	32.23	0.68	4.28
Joint Democracy (Gartzke)	Absence of Deadly MIDs	1990-92	44746	Inf	1.39	0.52	3.47	0.43	4.37	0.12	0.45	13.43	0.68	32.49
Joint Democracy (Gartzke)	Absence of War	1990-92	44746	Inf	1.39	0.25	3.47	0.29	4.37	0.00	0.45	17.91	0.68	Inf
Joint Democracy (Cederman)	Absence of MIDs	1990-92	44746	3.04	1.14	1.25	1.30	0.31	2.18	0.23	0.78	32.23	0.78	4.28
Joint Democracy (Cederman)	Absence of Deadly MIDs	1990-92	44746	Inf	1.14	0.52	1.30	0.43	2.18	0.12	0.78	13.43	0.78	32.49
Joint Democracy (Cederman)	Absence of War	1990-92	44746	Inf	1.14	0.25	1.30	0.29	2.18	0.00	0.78	17.91	0.78	Inf

Notes: Only IMF Financial Openness in the 1980s for MIDs using Gartzke joint democracy variable (bolded) meets the Cornfield conditions. Deadly MIDs in 1980s using Cederman joint democracy variable (underlined) also has $RR_{XY}^{obs} < 1$, which implies no observable relationship between democracy and conflict for that subset of data. “Inf” refer to cases with division by 0. IMF Financial Openness data are completely missing in 1950s, while Trade Dependence data has no variation (all 0) in 1960s.

Robustness of Empirical Evidence for the Democratic Peace

TABLE A2. Sensitivity of Gartzke (2007) to confounding by region

Exposure (X)	Outcome (Y)	Year	N	RR_{XY}^{obs}	IMF Financial Openness		Trade Dependence		GDP		GDP*Contiguity		Affinity	
					RR_{XU}	RR_{UY}	RR_{XU}	RR_{UY}	RR_{XU}	RR_{UY}	RR_{XU}	RR_{UY}	RR_{XU}	RR_{UY}
Joint Democracy (Gartzke)	Absence of MIDs	Africa	25842	Inf	1.41	2.10			1.22	0.57	3.33	111.94	0.93	1.87
Joint Democracy (Gartzke)	Absence of Deadly MIDs	Africa	25842	Inf	1.41	1.53			1.22	0.75	3.33	90.99	0.93	0.95
Joint Democracy (Gartzke)	Absence of War	Africa	25842	Inf	1.41	Inf			1.22	Inf	3.33	Inf	0.93	1.00
Joint Democracy (Cederman)	Absence of MIDs	Africa	25842	<u>0.55</u>	0.89	2.10			1.13	0.57	1.01	111.94	1.03	1.87
Joint Democracy (Cederman)	Absence of Deadly MIDs	Africa	25842	<u>1.12</u>	0.89	1.53			1.13	0.75	1.01	90.99	1.03	0.95
Joint Democracy (Cederman)	Absence of War	Africa	25842	Inf	0.89	Inf			1.13	Inf	1.01	Inf	1.03	1.00
Joint Democracy (Gartzke)	Absence of MIDs	Asia	9928	1.80	1.09	1.25	5.60	0.77	1.32	3.60	0.97	16.64	0.65	1.94
Joint Democracy (Gartzke)	Absence of Deadly MIDs	Asia	9928	1.68	1.09	4.03	5.60	1.00	1.32	7.15	0.97	28.09	0.65	3.42
Joint Democracy (Gartzke)	Absence of War	Asia	9928	Inf	1.09	Inf	5.60	1.06	1.32	Inf	0.97	3.65	0.65	0.75
Joint Democracy (Cederman)	Absence of MIDs	Asia	9928	2.65	1.11	1.25	1.59	0.77	1.69	3.60	1.01	16.64	0.84	1.94
Joint Democracy (Cederman)	Absence of Deadly MIDs	Asia	9928	3.52	1.11	4.03	1.59	1.00	1.69	7.15	1.01	28.09	0.84	3.42
Joint Democracy (Cederman)	Absence of War	Asia	9928	Inf	1.11	Inf	1.59	1.06	1.69	Inf	1.01	3.65	0.84	0.75
Joint Democracy (Gartzke)	Absence of MIDs	Europe	17169	3.31	2.70	2.29	1.83	0.79	Inf	0.95	0.69	6.18	3.57	1.88
Joint Democracy (Gartzke)	Absence of Deadly MIDs	Europe	17169	11.32	2.70	Inf	1.83	2.00	Inf	1.57	0.69	8.48	3.57	2.34
Joint Democracy (Gartzke)	Absence of War	Europe	17169	Inf	2.70	Inf	1.83	1.00	Inf	0.00	0.69	Inf	3.57	0.00
Joint Democracy (Cederman)	Absence of MIDs	Europe	17169	4.16	2.41	2.29	1.40	0.79	36.84	0.95	0.78	6.18	2.86	1.88
Joint Democracy (Cederman)	Absence of Deadly MIDs	Europe	17169	15.72	2.41	Inf	1.40	2.00	36.84	1.57	0.78	8.48	2.86	2.34
Joint Democracy (Cederman)	Absence of War	Europe	17169	Inf	2.41	Inf	1.40	1.00	36.84	0.00	0.78	Inf	2.86	0.00
Joint Democracy (Gartzke)	Absence of MIDs	Middle East	6509	1.30	0.76	2.11	6.98	1.38	3.73	0.91	Inf	24.37	0.49	2.97
Joint Democracy (Gartzke)	Absence of Deadly MIDs	Middle East	6509	Inf	0.76	1.35	6.98	1.72	3.73	0.54	Inf	20.13	0.49	8.44
Joint Democracy (Gartzke)	Absence of War	Middle East	6509	Inf	0.76	5.13	6.98	6.40	3.73	0.34	Inf	36.51	0.49	2.36
Joint Democracy (Cederman)	Absence of MIDs	Middle East	6509	<u>0.51</u>	0.88	2.11	1.08	1.38	1.04	0.91	0.78	24.37	0.53	2.97
Joint Democracy (Cederman)	Absence of Deadly MIDs	Middle East	6509	<u>0.31</u>	0.88	1.35	1.08	1.72	1.04	0.54	0.78	20.13	0.53	8.44
Joint Democracy (Cederman)	Absence of War	Middle East	6509	Inf	0.88	5.13	1.08	6.40	1.04	0.34	0.78	36.51	0.53	2.36
Joint Democracy (Gartzke)	Absence of MIDs	North America	6061	1.26	1.56	1.82	7.86	0.43	10.56	1.41	0.77	12.06	0.69	2.83
Joint Democracy (Gartzke)	Absence of Deadly MIDs	North America	6061	Inf	1.56	14.83	7.86	0.40	10.56	1.54	0.77	3.77	0.69	3.60
Joint Democracy (Gartzke)	Absence of War	North America	6061	Inf	1.56	Inf	7.86	0.00	10.56	0.00	0.77	Inf	0.69	Inf
Joint Democracy (Cederman)	Absence of MIDs	North America	6061	2.48	0.98	1.82	1.01	0.43	9.04	1.41	1.48	12.06	1.43	2.83
Joint Democracy (Cederman)	Absence of Deadly MIDs	North America	6061	1.20	0.98	14.83	1.01	0.40	9.04	1.54	1.48	3.77	1.43	3.60
Joint Democracy (Cederman)	Absence of War	North America	6061	Inf	0.98	Inf	1.01	0.00	9.04	0.00	1.48	Inf	1.43	Inf
Joint Democracy (Gartzke)	Absence of MIDs	South America	2403	1.29	0.92	0.39	1.38	0.13	1.38	0.13	0.87	Inf	3.42	1.32
Joint Democracy (Gartzke)	Absence of Deadly MIDs	South America	2403	Inf	0.92	Inf	1.38	0.00	1.38	0.00	0.87	Inf	3.42	0.75
Joint Democracy (Gartzke)	Absence of War	South America	2403	0.92	0.92	Inf	1.38	0.00	1.38	0.00	0.87	Inf	3.42	0.75
Joint Democracy (Cederman)	Absence of MIDs	South America	2403	1.97	0.90	0.39	1.25	0.13	1.25	0.13	1.01	Inf	2.24	1.32
Joint Democracy (Cederman)	Absence of Deadly MIDs	South America	2403	<u>0.78</u>	0.90	Inf	1.25	0.00	1.25	0.00	1.01	Inf	2.24	0.75
Joint Democracy (Cederman)	Absence of War	South America	2403	0.90	0.90	Inf	1.25	0.00	1.25	0.00	1.01	Inf	2.24	0.75

Notes: The bolded cases (Gartzke North American MIDs with GDP, Gartzke Middle Eastern MIDs with Trade Dependence, and Gartzke South American MIDs with Affinity) meet both sensitivity analysis conditions. A fourth case (Gartzke North American MIDs for IMF Financial Openness) meets the Cornfield condition but fails the Ding and VanderWee condition. In underlined cases, $RR_{XY}^{obs} < 1$ so there is no empirical relationship to explain between democracy and conflict. “Inf” refer to cases with division by 0. IMF Financial Openness data are completely missing in 1950s, while Trade Dependence data has no variation (all 0) in 1960s.

TABLE A3. Sensitivity Analysis for Capitalist Peace using Alternative Democracy Measures

Outcome (Y)	RR_{XY}^{obs}	Financial Openness		Trade Dependence		GDP		Contiguity		Affinity		Capitalism	
		RR_{XU}	RR_{UY}	RR_{XU}	RR_{UY}	RR_{XU}	RR_{UY}	RR_{XU}	RR_{UY}	RR_{XU}	RR_{UY}	RR_{XU}	RR_{UY}
Joint democracy from Boix, Miller, and Rosato 2013													
MIDs	2.23	1.28	2.10	2.41	0.47	4.45	1.18	0.47	47.62	0.81	1.67	3.12	0.08
Deadly MIDs	4.04	1.28	1.91	2.41	0.63	4.45	1.20	0.47	44.79	0.81	1.57	3.12	0.12
War	Inf	1.28	3.23	2.41	1.16	4.45	3.54	0.47	14.83	0.81	1.27	3.12	0.06
Joint democracy from Cheibub, Gandhi, and Vreeland 2010													
MIDs	2.14	1.23	2.10	2.44	0.47	5.14	1.18	0.48	47.62	0.88	1.67	3.13	0.08
Deadly MIDs	3.18	1.23	1.91	2.44	0.63	5.14	1.20	0.48	44.79	0.88	1.57	3.13	0.12
War	Inf	1.23	3.23	2.44	1.16	5.14	3.54	0.48	14.83	0.88	1.27	3.13	0.06

Notes: Joint Democracy is treatment (X), and peaceful relations the outcome (Y). This table replicates the analysis in Table 2 using alternative measures of democracy. None of the posited confounders listed here meet the Cornfield conditions, regardless of the measure of democracy or conflict outcome chosen.

TABLE A4. Sensitivity Analysis for Great Power Hierarchy

Outcome (Y)	RR_{XY}^{obs}	Hierarchy	
		RR_{XU}	RR_{UY}
Joint democracy from Gartzke 2007			
MIDs	2.38	3.09	1.34
Deadly MIDs	7.35	3.09	1.38
War	Inf	3.09	1.36
Joint democracy from Cederman 2001			
MIDs	2.55	1.93	1.34
Deadly MIDs	2.71	1.93	1.38
War	47.78	1.93	1.36
Joint democracy from Boix, Miller, and Rosato 2013			
MIDs	2.23	3.45	1.34
Deadly MIDs	4.04	3.45	1.38
War	Inf	3.45	1.36
Joint democracy from Cheibub, Gandhi, and Vreeland 2010			
MIDs	2.14	3.63	1.34
Deadly MIDs	3.18	3.63	1.38
War	Inf	3.63	1.36

Notes: Joint Democracy is treatment (X), and peaceful relations the outcome (Y). The hierarchy variable comes from McDonald 2015, and is coded as 0 if either member of a dyad possesses a defensive alliance with a great power, and 1 otherwise. Great powers are defined and coded using version 4.1 of the alliance data from the COW project. Great power hierarchy fails to meet the Cornfield conditions, regardless of the measure of democracy or conflict outcome chosen.