

Is There More Violence in the Middle?

Supplementary Information

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Appendix: MVM Hypothesis Literature

Table 1 provides a summary of the articles we reviewed that tested at least one version of the MVM Hypothesis. We include articles in which an operationalization of the MVM Hypothesis is tested as the main focus of the analysis, as a control variable, or as a robustness test. The “IV” column of Table 1 indicates whether the article focuses on the static level of regime type or on the effects of regime change/ democratization. The “Operationalization” column provides information on how the article measured regime type. For articles that use a binary indicator for regimes in the middle, this column provides information on how that indicator was coded. The “MVM?” column indicates whether the analysis does or does not find support for the MVM Hypothesis. An indication of ”Mixed” in this column means that the analysis found support for the MVM Hypothesis in some models, but not in others.

Table 1: Prior MVM Tests and Results

	Author(s)	Journal	Year	IV	Operationalization	Model (s)	DV(s)	MVM?
1	Davenport	AJPS	1995	Regime Type	Banks 1992	OLS	Repression	No
2	Rummel	JCR	1995	Regime Type	Latent measure of regime power	OLS	Democide	Yes
3	Schock	JCR	1996	Regime Type	Semirepressive Regime indicator. Data from Taylor and Jodice (1983)	OLS	Violent Political Conflict	Yes
4	Thompson and Tucker	JCR	1997	Regime Type	Democracy: Polity democracy score > 5. Autocracy: Polity autocracy score > 4.	Logit	International Conflict	Yes
5	Auvinen	JPR	1997	Regime Type	Gastil data	Multiple	Political Conflict	Yes
6	Ward and Gleditsch	APSR	1998	Regime Change	Change in Polity score	Logit	International Conflict	Yes
7	Benson and Kugler	JCR	1998	Regime Type	Polity III	GLS	Internal Violence	Mixed
8	Dudley and Miller	JCR	1998	Regime Type	Low Autocracy: Polity II autocracy score 3 or less. Medium Autocracy: Polity II autocracy score between 4 and 6. High Autocracy: Polity II autocracy score > 6	Probit, Tobit	Rebellion	Yes
9	Enterline	JCR	1998	Regime Change	Polity	NB	International Conflict	Yes

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Author(s)	Journal	Year	IV	Operationalization	Model(s)	DV(s)	MVM?
Hauge and Ellingson	JPR	1998	Regime Type	Semi-democracy: -5 to 5 5 Polity III score	Logit	Civil Conflict/War Incidence	Yes
Cingranelli and Richards	JPR	1999	Regime Type	Freedom House	Histogram	Repression	Mixed
Gleditsch and Ward	ISQ	2000	Regime Type	Anocracy: -5 to 5 Polity III score	GAM	International War	Yes
Ellingson	JCR	2000	Regime Type	Semi-democracy: -5 to 5 5 Polity III score	Logit	Civil Conflict/War Incidence	Yes
Henderson and Singer	JPR	2000	Regime Type	Semi-democracy: 0 to 5 5 Polity III score.	Logit	Civil Conflict/War Onset	Yes
Hegre et al.	APSR	2001	Regime Type	Polity III	Cox	Civil Conflict/War Onset	Yes
Sambanis	JCR	2001	Regime Type	Polity III	Probit	Civil Conflict/War Onset	No
Mousseau	JPR	2001	Regime Type	Polity III	Logit	Deaths from Political Violence	Yes
Mansfield and Snyder	IO	2002	Regime Change	Change in Polity score	Logit	International Conflict	Yes
Mansfield and Snyder	ISQ	2002	Regime Change	Change in Polity score	Logit	International Conflict	Yes
Elbadawi and Sambanis	JCR	2002	Regime Type	Anocracy: -7 to 7 Polity score	Probit	Civil Conflict/War Onset	No
O'Brien	JCR	2002	Regime Type	Partial Democracy:-4 to 4 Polity IV score	FASE	International Conflict, Civil Conflict/War, Crisis	Yes
Reynal-Querol	JCR	2002	Regime Type	Polity III	Logit	Civil Conflict/War Incidence	Yes

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Author(s)	Journal	Year	IV	Operationalization	Model(s)	DV(s)	MVM?	
23	Craft and Smaldone	JPR	2002	Regime Type	Semi-democracy: 0 to 5 Polity III score.	Logit	International Conflict Incidence and Civil Conflict/War Incidence	Yes
24	de Soysa	JPR	2002	Regime Type	Polity III	Probit	Civil Conflict/War Incidence	Mixed
25	Fearon and Laitin	APSR	2003	Regime Type	Semi-democracy: -5 to 5 Polity IV score	Logit	Civil Conflict/War Onset	Yes
26	Harff	APSR	2003	Regime Type	Partial Democracy: 1 to 7 Polity score	Logit	Genocide Onset	No
27	Neumayer	JPR	2003	Regime Type	Freedom House, Polity	OLS	Homicide Rate	Yes
28	Davenport and Armstrong	AJPS	2004	Regime Type	Polity IV	Multiple	Repression	No
29	Smith	AJPS	2004	Regime Type	Polity	Poisson, Logit	Antistate Protest and Civil Conflict/War Onset	Yes
30	Valentino et al.	IO	2004	Regime Type	Midrange Polity: -6 to 6 Polity IV score	Logit	Mass Killing	No
31	Sambanis	JCR	2004	Regime Type	Anocracy: -5 to 5 Polity IV score	Probit	Civil Conflict/War Onset	Mixed
32	Walter	JPR	2004	Regime Type	Semi-Democracy:-6 to 6 on CoW scale	Logit	Civil Conflict/War Onset	Yes
33	Bueno de Mesquita et al.	ISQ	2005	Regime Type	Polity	Ordered Logit	Repression	Mixed
34	Caprioli	ISQ	2005	Regime Type	Transitional polity: -5 to 5 Polity IV score	Logit	Civil Conflict/War Onset	Yes
35	Melander	ISQ	2005	Regime Type	Polity IV	Ordered Logit	International Conflict	Yes

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Author(s)	Journal	Year	IV	Operationalization	Model(s)	DV(s)	MVM?
36 Regan and Norton	JCR	2005	Regime Type	Polity IV	Logit	Civil Conflict/War Onset	Yes
37 Melander	JPR	2005	Regime Type	Polity IV	Ordered Logit	Repression	Yes
38 Schatzman	JPR	2005	Regime Type	Polity IV	NB	Collective Protest	No
39 Urdal	JPR	2005	Regime Type	Polity IV	Logit	Civil Conflict/War Onset	Yes
40 Walter	AJPS	2006	Regime Type	Anocracy: -5 to 5 Polity IV score	Ordered Probit	Government Accommodation for a given Self-Determination Movement	No
41 Salehyan and Gleditsch	IO	2006	Regime Type	Polity IV	Logit	Civil Conflict/War Onset	Yes
42 Walter	IO	2006	Regime Type	Anocracy: -5 to 5 Polity IV score	Logit	Group Launches Armed Secessionist Movement	Mixed
43 Thyne	ISQ	2006	Regime Type	Anocracy: -5 to 5 Polity IV score	Logit	Civil Conflict/War Onset	Yes
44 Urdal	ISQ	2006	Regime Type	Polity IV	Logit, NB	Civil Conflict/War Onset, Terrorism, Riots, and Violent Demonstrations	Mixed
45 Hegre and Sambanis	JCR	2006	Regime Type	Anocracy: -5 to 5 Polity IV score	Logit	Civil Conflict/War Onset	Yes
46 Lacina	JCR	2006	Regime Type	Anocracy: -6 to 6 Polity IV score	OLS	Battle Violence	No

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	Author(s)	Journal	Year	IV	Operationalization	Model(s)	DV(s)	MVM?
47	Poe et al.	JCR	2006	Regime Type	Freedom House	OLS	Repression	Not reported
48	Iqbal and Zorn	JoP	2006	Regime Type	Polity IV	Logit	Assassination	Yes
49	Buhaug	JPR	2006	Regime Type	Anocracy: -5 to 5 Polity IV score	Logit	Civil Conflict/War Onset	Mixed
50	Danilovic and Clare	AJPS	2007	Regime Type	Anocracy: -6 to 6 Polity IV score	Logit	Civil Conflict/War Onset	Yes
51	de Soysa and Neumayer	CMPS	2007	Regime Type	Anocracy: -5 to 5 Polity IV score	Logit	Civil Conflict/War Onset	Yes
52	Brancati	JCR	2007	Regime Type	Anocracy: -5 to 5 Polity IV score	Logit, NB	Civil Conflict/War Incidence	Yes
53	Wade and Reiter	JCR	2007	Regime Type	Partly Free Regime from Freedom House data	NB, RE Logit	Suicide Terrorist Attacks	Mixed
54	Carey	JPR	2007	Regime Type	Anocracy: -6 to 6 Polity IV score	Logit	Large Scale Violent Internal Dissent	No
55	Eck and Hultman	JPR	2007	Regime Type	Semi-democracy: 0 to 7 Polity IV score.	NB	Civilian Deaths	No
56	Gleditsch	JPR	2007	Regime Type	Anocracy: -6 to 6 Polity IV score	Logit	Civil Conflict/War Onset	No
57	Salehyan	WP	2007	Regime Type	Polity IV	Logit	Civil Conflict/War Incidence	No
58	Treier and Jackman	AJPS	2008	Regime Type	New latent measure	Cox	Civil Conflict/War Onset	No

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Author(s)	Journal	Year	IV	Operationalization	Model(s)	DV(s)	MVM?
59 Wright	BJPS	2008	Regime Type	(1) Democratic Regime Spell (from Cheibub and Gandhi 2003); (2) Political Competition (from Polity)	Logit	Civil Conflict/War Onset	Mixed
60 Vreeland	IO	2008	Regime Type	Parties: an indicator of whether more than one party legally exists (from Gandhi 2004).	Ordered logit	Torture	Mixed
61 Nel and Righarts	ISQ	2008	Regime Type	Mixed Regime: -7 to 7 Polity IV score	Logit	Civil Conflict/War Onset	Mixed
62 Vreeland	JCR	2008	Regime Type	X-Polity	Cox, Logit	Civil Conflict/War Onset	No
63 Gibler	JOP	2008	Regime Type	Davenport and Armstrong (2004) data	Logit	Repression	Not reported
64 Forsberg	JPR	2008	Regime Type	Polity IV	Logit	Civil Conflict/War Onset	Yes
65 Theisen	JPR	2008	Regime Type	Semi-democracy: -5 to 5 Polity III score	Logit	Civil Conflict/War Incidence	No
66 Fjelde and de Soysa	CMPS	2009	Regime Type	Inconsistent Regime: -5 to 5 Polity IV score	Logit	Civil Conflict/War Onset	Yes
67 Melander	CMPS	2009	Regime Type	Polity IV	Probit	Mass Murder Onset	Yes
68 Oberg et al.	CMPS	2009	Regime Type	Polity IV	Probit	Civil Conflict/War Onset	No
69 Narang and Nelson	IO	2009	Regime Change	Change in Polity score	Logit	International Conflict	No

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Author(s)	Journal	Year	IV	Operationalization	Model(s)	DV(s)	MVM?
70 Cederman et al.	JCR	2009	Regime Type	Gates et al. (2006) data	Logit	Civil Conflict/War Onset	No
71 Lujala	JCR	2009	Regime Type	Polity IV	OLS	Combat Deaths	Yes
72 Fjelde	JPR	2009	Regime Type	Anocracy: -5 to 5 Polity IV score	Logit	Civil Conflict/War Onset	Yes
73 Goldstone et al.	AJPS	2010	Regime Type	Polity IV	Cond. Logit	Instability Onset	Mixed
74 Peic and Reiter	BJPS	2010	Regime Type	Anocracy: -5 to 5 X-Polity score	RE Logit	Civil Conflict/War Onset	Yes
75 Buhaug	CMPS	2010	Regime Type	Gates et al. (2006) data	OLS	Civil Conflict/War Onset	No
76 Hartzell et al.	IO	2010	Regime Type	Polity IV	Probit	Civil Conflict/War Onset	Yes
77 Sobek and Payne	ISQ	2010	Regime Type	Polity IV	Logit	Civil Conflict/War Onset	Mixed
78 Braithwaite	JPR	2010	Regime Type	Polity IV	Probit	Civil Conflict/War Onset	Yes
79 Cederman et al.	JPR	2010	Regime Type	Anocracy: -5 to 5 Polity IV score	Logit	Civil Conflict/War Onset	Mixed
80 Gleditsch and Ruggeri	JPR	2010	Regime Type	X-Polity	Logit	Civil Conflict/War Onset	Yes
81 Lujala	JPR	2010	Regime Type	Polity IV	Logit	Civil Conflict/War Onset	No
82 Cederman et al.	WP	2010	Regime Type	Anocracy:(1) -5 to 5 Polity score; and (2) X-Polity	Logit	Civil Conflict/War Incidence	No

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	Author(s)	Journal	Year	IV	Operationalization	Model(s)	DV(s)	MVM?
83	Savun and Tirone	AJPS	2011	Regime Change	Change in Polity score	Logit	Civil Conflict/War Onset	Yes
84	Rustad et al.	CMPS	2011	Regime Type	Gates et al. (2006) data	Logit	Civil Conflict/War Incidence	No
85	Omelicheva	II	2011	Regime Type	Polity IV	Multiple	Political Instability	Mixed
86	Murdie and Bhasin	JCR	2011	Regime Type	Polity IV	NB	Violent Protest	Yes
87	Bleaney and Dimico	JPR	2011	Regime Type	Anocracy: -4 to 4 Polity IV score	Probit	Civil Conflict/War Onset	Mixed
88	Magée and Massoud	JPR	2011	Regime Type	Anocracy: -5 to 5 Polity IV score	Probit	Civil Conflict/War Incidence	Yes
89	DeMerritt and Young	II	2012	Regime Type	Polity IV	OLS	Civilian Deaths	Yes
90	Flaten and de Soysa	II	2012	Regime Type	Anocracy: -5 to 5 Polity IV score	Logit and OLS	Civil Conflict/War Onset and Repression	No
91	Hultman	II	2012	Regime Type	Polity IV, Polyarchy	NB	Civilian Deaths	Mixed
92	Urdal and Hoelscher	II	2012	Regime Type	Polity IV	NB	Urban Social Disorder	Yes
93	Mousseau	ISQ	2012	Regime Type	Anocracy: -5 to 5 Polity IV score	Logit	Civil Conflict/War Onset	Yes
94	Fjelde and Nilsson	JCR	2012	Regime Type	Weak State: -5 to 5 Polity IV score	Logit	Inter-Rebel Conflict	Yes
95	Thyne and Schroeder	JOP	2012	Regime Type	Semi-democracy: -6 to 6 Polity IV score	Logit	Civil Conflict/War Onset	Yes
96	DiGiuseppe et al.	JPR	2012	Regime Type	Polity IV	Probit	Civil Conflict/War Onset	No
97	Fox and Hoelscher	JPR	2012	Regime Type	Goldstone et al. and Polity IV	OLS	Social Violence	Yes
98	Daxecker and Hess	BJPS	2013	Regime Type	Multiple	Cox	Terrorism	Mixed

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	Author(s)	Journal	Year	IV	Operationalization	Model(s)	DV(s)	MVM?
99	Badran	CMPS	2013	Regime Type	Polity IV	Weibull	Civil Conflict/War Recurrence	Yes
100	DeMerritt and Young	CMPS	2013	Regime Type	X-Polity	Ordered Logit	Repression	Mixed
101	Gurses and Rost	CMPS	2013	Regime Type	Anocracy: -6 to 6 Polity IV score	Cox	Civil Conflict/War Recurrence	No
102	Jakobsen et al.	CMPS	2013	Regime Type	Anocracy binary indicator. Data source not specified.	Logit	Civil Conflict/War Onset	No
103	Bartusevicius	JPR	2013	Regime Type	X-Polity	Logit	Rebellion	Mixed
104	Goldsmith at al.	JPR	2013	Regime Type	Partial Autocracy: Polity IV -6 to 1. Partial Democracy: Polity IV 2 to 6.	Probit	Political Insability and Genocide Onset	Mixed
105	Koubi and Bohmelt	JPR	2013	Regime Type	X-Polity	Probit	Civil Conflict/War Onset	No
106	Mitchell et al.	JPR	2013	Regime Type	Polity IV	Ordered Logit	Repression	Yes
107	Wegenast and Basedau	CMPS	2014	Regime Type	Anocracy: -5 to 5 X-Polity score		Civil Conflict/War Onset	No
108	Warren	IO	2014	Regime Type	Polity IV	Logit	Civil Conflict/War Onset	Yes
109	Gibler and Miller	JPR	2014	Regime Type	UDS	Logit	Civil Conflict/War Onset	Yes
110	Bell and Wolford	ISQ	2015	Regime Type	Polity IV	Logit	Civil Conflict Onset	Not reported
111	Davies	JCR	2016	Regime Type	Mixed or Incoherent Regimes: -6 to 6 Polity IV score	VAR	Repression	No

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Author(s)	Journal	Year	IV	Operationalization	Model(s)	DV(s)	MVM?
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Appendix: ICEWS Data

Our measure of non-violent dissent events includes the following event types from the ICEWS data:

- 140 Engage in civilian protest
- 141 Demonstrate
- 142 Conduct hunger strike
- 143 Conduct strike or boycott
- 144 Obstruct passage, block

Our measure of violent dissent events includes the following event type from the ICEWS data:

- 145 Protest violently, riot: damages perpetrated specifically by rioting civilians.

Both measures are designed to count only events in which the source is a non-governmental actor and the target is a governmental actor. We therefore do not include events with the following sources:

- Government
- In Government
- Military
- Army
- Police
- Unidentified Forces
- Unspecified

We also do not include events with the following targets:

- International Government Organization
- Out Of Government

Appendix: Outcome Variable Correlations

Figures 1 and 2 provide correlations between the outcome variables in the models spanning 1970-2008 and 1990-2008, respectively. Each square in the heat map represents the correlation between two outcome measures. Squares in darker red represent stronger positive correlations.

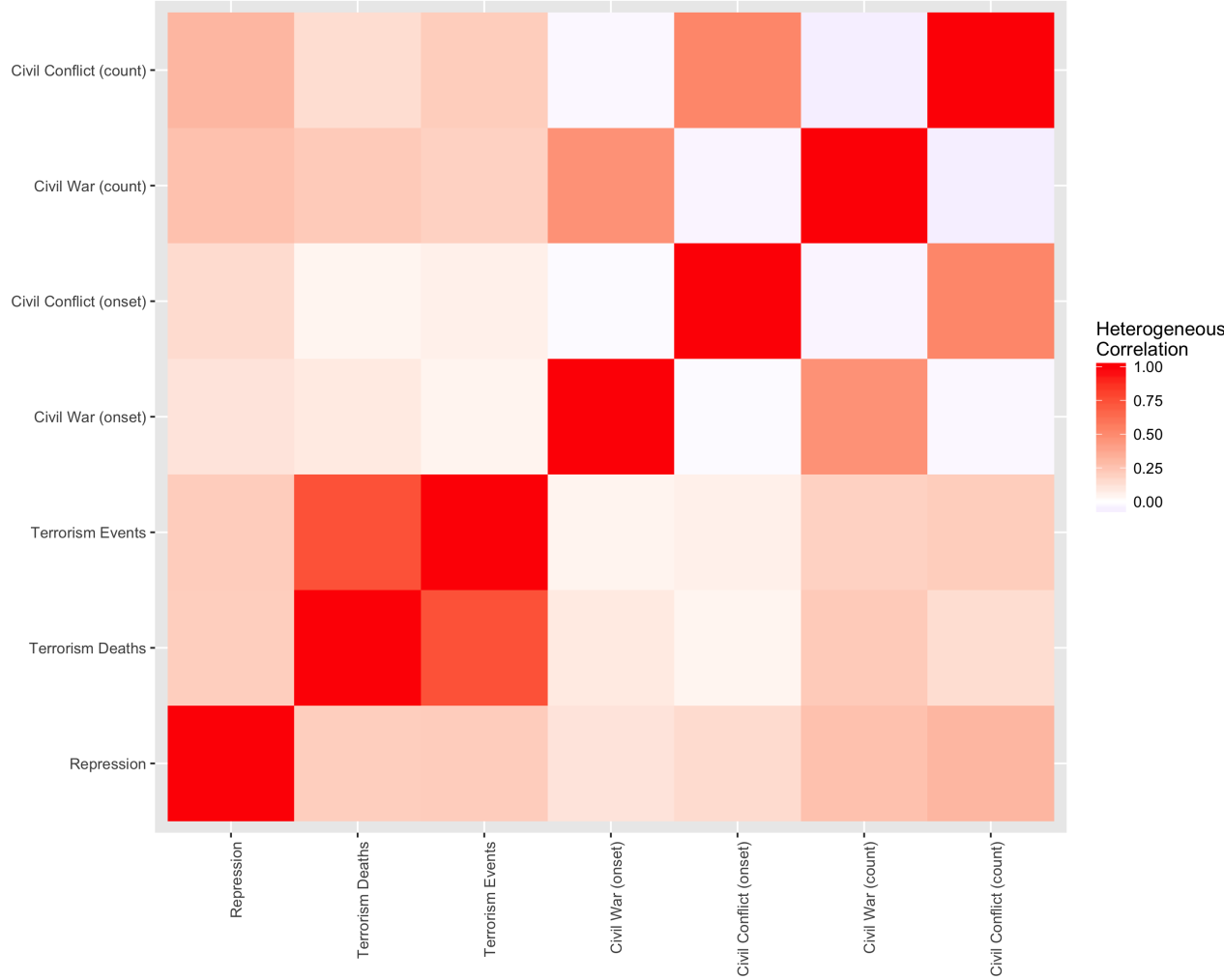


Figure 1: Correlations between outcome variables, 1970-2008.

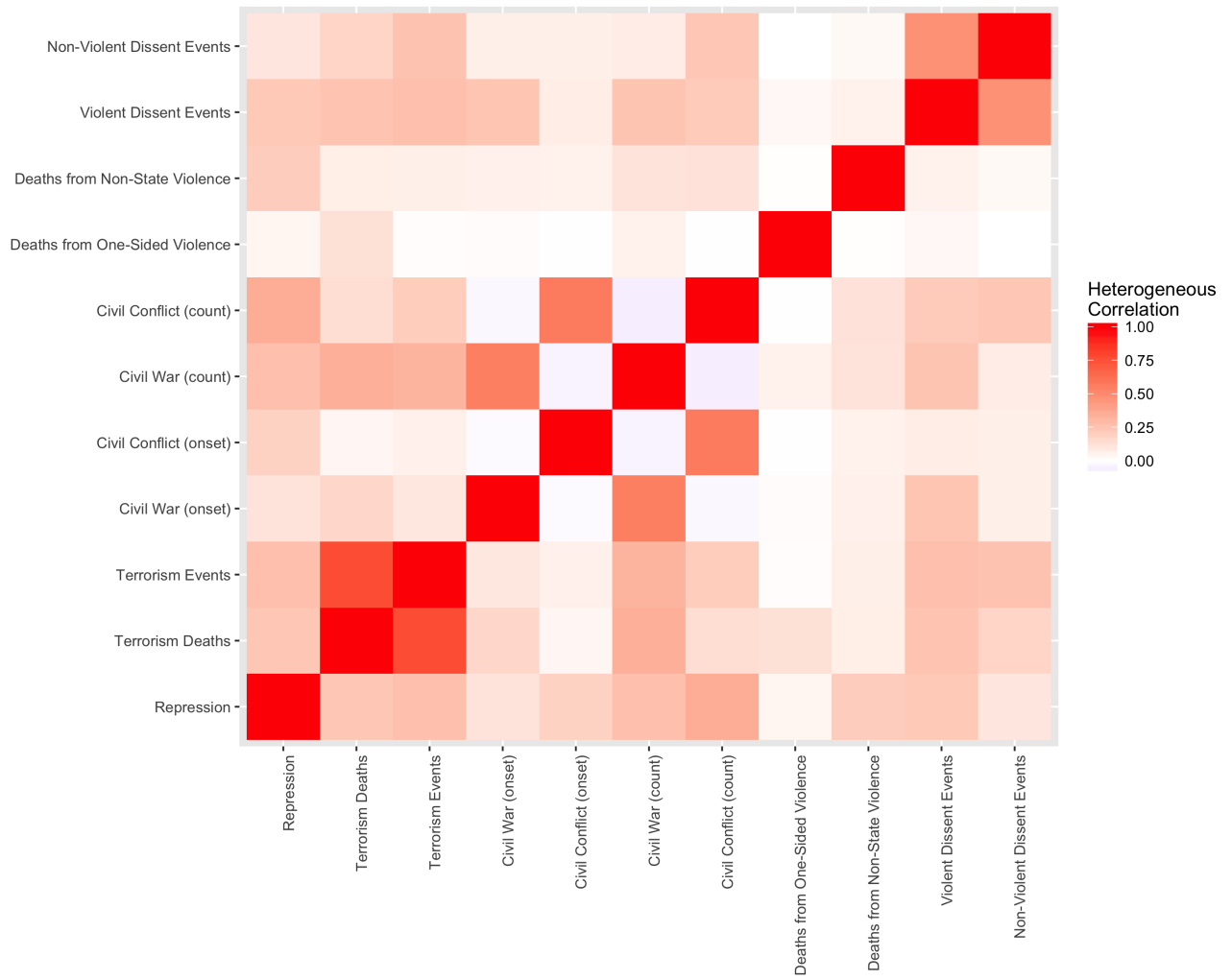


Figure 2: Correlations between outcome variables, 1990-2008.

Appendix: Additional Results

This Appendix sets forth additional results from our primary models using the X-Polity measure of regime type. Figure 3 provides the partial dependence plots from our models for the years 1970-2008 for the following outcome variables: civil war count, civil conflict count, and use of force (MID). Figure 4 provides the partial dependence plots from our models for the years 1990-2008 for the following outcome variables: civil war count, civil conflict count, use of force (MID), non-violent dissent events, violent dissent events, one-sided violence, and non-state conflict.

A few observations about these results are noteworthy. We find that both non-violent and violent dissent events increase with democracy, perhaps because, as others have suggested, democracies are more likely to accommodate protest movements (Carey, 2006). In both models, the results with respect to MIDs in which force was used are not consistent with the MVM Hypothesis. Instead, we find that the risk of such conflicts generally decreases with democracy. It should be noted that these findings neither confirm nor disconfirm the relationship between *democratization* (or regime change) and international conflict.

With respect to one-sided violence, we find the largest expected value in some anocracies. Yet the expected number of such deaths is much smaller in full democracies than in full autocracies. With respect to non-state conflict, we also find some support for the MVM Hypothesis. The learned function contains two peaks (at -1 and 4) for regimes that are neither full democracies nor full autocracies. While this is consistent with a broad interpretation of MVM Hypothesis, it should be noted that the expected number of non-state violence deaths is much smaller for regimes with scores ranging from 0 to 3, indicating that such conflict may be more likely in only some types of anocracies.

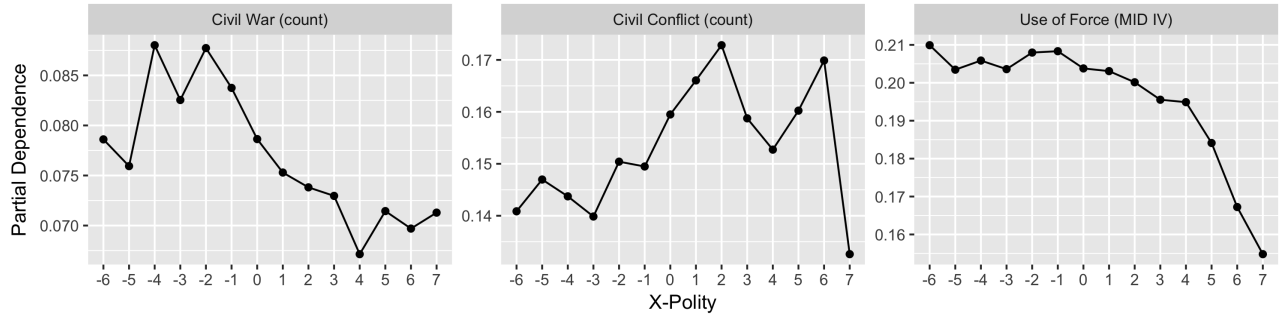


Figure 3: Partial dependence of X-Polity and conflict, 1970-2008.

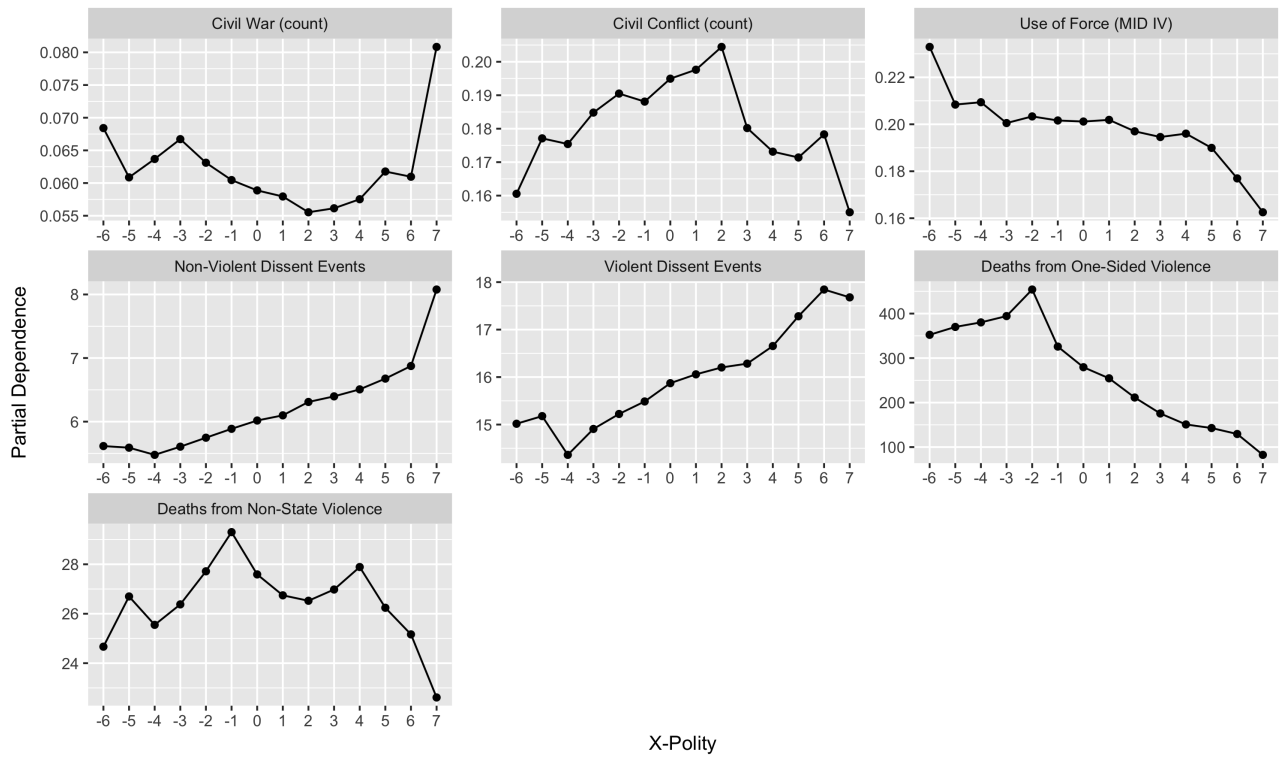


Figure 4: Partial dependence of X-Polity and conflict, 1990-2008.

Appendix: Interactions with Time

This Appendix sets forth results analyzing the relationships between regime type and conflict over time. We represent these results by using a series of heat maps. In each heat map, the x-axis represents X-Polity, and the y-axis represents time. Each square in the heat map represents the partial dependence of the indicated conflict type on the applicable regime type level in that year. Darker squares indicate greater conflict risk than lighter squares.

Figures 5 and 6 provide the heat maps of civil war onset and civil conflict risk, respectively. While civil war onset risk increased at the end of the Cold War, it has remained relatively large for states in the -4 to -2 range throughout the years in question. In addition, civil war onset risk for the most democratic states has dropped throughout the era. This indicates that our finding of support for the MVM Hypothesis with respect to civil war onset is consistent for almost all of the years in our model (except the early 1970s, when the risk was largest in full democracies).

The civil conflict results are in some ways more striking. Prior to 1990, we find a large risk of civil conflict in states in the 3 to 6 range. But in 1990, the risk of civil conflicts in less democratic states rose sharply and stayed large through 2008. The result is consistent with existing evidence that suggests civil conflicts during the Cold War had different characteristics than post-Cold War civil conflicts. It also suggests that support for the MVM Hypothesis with respect to civil conflict onset may have been much stronger during the 1970s and 1980s. During that time, the risk of civil conflict onset was much greater in some types of anocracies than in other states. As of 1990, however, we observe less unequal conflict risk across the regime type spectrum, so support for the MVM Hypothesis since then is weaker.

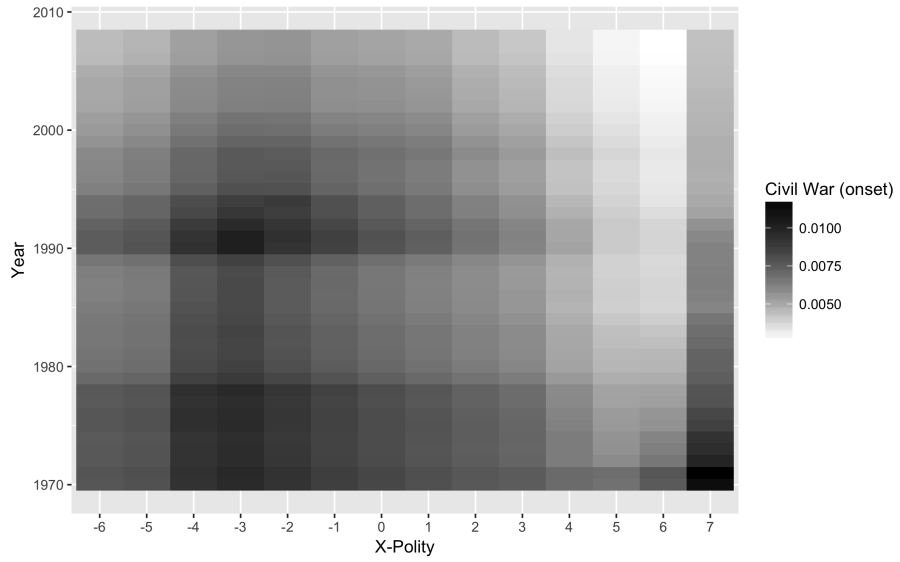


Figure 5: Partial dependence of X-Polity and Civil War Onset over Time

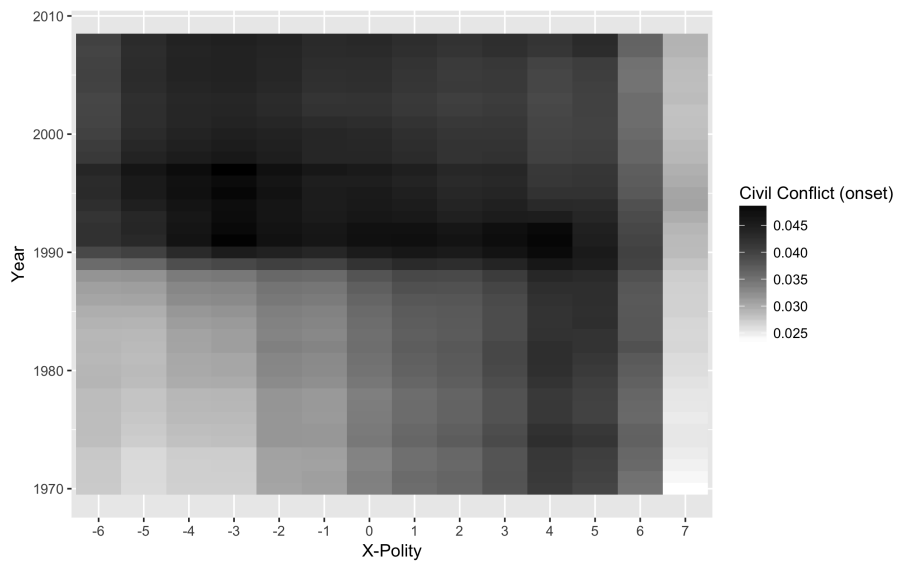


Figure 6: Partial dependence of X-Polity and Civil Conflict Onset over Time

Figures 7 and 8 provide the heat maps of the risk of terrorism deaths and events, respectively. The relationship between regime type and terrorism deaths has been fairly consistent for the years in our model. Throughout the time period, semi-democratic states coded as 5 or 6 have the largest expected numbers of both terrorism deaths and events, although with respect to both this expectation dropped sharply in the early 1990s. Nonetheless, we also observe an increase in the expected number of terrorism deaths and events in autocratic and semi-autocratic states in the late 2000s.

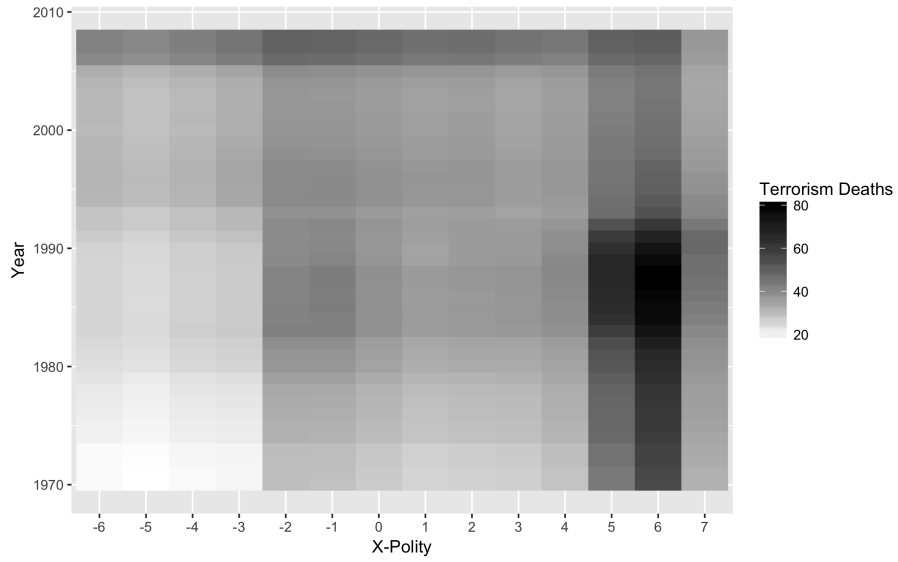


Figure 7: Partial dependence of X-Polity and Terrorism Deaths over Time

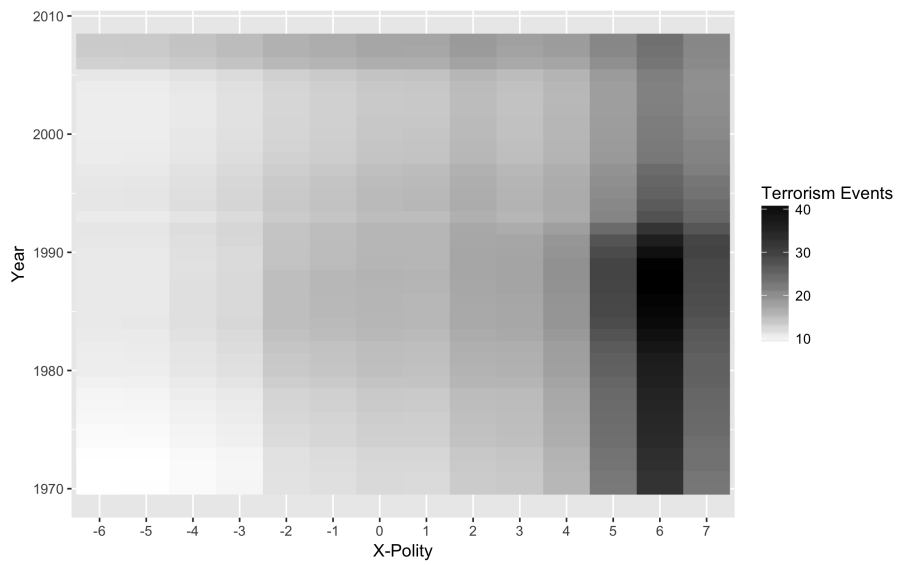


Figure 8: Partial dependence of X-Polity and Terrorism Events over Time

Figure 9 provides the heat map of the risk of physical integrity rights repression. Several observations are worth noting with respect to these heat maps. First, there do not appear to be major differences with respect to the regime type-repression relationship over time. Across all years, we find that the most autocratic regimes are also the most likely to abuse physical integrity rights. Second, the overall risk of repression appears to decrease across the regime type range in the early 1990s. This finding is unlikely to be driven by the wave of post-Cold War democratization because it indicates that even autocratic states reduced levels of repression at that time. Instead, the finding supports Fariss' (2014) finding that respect for human rights has improved over time.

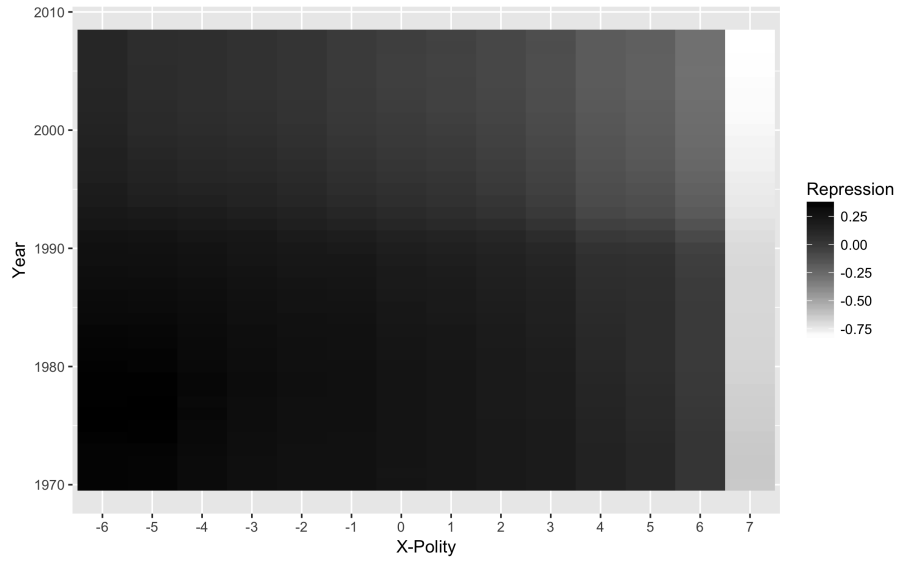


Figure 9: Partial dependence of X-Polity and Repression over Time

Figures 10, 11, and 12 provide the heat maps for civil war count, civil conflict count, and use of force, respectively.

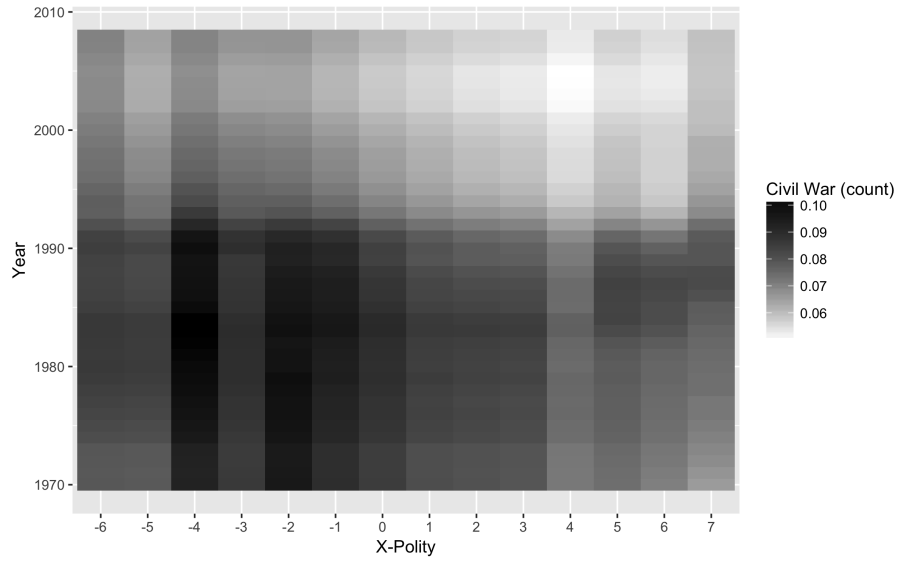


Figure 10: Partial dependence of X-Polity and Civil War Count over Time

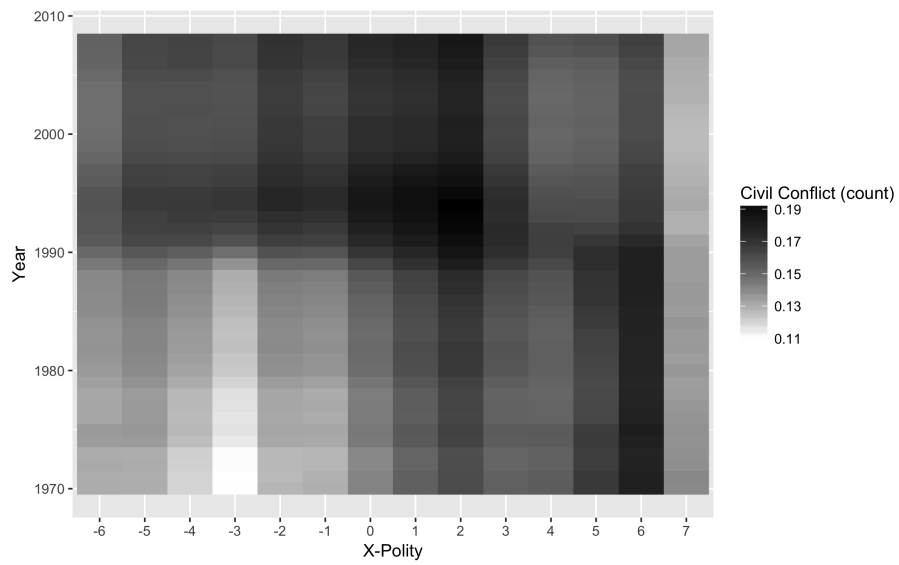


Figure 11: Partial dependence of X-Polity and Civil Conflict Count over Time

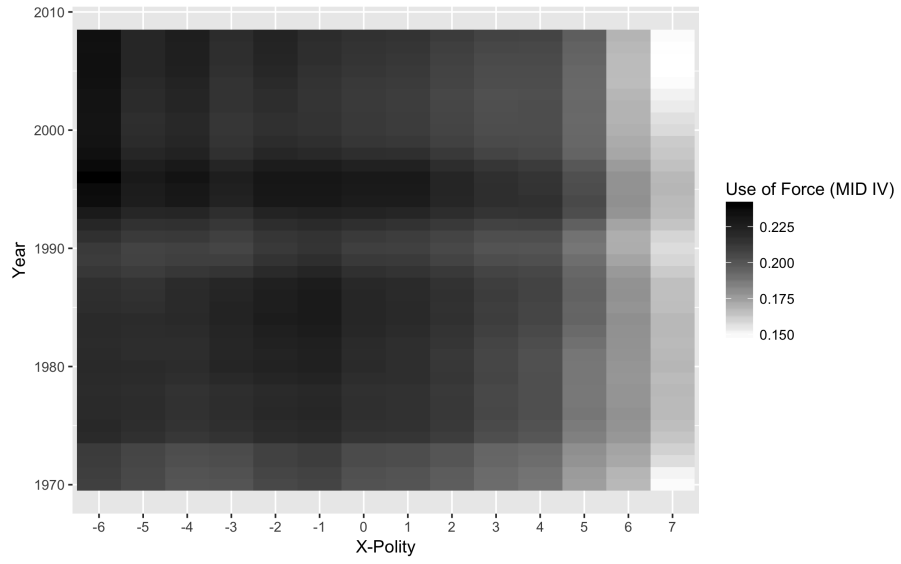


Figure 12: Partial dependence of X-Polity and International Conflict over Time

Appendix: Interruption, Interregnum, and Transition

The Polity data includes three categories of country-years that are not coded along the primary democracy-autocracy scale. Periods of interruption (coded as -66) include foreign occupations and other short-term changes in political institutions. Periods of interregnum (coded as -77) include collapses of the central government, most often during periods of civil war. Periods of transition (coded as -88) are those in which new institutions are in the process of being implemented. In our main models, we treat these observations as described in Section 4.2.3.

Conflict may intuitively appear to be likely in these country-years. To analyze this, we estimated additional models that treat X-Polity as a categorical variable for all observations. This operationalization loses information about the scale of the index, but allows us to compare the country-years coded as experiencing interruption, interregnum, or transition to the other observations.

Figure 13 provides a partial dependence plot for the model that spans the years 1970 to 2008. Figure 14 provides a partial dependence plot for the model that spans the years 1990 to 2008. These results indicate that civil wars, militarized interstate disputes, repression, terrorism, and both violent and non-violent dissent are especially likely during periods of interruption. During periods of interregnum, civil wars, civil conflicts, repression, and non-state violence are especially likely. During periods of transition, civil conflicts and repression are especially likely. With respect to some forms of conflict, these events are much more likely during periods of interruption, interregnum, and/or transition than they are during periods coded along the standard X-Polity scale.

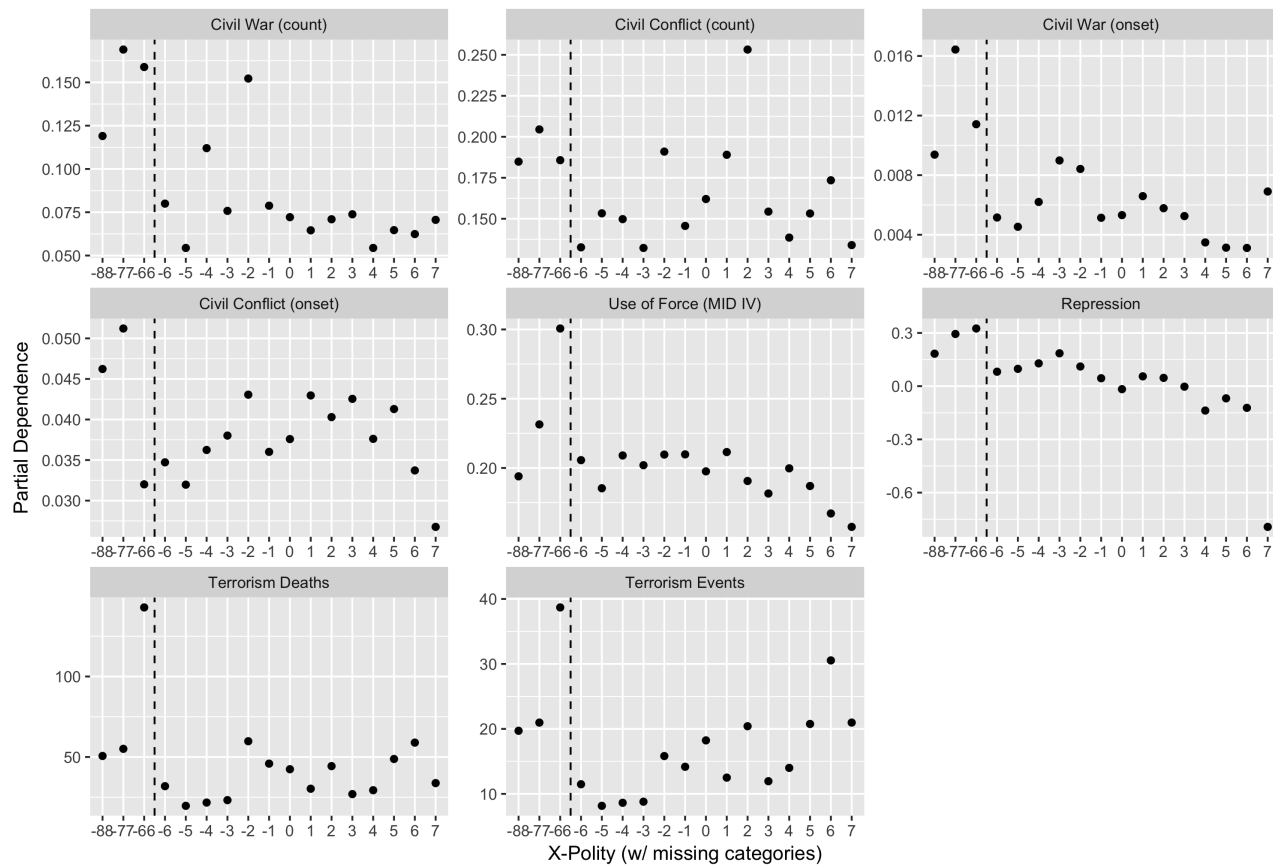


Figure 13: Partial dependence of X-Polity (treated categorically) and multiple forms of conflict, 1970-2008.

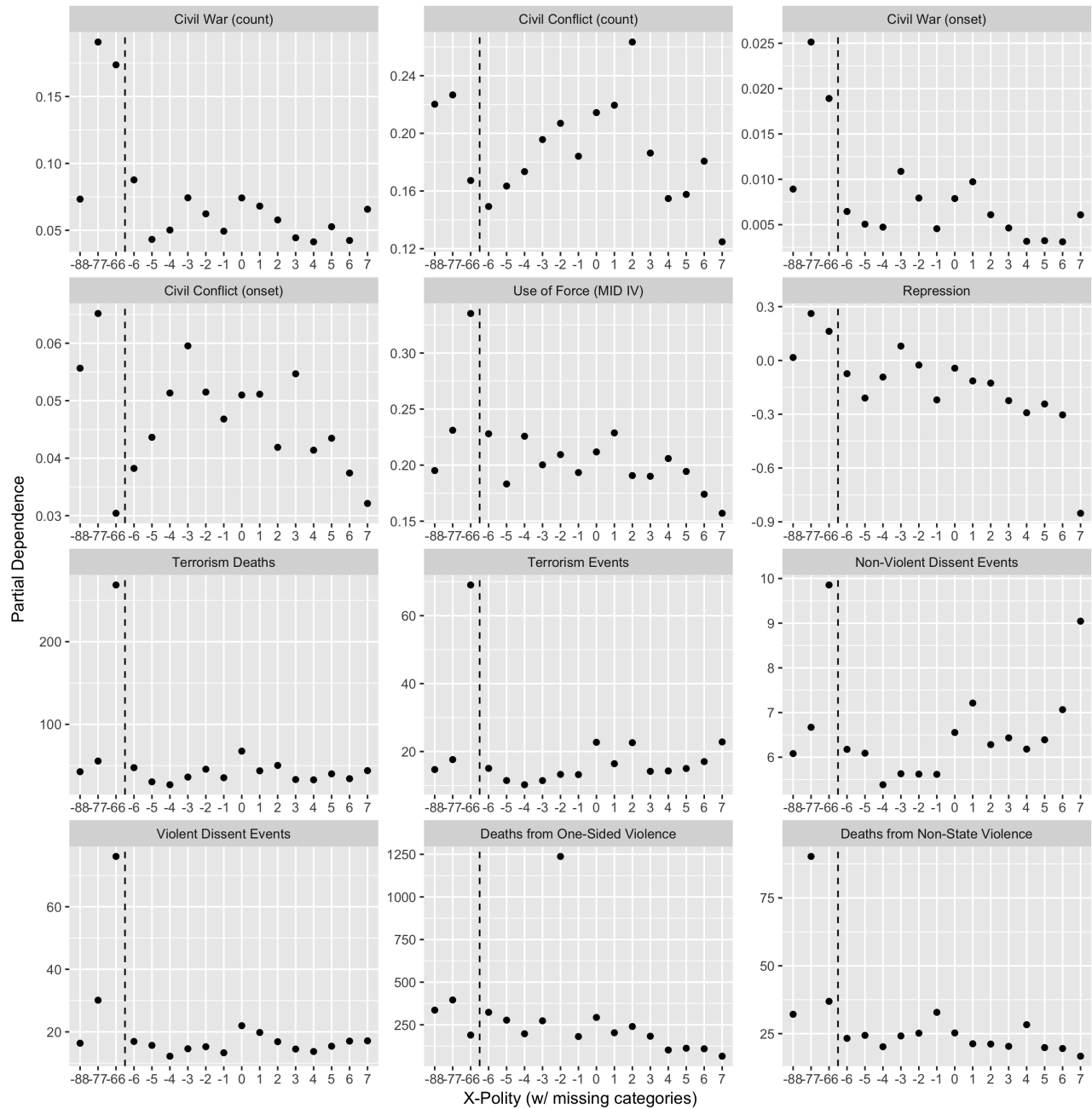


Figure 14: Partial dependence of X-Polity (treated categorically) and multiple forms of conflict, 1990-2008.

Appendix: X-UDS

This Appendix provides the results of models that use X-UDS as a measure of regime type. Figures 15 and 16 provide the distributions of the X-UDS data in our samples covering 1970-2008 and 1990-2008, respectively.

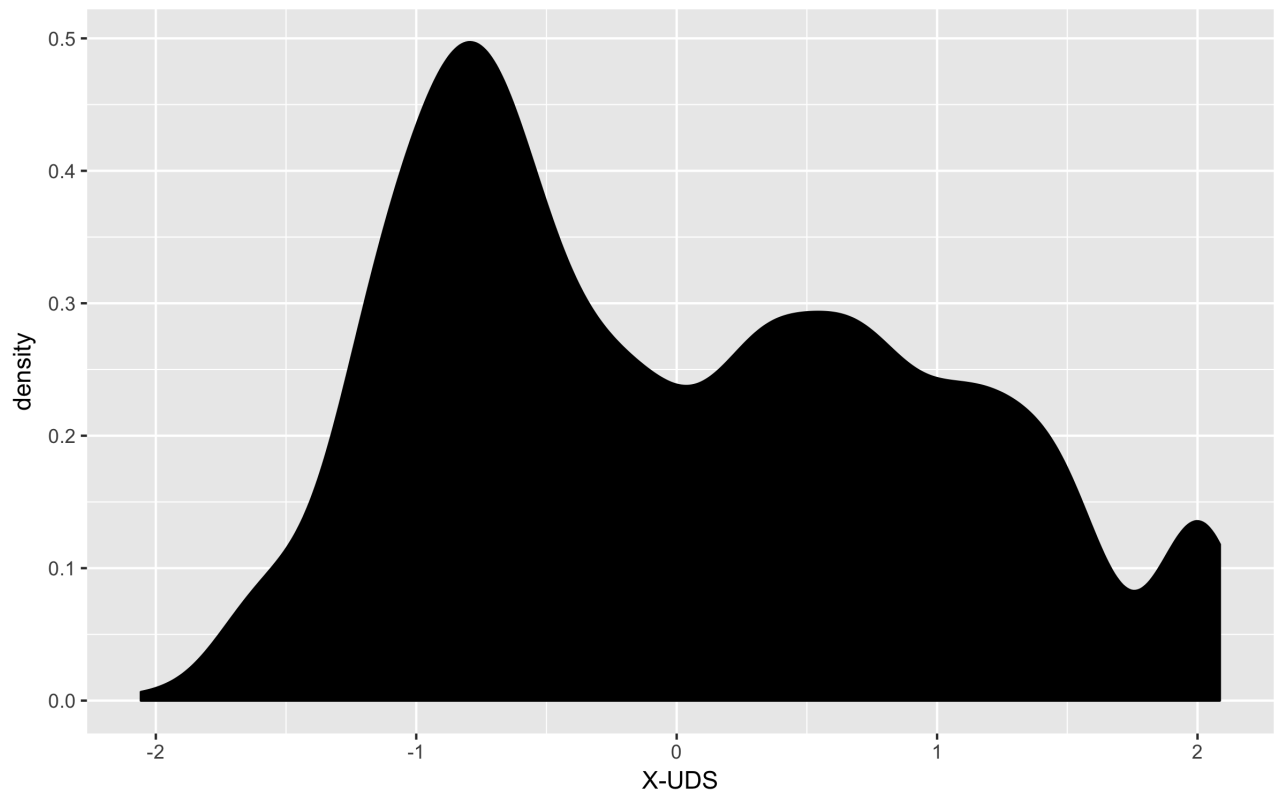


Figure 15: Distribution of X-UDS, 1970-2008.

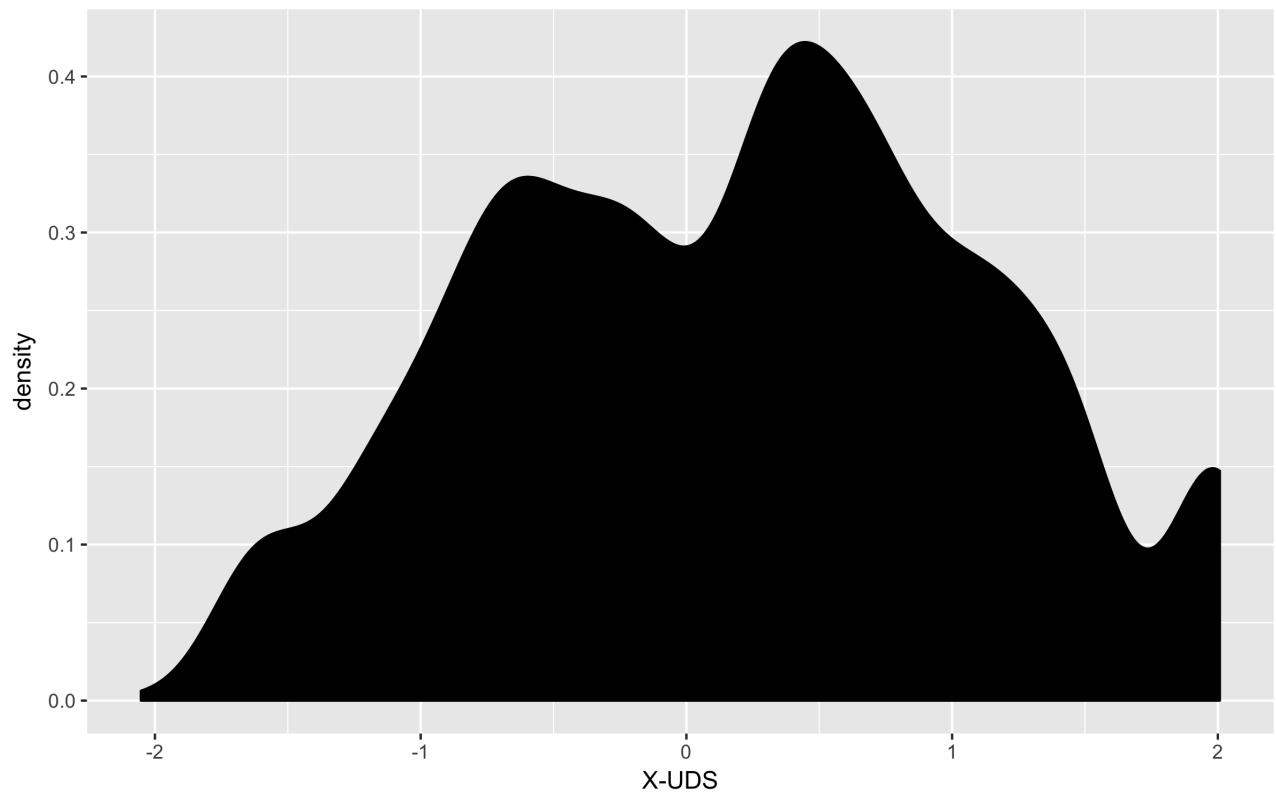


Figure 16: Distribution of X-UDS, 1990-2008.

Figure 17 provides the partial dependence plots from our models for the years 1970-2008 for the following outcome variables: civil war count, civil conflict count, and use of force (MID). Figure 18 provides the partial dependence plots from our models for the years 1990-2008 for the following outcome variables: civil war count, civil conflict count, use of force (MID), non-violent dissent events, violent dissent events, one-sided violence, and non-state conflict.

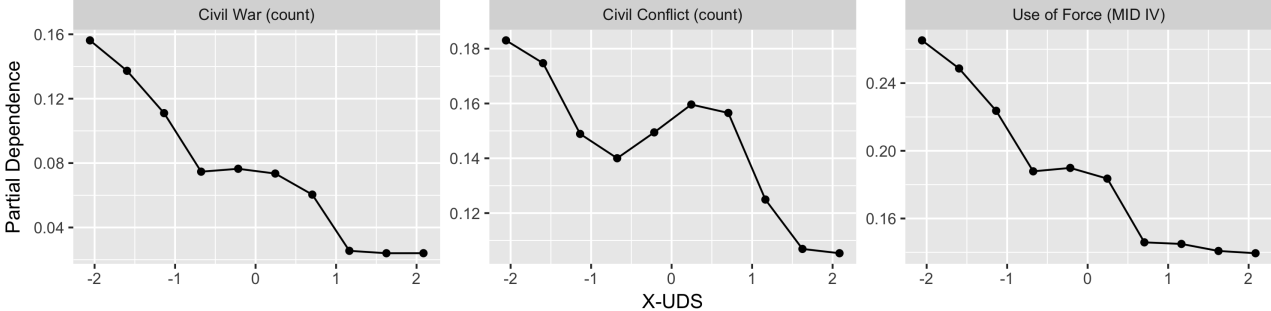


Figure 17: Partial dependence of X-UDS and conflict, 1970-2008.

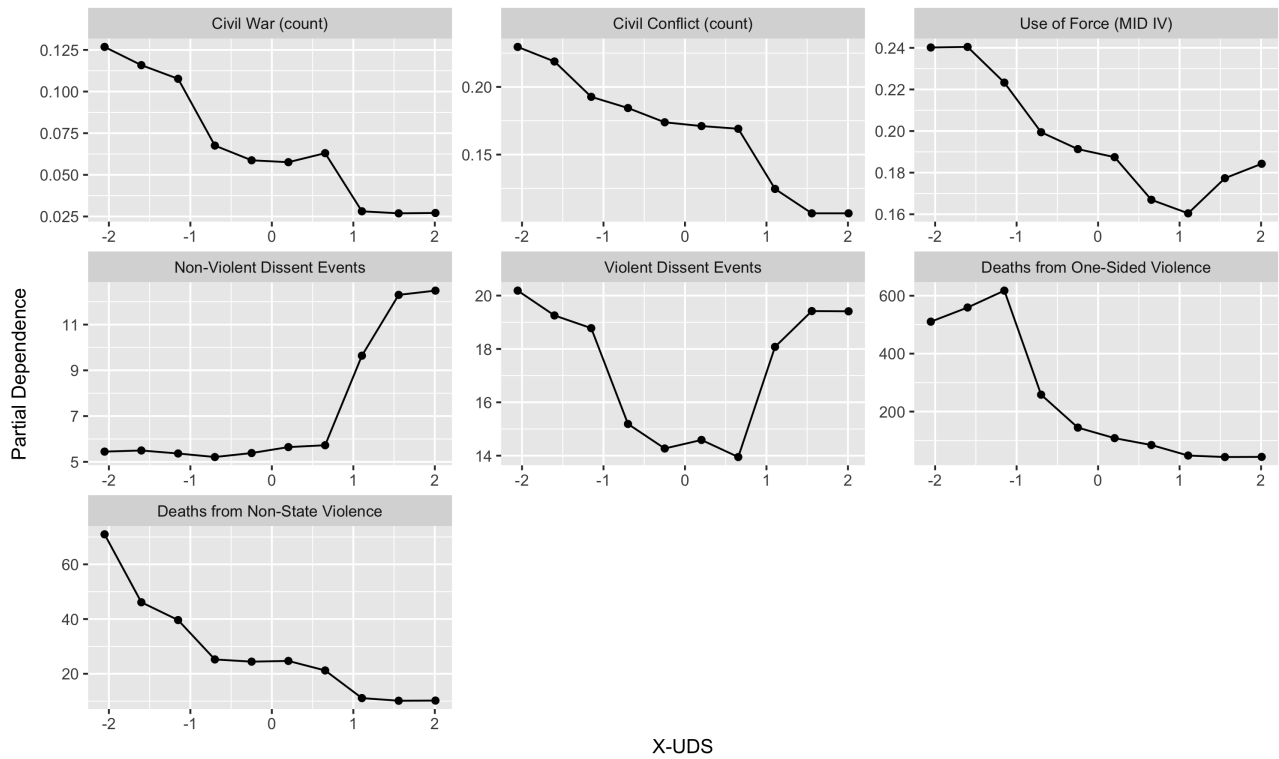


Figure 18: Partial dependence of X-UDS and conflict, 1990-2008.

Appendix: Bivariate Relationships

This Appendix provides the results of models that analyze the bivariate relationships between our measures of regime type and our measures of conflict. Figures 19 and 20 provide bivariate relationships plots for the years 1970-2008 and 1990-2008, respectively.

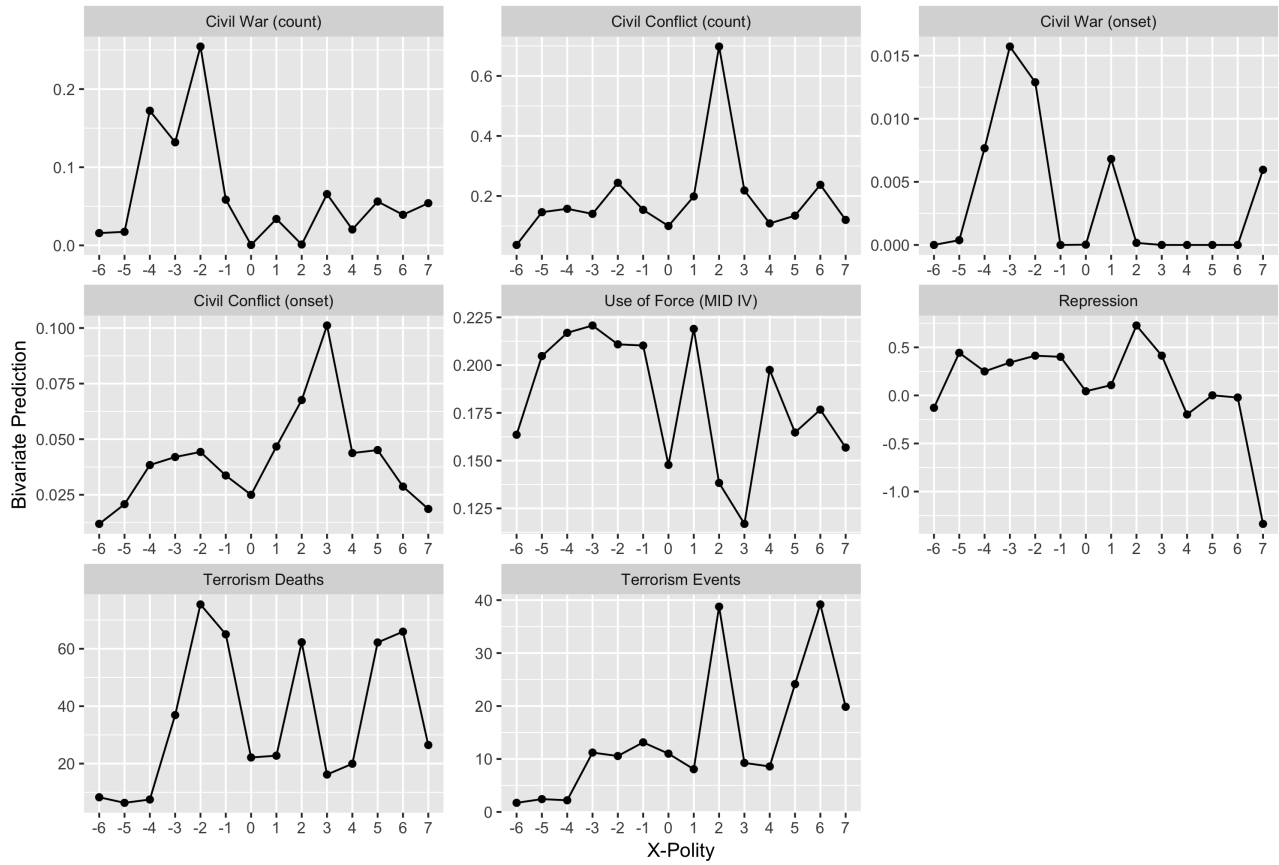


Figure 19: Bivariate relationship of X-Polity and conflict, 1970-2008.

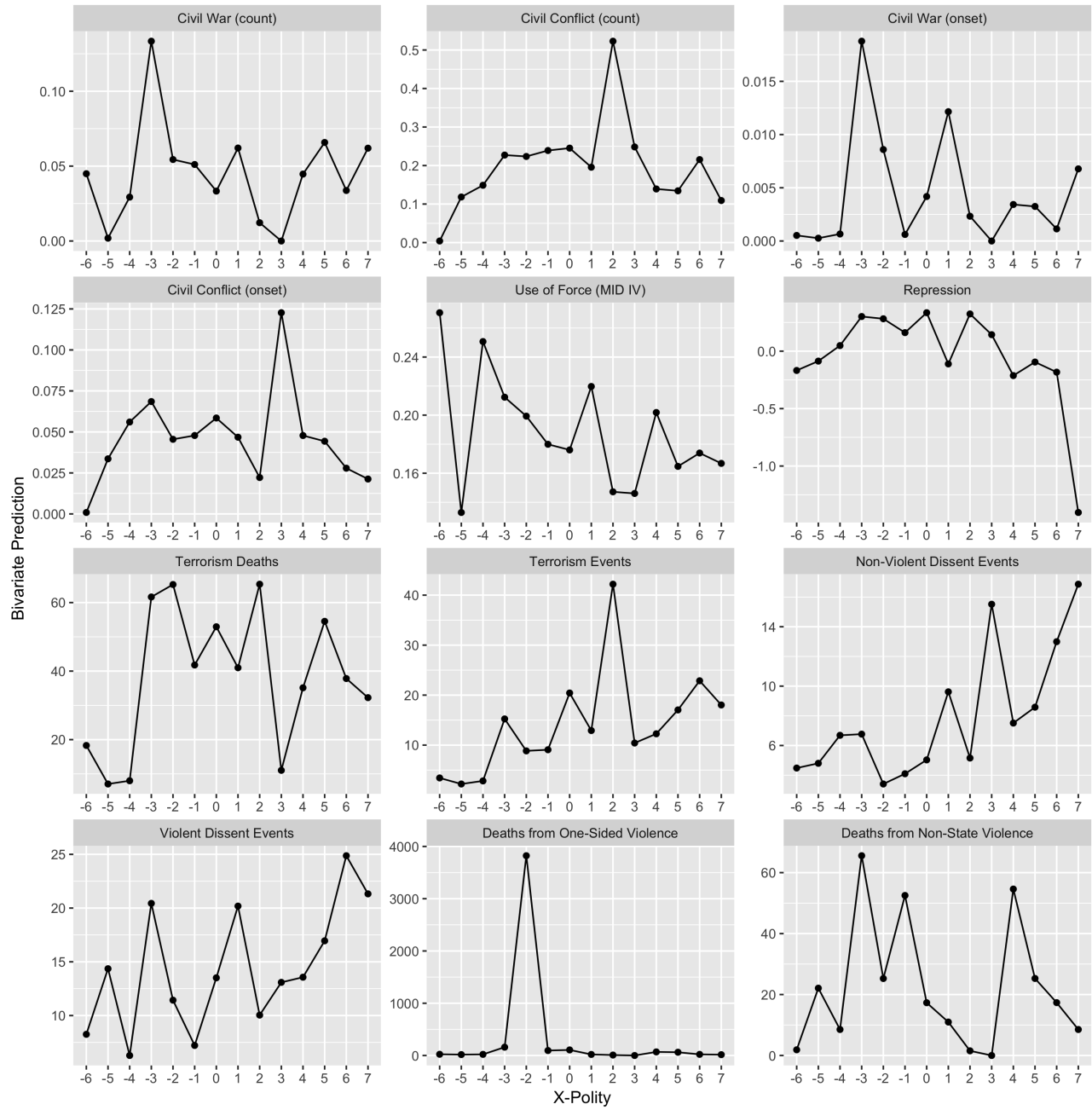


Figure 20: Bivariate relationship of X-Polity and conflict, 1990-2008.

References

- Carey, Sabine C. 2006. "The dynamic relationship between protest and repression." *Political Research Quarterly* 59 (1): 1–11.
- Fariss, Christopher J. 2014. "Respect for human rights has improved over time: Modeling the changing standard of accountability." *American Political Science Review* 108 (02): 297–318.