

# Introducing ICBe: Very High Recall and Precision Event Extraction from Narratives about International Crises

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## 1 Appendix A Corpus and Cases

### 1.1 Table A1: ICBe Crises and Summary Information

Figure 1: ICBe Crises Summary Statistics



Crisis	Years	Counts	Coders							
#	Title	Start	End	Sent.	Events	Exp.	Nov.	Actors	Units/Domains	Forces/Fatalities
121	Communism In Czechoslovakia	1948	1948	29	15	3	3			
122	Soviet Note To Finland I	1948	1948	12	8	3	0			
123	Berlin Blockade	1948	1949	25	38	3	1			
124	Hyderabad	1948	1948	22	23	3	2			
125	China Civil War	1948	1949	15	22	2	0			
126	Costa Rica-Nicaragua I	1948	1949	18	21	2	0			
127	Indonesia Independence Iii	1948	1949	16	26	3	2			
128	Sinai Incursion	1948	1949	13	22	2	1			
129	Pushtunistan I	1949	1950	16	14	2	2			
130	Luperon	1949	1949	8	9	2	0			
131	Soviet Bloc-Yugoslavia	1949	1951	13	18	2	2			
132	Korean War I	1950	1950	27	40	2	1			
133	Korean War II	1950	1951	27	54	2	1			
134	Hula Drainage	1951	1951	27	40	2	1			
135	Punjab War Scare I	1951	1951	21	14	3	0			
136	Suez Canal	1951	1952	16	29	3	2			
137	Catalina Affair	1952	1952	13	10	2	1			
138	Burma Infiltration	1953	1954	28	42	2	3			
139	Invasion Of Laos I	1953	1953	13	18	2	1			
140	Korean War Iii	1953	1953	21	29	2	2			
141	East German Uprising	1953	1953	14	15	2	2			
142	Trieste II	1953	1953	14	17	2	2			
143	Qibya	1953	1953	13	10	3	0			
144	Guatemala	1953	1954	20	22	3	0			
145	Dien Bien Phu	1954	1954	42	38	3	2			
146	Taiwan Strait I	1954	1955	24	38	2	2			
147	Costa Rica-Nicaragua II	1955	1955	18	27	2	1			
148	Baghdad Pact	1955	1955	18	36	2	3			
149	Gaza Raid-Czechoslovakia Arms	1955	1956	21	28	3	1			
150	Pushtunistan II	1955	1955	24	20	2	2			
151	Goa I	1955	1955	18	26	2	1			
152	Suez Nationalization-War	1956	1957	33	54	3	0			
153	Qalqilya	1956	1956	17	23	3	3			
154	Poland Liberalization	1956	1956	21	19	3	0			
155	Hungarian Uprising	1956	1957	18	19	2	1			
156	Mocoron Incident	1957	1957	14	16	2	0			
157	Jordan Regime	1957	1957	16	14	2	3			
158	France-Tunisia	1957	1958	24	27	2	2			
159	Syria-Turkey Confrontation	1957	1957	24	45	4	1			
160	Ifni	1957	1958	14	14	2	1			
161	West Irian I	1957	1957	17	23	2	0			
162	Formation Of Uar	1958	1958	17	15	2	2			
163	Egypt-Sudan Border I	1958	1958	13	11	1	2			
164	Abortive Coup-Indonesia	1958	1958	27	22	2	1			
165	Iraq-Lebanon Upheaval	1958	1958	32	37	3	1			
166	Taiwan Strait II	1958	1958	19	23	2	1			
167	Cambodia-Thailand	1958	1959	16	24	2	2			
168	Berlin Deadline	1958	1959	41	52	3	2			
169	Mexico-Guatemala Fishing Rights	1958	1959	10	7	1	3			
170	Central America-Cuba I	1959	1959	31	26	1	2			
171	China-India Border I	1959	1960	19	13	1	1			
172	Shatt-Al-Arab I	1959	1960	11	15	2	3			
173	Rottem	1960	1960	14	20	3	0			
174	Ghana-Togo Border I	1960	1960	15	22	3	3			
175	Failed Assassination-Venezuela	1960	1960	23	41	2	0			
176	Congo I-Katanga	1960	1962	29	60	2	0			
177	Mali Federation	1960	1960	17	24	2	1			
178	Central America-Cuba II	1960	1960	16	29	2	2			
179	Ethiopia-Somalia	1960	1961	15	16	2	3			
180	Pathet Lao Offensive	1961	1961	24	44	2	1			

Crisis #	Title	Years Start	Years End	Counts Sent	Events Exp.	Nov.	Actors	Units/Domains	Forces/Fatalities
181	Bay Of Pigs	1961	1961	17	38	3	1		10s
182	Pushtunistan Iii	1961	1962	15	16	2	3		1ks
183	Kuwait Independence	1961	1961	18	18	2	1		1ks
184	Bizerta	1961	1961	14	13	2	1		
185	Berlin Wall	1961	1961	32	44	3	1		100ks; 1ks
186	Vietcong Attack	1961	1961	20	13	3	2		
187	West Iran II	1961	1962	16	20	2	2		10s
188	Breakup Of Uar	1961	1961	13	16	2	0		
189	Soviet Note To Finland II	1961	1961	10	9	2	1		
190	Goa II	1961	1961	21	27	2	2		
191	Mali-Mauritania	1962	1963	14	13	2	2		
192	Taiwan Strait Iii	1962	1962	24	19	2	3		10s; 10s
193	Nam Tha	1962	1962	23	37	2	1		100ks; 100s; 1ks
194	China-India Border II	1962	1963	26	44	2	2		1ks
195	Yemen War I	1962	1963	18	44	2	3		1ks
196	Cuban Missiles	1962	1962	37	49	3	111		10s; 10ks; 1ks; 1s
197	Malaysia Federation	1963	1965	23	52	2	5		
198	Dominican Republic-Haiti II	1963	1963	23	33	2	3		10ks
199	Algeria-Morocco Border	1963	1963	16	24	2	2		100s
200	Cuba-Venezuela	1963	1963	13	14	3	2		
201	Kenya-Somalia	1963	1964	23	22	3	0		
202	Cyprus I	1963	1964	57	89	2	0		10s; 10ks; 10s; 1s
203	Jordan Waters	1963	1964	13	16	3	2		
204	Dahomey-Niger	1963	1964	14	21	3	1		10s; 1s; 1s
205	Burundi-Rwanda	1963	1964	21	26	2	2		1ks
206	Panama Flag	1964	1964	20	19	2	2		
207	East Africa Rebellions	1964	1964	19	28	3	1		
208	Ogaden I	1964	1964	28	35	2	2		
209	Yemen War II	1964	1964	16	21	2	1		
210	Gulf Of Tonkin	1964	1964	31	31	2	1		100s
211	Congo II	1964	1964	28	31	2	2		
212	Yemen War III	1964	1965	26	28	3	1		
213	Pleiku	1965	1965	12	15	2	1		10s; 1s; 1s
214	Rann of Kutch	1965	1965	16	17	3	1		10s
215	Dominican Intervention	1965	1965	24	23	2	1		10ks
216	Kashmir II	1965	1966	28	40	3	0		100s; 1ks
217	Guinea Regime	1965	1965	14	13	2	3		
218	Rhodesia's Udi	1965	1966	30	34	2	0		
219	Yemen War IV	1966	1967	32	55	2	1		10ks; 1s
220	El Samu	1966	1966	12	13	3	3		1s
221	Che Guevara-Bolivia	1967	1967	21	29	3	1		10s; 1ks
222	Six Day War	1967	1967	28	49	3	0		1s; 10ks
223	Cyprus II	1967	1967	16	22	2	1		1s
224	Pueblo	1968	1968	28	40	2	2		10ks; 10s
225	Tet Offensive	1968	1968	33	46	2	0		100ks; 10ks
226	Karameh	1968	1968	13	16	3	2		1s
227	Prague Spring	1968	1968	42	60	2	2		
228	Essequibo I	1968	1968	16	27	2	1		1s
229	Beirut Airport	1968	1969	17	24	3	2		1s; 1s
230	Vietnam Spring Offensive	1969	1969	29	37	2	0		100ks; 10ks
231	Ussuri River	1969	1969	32	28	2	3		100s; 1s
232	War Of Attrition	1969	1970	25	24	2	1		100s; 10s; 1ks
233	Ec-121 Spy Plane	1969	1969	12	13	3	1		10s; 10s; 1s
234	Shatt-Al-Arab II	1969	1969	24	29	3	1		
235	Football War	1969	1969	24	35	2	2		100s; 1ks
236	Cairo Agreement-Plo	1969	1969	12	10	3	1		
237	Invasion Of Cambodia	1970	1970	33	44	2	1		10ks; 1ks
238	Black September	1970	1970	31	51	2	2		10ks; 1ks
239	Cienfuegos Submarine Base	1970	1970	20	24	3	2		
240	Conakry Raid	1970	1970	22	42	3	1		100s



Crisis #	Title	Years		Counts		Coders	Units/Domains	Forces/Fatalities
		Start	End	Sent	Events			
301	North-South Yemen II	1979	1979	25	54	2	1	
302	Raids On Swapo	1979	1979	14	12	2	1	
303	Afghanistan Invasion	1979	1980	42	40	2	1	
304	Chad-Libya IV	1979	1979	24	38	2	4	
305	Goulimime-Tarfaya Road	1979	1979	27	25	2	1	
306	Soviet Threat-Pakistan	1979	1979	21	24	2	3	
307	Rhodesia Settlement	1979	1980	44	52	2	0	
308	Raid On Angola	1979	1979	13	11	2	0	
309	Us Hostages In Iran	1979	1981	56	72	2	2	
310	Colombia-Nicaragua	1979	1981	27	26	2	0	
311	Raid On Gafsa	1980	1980	33	43	2	2	
312	Operation Iman	1980	1980	19	22	2	1	
313	Operation Smokeshell	1980	1980	16	18	2	0	
314	Libya Threat-Sadat	1980	1980	24	24	2	2	
315	Solidarity	1980	1981	32	22	3	2	
316	Libya-Malta Oil Dispute	1980	1980	25	22	2	1	
317	Onset Iran-Iraq War	1980	1980	38	34	2	3	
318	Libya Intervention In The Gambia	1980	1980	20	17	2	5	
319	Jordan-Syria Confrontation	1980	1980	19	12	2	1	
320	East Africa Confrontation	1980	1981	10	13	2	1	
321	Chad-Libya V	1981	1981	34	57	2	2	
322	Ecuador-Peru Border III	1981	1981	26	39	2	1	
323	Mozambique Raid	1981	1981	12	8	3	0	
324	Iraq Nuclear Reactor	1981	1981	21	18	2	0	
325	Essequibo II	1981	1983	26	31	2	2	
326	Contras I	1981	1981	22	20	2	2	
327	Al-Biqa Missiles I	1981	1981	19	21	2	1	
328	Cameroun-Nigeria I	1981	1981	20	25	2	0	
329	Coup Attempt In The Gambia	1981	1982	16	16	2	1	
330	Gulf Of Syrt I	1981	1981	17	15	3	1	
331	Operation Protea	1981	1981	20	30	2	1	
332	Galtat Zemmour I	1981	1981	23	26	2	3	
333	U-137 Incident	1981	1981	29	29	2	1	
334	Coup Attempt In Bahrain	1981	1982	18	22	2	3	
335	Khorramshahr	1982	1982	40	38	2	2	
336	Falklands/Malvinas	1982	1982	50	50	2	1	
337	War In Lebanon	1982	1983	45	57	2	2	
338	Ogaden III	1982	1982	12	19	2	2	
339	Lesotho Raid	1982	1982	15	17	2	0	
340	Libya Threat To Sudan	1983	1983	25	29	2	0	
341	Chad-Nigeria Clashes	1983	1983	18	18	3	2	
342	Chad-Libya VI	1983	1984	37	55	2	3	
343	Invasion Of Grenada	1983	1983	42	35	2	1	
344	Able Archer 83	1983	1983	27	25	2	1	
345	Maitengwe Clashes	1983	1983	13	17	2	1	
346	Ethiopia-Sudan Tension	1983	1984	16	17	2	3	
347	Operation Askari	1983	1984	23	35	2	1	
348	Basra-Khang Island	1984	1984	43	34	3	1	
349	Aegean Sea II	1984	1984	15	18	2	1	
350	Omdurman Bombing	1984	1984	17	19	2	2	
351	Vietnam Incursion Into Thailand	1984	1984	15	13	2	1	
352	Sino-Vietnam Clashes	1984	1984	19	32	2	3	
353	Three Village Border I	1984	1984	25	16	2	2	
354	Nicaragua Mig-21s	1984	1984	25	22	2	0	
355	Botswana Raid	1985	1985	16	24	2	1	
356	Expulsion Of Tunisians	1985	1985	21	19	2	1	
357	Al-Biqa Missiles II	1985	1986	15	19	2	1	
358	Egypt Air Hijacking	1985	1985	26	19	2	1	
359	Burkina Faso-Mali Border	1985	1986	15	17	2	1	
360	South Africa Raid On Lesotho	1985	1986	18	16	2	1	

Crisis #	Title	Years Start	Years End	Counts Sent	Events Exp.	Coders Nov.	Actors	Units/Domains	Forces/Fatalities
361	Capture Of Al-Faw	1986	1986	33	23	2	2	10ks	
362	Chad-Libya VII	1986	1986	22	32	2	0	Transitional Government of National Unity	10s
363	Gulf Of Syrte II	1986	1986	36	54	2	2	International community	100s; 10ks; 1s
364	Al-Dibal Incident	1986	1986	15	20	2	1	Arab states; International community	1s
365	South Africa Cross Border Raid	1986	1986	16	24	2	0	International community	
366	Rebel Attack On Uganda	1986	1987	21	27	2	0		100ks; 100s
367	Mozambique Ultimatum	1986	1986	13	19	2	2		
368	Attempted Coup In Togo	1986	1987	29	27	2	1		100s
369	Contras II	1986	1986	21	26	2	1	People's Armed Forces; Transitional Government of National Unity	10s; 1ks; 1s
370	Chad-Libya VIII	1986	1987	46	75	2	1	100s; 10s; 10s; 1ks; 1s	
371	Sino-Vietnam Border	1987	1987	17	22	2	1		100s; 10s; 10s
372	Punjab War Scare II	1987	1987	31	41	3	1		
373	Todghere Incident	1987	1987	14	22	2	1	Somali Salvation Democratic Front; Western Somali Liberation Front	10s
374	Syria Intervention In Lebanon	1987	1987	25	40	2	4	Arab Deterrent Force	10s; 100s
375	Sand Wall	1987	1987	34	41	2	2		
376	Aegean Sea III	1987	1987	31	31	2	2		10s; 1s
377	Cameroon-Nigeria II	1987	1987	12	8	2	0		
378	India Intervention In Sri Lanka	1987	1987	40	42	2	0	Tamil people	1s
379	Mecca Pilgrimage	1987	1987	29	50	2	1		10ks
380	South Africa Intervention In Angola	1987	1988	40	29	2	0		10ks
381	Three Village Border II	1987	1988	17	24	2	0		10s; 10s
382	Kenya-Uganda Border	1987	1987	13	15	2	1		10s
383	Contras III	1988	1988	19	24	2	2	Contras	1ks
384	Spratly Islands I	1988	1988	50	38	2	0	international community	1s
385	Iraq Recapture Of Al-Faw	1988	1988	34	30	2	0		1s
386	Libyan Jets	1988	1989	13	20	2	1	international community	100s; 1s; 10s; 1ks; 1s
387	Mauritania-Senegal	1989	1991	21	21	2	2		10s
388	Cambodia Peace Conference	1989	1990	22	39	2	0	Khmer People's National Liberation Front	
389	Contras IV	1989	1989	21	23	2	2	Contras	10s; 100s
390	Galtat Zemmour II	1989	1989	31	35	2	1		1s
391	Invasion Of Panama	1989	1990	36	36	2	1		10ks; 1s
392	Kashmir Ii-Nuclear Confrontation	1990	1990	31	45	3	1	Jammu Kashmir Liberation Front	10s; 1s
393	Gulf War	1990	1991	86	111	2	2	Arab states; Saudi Arabia	10s; 100ks; 10ks
394	Rwanda-Uganda	1990	1991	25	42	2	1		100s; 1ks
395	Liberia-Sierra Leone	1991	1991	28	34	2	2	National Patriotic Front of Liberia	10s; 1ks; 1s
396	Ghana-Togo Border II	1991	1991	10	11	2	1	Ghana Army	10s
397	Nugosavia I: Croatia-Slovenia	1991	1992	87	66	3	0		100s; 1s; 10ks
398	Bubiyani	1991	1991	10	9	2	2		
399	Foreign Intervention In Zaire	1991	1991	24	26	2	2		
400	Ecuador-Peru Border IV	1991	1991	19	19	2	0	Catholic Church	10s; 1s
401	Nagorno-Karabakh	1991	1992	40	54	2	2		
402	Egypt-Sudan Border II	1992	1992	32	25	2	1		1s
403	Yugoslavia Ii: Bosnia I	1992	1995	122	174	2	2	Bosniaks; Commission on Security and Cooperation in Europe; Croats of Bosnia and Herzegovina; International community; Serbs of Bosnia and Herzegovina; Western world	10s; 100s; 10ks; 10s
404	Papua New Guinea-Solomon	1992	1992	19	22	2	3		
405	Sleeping Dog Hill	1992	1992	14	16	2	2		
406	Iraq No-Fly Zone	1992	1992	37	46	2	1		10s; 1s
407	Georgia-Abkhazia	1992	1993	67	80	2	1		1s
408	North Korea Nuclear I I	1993	1994	84	71	2	0		
409	Operation Accountability	1993	1993	28	30	2	3		10s; 10s; 1s
410	Cameroon-Nigeria III	1993	1994	33	43	2	3		
411	Haiti Military Regime	1994	1994	33	40	2	0	United Nations	100ks; 10ks
412	Iraq Troop Deployment-Kuwait	1994	1994	48	64	2	2		100ks; 100s; 10ks; 1ks
413	Ecuador-Peru V	1995	1995	21	21	2	0		1s
414	Spratly Islands II	1995	1995	14	13	2	2		
415	Taiwan Strait IV	1995	1996	27	26	2	1		
416	Red Sea Islands	1995	1995	23	30	2	2	Permanent Court of Arbitration	
417	Aegean Sea IV	1996	1996	31	39	2	2		
418	Operation Grapes of Wrath	1996	1996	38	55	2	3	South Lebanon Army	100s; 10s; 1s; 10s
419	Desert Strike	1996	1996	31	30	2	0	Arab states; International community; Kurdistan Democratic Party	1s; 10ks
420	North Korean Submarine	1996	1996	31	37	2	1		100s; 10s

Crisis #	Title	Years Start	Years End	Counts Sent.	Events Exp.	Coders Nov.	Actors	Units/Domains	Forces/Fatalities
421	Zaire Civil War	1996	1997	55	73	2	2	Alliance of Democratic Forces for the Liberation of Congo; Banyamulenge; Huto; Interahamwe; Tutsi	1ks; 100s; 1ks
422	Uncom I	1997	1998	32	41	2	2		
423	Cyprus-Turkey Missile Crisis	1998	1998	20	23	2	4		
424	Ethiopia-Eritrea	1998	2000	33	56	2	1		1ks
425	India-Pakistan Nuclear Tests	1998	1998	24	25	3	1	G8	
426	Drc Civil War	1998	2002	40	52	3	0	Huto	
427	Us Embassy Bombings	1998	1998	25	30	2	1		100s; 10s; 1s
428	Syria-Turkey	1998	1998	24	36	2	1		
429	Uncom ii Operation Desert Fox	1998	1998	31	35	2	2		
430	Kosovo	1999	1999	33	35	2	0		1ks
431	Kashmir iv Kargil	1999	1999	19	28	2	0		1ks
432	East Timor II	1999	1999	26	24	3	2	Pro-Indonesia militia	1ks; 10s
433	Caspian Sea	2001	2001	17	21	2	0	BP; petroleum industry	
434	Afghanistan-Usa	2001	2001	43	34	2	1		10s
435	Indian Parliament Attack	2001	2002	16	18	2	3		10s; 1s
436	Kaluchak	2002	2002	30	30	3	3		10ks; 10s; 10s; 100s; 10s
437	Myanmar-Thailand	2002	2002	17	26	4	3	Shan State Army	10s
438	Parsley Island	2002	2002	16	25	2	0		
439	Pankisi Gorge	2002	2002	29	31	2	0		1ks; 100s; 1ks
440	Iraq Regime Change	2002	2003	67	62	2	0		10s; 100ks; 10ks
441	North Korea Nuclear II	2002	2004	48	35	2	1		
442	Iran Nuclear I	2003	2004	38	24	2	0		
443	Haifa Suicide Bombing	2003	2003	37	43	2	1	international community	10s; 1s
444	Drc-Rwanda	2004	2004	40	51	2	0	Huto; Rally for Congolese Democracy; Tutsi	10ks; 1ks
445	South Ossetia-Abkhazia	2004	2004	27	27	2	3		100s
446	Ethiopia-Eritrea II	2005	2006	48	55	2	2		
447	Chad-Sudan I	2005	2006	31	37	2	6		100s; 1ks
448	Iran Nuclear II	2006	2007	65	29	2	1		
449	Chad-Sudan II	2006	2006	56	72	2	2	United Front for Democratic Change	
450	North Korea Nuclear III	2006	2007	74	73	2	2	Banco Delta Asia; Daedong Credit Bank	1s
451	Israel-Lebanon War II	2006	2006	54	73	2	0	international community	10ks; 10s; 1ks; 100s; 10ks; 10s; 10s; 1s
452	Ethiopia Invasion Somalia	2006	2007	60	108	2	1	Intergovernmental Authority on Development; international community	100s; 1ks; 1s
453	Chad-Sudan III	2007	2007	55	50	2	2	Janjaweed	100s; 10s; 100s; 1s
454	Ethiopia-Eritrea III	2007	2007	30	45	2	2		100ks
455	Chad-Sudan IV1	2007	2008	59	108	2	0	Rally of Democratic Forces; Union of Forces for Democracy and Development; Union of Forces for Democracy and Development-Fundamental	1ks; 10s; 1s
456	Djibouti-Eritrea1	2008	2008	29	44	2	0		10s
457	Preah Vihear Temple I1	2008	2009	37	55	2	0		1ks; 100s; 10s; 1s
458	Russo-Georgian War1	2008	2008	32	27	2	0		10s; 1ks; 1s
459	North Korea Nuclear IV: Satellite Launch1	2009	2009	33	35	2	0		1ks
460	Chad-Sudan V1	2009	2010	42	38	2	0	Forces; Union of Forces for Democracy and Development; Union of Forces for Democracy and Development-Fundamental; Union of Resistance Forces	100s; 1ks
461	Cheonan Sinking1	2010	2010	40	44	2	0		10s; 100s; 100s; 10ks; 1ks
462	Yeonpyeong Island1	2010	2011	44	73	2	0		100ks; 100s; 10s; 1ks
463	Preah Vihear Temple II1	2011	2011	41	59	2	0		
464	Libyan Civil War1	2011	2011	78	63	2	0		1ks
465	Cote Divoire Presidential Crisis1	2011	2011	41	35	2	0	international community	100s
466	Sudan-South Sudan1	2011	2012	54	47	2	0	السودان الجنوبي; جزء من المجتمع الدولي	1ks
467	Scarborough Shoal1	2012	2012	51	40	2	0	International Tribunal for the Law of the Sea; Permanent Court of Arbitration	100s; 10s; 1ks
468	Syria-Turkey Border Incidents1	2012	2012	29	28	2	0		10s; 10s; 10s; 1s
469	North Korea Nuclear V1	2013	2013	64	70	2	0	international community	100s; 1ks
470	Syria Chemical Weapons1	2013	2013	49	42	2	0	国际社会; Organisation for the Prohibition of Chemical Weapons	100s; 10s; 1ks
471	Crimea-Donbass1	2014	2015	83	93	2	0	Crimea; Donbass; International Contact Group on Ukraine	100s; 10s; 1ks; 1s
472	Chinese Oil Rig1	2014	2014	41	42	2	0		100s; 10s; 1ks; 1s
473	India-Pakistan Border Firing1	2014	2014	30	24	2	0		10s; 10s; 1s
475	Korean Land Mine1	2015	2015	33	34	2	0		100s; 10ks; 1ks
476	Turkey-Russia Jet Incident1	2015	2016	82	126	2	0		10s; 1ks; 1s

1.2 Table A2: Verb Meanings (Glosses) found in the ICB Corpus (top 200)

uses	Lemma	Gloss
381	end	bring to an end or halt "She ended their friendship when she found out that he had once been convicted of a crime" "The attack on Poland terminated the relatively peaceful period after WW I"
365	trigger	release or pull the trigger on "Trigger a gun"
323	involve	engage as a participant "Dont involve me in your family affairs"
309	begin	have a beginning, of a temporal event "WW II began in 1939 when Hitler marched into Poland" "The companys Asia tour begins next month"
278	trigger	put in motion or move to act "trigger a reaction" "actuate the circuits"
260	announce	announce publicly or officially "The President declared war"
236	respond	respond favorably or as hoped "The cancer responded to the aggressive therapy"
212	call	call a meeting invite or command to meet "The Wannsee Conference was called to discuss the Final Solution" "The new dean calls meetings every week"
194	occur	come to pass "What is happening" "The meeting took place off without an incidence" "Nothing occurred that seemed important"
194	sign	approve and express assent, responsibility, or obligation "All parties ratified the peace treaty" "Have you signed your contract yet"
185	terminate	bring to an end or halt "She ended their friendship when she found out that he had once been convicted of a crime" "The attack on Poland terminated the relatively peaceful period after WW I"
178	begin	set in motion, cause to start "The U.S. started a war in the Middle East" "The Iraqis began hostilities" "begin a new chapter in your life"
160	meet	come together "Ill probably see you at the meeting" "How nice to see you again"
146	send	to cause or order to be taken, directed, or transmitted to another place "He had sent the dispatches downtown to the proper people and had slept"
145	occupy	march aggressively into anothers territory by military force for the purposes of conquest and occupation "Hitler invaded Poland on September 1, 1939"
135	be	happen, occur, take place "I lost my wallet this was during the visit to my parents house" "There were two hundred people at his funeral" "There was a lot of noise in the kitchen"
128	perceive	become conscious of "She finally perceived the futility of her protest"
126	become	undergo a change or development "The water turned into ice" "Her former friend became her worst enemy" "He turned traitor"
125	condemn	express strong disapproval of "We condemn the racism in South Africa" "These ideas were reprobated"
125	take	take by force "Hitler took the Baltic Republics" "The army took the fort on the hill"
124	escalate	increase in extent or intensity "The Allies escalated the bombing"
119	reject	refuse to accept or acknowledge "I reject the idea of starting a war" "The journal rejected the students paper"
117	respond	react verbally "She didnt want to answer" "answer the question" "We answered that we would accept the invitation"
116	demand	request urgently and forcefully "The victims family is demanding compensation" "The boss demanded that he be fired immediately" "She demanded to see the manager"
112	be	to remain unmolested, undisturbed, or uninterrupted used only in infinitive form "let her be"
111	agree	be in accord be in agreement "We agreed on the terms of the settlement" "I cant agree with you" "I hold with those who say life is sacred" "Both philosophers concord on this point"
110	reach	be in or establish communication with "Our advertisements reach millions" "He never contacted his children after he emigrated to Australia"
106	withdraw	pull back or move away or backward "The enemy withdrew" "The limo pulled away from the curb"
105	accuse	blame for, make a claim of wrongdoing or misbehavior against "he charged the director with indifference"
105	dispute	have a disagreement over something "We quarreled over the question as to who discovered America" "These two fellows are always scrapping over something"
105	fight	be engaged in a fight carry on a fight "the tribesmen fought each other" "Siblings are always fighting" "Militant groups are contending for control of the country"
102	continue	continue talking "I know its hard, he continued, but there is no choice" "carry onpretend we are not in the room"
100	include	consider as part of something "I include you in the list of culprits"
99	remain	be left of persons, questions, problems, results, evidence, etc. "There remains the question of who pulled the trigger" "Carter remains the only President in recent history under whose Presidency the U.S. did not fight a war"
98	experience	undergo or live through a difficult experience "We had many trials to go through" "he saw action in Viet Nam"
97	attempt	make an effort or attempt "He tried to shake off his fears" "The infant had essayed a few wobbly steps" "The police attempted to stop the thief" "He sought to improve himself" "She always seeks to do good in the world"
94	increase	make bigger or more "The boss finally increased her salary" "The university increased the number of students it admitted"
94	mediate	act between parties with a view to reconciling differences "He interceded in the family dispute" "He mediated a settlement"
94	threaten	to utter intentions of injury or punishment against "He threatened me when I tried to call the police"
93	request	inquire for information "I requested information from the secretary"
92	withdraw	make a retreat from an earlier commitment or activity "Well have to crawfish out from meeting with him" "He backed out of his earlier promise" "The aggressive investment company pulled in its horns"
91	hold	stop dealing with "hold all calls to the Presidents office while he is in a meeting"
90	invade	march aggressively into anothers territory by military force for the purposes of conquest and occupation "Hitler invaded Poland on September 1, 1939"
87	send	cause to go somewhere "The explosion sent the car flying in the air" "She sent her children to camp" "He directed all his energies into his dissertation"
86	launch	begin with vigor "He launched into a long diatribe" "She plunged into a dangerous adventure"
84	report	announce as the result of an investigation or experience or finding "Dozens of incidents of wife beatings are reported daily in this city" "The team reported significant advances in their research"
84	see	perceive or be contemporaneous with "We found Republicans winning the offices" "Youll see a lot of cheating in this school" "The 1960s saw the rebellion of the younger generation against established traditions" "I want to see results"
81	perceive	to become aware of through the senses "I could perceive the ship coming over the horizon"
80	accuse	bring an accusation against level a charge against "The neighbors accused the man of spousal abuse"
77	attack	launch an attack or assault or begin hostilities or start warfare with "Hitler attacked Poland on September 1, 1939 and started World War II" "Serbian forces assailed Bosnian towns all week"
77	dispatch	kill without delay "the traitor was dispatched by the conspirators"
77	end	put an end to "The terrible news ended our hopes that he had survived"
74	declare	announce publicly or officially "The President declared war"
74	discuss	speak with others about something talk something over in detail have a discussion "We discussed our household budget"
74	follow	keep under surveillance "The police had been following him for weeks but they could not prove his involvement in the bombing"
73	lead	tend to or result in "This remark lead to further arguments among the guests"
73	remain	stay behind "The smell stayed in the room" "The hostility remained long after they made up"

uses	Lemma	Gloss
72	propose	present for consideration, examination, criticism, etc. "He proposed a new plan for dealing with terrorism" "She proposed a new theory of relativity" "The candidate projects himself as a moderate and a reformer"
72	recognize	accept someone to be what is claimed or accept his power and authority "The Crown Prince was acknowledged as the true heir to the throne" "We do not recognize your gods"
70	capture	take possession of by force, as after an invasion "the invaders seized the land and property of the inhabitants" "The army seized the town" "The militia captured the castle"
70	deny	deny formally an allegation of fact by the opposing party in a legal suit
69	continue	exist over a prolonged period of time "The bad weather continued for two more weeks"
69	issue	bring out an official document such as a warrant
67	declare	proclaim ones support, sympathy, or opinion for or against "His wife declared at once for moving to the West Coast"
66	lead	stretch out over a distance, space, time, or scope run or extend between two points or beyond a certain point "Service runs all the way to Cranbury" "His knowledge doesn't go very far" "My memory extends back to my fourth year of life" "The facts extend beyond a consideration of her personal assets"
65	renew	reestablish on a new, usually improved, basis or make new or like new "We renewed our friendship after a hiatus of twenty years" "They renewed their membership"
64	achieve	to gain with effort "she achieved her goal despite setbacks"
63	provide	determine what is to happen in certain contingencies, especially by including a proviso condition or stipulation "The will provides that each child should receive half of the money" "The Constitution provides for the right to free speech"
61	appeal	take a court case to a higher court for review "He was found guilty but appealed immediately"
61	seek	make an effort or attempt "He tried to shake off his fears" "The infant had essayed a few wobbly steps" "The police attempted to stop the thief" "He sought to improve himself" "She always seeks to do good in the world"
60	attack	take the initiative and go on the offensive "The Serbs attacked the village at night" "The visiting team started to attack"
60	pass	go unchallenged be approved "The bill cleared the House"
59	agree	achieve harmony of opinion, feeling, or purpose "No two of my colleagues would agree on whom to elect chairman"
59	last	persist for a specified period of time "The bad weather lasted for three days"
58	claim	demand as being ones due or property assert ones right or title to "He claimed his suitcases at the airline counter" "Mr. Smith claims special tax exemptions because he is a foreign resident"
57	establish	bring about "The trompe l'oeil illusion establishes depth"
57	inform	impart knowledge of some fact, state of affairs, or event to "I informed him of his rights"
57	warn	notify, usually in advance "I warned you that I would ask some difficult questions"
56	offer	threaten to do something "I offered to leave the committee if they did not accept my proposal"
56	restore	bring back into original existence, use, function, or position "restore law and order" "reestablish peace in the region" "restore the emperor to the throne"
55	create	make or cause to be or to become "make a mess in ones office" "create a furor"
55	issue	circulate or distribute or equip with "issue a new uniform to the children" "supply blankets for the beds"
55	prevent	keep from happening or arising make impossible "My sense of tact forbids an honest answer" "Your role in the projects precludes your involvement in the competitive project"
55	support	argue or speak in defense of "She supported the motion to strike"
54	cross	travel across or pass over "The caravan covered almost 100 miles each day"
54	include	allow participation in or the right to be part of permit to exercise the rights, functions, and responsibilities of "admit someone to the profession" "She was admitted to the New Jersey Bar"
54	urge	push for something "The travel agent recommended strongly that we not travel on Thanksgiving Day"
53	agree	consent or assent to a condition, or agree to do something "She agreed to all my conditions" "He agreed to leave her alone"
53	continue	do something repeatedly and showing no intention to stop "We continued our research into the cause of the illness" "The landlord persists in asking us to move"
53	send	transfer "The spy sent the classified information off to Russia"
53	support	be behind approve of "He plumped for the Labor Party" "I backed Kennedy in 1960"
52	erupt	erupt or intensify suddenly "Unrest erupted in the country" "Tempers flared at the meeting" "The crowd erupted into a burst of patriotism"
52	resolve	reach a conclusion after a discussion or deliberation
52	view	deem to be "She views this quite differently from me" "I consider her to be shallow" "I don't see the situation quite as negatively as you do"
50	occur	to be found to exist "sexism occurs in many workplaces" "precious stones occur in a large area in Brazil"
50	take	admit into a group or community "accept students for graduate study" "Well have to vote on whether or not to admit a new member"
49	claim	take as an undesirable consequence of some event or state of affairs "the accident claimed three lives" "The hard work took its toll on her"
49	fade	disappear gradually "The pain eventually passed off"
49	intervene	get involved, so as to alter or hinder an action, or through force or threat of force "Why did the U.S. not intervene earlier in WW II?"
49	kill	deprive of life "AIDS has killed thousands in Africa"
49	note	make mention of "She observed that his presentation took up too much time" "They noted that it was a fine day to go sailing"
49	suspend	stop a process or a habit by imposing a freeze on it "Suspend the aid to the wartorn country"
48	deploy	to distribute systematically or strategically "The U.S. deploys its weapons in the Middle East"
48	overthrow	cause the downfall of of rulers "The Czar was overthrown" "subvert the ruling class"
48	resolve	bring to an end settle conclusively "The case was decided" "The judge decided the case in favor of the plaintiff" "The father adjudicated when the sons were quarreling over their inheritance"
48	state	express in words "He said that he wanted to marry her" "tell me what is bothering you" "state your opinion" "state your name"
47	accept	give an affirmative reply to respond favorably to "I cannot accept your invitation" "I go for this resolution"
47	form	develop into a distinctive entity "our plans began to take shape"
47	use	avail oneself to "apply a principle" "practice a religion" "use care when going down the stairs" "use your common sense" "practice nonviolent resistance"
46	allege	report or maintain "He alleged that he was the victim of a crime" "He said it was too late to intervene in the war" "The registrar says that I owe the school money"
46	approve	give sanction to "I approve of his educational policies"
46	arrive	reach a destination arrive by movement or progress "She arrived home at 7 o'clock" "She didn't get to Chicago until after midnight"
46	break	make a rupture in the ranks of the enemy or ones own by quitting or fleeing "The ranks broke"
46	resume	take up or begin anew "We resumed the negotiations"
45	negotiate	discuss the terms of an arrangement "They negotiated the sale of the house"

uses	Lemma	Gloss
45	protect	shield from danger, injury, destruction, or damage "Weatherbeater protects your roof from the rain"
45	protract	lengthen in time cause to be or last longer "We prolonged our stay" "She extended her visit by another day" "The meeting was drawn out until midnight"
44	follow	to bring something about at a later time than "She followed dinner with a brandy" "He followed his lecture with a question and answer period"
44	leave	remove oneself from an association with or participation in "She wants to leave" "The teenager left home" "She left her position with the Red Cross" "He left the Senate after two terms" "after 20 years with the same company, she pulled up stakes"
43	accept	react favorably to consider right and proper "People did not accept atonal music at that time" "We accept the idea of universal health care"
43	comply	act in accordance with someones rules, commands, or wishes "He complied with my instructions" "You must comply or else" "Follow these simple rules" "abide by the rules"
43	generate	bring into existence "The new manager generated a lot of problems" "The computer bug generated chaos in the office" "The computer generated this image" "The earthquake generated a tsunami"
43	increase	become bigger or greater in amount "The amount of work increased"
43	initiate	set in motion, start an event or prepare the way for "Hitlers attack on Poland led up to World War II"
43	meet	experience as a reaction "My proposal met with much opposition"
43	refuse	show unwillingness towards "he declined to join the group on a hike"
43	succeed	attain success or reach a desired goal "The enterprise succeeded" "We succeeded in getting tickets to the show" "she struggled to overcome her handicap and won"
42	come	be received "News came in of the massacre in Rwanda"
42	launch	propel with force "launch the space shuttle" "Launch a ship"
42	move	follow a procedure or take a course "We should go farther in this matter" "She went through a lot of trouble" "go about the world in a certain manner" "Messages must go through diplomatic channels"
42	reaffirm	affirm once again "He reaffirmed his faith in the church"
42	take	take into consideration for exemplifying purposes "Take the case of China" "Consider the following case"
41	adopt	take up the cause, ideology, practice, method, of someone and use it as ones own "She embraced Catholicism" "They adopted the Jewish faith"
41	control	exercise authoritative control or power over "control the budget" "Command the military forces"
41	proclaim	state or announce "I am not a Communist, he exclaimed" "The King will proclaim an amnesty"
41	threaten	pose a threat to present a danger to "The pollution is endangering the crops"
40	bomb	throw bombs at or attack with bombs "The Americans bombed Dresden"
40	last	continue to live and avoid dying "We went without water and food for 3 days" "These superstitions survive in the backwaters of America" "The race car driver lived through several very serious accidents" "how long can a person last without food and water" "One crash victim died, the other lived"
39	implement	pursue to a conclusion or bring to a successful issue "Did he go through with the treatment" "He implemented a new economic plan" "She followed up his recommendations with a written proposal"
38	strengthen	make strong or stronger "This exercise will strengthen your upper body" "strengthen the relations between the two countries"
37	consider	think about carefully weigh "They considered the possibility of a strike" "Turn the proposal over in your mind"
37	decide	reach, make, or come to a decision about something "We finally decided after lengthy deliberations"
37	do	carry on or function "We could do with a little more help around here"
37	have	cause to move cause to be in a certain position or condition "He got his squad on the ball" "This let me in for a big surprise" "He got a girl into trouble"
37	help	contribute to the furtherance of "This money will help the development of literacy in developing countries"
37	hold	take and maintain control over, often by violent means "The dissatisfied students held the Presidents office for almost a week"
37	impose	impose and collect "levy a fine"
37	indicate	be a signal for or a symptom of "These symptoms indicate a serious illness" "Her behavior points to a severe neurosis" "The economic indicators signal that the euro is undervalued"
37	order	issue commands or orders for
36	become	enter or assume a certain state or condition "He became annoyed when he heard the bad news" "It must be getting more serious" "her face went red with anger" "She went into ecstasy" "Get going"
36	participate	become a participant be involved in "enter a race" "enter an agreement" "enter a drug treatment program" "enter negotiations"
35	call	order, summon, or request for a specific duty or activity, work, role "He was already called 4 times for jury duty" "They called him to active military duty"
35	cause	cause to do cause to act in a specified manner "The ads induced me to buy a VCR" "My children finally got me to buy a computer" "My wife made me buy a new sofa"
35	enmesh	entangle or catch in or as if in a mesh
35	have	be confronted with "What do we have here" "Now we have a fine mess"
35	make	give certain properties to something "get someone mad" "She made us look silly" "He made a fool of himself at the meeting" "Dont make this into a big deal" "This invention will make you a millionaire" "Make yourself clear"
34	evacuate	move out of an unsafe location into safety "After the earthquake, residents were evacuated"
34	fire	drive out or away by or as if by fire "The soldiers were fired" "Surrender fires the cold skepticism"
34	intend	have in mind as a purpose "I mean no harm" "I only meant to help you" "She didnt think to harm me" "We thought to return early that night"
34	lead	preside over "John moderated the discussion"
34	refuse	resist immunologically the introduction of some foreign tissue or organ "His body rejected the liver of the donor"
34	warn	notify of danger, potential harm, or risk "The director warned him that he might be fired" "The doctor warned me about the dangers of smoking"
33	bring	bring into a different state "this may land you in jail"
33	provide	make a possibility or provide opportunity for permit to be attainable or cause to remain "This leaves no room for improvement" "The evidence allows only one conclusion" "allow for mistakes" "leave lots of time for the trip" "This procedure provides for lots of leeway"
33	respond	show a response or a reaction to something
33	shoot	kill by firing a missile
33	stop	hold back, as of a danger or an enemy check the expansion or influence of "Arrest the downward trend" "Check the growth of communism in South East Asia" "Contain the rebel movement" "Turn back the tide of communism"
33	use	seek or achieve an end by using to ones advantage "She uses her influential friends to get jobs" "The presidents wife used her good connections"
32	accord	go together "The colors dont harmonize" "Their ideas concorded"
32	broker	act as a broker

uses Lemma	Gloss
32 continue	span an interval of distance, space or time "The war extended over five years" "The period covered the turn of the century" "My land extends over the hills on the horizon" "This farm covers some 200 acres" "The Archipelago continues for another 500 miles"
32 fail	fall short in what is expected "She failed in her obligations as a good daughterinlaw" "We must not fail his obligation to the victims of the Holocaust"
32 flee	run away quickly "He threw down his gun and fled"
32 involve	connect closely and often incriminatingly "This new ruling affects your business"
32 maintain	keep in safety and protect from harm, decay, loss, or destruction "We preserve these archeological findings" "The old lady could not keep up the building" "children must be taught to conserve our national heritage" "The museum curator conserved the ancient manuscripts"
31 adopt	choose and follow as of theories, ideas, policies, strategies or plans "She followed the feminist movement" "The candidate espouses Republican ideals"
31 assist	give help or assistance be of service "Everyone helped out during the earthquake" "Can you help me carry this table" "She never helps around the house"
31 fail	disappoint, prove undependable to abandon, forsake "His sense of smell failed him this time" "His strength finally failed him" "His children failed him in the crisis"
31 follow	accept and follow the leadership or command or guidance of "Lets follow our great helmsman" "She followed a guru for years"
31 force	take by force "Storm the fort"
31 hold	to close within bounds, or otherwise limit or deprive of free movement "This holds the local until the express passengers change trains" "About a dozen animals were held inside the stockade" "The illegal immigrants were held at a detention center" "The terrorists held the journalists for ransom"
31 monitor	keep tabs on keep an eye on keep under surveillance "we are monitoring the air quality" "the police monitor the suspects moves"
31 move	change location move, travel, or proceed, also metaphorically "How fast does your new car go" "We travelled from Rome to Naples by bus" "The policemen went from door to door looking for the suspect" "The soldiers moved towards the city in an attempt to take it before night fell" "news travelled fast"
31 order	give instructions to or direct somebody to do something with authority "I said to him to go home" "She ordered him to do the shopping" "The mother told the child to get dressed"
31 receive	receive a specified treatment abstract "These aspects of civilization do not find expression or receive an interpretation" "His movie received a good review" "I got nothing but trouble for my good intentions"
30 engage	carry on wars, battles, or campaigns "Napoleon and Hitler waged war against all of Europe"
30 express	send by rapid transport or special messenger service "She expressed the letter to Florida"
30 impose	impose something unpleasant "The principal visited his rage on the students"
30 kill	mark for deletion, rub off, or erase "kill these lines in the Presidents speech"
30 seek	try to locate or discover, or try to establish the existence of "The police are searching for clues" "They are searching for the missing man in the entire county"
29 conclude	reach agreement on "They concluded an economic agreement" "We concluded a ceasefire"
29 decide	cause to decide "This new development finally decided me"
29 include	add as part of something else put in as part of a set, group, or category "We must include this chemical element in the group"
29 plan	have the will and intention to carry out some action "He plans to be in graduate school next year" "The rebels had planned turmoil and confusion"
29 protest	express opposition through action or words "dissent to the laws of the country"
29 receive	express willingness to have in ones home or environs "The community warmly received the refugees"
29 regard	connect closely and often incriminatingly "This new ruling affects your business"
29 say	report or maintain "He alleged that he was the victim of a crime" "He said it was too late to intervene in the war" "The registrar says that I owe the school money"
29 stand	have or maintain a position or stand on an issue "Where do you stand on the War"
29 undermine	destroy property or hinder normal operations "The Resistance sabotaged railroad operations during the war"

## 2 Appendix B: Coding Process

### 2.1 Figure B1: Graphical User Interface

Figure 2: Graphical User Interface (GUI) for coding ICBe

## 2.2 Algorithm B2: Coding Aggregation and Filtering

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### Algorithm 1 Aggregating Coder-Tokens into Sentence-Events

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**Data:** Coder-Sentence-Tokens

**Result:** Sentence-Events

```

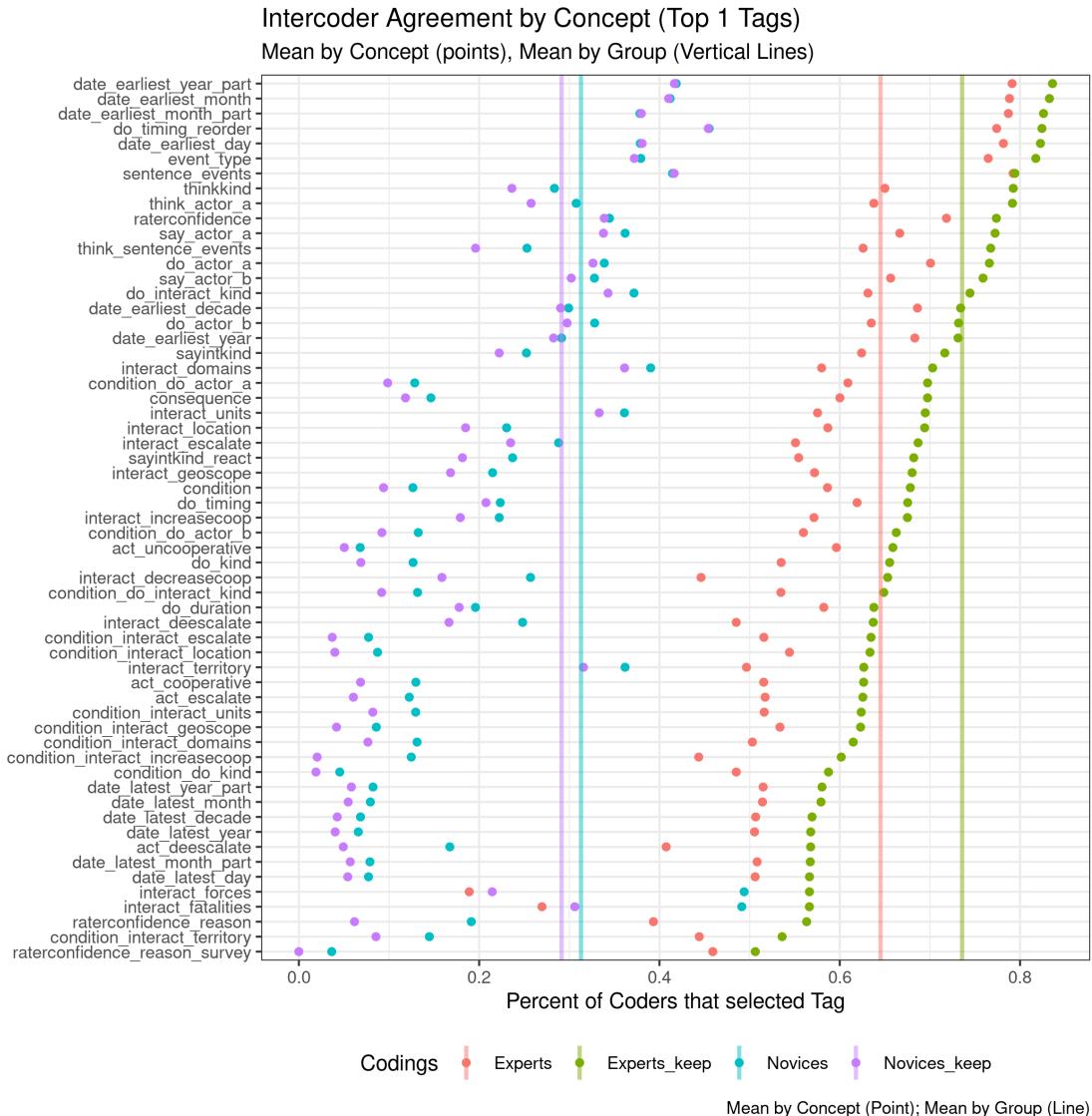
foreach sentence in sentences do
    foreach concept in concepts do
        foreach token in tokens do
            if expert votes==0 then reject;
            else if expert votes > expert voters/2 then
                | accept;
                else if novice votes > novice voters/2 then
                    | accept;
            end
            if sum(accepted) == 0 then
                | sort tags by votes; head 1; accept;      /* If still no tag, take one with most votes */
            end
        end
        foreach ActorSet in unique(ActorSets) do
            | emit event;
        end
    end

```

---

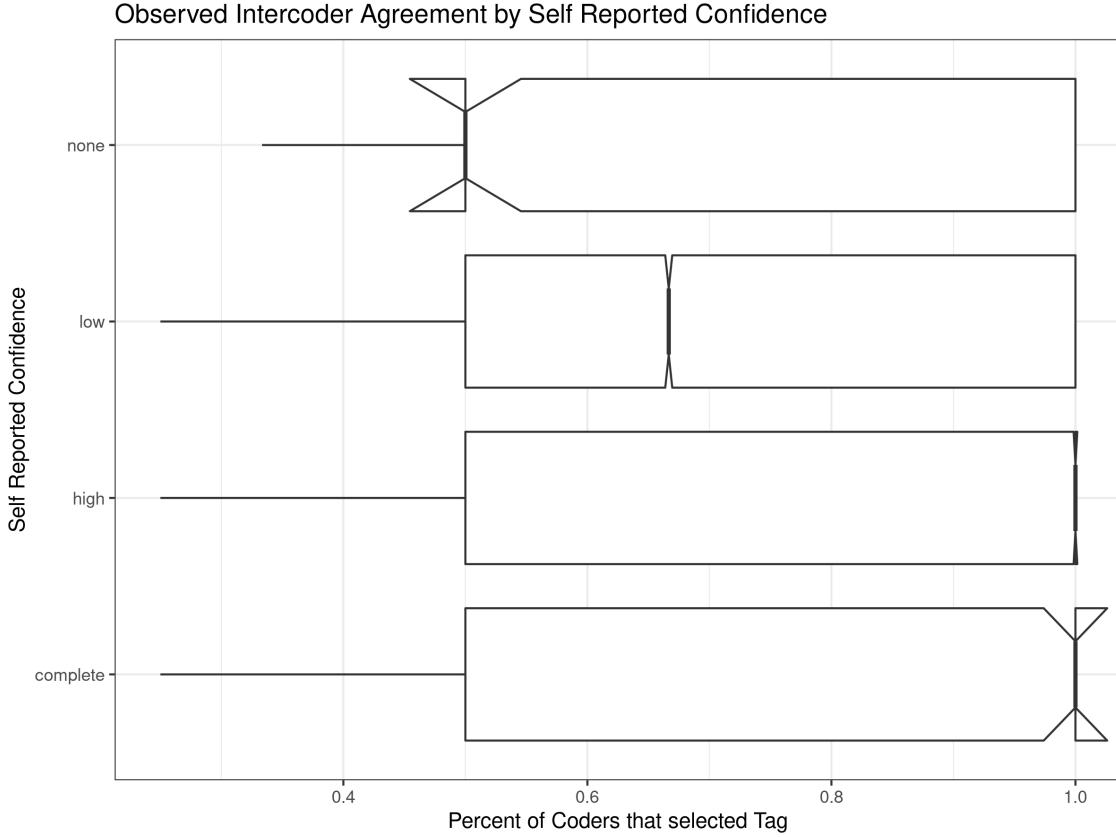
## 2.3 Figure B3 : Intercoder Agreement

Figure 3: Intercoder Agreement by Concept/Type



## 2.4 Figure B4 : Intercoder Agreement by Confidence

Figure 4: Intercoder Agreement by Concept/Type



### 3 Appendix C: Recall

#### 3.1 Algorithm C1: Synthetic Narratives

A synthetic narrative is constructed as follows. First, compile a large corpus,  $D$ , of timelines, encyclopedia entries, journal articles, news reports, websites, and government documents. Next, segment into sentences,  $s \in S$ , clean, filter, and break into simpler concise sentences,  $s^* \in S^*$ , using a large natural language model, BART (Lewis et al. 2019), fine-tuned on summarization tasks, distilbart-cnn-12-6 (Shleifer and Rush 2020). Then, calculate semantic similarity between each  $S^*$  by embedding them with a different large language model, MPNet (Song et al., n.d.), fine tuned to identify paraphrasing (Reimers and Gurevych 2019, 2020). Next, constructed an undirected weighted graph of pair above 95th percentile cosine similarity and hierarchically cluster them into potential events  $e^* \in E^*$  (Clauset, Newman, and Moore 2004). The resulting set of  $E^*$  are small enough to check by hand, summarize, and place in chronological order. The relevant formulas and algorithm are shown below.

Cosine Similarity

$$\text{cosine similarity} = \frac{a \cdot b}{\|a\| \|b\|} \quad (1)$$

Adjacency Matrix

$$A_{vw} = \begin{cases} 1 & \text{if vertices v and w are connected} \\ 0 & \text{otherwise} \end{cases} \quad (2)$$

Identity Function

$$\delta(i, j) = \begin{cases} 1 & \text{if } i=j \\ 0 & \text{otherwise} \end{cases} \quad (3)$$

Degree of a vertex

$$k_v = \sum_w A_{vw} \quad (4)$$

Modularity - Is the difference between observed within-community edges and average expected edges on a random graph

$$Q = \frac{1}{2m} \sum_{vw} [A_{vw} - \frac{k_v k_w}{2m}] \delta(C_w, C_w) \quad (5)$$

**Algorithm 2** Clustering and counting sentences about the same event

```

Data: Document-Sentences
Result: Event-Mentions
/* Embed text as a 768 dimensional semantic vector with a large language model */ 
foreach document in Document do
    foreach sentence in sentence do
        | embedding=distilbart-cnn-6-6(sentence);
    end
end
similarity = cosine similarity(embeddings,embeddings);
/* Threshold similarity matrix and create weighted undirected graph */ 
/* Frame as adding edges so efficient nearest neighbor lookup can be used */ 
g=EmptyUndirectedWeightedGraph();           /* Sparse undirected graph to store edges */
foreach v in 1:rows(similarity) do
    foreach w in 1:cols(similarity) do
        | if similarity[v,w]>0.96 and doc(V)!=doc(W) then append edge v<->w to g;
        | | /* If similar append as undirected edge to graph */
    end
end
/* Community detection with greedy hierarchically clustering (Clauset et al. 2004) */ 
gClustered=EmptyUndirectedGraph(vertices(g));      /* Sparse undirected graph to store edges */
dendrogram=list() while length(edges(g))>1 do
    foreach edge in edges(g) do
        | Qpossible[edge]=Q(gClustered + edge)
    end
    foreach edge in edges(g) do
        | /* Add the edge with the maximum increase in modularity */ 
        | /* Remove from original graph as a housekeeping trick */ 
        | if QPossible[edge]=max(QPossible) then append edge to gClustered and remove edge from g; append
        | | QPossible to dendrogram ;
    end
end
/* Cut the dendrogram to maximize modularity and return event clusters */ 
return dendrogram where Q(dendrogram)==max(dendrogram) /* */

```

### 3.2 Table C2: Synthetic Narrative Matches Cuban Missile

Figure 5: Cuban Missile Crisis Synthetic Narrative Recall Matches

date	Event	Mentions	ICB Narrative	ICBe	ICB	MIDs	Phoenix
12/31/1958	communist coup	128				0	
6/8/1959	nationalizes  owned businesses	28					On June 22 1959, Cuba elites seize or damage property government in United States
10/26/1959	backchannel negotiates with	18				0	
1/1/1960	begins recon flights over	10				0	
3/17/1960	prepares for invasion of	159	181-5	1		0	
5/1/1960	U-2 downed over	8				MID#253 Border violation-Attack-Released (for seizures)	0
5/7/1960	establishes diplomatic and trade relations with	10					0
7/8/1960	embargos	21					0
9/14/1960	attempts assassination	9					0
1/3/1961	breaks diplomatic ties	40					On September 15 1960, United States reduce or break diplomatic relations Cuba in Manhattan
4/17/1961	attempts coup in	16					0
4/17/1961	invades	192	181-10	1	181 Violent Act	MID#246 Show of force-Attack-Stalemate	On April 17 1961, Cuba seize or damage property unidentified armed force (tertiary role code)
4/19/1961	Invasion  fails	5	181-13	1	181 Unilateral-Self		0
6/1/1961	provides economic and military aid to	43	181-16	1			On October 20 1960, Russia provide aid Cuba in United States
8/13/1961	begins construction of Berlin Wall	62	185	1	185 non-violent military act	MID#27 Mobilization-Blockade-Stalemate	0
11/30/1961	covert destabilization efforts against	44					0
4/1/1962	places nuclear missiles in	93					0
5/21/1962	begins placing nuclear missiles in	31					0
7/1/1962	asks  for weapons	5					0
7/1/1962	deploys troops to	5					0
7/1/1962	places nuclear missiles in  as response to  placing nuclear missiles in	347					0
8/10/1962	begins to suspect  nuclear missiles will be placed in	29	196-6	0			0
9/4/1962	meets  to denies presence of missiles	14	196-7	0			0
9/4/1962	demands withdrawal and threatens nuclear response on  if attacked from	125					0
9/11/1962	threatens war with  if attack on  or ships	8					0
10/1/1962	deploys nuclear armed submarines	5					0
10/14/1962	discovers  nuclear missiles in  starts crisis	705	196-8	1	196 External Change		0
10/17/1962	mobilizes troops for invasion of	13	196-4	1			0
10/18/1962	meets  to denies presence of missiles	21					0
10/22/1962	blockades	400	196-9	1	196 Non-violent military act	MID#61 Blockade	0
10/22/1962	demands withdrawal	7					0
10/22/1962	raises nuclear alert	5					0
10/22/1962	threatens military attack	10					0
10/23/1962	OAS statement of support for	7	196-13	1			0
10/23/1962	meets  denies offensive intention	8					0
10/24/1962	respects  blockade of	23			196 Non-violent military act		0
10/24/1962	raises nuclear alert	14					0
10/25/1962	confronts  at the	30					0
10/26/1962	offers remove missiles for  no invasion pledge	60	196-16	1	196 Political act		On October 25 1962, government accuse government in Republic of Cuba
10/27/1962	nuclear missiles in  operational	5					0
10/27/1962	accidentally violates  airspace	25					0
10/27/1962	interdicts  submarine	16					0
10/27/1962	offers withdrawal of nuclear missiles in  for  missiles in	115					0
10/27/1962	promises to not invade	32	196-20	1			0
10/27/1962	U-2 shot down over	119	196-17	1		MID#61 Attack	0
10/28/1962	withdraws nuclear missiles in  for  promise to not invade  ends crisis	547	196-22	1	196 Semi-formal agreement	MID#61 Yield	0
10/30/1962	refuses  observers	7	196-21	1			0
11/20/1962	ends blockade	22	196-31	1	196 Semi-formal agreement		0
4/1/1963	removes missiles from	5					0
8/5/1963	sign Nuclear Test Ban Treaty	94					0
8/30/1963	install hotline	55					0

Figure 6: Crimea-Donbas Synthetic Narrative Recall Matches

date	Event	Mentions	ICB Narrative	ICBe	Phoenix	Terrier	ICEWS
1994-12-05	█ nuclear disarmed in exchange for █ promise to never invade NATO	7	0				
2004-04-02	NATO expands to include Estonia, Latvia, and Lithuania	5	0				
2008-01-01	NATO provides incredible offer of membership to █	7 471-78	1				
2008-08-01	█ invades Georgia and annexes Abkhazia and Ossetia	10 458	1				
2010-04-21	█ and █ ratified the Russian Ukrainian Naval Base for Gas treaty, extending the Russian Navy's lease of █ facilities for 25 years after 2017	5	0				
2013-11-01	█ plans to join █ trade agreement	6 471-3	0	On November 11 2013, Ukraine government express intent to engage in material cooperation, not specified below government in Kiev on the topic of european_union	0		On November 18 2013, Ukraine express intent to cooperate economically European Union
2013-11-21	█ rejects █ trade agreement	42 471-3	1	0	On November 23 2013, Ukraine Government reject economic cooperation European European Union Inter-governmental organizations in Brussels		On November 30 2013, Ukraine Viktor Yanukovich reject economic cooperation European Union
2013-11-21	█ protests	6 471-14	1	On November 29 2013, government engage in political dissent Ukraine in Kiev on the topic of european_union	On November 23 2013, Opposition appeal for change in leadership Government Ukraine		On November 30 2013, Ukraine Citizen (Ukraine) demand change in leadership Viktor Yanukovich in Kiev
2013-12-17	█ offers debt relief and discounted energy to █	5	0	On December 17 2013, Russia express intent to cooperate economically Ukraine in Russian Federation	On December 17 2013, Russia cooperate economically Ukraine		On December 17 2013, Russian Federation Gazprom express intent to cooperate economically Ukraine in Kiev
2014-02-01	█ provide econ and military aid	26 471-66	1	On April 22 2014, United States provide economic aid Ukraine	On April 15 2014, United States provide aid Ukraine in United States		On February 25 2014, United States provide aid Ukraine in Kiev
2014-02-21	█ backs █ political settlement	10 471-9	1	On February 21 2014, europe european union government express intent to cooperate government Ukraine	On February 21 2014, Inter-governmental organizations Europe European Union Government engage in negotiation Elite Ukraine in Kyiv		On February 21 2014, European Union sign formal agreement Ukraine in Kiev
2014-02-22	█ leader removed and flees to █	65 471-22	1	On February 22 2014, Ukraine accede to requests or demands for political reform not specified below opposition in Ukraine	On February 23 2014, Ukraine accede to demands for change in leadership Government in Ukraine		On February 21 2014, Ukraine Head of Government (Ukraine) yield People Associated with the Opposition (Ukraine) in Kiev
2014-02-27	█ backed gunmen begin seizing government buildings in —	10 471-18	1	On February 27 2014, opposition seize or damage property government Ukraine on the topic of activism	On February 27 2014, Unidentified Armed Force (tertiary role code) use conventional military force Legislate in Crimean Peninsula		On February 27 2014, Ukraine Armed Band (Ukraine) use unconventional violence Crimea Ukraine
2014-03-01	█ votes to deploy military to █	11 471-21	1	On March 2 2014, Russia military mobilize or increase armed forces Ukraine	On March 2 2014, Russia mobilize or increase armed forces Ukraine in Russian Federation		On March 1 2014, Russian Federation Legislature (Russia) mobilize or increase armed forces Ukraine
2014-03-16	— independence referendum	12 471-23	0	0	0		On March 16 2014, Ukraine Crimea refuse to break diplomatic relations Ukraine
2014-03-16	█ mobilizes forces to — and █ border	11 471-27	1	On March 17 2014, Russia military occupy territory military	On March 16 2014, Russia Military occupy territory Ukraine in Crimean Peninsula		On March 16 2014, Russian Federation Russia mobilize or increase armed forces Crimea in Prague
2014-03-16	█ backed separatists attack █ in Donbas	6	0	On March 17 2014, Ukraine conventional military force (tertiary role code) use conventional military force Russia in Ukraine	On March 17 2014, Papel use conventional military force Judiciary Government Ukraine in Donetsk		On March 17 2014, Russian Federation Russia use conventional military force Ukraine
2014-03-17	█ sanctions █	83 471-64	1	On March 18 2014, United States impose embargo, boycott, or sanctions political party Russia in United States on the topic of sanctions	On March 17 2014, United States impose embargo, boycott, or sanctions Russia in Moscow		On March 17 2014, United States Barack Obama impose embargo, boycott, or sanctions Russia Russian Federation in Washington D.C.
2014-03-18	█ annexes —	180 471-23	1	0	On March 17 2014, Russia occupy territory Ukraine in Crimean Peninsula		On March 18 2014, Russian Federation Military (Russia) occupy territory Ukraine in Crimean Peninsula
2014-04-06	█ backed separatists begin fighting in █ (Donetsk and Luhansk)	146 471-31	1	On April 8 2014, Russia occupy territory Ukraine in Donetsk	On April 29 2014, Opposition use conventional military force Ukraine in Donetsk		On May 27 2014, Ukraine Separatist (Ukraine) use conventional military force Government (Ukraine) Ukraine in Donetsk
2014-04-23	█ military excercises at — border	7 471-35	1	0	On April 25 2014, Russia demonstrate military or police power Ukraine in Kyiv		On March 26 2014, Russian Federation Russia demonstrate military or police power Ukraine
2014-05-11	DPR and the LPR declare independence	5 471-30	1	0	0		
2014-05-21	DPR requests █ Russian military intervention	5	0	On May 21 2014, Ukraine rebel consult Russia	0		
2014-07-17	█ shoots down passenger jet (Malaysia Airlines Flight 17)	6 471-44	1	0	0		On July 17 2014, Russian Federation Russia employ aerial weapons Airline (Malaysia) Malaysia in Moscow
2014-07-17	█ sanctions █	5 471-75	1	On July 8 2014, europe european union impose embargo, boycott, or sanctions Russia in Eu on the topic of european_union	On July 18 2014, Inter-governmental organizations Europe European Union impose embargo, boycott, or sanctions Russia		On June 27 2014, European Union impose embargo, boycott, or sanctions Russia Russian Federation in Brussels
2014-07-17	█ econ sanction █	5 471-42	1	On July 25 2014, Russia impose embargo, boycott, or sanctions Ukraine in Ukraine	On July 25 2014, Russia Government impose embargo, boycott, or sanctions Ukraine		On December 15 2014, Russian Federation Russia impose embargo, boycott, or sanctions Ukraine in Brussels
2014-09-05	█, █, the DPR and the LPR signed a ceasefire agreement, the Minsk I	10 471-49	1	0	On September 5 2014, Ukraine sign formal agreement Rebel		On September 5 2014, Ukraine Other Authorities / Officials (Ukraine) sign formal agreement Commander (Ukraine) Ukraine in Minsk
2014-09-06	█, █, and the LPR, continue fight with █	15 471-52	1	On September 7 2014, unidentified armed force (tertiary role code) use conventional military force Ukraine in Donetsk			On September 26 2014, Ukraine Separatist (Ukraine) use conventional military force Military (Ukraine) Ukraine in Donetsk
2015-02-12	█, █, the DPR and the LPR signed a ceasefire agreement (Minsk II)	10 471-59	1	0	On February 14 2015, Ukraine Papel Legislature sign formal agreement Ukraine in Minsk		On February 12 2015, Ukraine sign formal agreement Armed Rebel (Belarus) Belarus in Minsk
2015-02-21	█ recognizes Donetsk People's Republic and the Luhansk People's Republic	6	0	0	0		0

### 3.3 Table C3: Synthetic Narrative Matches Crimea-Donbas

## 4 Appendix D: Precision

#### 4.1 Figure D1 Crimea-Donbos

Figure 7: Annexation of Crimea ICB Narrative and ICBe codings

ICB	ICBe
1 A crisis occurred between Russia and Ukraine from 22 February 2014 to 18 February 2015.	
2 The crisis had important and broad implications for Russian relations with Ukraine, other former Soviet states in the region, and members of the European Union (EU) and the North Atlantic Treaty Organization (NATO), including the United States.	
3 On 21 November 2013, Ukrainian president Victor Yanukovych sparked a wave of anti-government unrest – commonly known as “Euromaidan” – when he rejected a trade and political association agreement with the EU in favor of forging closer ties to Russia.	reject - sign formal agreement
4 Demonstrations in favor of closer European integration began in Kiev that evening and were initially peaceful, but they eventually spread to other parts of Ukraine and escalated into a series of increasingly violent clashes between protesters and police, as well as demands for the resignation of Yanukovych.	express intent - economic cooperation riot
5 Violence between protesters and police reached its peak in mid-February 2014, when both sides were firing at each other and the number of deaths increased significantly.	protest human rights violation;mass killing
6 Alarmed by the escalating use of repression by the Ukrainian government, the United States imposed visa bans on twenty senior Ukrainian governmental officials on 19 February.	end economic cooperation restrict rights disapprove end economic cooperation restrict rights
7 The EU followed suit the next day with its own package of sanctions that included travel bans and asset freezes targeted at Ukrainian officials as well as a ban on the export of equipment that could be used for repression by the Ukrainian government.	end economic aid;end military cooperation;end unspecified aid
8 Over the next several days, a number of MPs from the ruling party in Ukraine (the Party of Regions), the armed forces, and police resigned and/or defected to the opposition or fled to safe areas.	
9 Faced with a Ukrainian Parliament that was now dominated by the political opposition, Yanukovych was pressured into signing an EU-mediated agreement on 21 February to try and end the political and civil crisis in Ukraine.	accept
10 This diplomatic move was all for naught, as Yanukovych fled Kiev for eastern Ukraine later that night, and Parliament voted to remove him from office the following day.	leadership change
11 The opposition took control of the Ukrainian government, and Maidan protesters captured the presidential palace and took control of Kiev.	coup
12 The removal of Yanukovych on 22 February 2014 sparked a crisis for Russia.	assert political control over institutions change populated place (town/city) large gain 1ks 10s
13 Russia feared that Ukraine would leave its sphere of influence and become a NATO ally.	start of crisis -
14 Russia also expressed concerns about the rights of Russian-speakers in Ukraine, particularly in the predominantly Russian-speaking region of Crimea, where pro-Moscow protesters were calling for Crimea to secede from Ukraine.	fear - military cooperation fear - human rights violation
15 Russian officials met the night of 22 February and into the morning of February 23, when it was decided that Crimea should be retaken and Yanukovych should be extracted from Ukraine.	express intent - assert political control over points other;region
16 This constituted Russia's major response to its crisis.	
17 Yanukovych showed up in Moscow on 26 February after leaving Ukraine with Russian assistance.	assert political control over;invasion/occupation populated places small gain
18 On 27-28 February, unidentified soldiers (widely suspected, and later confirmed to have been Russian special forces) seized several government buildings and airports in Crimea, sparking a crisis for Ukraine.	start of crisis - invasion/occupation points other small gain appeal - discussion;meeting
19 Ukraine's major response to its crisis was verbal and began on 27 February, when it sent a note to Russia demanding that Russian troops stay on base in Crimea, called for calm, and discussed the final part of its major response.	demand appeal - meeting
20 The following day, Ukraine called for a meeting of the United Nations Security Council (UNSC), the final part of its major response.	attack;border violation;deployment to area;invasion/occupation region surrender region small loss
21 On 1 March, the Russian Parliament gave President Vladimir Putin permission to use force in Crimea, and Russia launched a full-scale military intervention in the country that day.	appeal - surrenders region small loss annex points other;region large gain;small gain reduce control over;withdraw from area populated places;region large loss;small loss
22 The move was met with little resistance from Ukraine, which was advised by the U.S. to avoid a military confrontation with Russia.	
23 Crimea was formally annexed on 18 March, following a local referendum two days earlier in which 97% of voters supported joining Russia.	
24 Non-violent military confrontations in Crimea continued until 25 March, when Ukraine withdrew completely from the region.	
25 In the meantime, tensions also began to simmer between Ukraine and Russia in eastern Ukraine.	
26 Pro-Russian protests in the predominantly Russian-speaking Donbas region in eastern Ukraine began after Crimea was annexed.	
27 At some point soon thereafter, Russia began to conduct military exercises in Rostov and other points near its border with eastern Ukraine, and it also began massing troops in the area, all with the intent to try and force Ukraine to back down in Donbas without having to resort to violence.	exercise;fortify region
28 Ukraine beefed up security at border checkpoints, citing fears that Russian troops may invade.	fortify remove fortify;withdraw from area border;region
29 Russia removed some of its forces from Rostov on 31 March after a conversation between the U.S. and Russian foreign ministers.	meeting dpr/lpr assert autonomy against;attack points other;region
30 Pro-Russian militants in Donbas took control of several government buildings on April 7 and later declared independence from Ukraine – in the form of the Donetsk People's Republic (DPR) and the Luhansk People's Republic (LPR) – following referenda.	invasion/occupation populated place (town/city) small gain join war on behalf;military cooperation dpr/pr
31 This set off a war between Ukrainian security forces and pro-Russian militias in Donbas, supported by Russian arms and widely suspected to have included Russian military members.	declaration of war populated place (town/city) declaration of war dpr/lpr region battle/clash attack dpr/lpr region
32 Ukraine responded to the initial events in Donbas with force.	battle/battle/clash populated place (town/city) small gain
33 On 14 April, acting Ukrainian President Oleksandr Turchynov announced an anti-terror operation against pro-Russian separatists, although it was short-lived.	deployment to area;exercise;fortify border;region
34 On 22 April, Turchynov ordered more military operations against pro-Russian militants.	attack;battle/clash populated place (town/city) small gain
35 Despite publicly denying an interest in intervening in Donbas, Russia increased its troop presence along Ukraine's southeastern border and began another series of military exercises on 23 April, raising concerns that it might conduct a full-fledged military intervention in Donbas if Ukraine appeared to be winning the conflict.	express intent end economic aid;end economic cooperation accuse end economic cooperation
36 Russia and Ukraine were involved in a simultaneous dispute over the latter's natural gas debt to the former.	
37 Gazprom, one of Russia's largest oil companies, was demanding advance payments for natural gas until Ukraine paid off its debt.	
38 Ukraine perceived this as a Russian political maneuver related to the larger security and territorial issues at stake in the crisis.	
39 In May, the European Union (EU) Energy Commissioner began talks with Russia and Ukraine in an attempt to sort out a repayment plan that would keep the gas from being cut off.	appeal mediation
40 The Ukrainian pipelines also supply Europe, so there was a shared interest in resolving the debt dispute.	
41 On 15 June, talks over Ukraine's natural gas debt broke down.	break off negotiations end economic aid;end economic cooperation points other
42 Russia cut the natural gas pipeline to Ukraine the following day.	dpr/lpr attack;show of force airspace 1s 100s
43 This move placed additional time pressure on Ukraine to resolve the crisis sooner.	
44 On 17 July, pro-Russian militants mistakenly shot down Malaysia Airlines Flight 17, a passenger plane that was flying over Donbas, with a Russian-made Buk anti-aircraft missile.	
45 garnered significant international media attention and engendered widespread condemnation and outrage but did not slow the pace of fighting in the region.	disapprove dpr/lpr

S	ICB	ICBe
46	In August, after a Ukrainian counter- offensive regained control of several cities and villages in Donetsk and Luhansk, Russian troops intervened openly in the conflict, sending tanks and missiles across the Ukrainian border.	deployment to area;fortify;join ongoing war populated place (town/city)
47	The Organization for Security and Co-operation in Europe (OSCE) established a Trilateral Contact Group with Ukraine and Russia in June, initiating a mediation effort between the two sides.	invasion/occupation dpr/lpr populated places;region small gain
48	Separatist leaders from the DPR and LPR were also brought into the process.	battle/clash populated place (town/city) small gain
49	The OSCE brokered a ceasefire, the Minsk Protocol, between all sides on 5 September.	Trilateral Contact Group on Ukraine - Trilateral Contact Group on Ukraine mediation
50	The ceasefire failed to hold, and the fighting continued largely unabated through 2014, albeit at a lower level than before Minsk I.	dpr/lpr; express intent - dpr/lpr; cease fire
51	On 30 October, Russia and Ukraine agreed to a natural gas supply deal.	economic cooperation accept - sign formal agreement
52	Fighting escalated to pre-Minsk I levels again in January 2015.	continuation of previous fighting dpr/lpr; region
53	Pro-Russian rebels took control of the Donetsk airport on 15 January, signaling the full collapse of the Minsk Protocol.	dpr/lpr invasion/occupation point other small gain
54	Around this time, DPR leader Alexander Zakharchenko said that he had no interest in peace talks and pledged to begin trying to move the front line.	attack small gain reject - deployment to area populated place (town/city)
55	In February 2015, a renewed round of talks occurred, this time initiated and led by German Chancellor Angela Merkel and French President Francois Hollande.	dpr/lpr reject - meeting; settle dispute dpr/lpr mediation dpr/lpr; - Trilateral Contact Group on Ukraine mediation
56	Merkel and Hollande mediated direct negotiations between Putin and new Ukrainian President Petro Poroshenko, but also coordinated closely with the OSCE, which focused on renewed mediation efforts under the Trilateral Contact Group and securing the cooperation of the DPR and LPR.	
57	On 6 February, Merkel and Hollande met privately with Putin for several hours, convincing him to return to the table.	meeting
58	The mediation effort officially began the following day, when Russian, Ukrainian, and separatist leaders met for negotiations hosted by the OSCE. France and Germany threatened new sanctions if a deal wasn't reached, and the OSCE promised to monitor the implementation of an agreement if one was reached.	threaten - end economic cooperation
59	The mediation effort resulted in a second ceasefire agreement between all sides, commonly known as Minsk II, on 12 February.	ultimatum does not happen - end economic cooperation -C will happen dpr/lpr; settle dispute cease fire region Trilateral Contact Group on Ukraine promise - Triilateral Contact Group on Ukraine mediation
60	The ceasefire was scheduled to take effect on 15 February.	dpr/lpr; express intent - cease fire dpr/lpr; region
61	Fighting mostly ceased after the signing of this agreement, but some clashes continued for a short time afterward in the city of Debaltseve, ending after rebels retook the city on 18 February.	invasion/occupation populated place (town/city) small gain retreat dpr/lpr populated place (town/city) small loss
62	Russian military advisors coordinated the assault on Debaltseve, and U.S. sources were confident that the shelling and rocket attacks in the area came from the Russian military.	military cooperation;unspecified cooperation
63	Ukraine's retreat from Debaltseve under fire terminated the crisis for both Ukraine and Russia.	retreat populated place (town/city) small loss end of crisis
64	In response to the events in Crimea, the U.S. advised Ukraine to not engage Russia militarily but also imposed economic sanctions on Russia.	end economic cooperation
65	The sanctions were widely viewed as ineffective.	
66	In addition, the U.S. provided funds, military training, and military equipment - not including weapons - to Ukraine during the crisis.	military aid;military cooperation
67	The UN was involved in the crisis in several different capacities.	
68	On 27 March 2014, the UN General Assembly approved a resolution condemning the Russian annexation of Crimea.	disapprove
69	The UNSC adopted a resolution on 21 July 2014 condemning the downing of the Malaysia Airlines flight, and another resolution on 17 February 2015 endorsing Minsk II.	praise -
70	Attempts to pass a resolution condemning the referendum in and annexation of Crimea, but Russia repeatedly vetoed those efforts.	
71	The UN was also involved in the areas of human rights and refugee assistance.	
72	UN activity had little effect on the crisis proceedings.	
73	Several regional organizations were involved in the crisis.	
74	In addition to its role as mediator, the OSCE deployed an observer group that monitored compliance with both Minsk ceasefire agreements and facilitated dialogue between local communities in eastern Ukraine, including between local residents and internally-displaced persons.	Trilateral Contact Group on Ukraine deployment to area
75	In addition to its role in the natural gas dispute between Ukraine and Russia, the EU imposed several rounds of economic sanctions on Russia, first in March 2014 and then again in July and September 2014.	end economic cooperation
76	The G8 suspended Russia's membership on 24 March 2014.	G8 break off negotiations;end unspecified cooperation
77	NATO became involved after Ukraine approached it shortly after Yanukovych was ousted.	
78	In February 2014, the secretary general of NATO reiterated the organization's commitment to a 2008 declaration endorsing a path to NATO membership for Ukraine, provided that Ukraine met certain criteria.	
79	On 1 April 2014, NATO suspended civil and military cooperation with Russia.	break off negotiations;end military cooperation;end unspecified cooperation;terminate treaty
80	NATO also participated in general capacity-building in Ukraine, issued statements on the situation in Ukraine, and conducted limited military exercises, generally viewed as a means of reassuring local allies.	military cooperation exercise
81	Russia accused NATO of being involved in a more substantial manner militarily, but there was no evidence to support that accusation, and NATO avoided direct military intervention.	
82	In the aftermath of Minsk II, the situation in Donbass remained more or less stalemates, though all sides made some limited progress in complying and implementing the agreement during the remainder of 2015.	
83	The OSCE monitored the implementation of Minsk II.	

#### 4.2 Table D2: Stratified Sentence Examples

Figure 8: Stratified Sentence Examples

name	value	crisis	ICBe
act_cooperative	end protest	261 The march began on the 6th but was halted by King Hussein of Jordan who ordered his troops to fire to exclude Algerians from negotiating over the future of Western Sahara.	promise end unspecified cooperation
act_cooperative	end riot	309 The protests were the provincial government of Prime Minister Mehdi Bazargan had turned marching demands into a political movement, demanding the terminating its first crisis.	end riot
act_cooperative	end strike	294 On 25 September the insurgents were defeated and the government announced the end of the strike terminating its first crisis.	end of crisis retreat;withdraw behind border
act_cooperative	evacuate	475 At this point, North Korea's troops were ordered to a standstill and South Korea ordered the evacuation of over 10,000 citizens living close to the DMZ. The two sides agreed to withdraw their mobilized and militarized units along the border.	deployment to area;mobilization;raise in alert
act_cooperative	institutions_change	176 The Constitutional Assembly was officially formed on 2 February 1961.	institutions change
act_cooperative	leadership_change	399 In 1994, following the 1993 peace accords, under pressure from the U.S., France, and Belgium, 5 The Supreme Council decided in favor of a plebiscite in 1995.	leadership change
act_cooperative	provide_rights	393 A UN resolution three days later demanded their release.	express intent;reject provide rights
act_cooperative	reduce_human_rights_violation	141 The Soviets perceived these riots as a dangerous pre-emptive strike as it was to be for the Hungarian Uprising 1956-57 (Case #151) and a threat to their East European satellite states.	reduce human rights violation
act_cooperative	reduce_mass_killing	434 Russia condemned the Israeli air strike but Moscow said that U.S. and Britain had been complicit in and responsible for the strikes.	appeal;provide rights;reduce human rights violation;reduce mass killing
act_desescalate	lower_alert	475 On 25 August North and South Korea reached agreement and released a joint statement where both Korea expressed regret over the soldiers injured by North Korean forces and stated that they would no longer South Korea cease the anti-North Korean propaganda.	disapprove
act_escalate	exercise	475 That same day, South Korea and the U.S. began anti-north Korean military exercises.	exercise
act_escalate	fortify	475 On 3 August 1935, as the Turkish fortifications at Anatolian frontier posts were being strengthened, a council met in emergency session and decided on immediate construction of fortifications around the southern Bulgarian town of Haskovo.	fortify point other
act_escalate	mobilization	202 Orders were given to the Turkish army component in Anatolia to move to the frontier posts and begin preparing to defend the frontier areas controlling the road to Konya.	deployment to area;mobilization
act_escalate	raise_in_alert	175 The Dominican Republic declared martial law after the Dominican armed forces on alert and to call for general mobilization.	mobilization;raise in alert
act_escalate	weapons_test	441 From 22 December, it restored its plutonium production facilities and 5 days later it expelled the International Atomic Energy Agency (IAEA) for a period of three months.	break off negotiations;expel;withdraw diplomats
act_incooperative	assassination	238 On 1 September Palestinian guerrillas sought to assassinate King Hussein.	assassination
act_incooperative	coup	354 After the coup against the Somozas dictatorship, the left-wing Sandinista movement achieved power.	coup
act_incooperative	human_rights_violation	353 On 20 May 1927 Japan's ambassador to China was instructed to offer their support to Chang in his attempt to seize power.	praise
act_incooperative	mass_killing	58 On 2 October 1937 Tippoo declared that Hindus must convert to Islam or face death, indicating that the slaughter of Hindus began the day after the edict was issued.	human rights violation;mass killing;restrict rights
act_incooperative	protest	379 The clashes began during the demonstration of Iran's pilgrims: towards its end the march approached Sa'udi securites who opened fire on them.	and unspecified cooperation;protest;restrict rights
act_incooperative	restrict_rights	338 In 1990, the U.S. and Britain sent troops to the zone on 15 September, following Ethiopia's successful incursion.	restrict rights
act_incooperative	riot	29 Tension between the two rivals for primacy in Arabia and Islam, Saudi and the Hashemites, became acute in 1923 when the Hashemites, became Saudi pilgrims but the conflict was controlled by their common British supporters who played a major role since the Arab Revolt during World War I.	economic cooperation;general political support;unspecified cooperation
act_incooperative	strike	161 At a press conference on 1 December 1957, when Indonesia's minister of immigration, Dr. Sardjito, announced that 100,000 Indonesian workers employed by Dutch enterprises.	strike
act_incooperative	terrorism	238 On 1 September, the Popular Front for the Liberation of Palestine (PFLP) hijacked Pan Am flight 103 on the 8th anniversary of the 1973 Yom Kippur War.	terrorism
interact_decreasecoop	break_off_negotiations	263 When these talks did not achieve progress, they broke diplomatic relations with the U.K. on 18 February.	break off negotiations;withdraw diplomats
interact_decreasecoop	end_access	61 They were unable to maintain their grip on the country, remaining ties and communications with South Korea, which had been severed in 1953, were cut off, and forbade any South Korean ships or aircraft from entering their ports.	break off negotiations
interact_decreasecoop	and_economic_aid	248 Indonesia, the Philippines, Malaysia and Thailand condemned the Viet Cong invasion of Laos in December 1977, and when Indonesia's minister of immigration, Dr. Sardjito, announced that 100,000 Indonesian workers employed by Dutch enterprises.	and unspecified aid
interact_decreasecoop	economic_cooperation	338 On 15 January 1990, the U.S. and Britain sent troops to the zone on 15 September, following Ethiopia's successful incursion.	and economic aid;end economic aid
interact_decreasecoop	and_humanitarian_aid	209 By 11 September the UN Yemen Observer Mission (UNOM) had terminated its activities and left Yemen.	end unspecified aid
interact_decreasecoop	end_intelligence_cooperation	224 This demand was refused, with North Korea claiming the Pueblo was spying in its territorial waters.	reject
interact_decreasecoop	end_military_cooperation	455 After a series of attacks, a group of 10 Thais officials was arrested on 6 October while trying to reclaim Myanmar occupied land in the northern part of the country.	restrict rights
interact_decreasecoop	end_peace_agreement	148 At the end of February Egypt and Syria announced that they had signed a peace pact from a new Arab alliance with Saudi Arabia and Yemen.	express intent;end peace agreement
interact_decreasecoop	end_unspecified_cooperation	217 Guinea's independence from France in October 1958 was preceded by a period of intense political maneuvering and expert advice.	formal military alliance
interact_decreasecoop	end_unspecified_cooperation	471 On 1 April 2014, NATO suspended civil and military cooperation with Russia.	propaganda
interact_decreasecoop	violate_terms_of_treaty	32 As threatened by Israel's prime minister, Israeli planes destroyed the Syrian missile bases on 28 May. Both sides violated the 1949 Armistice Agreement and the 1973 Red Line deal.	break off negotiations;and military cooperation;end unspecified cooperation;treaty
interact_decreasecoop	expel	422 On 13 June 1982, the Iranian Revolutionary Command Council (IRC) expelled all US inspectors working with UNSCOM.	political succession;asset autonomy;against
interact_decreasecoop	imprison	455 After a series of attacks, a group of 10 Thais officials was arrested on 6 October while trying to reclaim Myanmar occupied land in the northern part of the country.	restrict rights
interact_decreasecoop	leave_league	148 At the end of February Egypt and Syria announced that they had signed a peace pact from a new Arab alliance with Saudi Arabia and Yemen.	express intent;end peace agreement
interact_decreasecoop	military_ad	217 Guinea's independence from France in October 1958 was preceded by a period of intense political maneuvering and expert advice.	formal military alliance
interact_decreasecoop	political_succession	471 On 1 April 2014, NATO suspended civil and military cooperation with Russia.	propaganda
interact_decreasecoop	terminate	32 As threatened by Israel's prime minister, Israeli planes destroyed the Syrian missile bases on 28 May. Both sides violated the 1949 Armistice Agreement and the 1973 Red Line deal.	break off negotiations;and military cooperation;end unspecified cooperation;treaty
interact_decreasecoop	violate	471 On 1 April 2014, NATO suspended civil and military cooperation with Russia.	propaganda
interact_decreasecoop	violate	32 As threatened by Israel's prime minister, Israeli planes destroyed the Syrian missile bases on 28 May. Both sides violated the 1949 Armistice Agreement and the 1973 Red Line deal.	break off negotiations;and military cooperation;end unspecified cooperation;treaty
interact_decreasecoop	withdraw_diplomatics	176 The United States ended the withdrawal of its diplomatic assets as it was a state of war of aggression.	threaten declaration of war
interact_decreasecoop	cease_fire	13 The Konrad Adenauer meeting in Vienna on 3-4 June 1961 resulted in a joint statement calling for a temporary ceasefire.	meeting
interact_desescalate	de_mobilization	260 The crisis for Angola, Cuba, and the USSR ended on 24 December with a retreat and revert to guerrilla warfare, followed by a similar NLA announcement on the 24th.	end of crisis;end of crisis;express intent;de-mobilization;retreat;survived
interact_desescalate	declaration_of_peace	199 Monica Gobbi, for a peace plan.	settle dispute;declaration of peace
interact_desescalate	decolonize	449 In 1919, the League of Nations' mandate for German colonies was compelled to recognize the independence of its three Balkan provinces, along with Finland, Poland, and Russia.	express intent;Central Powers;territorial control over large loss
interact_desescalate	end_blockade	22 The border was reopened on 2 April, marking the end of the blockade.	end blockade
interact_desescalate	end_exercise	344 Nonetheless, the very high tension generated by Exercise Able Archer 83, a massive military exercise, ended with the collapse of the Soviet Union.	end of crisis;end exercise
interact_desescalate	end_weapons_destruction	103 The Soviet Union ended its weapons of mass destruction program.	region
interact_desescalate	remove_fortify	314 Syrian forces began to pull back on 5 December, Jordan's on the 10th.	de-mobilization;remove fortify
interact_desescalate	refret	60 The U.S. and Britain withdrew to the agreed boundaries on 20 July 1945, ending the Korean War.	border;region
interact_desescalate	surrender	94 On 9 May a group of German army leaders sent envoy to the British Foreign Secretary, Ernest Bevin, to end the crisis for Germany and the war in Europe.	sign formal agreement;sign formal agreement;surrender
interact_desescalate	withdraw_behind_border	252 On 9 April the two foreign ministers met, after which Iraq forces were withdrawn and an announcement was made that the two countries would re-establish the League of Arab States (PLO) leader, Yasser Arafat, as mediator.	population place;large loss
interact_desescalate	withdraw_from_area	80 The U.S. and Britain withdrew to the agreed boundaries on 20 July 1945, ending the Korean War.	border;region
interact_desescalate	retreat	60 The U.S. and Britain withdrew to the agreed boundaries on 20 July 1945, ending the Korean War.	border;region
interact_desescalate	surrender	94 On 9 May a group of German army leaders sent envoy to the British Foreign Secretary, Ernest Bevin, to end the crisis for Germany and the war in Europe.	sign formal agreement;surrender
interact_desescalate	withdraw	252 On 9 April the two foreign ministers met, after which Iraq forces were withdrawn and an announcement was made that the two countries would re-establish the League of Arab States (PLO) leader, Yasser Arafat, as mediator.	border;region

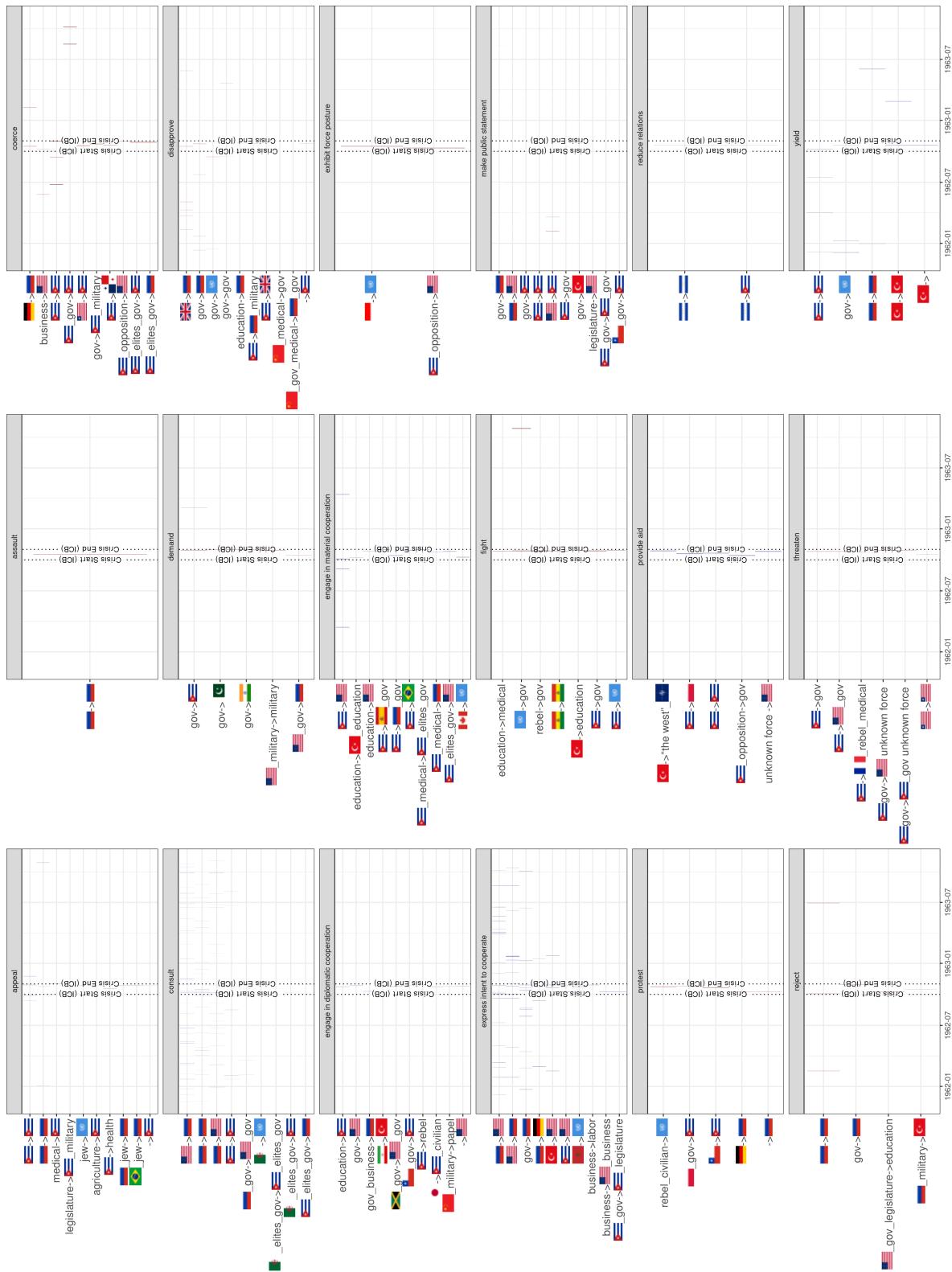


### 4.3 Figure D3 Crisis Maps Cuban Missiles





Figure 9: Crisis Maps - Cuban Missiles - Phoenix Disaggregated



#### 4.4 Figure D4 Crisis Maps Crimea-Donbas

Figure 10: Crisis Maps - Crimea-Donbas

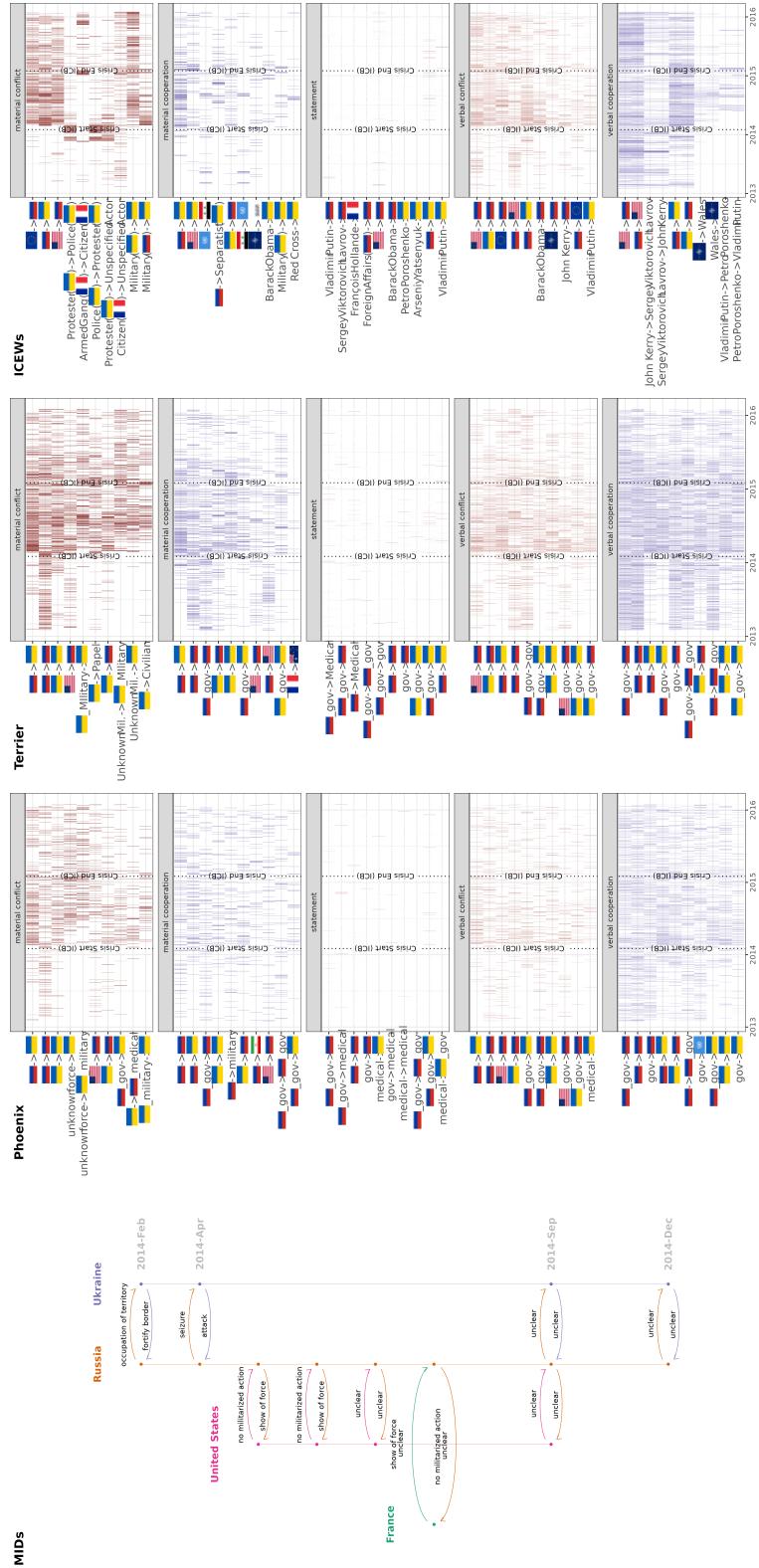




Figure 11: Crisis Maps - Crimea-Dombas Phoenix Disaggregated

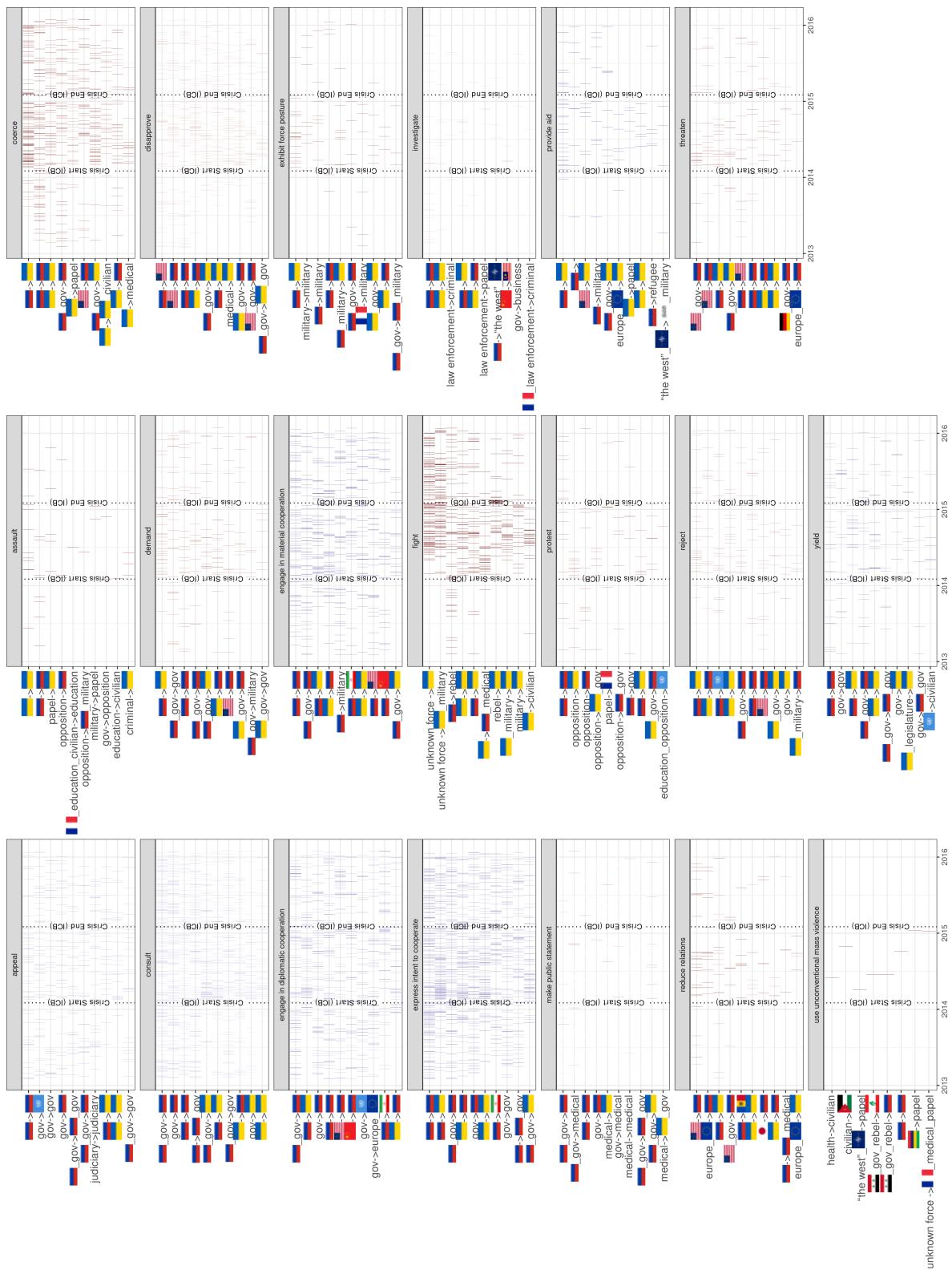




Figure 12: Crisis Maps - Crimea-Dombas Terrier Disaggregated

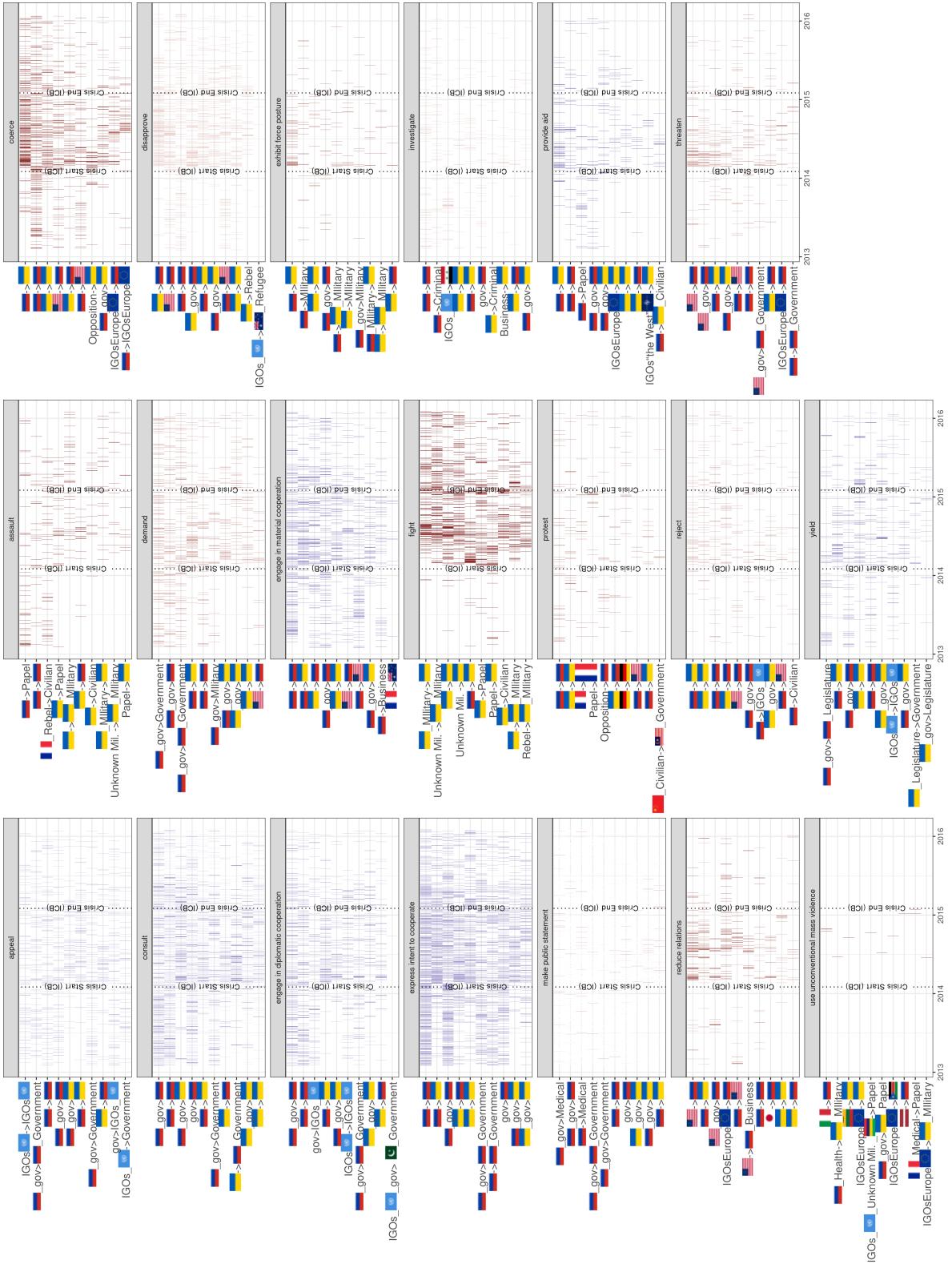
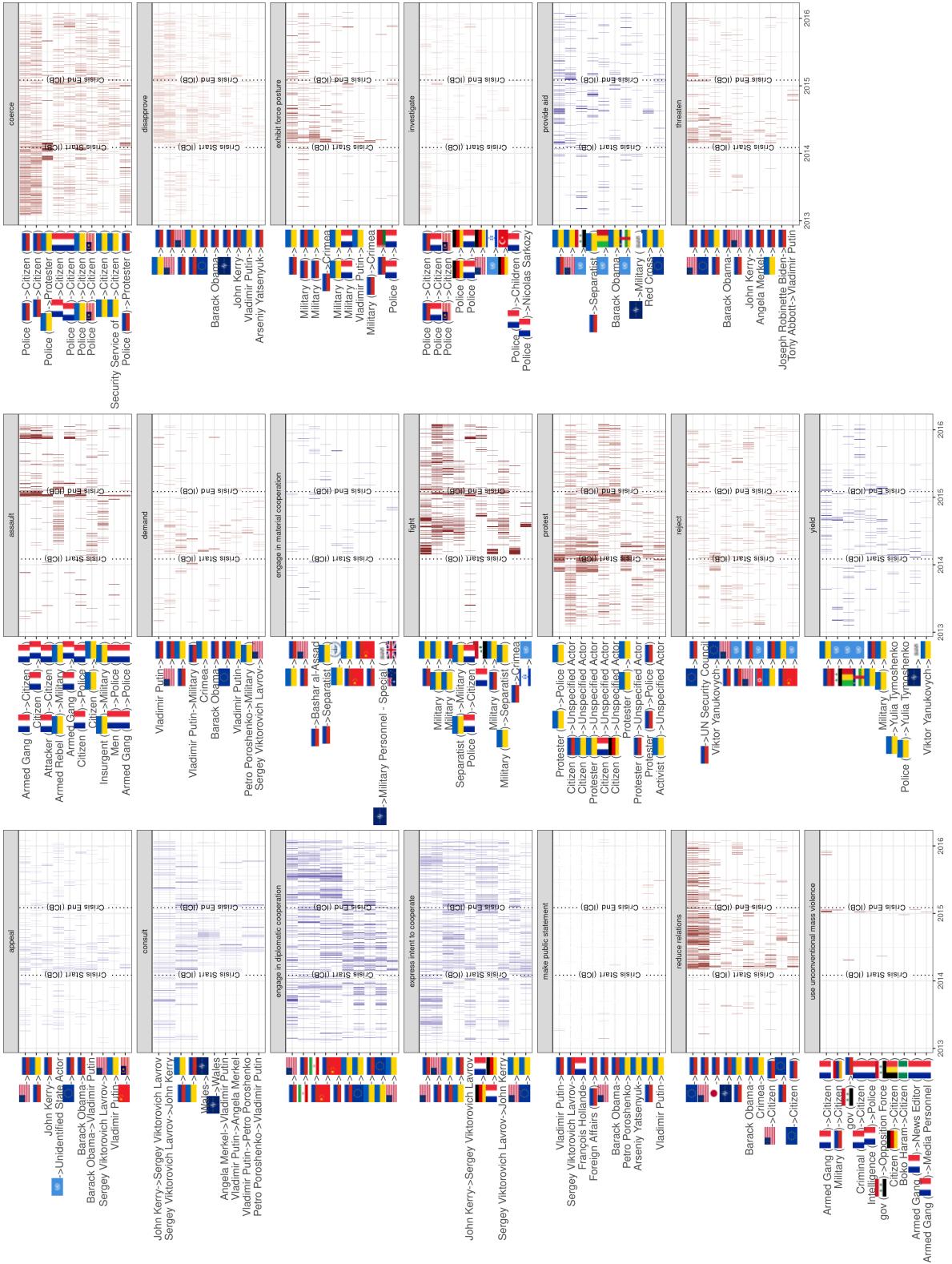




Figure 13: Crisis Maps - Crimea-Donbas ICEWs Disaggregated



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