Codebook for "Cooperative Communities in the International System: Networked Cooperation of Homophilous States"

Welcome to the codebook that supports the research presented in "Cooperative Communities in the International System: Networked Cooperation of Homophilous States". This document contains a detailed exposition on the variables used to create the tables in the manuscript. The article uses the following data sets:

- ATOP alliance data from peacesciencer R package using data(atop_alliance)
  Leeds, Brett, Jeffrey Ritter, Sara Mitchell, and Andrew Long. 2002. Alliance treaty obligations and provisions, 1815-1944. *International Interactions 28*(3), 237-260.
- BLA dyadic data Bilateral Labor Agreements Dataset (bla_dyad.dta)
  Chilton, Adam and Bartosz Woda. 2022. The expanding universe of bilateral labor agreements. Theoretical Inquiries in Law 23 (2), 1–64.

  Chilton, Adam S and Eric A Posner. 2018. Why countries sign bilateral labor agreements. The Journal of Legal Studies 47 (S1), S45–S88.
- DCA data from the Defense Cooperation Dataset (dca_dyad.csv)
  Kinne, Brandon K. 2020. The defense cooperation agreement dataset (DCAD). *Journal of Conflict Resolution 64*(4), 729-755.
- Diplomatic tie data from Recognizing International Status: A Relational Approach by Marina Duque (dipl_dyad.csv).
  Duque, Marina G. 2018. Recognizing international status: a relational approach. International Studies Quarterly 62 (3), 577–592.
- IGO data from peacesciencer. R package
  Pevehouse, Jon CW, Timothy Nordstron, Roseanne W McManus, and Ane Spencer Jamison. 2020. Taking Oerganizations in the World: The correlates of War IGO Version 3.0 datasets. *Journal of Peace Research 57*(2), 239-503.

  Wallace, Michael, and J. David Singer. 1970. International Governmental Organization in the Global System, 1815-1964. *International Organization 24*, 239-287.
- Civil war data (intra_state_wars_cow.dta)
  Sarkees, Meredith Reid and Frank Wayman. 2016. Resort to war: 1816 - 2016. Washington DC: CQ Press.
- Polity IV data from the System Peace file (p5v2018d.xls)
  Marshall, Monty G, Ted Robert Gurr, and Keith Jaggers. 2018. Political regime characteristics and transitions, 1800-2016. Polity IV Project: Home Page 16.
- PTA data from the Preferential trade agreement WTO data (pta.xls)

Hofmann, Claudia, Alberto Osnago, and Michele Ruta. 2017. Horizontal depth: A new database on the content of preferential trade agreements. *World Bank Policy Research Working Paper* (7981).

- V-Dem data originally from the V-Dem R package (V-Dem-CY-Core-v12.rds)
  Coppedge, Michael, John Gerring, Staffan I. Lindberg, Svend-Erik Skaaning, Jan Teorell, David Altman, Michael Bernhard, M. Steven Fish, Adam Glynn, Allen Hicken, Carl Henrik Knutsen, Kyle L. Marquardt, Kelly M. McMann, Farhad Miri, Pamela Paxton, Daniel Pemstein, Jeffrey K. Staton, Eitan Tzelgov, Yi-ting Wang, and Brigitte Seim. 2016. V-Dem dataset V6. 2.
- contdir.csv from the correlates of war data
  Douglas, Stinnett, Tir Jaroslav, Shafer Philip, Gochman Charles, et al.. 2002. The correlates of war project direct contiguity data. Conflict Management and Peace Science 19 (2), 59–68.
- States in existence states2016.csv
  Correlates of War Project. 2017. State system membership list, v2016. 1. Online at https://correlatesofwar.org/data-sets/state-system-membership/.
- QOG government data (qog_std_ts_jan_20.dta)
  Gleditsch, Kristian Skrede. 2002. Expanded trade and GDP data. Journal of Conflict Resolution 46 (5), 712–724.

  World Bank. 2016. World development indicators (WDI). Washington, DC: World Bank.
- Fatal MIDs, MIDs, major powers, CINC data all from correlates of war brought in through the peacesciencer package.
  Miller, Steven V. 2022. peacesciencer: An R package for quantitative peace science research. Conflict Management and Peace Science, 07388942221077926.

  Greig, J Michael and Andrew J Enterline. 2017. National material capabilities (NMC) data documentation version 5.0. Correlates of War. edu/ data-sets/ national-materialcapabilities/
  nmc-codebook-v5-1>.

  Palmer, Glenn, Roseanne W McManus, Vito D'Orazio, Michael R Kenwick, Mikaela Karstens, Chase Bloch, Nick Dietrich, Kayla Kahn, Kellan Ritter, and Michael J Soules. 2022. The mid5 dataset, 2011–2014: Procedures, coding rules, and description. Conflict Management and Peace Science 39 (4), 470–482.

  Correlates of War Project. 2017. State system membership list, v2016. 1. Online at https://correlatesofwar.org/data-sets/state-system-membership/.

  Gibler, Douglas M. 2008. International military alliances, 1648-2008. CQ Press.

  H¨age, Frank M. 2011. Choice or circumstance? Adjusting measures of foreign policy similarity for chance agreement. Political Analysis 19 (3), 287–305.

Table 2 of the article examines the spread of political institutions by state. In the paper, I use mixed effect regressions for the models from the glmer R package. The replication files for these models is in code:

5_analyze_institutional_diffusion_data_replication.r

Name	Code	Variable meaning	Model	Origin
Constrained executive	executive_constrainted	Constrains on executive	Dependent variable	Polity IV
Restricted political participation	restricted_political_participation	Restrictions on voting	Dependent variable	Polity IV
Free media	free_media	Restrictions on press	Dependent variable	V-Dem
Autocratic	autoc	Autocratic government	Dependent variable	Polity IV
Democratic	democ	Democratic government	Dependent variable	Polity IV
Exposure executive constraints	prop_exec_constraint	Proportion of ties to stronger states with executive constraints	Independent variable	Created
Exposure political participation	prop_rest_pol_part	Proportion of ties to stronger states with restrictions on voting	Independent variable	Created
Exposure restrictions on media	gov_censorship_neighbor	Proportion of ties to stronger states with restrictions on media	Independent variable	Created
Exposure autocratic	prop_autoc_mimic	Proportion of ties to stronger autocratic states	Independent variable	Created
Exposure democratic	prop_democ_mimi	Proportion of ties to stronger democratic states	Independent variable	Created
Neighbors executive constraints	exec_constraint_neighbor	Proportion of neighbors with executive constraints	Independent variable	Polity IV
Neighbors political participation	rest_pol_part_neighbor	Proportion of neighbors with political participation	Independent variable	Polity IV
Neighbors restrictions on media	gov_censorship_neighbor	Proportion of neighbors with restrictions on media	Independent variable	Polity IV
Neighbors autocratic	autocratic_neighbor	Proportion of neighbors with autocratic	Independent variable	Polity IV
Neighbors democratic	democratic_neighbor	Proportion of neighbors with democratic	Independent variable	Polity IV
GDPC	gle_cgdpc	Gross Domestic Product per Capita	Control variable	QOG data
Economic growth	wdi_gdpcapgr	Yearly economic grown	Control variable	QOG data
Civil War	civil_war	State experiencing civil war	Control variable	intra_state_wars_cow
Year and Year squared (numeric)	year_num	Year of data	Control variable	Created
Year (categorical)	year	Year of data	Random effect	Created
State name	names	Name of state	Random effect	COW from peacesciencer R package

Table 3 of the article examines the effect of out-group relations on conflict. In the paper, I use several modeling approaches: (1) fixed effect, (2) mixed effect, and (3) TERGM. The fixed effect regressions are from the fixest R package, the mixed effect regression (called a latent factor model) is from the brms R package, and the TERGM is from the btergm R package. The replication files for these models is in code: 7_analyze_conflict_data_replication.r and the table is created in 14_data_visualization_tables_replication.r.

Name	Code	Variable meaning	Model	Origin
Fatal MIDs	fatal_mid	Fatal militarized interstate disputes	Dependent variable	COW from peacesciencer R package
Out-group	out_group	Out-group relations	Independent variables	Created
Joint democracy	democ_joint	Two states are democratic	Control variable	Polity IV
Joint autocratic	autoc_joint	Two states are autocratic	Control variable	Polity IV
Joint major powers	major_power_joint	Two states are coded as major powers	Control variable	COW from peacesciencer R package
CINC Ratio	cinc_ratio	Capabilities index between states (difference in material power)	Control variable	COW from peacesciencer R package
Country code	ccode1, ccode2, dyad	Country code and joint dyad	Fixed and random effects	COW from peacesciencer R package
Year	year	Year of data	Fixed and random effects	Created
Contiguity	contig	Shared borders	Control variable	contdir.csv
2-star, 3-star, triable	Endogeous attribute	k-star, triangle	Network attribute	From btergm R package

Table 4 of the article examines system level causes of interstate interactions using vector autoregressions from the VAR R package. The replication files for these models is in code: 9_analyze_systemic_levels_replication.r and the table is created in 14_data_visualization_tables_replication.r.

Name	Code	Variable meaning	Model	Origin
In-group ties	modularity	Modularity of multiplex network algorithm	Dependent variable	Created
Same-regime ties	assortatative_regime	Network measure of same regime ties	Dependent variable	Created
Number of states	n_states	Number of states in the international system	Control variable	Created

Figure 9 in the appendix of the article examines interstate conflict with temporal cross validation. In the paper I use a fixed effect regression. The replication files for these models is in code: 14_data_visualization_tables_replication.r

Name	Code	Variable meaning	Model	Origin
Fatal MIDs	fatal_mid	Fatal militarized interstate disputes	Dependent variable	COW from peacesciencer R package
Out-group	out_group	Out-group relations	Independent variables	Created
Joint democracy	democ_joint	Two states are democratic	Control variable	Polity IV
Joint autocratic	autoc_joint	Two states are autocratic	Control variable	Polity IV
Joint major powers	major_power_joint	Two states are coded as major powers	Control variable	COW from peacesciencer R package
CINC Ratio	cinc_ratio	Capabilities index between states (difference in material power)	Control variable	COW from peacesciencer R package
Country code	ccode1, ccode2, dyad	Country code and joint dyad	Fixed effects	COW from peacesciencer R package
Year	year	Year of data	Fixed effects	Created

Figure 10 in the appendix displays a permutation test for the institutional diffusion models. In the paper, permute the network 500 times by in-degree and CINC and then measure the permutated networks against the original data using mixed mixed effect regressions for the models from the glmer R package using point estimates. The data is created in 5_analyze_institutional_diffusion_data_replication.r and the image is created in 14_data_visualization_tables_replication.r.

Name	Code	Variable meaning	Model	Origin
Constrained executive	executive_constrainted	Constrains on executive	Dependent variable	Polity IV
Restricted political participation	restricted_political_participation	Restrictions on voting	Dependent variable	Polity IV
Free media	free_media	Restrictions on press	Dependent variable	V-Dem
Autocratic	autoc	Autocratic government	Dependent variable	Polity IV
Democratic	democ	Democratic government	Dependent variable	Polity IV
Exposure executive constraints	prop_exec_constraint	Proportion of ties to stronger states with executive constraints	Independent variable	Created

Exposure political participation	prop_rest_pol_part	Proportion of ties to stronger states with restrictions on voting	Independent variable	Created
Exposure restrictions on media	gov_censorship_neighbor	Proportion of ties to stronger states with restrictions on media	Independent variable	Created
Exposure autocratic	prop_autoc_mimic	Proportion of ties to stronger autocratic states	Independent variable	Created
Exposure democratic	prop_democ_mimi	Proportion of ties to stronger democratic states	Independent variable	Created
Neighbors executive constraints	exec_constraint_neighbor	Proportion of neighbors with executive constraints	Independent variable	Polity IV
Neighbors political participation	rest_pol_part_neighbor	Proportion of neighbors with political participation	Independent variable	Polity IV
Neighbors restrictions on media	gov_censorship_neighbor	Proportion of neighbors with restrictions on media	Independent variable	Polity IV
Neighbors autocratic	autocratic_neighbor	Proportion of neighbors with autocratic	Independent variable	Polity IV
Neighbors democratic	democratic_neighbor	Proportion of neighbors with democratic	Independent variable	Polity IV
GDPC	gle_cgdpc	Gross Domestic Product per Capita	Control variable	QOG data
Economic growth	wdi_gdpcapgr	Yearly economic grown	Control variable	QOG data
Civil War	civil_war	State experiencing civil war	Control variable	intra_state_wars_cow
Year and Year squared (numeric)	year_num	Year of data	Control variable	Created
Year (categorical)	year	Year of data	Random effect	Created
State name	names	Name of state	Random effect	COW from peacesciencer R package

Figure 11 in the appendix displays bivariate logistic regression, linear probability models, and full logistic regressions. These models do not include random and fixed effects. The R package MASS is used in the analysis. The data is created in 5_analyze_institutional_diffusion_data_replication.r and the image is created in 14_data_visualization_tables_replication.r.

Name	Code	Variable meaning	Model	Origin
Constrained executive	executive_constrainted	Constrains on executive	Dependent variable	Polity IV
Restricted political participation	restricted_political_participation	Restrictions on voting	Dependent variable	Polity IV
Free media	free_media	Restrictions on press	Dependent variable	V-Dem
Autocratic	autoc	Autocratic government	Dependent variable	Polity IV

Democratic	democ	Democratic government	Dependent variable	Polity IV
Exposure executive constraints	prop_exec_constraint	Proportion of ties to stronger states with executive constraints	Independent variable	Created
Exposure political participation	prop_rest_pol_part	Proportion of ties to stronger states with restrictions on voting	Independent variable	Created
Exposure restrictions on media	gov_censorship_neighbor	Proportion of ties to stronger states with restrictions on media	Independent variable	Created
Exposure autocratic	prop_autoc_mimic	Proportion of ties to stronger autocratic states	Independent variable	Created
Exposure democratic	prop_democ_mimi	Proportion of ties to stronger democratic states	Independent variable	Created
Neighbors executive constraints	exec_constraint_neighbor	Proportion of neighbors with executive constraints	Independent variable	Polity IV
Neighbors political participation	rest_pol_part_neighbor	Proportion of neighbors with political participation	Independent variable	Polity IV
Neighbors restrictions on media	gov_censorship_neighbor	Proportion of neighbors with restrictions on media	Independent variable	Polity IV
Neighbors autocratic	autocratic_neighbor	Proportion of neighbors with autocratic	Independent variable	Polity IV
Neighbors democratic	democratic_neighbor	Proportion of neighbors with democratic	Independent variable	Polity IV
GDPC	gle_cgdpc	Gross Domestic Product per Capita	Control variable	QOG data
Economic growth	wdi_gdpcapgr	Yearly economic grown	Control variable	QOG data
Civil War	civil_war	State experiencing civil war	Control variable	intra_state_wars_cow
Year and Year squared (numeric)	year_num	Year of data	Control variable	Created

Figure 12 in the appendix displays linear probability models, full logistic regressions, and random effects regressions without imputed data in the analysis. The R packages MASS and glmer are used in the analysis. The data is created in 5_analyze_institutional_diffusion_data_replication.r and the image is created in 14_data_visualization_tables_replication.r.

Name	Code	Variable meaning	Model	Origin
Constrained executive	executive_constrainted	Constrains on executive	Dependent variable	Polity IV
Restricted political participation	restricted_political_participation	Restrictions on voting	Dependent variable	Polity IV
Free media	free_media	Restrictions on press	Dependent variable	V-Dem
Autocratic	autoc	Autocratic government	Dependent variable	Polity IV

Democratic	democ	Democratic government	Dependent variable	Polity IV
Exposure executive constraints	prop_exec_constraint	Proportion of ties to stronger states with executive constraints	Independent variable	Created
Exposure political participation	prop_rest_pol_part	Proportion of ties to stronger states with restrictions on voting	Independent variable	Created
Exposure restrictions on media	gov_censorship_neighbor	Proportion of ties to stronger states with restrictions on media	Independent variable	Created
Exposure autocratic	prop_autoc_mimic	Proportion of ties to stronger autocratic states	Independent variable	Created
Exposure democratic	prop_democ_mimi	Proportion of ties to stronger democratic states	Independent variable	Created
Neighbors executive constraints	exec_constraint_neighbor	Proportion of neighbors with executive constraints	Independent variable	Polity IV
Neighbors political participation	rest_pol_part_neighbor	Proportion of neighbors with political participation	Independent variable	Polity IV
Neighbors restrictions on media	gov_censorship_neighbor	Proportion of neighbors with restrictions on media	Independent variable	Polity IV
Neighbors autocratic	autocratic_neighbor	Proportion of neighbors with autocratic	Independent variable	Polity IV
Neighbors democratic	democratic_neighbor	Proportion of neighbors with democratic	Independent variable	Polity IV
GDPC	gle_cgdpc	Gross Domestic Product per Capita	Control variable	QOG data
Economic growth	wdi_gdpcapgr	Yearly economic grown	Control variable	QOG data
Civil War	civil_war	State experiencing civil war	Control variable	intra_state_wars_cow
Year and Year squared (numeric)	year_num	Year of data	Control variable	Created
Year (categorical)	year	Year of data	Random effect	Created
State name	names	Name of state	Random effect	COW from peacesciencer R package

Figure 13 in the appendix displays alternative dependent variables and independent variables for institutional diffusion. The R packages glmer are used in the analysis. The data is created in 5_analyze_institutional_diffusion_data_replication.r and the image is created in 14_data_visualization_tables_replication.r.

Name	Code	Variable meaning	Model	Origin
Democracy V-Dem	vdem_democ	Democracy from V-Dem	Dependent variable	V-Dem
Religious freedom	religious_freedom	Freedom to practice religion	Dependent variable	V-Dem

Unilateral executive	unilateral_executive	Executive can do unilateral actions	Dependent variable	Polity IV
Women suffrage	women_suffrage	Women can vote	Dependent variable	V-Dem
Exposure democracy V-Dem	prop_democ_mimic_vdem	Proportion of ties to stronger states with v2x_polyarch greater than 0.5	Independent variable	Created
Exposure women suffrage	prop_women_suffrage_mimic	Proportion of ties to stronger states with women suffrage	Independent variable	Created
Exposure unilateral executive	Prop_unli_exec	Proportion of ties to stronger states with unilateral executive	Independent variable	Created
Exposure religious freedom	prop_religious_freedom_mimic	Proportion of ties to stronger states with universal freedom	Independent variable	Created
Neighbors democracy V-Dem	democratic_neighbor_vdem	Proportion of neighbors with Democracy from V-Dem	Independent variable	Polity IV
Neighbors women suffrage	women_participation_neighbor	Proportion of neighbors with women suffrage	Independent variable	Polity IV
Neighbors unilateral executive	unli_exec_neighbor	Proportion of neighbors with unilateral executive	Independent variable	Polity IV
Neighbors religious freedom	religious_freedom_neighbor	Proportion of neighbors with religious freedom	Independent variable	Polity IV
GDPC	gle_cgdpc	Gross Domestic Product per Capita	Control variable	QOG data
Economic growth	wdi_gdpcapgr	Yearly economic grown	Control variable	QOG data
Civil War	civil_war	State experiencing civil war	Control variable	intra_state_wars_cow
Year and Year squared (numeric)	year_num	Year of data	Control variable	Created
Year (categorical)	year	Year of data	Random effect	Created
State name	names	Name of state	Random effect	COW from peacesciencer R package

Figure 14 in the appendix displays measures for stronger states using GDP. The R packages glmer are used in the analysis. The data is created in 5_analyze_institutional_diffusion_data_replication.r and the image is created in 14_data_visualization_tables_replication.r.

Name	Code	Variable meaning	Model	Origin
Constrained executive	executive_constrainted	Constrains on executive	Dependent variable	Polity IV
Restricted political participation	restricted_political_participation	Restrictions on voting	Dependent variable	Polity IV
Free media	free_media	Restrictions on press	Dependent variable	V-Dem

Autocratic	autoc	Autocratic government	Dependent variable	Polity IV
Democratic	democ	Democratic government	Dependent variable	Polity IV
Exposure executive constraints	prop_exec_constraint	Proportion of ties to stronger states with executive constraints	Independent variable	Created
Exposure political participation	prop_rest_pol_part	Proportion of ties to stronger states with restrictions on voting	Independent variable	Created
Exposure restrictions on media	gov_censorship_neighbor	Proportion of ties to stronger states with restrictions on media	Independent variable	Created
Exposure autocratic	prop_autoc_mimic	Proportion of ties to stronger autocratic states	Independent variable	Created
Exposure democratic	prop_democ_mimi	Proportion of ties to stronger democratic states	Independent variable	Created
Neighbors executive constraints	exec_constraint_neighbor	Proportion of neighbors with executive constraints	Independent variable	Polity IV
Neighbors political participation	rest_pol_part_neighbor	Proportion of neighbors with political participation	Independent variable	Polity IV
Neighbors restrictions on media	gov_censorship_neighbor	Proportion of neighbors with restrictions on media	Independent variable	Polity IV
Neighbors autocratic	autocratic_neighbor	Proportion of neighbors with autocratic	Independent variable	Polity IV
Neighbors democratic	democratic_neighbor	Proportion of neighbors with democratic	Independent variable	Polity IV
GDPC	gle_cgdpc	Gross Domestic Product per Capita	Control variable	QOG data
Economic growth	wdi_gdpcapgr	Yearly economic grown	Control variable	QOG data
Civil War	civil_war	State experiencing civil war	Control variable	intra_state_wars_cow
Year and Year squared (numeric)	year_num	Year of data	Control variable	Created
Year (categorical)	year	Year of data	Random effect	Created
State name	names	Name of state	Random effect	COW from peacesciencer R package

Table 7 in the appendix displays alternative conflict models using militarized interstate disputes instead of fatal militarized interstate disputes and models without imputed values. The models used are: (1) fixed effect, (2) mixed effect, and (3) TERGM. The fixed effect regressions are from the fixest R package, the mixed effect regression (called a latent factor model) is from the brms R package, and the TERGM is from the btergm R package. The replication files for these models is in code: 7_analyze_conflict_data_replication.r and the table is created in 14_data_visualization_tables_replication.r.

Name	Code	Variable meaning	Model	Origin
Fatal MIDs	fatal_mid	Fatal militarized interstate disputes	Dependent variable	COW from peacesciencer R package
MIDs	mid	Fatal militarized interstate disputes	Dependent variable	COW from peacesciencer R package
Out-group	out_group	Out-group relations	Independent variables	Created
Joint democracy	democ_joint	Two states are democratic	Control variable	Polity IV
Joint autocratic	autoc_joint	Two states are autocratic	Control variable	Polity IV
Joint major powers	major_power_joint	Two states are coded as major powers	Control variable	COW from peacesciencer R package
CINC Ratio	cinc_ratio	Capabilities index between states (difference in material power)	Control variable	COW from peacesciencer R package
Country code	ccode1, ccode2, dyad	Country code and joint dyad	Fixed and random effects	COW from peacesciencer R package
Year	year	Year of data	Fixed and random effects	Created
Contiguity	contig	Shared borders	Control variable	contdir.csv
2-star, 3-star, triable	Endogeous attribute	k-star, triangle	Network attribute	From btergm R package

Table 8 in the appendix displays alternative conflict models with additional controls. The models used are logistic, LPM, fixed effect logistic, and fixed effect LPM models. The fixed effect regressions are from the fixest R package and the logistic/LPMs are from the MASS package. The replication files for these models is in code: 7_analyze_conflict_data_replication.r and the table is created in 14_data_visualization_tables_replication.r.

Name	Code	Variable meaning	Model	Origin
Fatal MIDs	fatal_mid	Fatal militarized interstate disputes	Dependent variable	COW from peacesciencer R package
MIDs	mid	Fatal militarized interstate disputes	Dependent variable	COW from peacesciencer R package
Out-group	out_group	Out-group relations	Independent variables	Created
Joint democracy	democ_joint	Two states are democratic	Control variable	Polity IV
Joint autocratic	autoc_joint	Two states are autocratic	Control variable	Polity IV

Joint major powers	major_power_joint	Two states are coded as major powers	Control variable	COW from peacesciencer R package
CINC Ratio	cinc_ratio	Capabilities index between states (difference in material power)	Control variable	COW from peacesciencer R package
Country code	ccode1, ccode2, dyad	Country code and joint dyad	Fixed and random effects	COW from peacesciencer R package
Year	year	Year of data	Fixed and random effects	Created
Foreign policy similarity	taub, kappava, piva	Foreign policy similarity metrics	Control variable	peacesciencer R package

Figures 15-17 in the appendix displays alternative independent variable specifications using dif. The models used are fixed effect logistic models. The fixed effect regressions are from the fixest R package. The replication files for these models is in code: 12_testing_formula_downweight_replication.r, 13_testing_formula_downweight_average_replication.r, and the figures are created in 14_data_visualization_tables_replication.r.

Name	Code	Variable meaning	Model	Origin
Fatal MIDs	fatal_mid	Fatal militarized interstate disputes	Dependent variable	COW from peacesciencer R package
MIDs	mid	Fatal militarized interstate disputes	Dependent variable	COW from peacesciencer R package
Out-group	out_group	Out-group relations	Independent variables	Created
Joint democracy	democ_joint	Two states are democratic	Control variable	Polity IV
Joint autocratic	autoc_joint	Two states are autocratic	Control variable	Polity IV
Joint major powers	major_power_joint	Two states are coded as major powers	Control variable	COW from peacesciencer R package
CINC Ratio	cinc_ratio	Capabilities index between states (difference in material power)	Control variable	COW from peacesciencer R package
Country code	ccode1, ccode2, dyad	Country code and joint dyad	Fixed and random effects	COW from peacesciencer R package
Year	year	Year of data	Fixed and random effects	Created
Contiguity	contig	Shared borders	Control variable	contdir.csv
Foreign policy similarity	taub, kappava, piva	Foreign policy similarity metrics	Control variable	peacesciencer R package

Table 9 in the appendix displays alternative independent variable specifications using Leiden community detection. The Leiden community detection is from the igraph R package. The models used are fixed effect logistic, mixed effect or latent factor model, fixed effect LPM, and logistic regression and LPM. The fixed effect regressions are from the fixest R package, the mixed effect/latent factor model is from brms, and the logistic/LPM models are from MASS.. The replication files for these models is in code: 11_leiden_replication.r and the table is created in 14_data_visualization_tables_replication.r.

Name	Code	Variable meaning	Model	Origin
Fatal MIDs	fatal_mid	Fatal militarized interstate disputes	Dependent variable	COW from peacesciencer R package
Out-group	out_group	Out-group relations	Independent variables	Created
Joint democracy	democ_joint	Two states are democratic	Control variable	Polity IV
Joint autocratic	autoc_joint	Two states are autocratic	Control variable	Polity IV
Joint major powers	major_power_joint	Two states are coded as major powers	Control variable	COW from peacesciencer R package
CINC Ratio	cinc_ratio	Capabilities index between states (difference in material power)	Control variable	COW from peacesciencer R package
Country code	ccode1, ccode2, dyad	Country code and joint dyad	Fixed and random effects	COW from peacesciencer R package
Year	year	Year of data	Fixed and random effects	Created
Contiguity	contig	Shared borders	Control variable	contdir.csv

Table 10 in the appendix displays alternative independent variable specifications using different independent variable specifications. The models used logistic regression from MASS. The replication files for these models is in code: 10_alt_comm_detection_replication and the table is created in 14_data_visualization_tables_replication.r.

Name	Code	Variable meaning	Model	Origin
Fatal MIDs	fatal_mid	Fatal militarized interstate disputes	Dependent variable	COW from peacesciencer R package
Out-group	out_group	Out-group relations	Independent variables	Created
Joint democracy	democ_joint	Two states are democratic	Control variable	Polity IV
Joint autocratic	autoc_joint	Two states are autocratic	Control variable	Polity IV

Joint major powers	major_power_joint	Two states are coded as major powers	Control variable	COW from peacesciencer R package
CINC Ratio	cinc_ratio	Capabilities index between states (difference in material power)	Control variable	COW from peacesciencer R package
Country code	ccode1, ccode2, dyad	Country code and joint dyad	Fixed and random effects	COW from peacesciencer R package
Year	year	Year of data	Fixed and random effects	Created
Contiguity	contig	Shared borders	Control variable	contdir.csv

Table 11 in the appendix displays alternative VAR regressions using vector autoregressions from the VAR R package. The replication files for these models is in code: 9_analyze_systemic_levels_replication.r and the table is created in 14_data_visualization_tables_replication.r.

Name	Code	Variable meaning	Model	Origin
In-group ties	modularity	Modularity of multiplex network algorithm	Dependent variable	Created
Same-regime ties	assortatative_regime	Network measure of same regime ties	Dependent variable	Created
Number of states	n_states	Number of states in the international system	Control variable	Created

Figure 18 in the appendix displays alternative community detection and multiplex network lags. The models used are fixed effect logistic regression from fixest. The replication files for these models is in code: 10_alt_comm_detection_replication and the table is created in 14_data_visualization_tables_replication.r.

Name	Code	Variable meaning	Model	Origin
Fatal MIDs	fatal_mid	Fatal militarized interstate disputes	Dependent variable	COW from peacesciencer R package
Out-group	out_group	Out-group relations	Independent variables	Created
Joint democracy	democ_joint	Two states are democratic	Control variable	Polity IV
Joint autocratic	autoc_joint	Two states are autocratic	Control variable	Polity IV
Joint major powers	major_power_joint	Two states are coded as major powers	Control variable	COW from peacesciencer R package
CINC Ratio	cinc_ratio	Capabilities index between states (difference in material power)	Control variable	COW from peacesciencer R package

Country code	ccode1, ccode2, dyad	Country code and joint dyad	Fixed and random effects	COW from peacesciencer R package
Year	year	Year of data	Fixed and random effects	Created