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# Establishing Pathways to Democracy Using Domination Analysis\*

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\*Corresponding author: Amanda B. Edgell (amanda.edgell@v-dem.net). Author contribution statement: Amanda B. Edgell conducted most of the data analysis and made substantial contributions to the written text. Vanessa Boese and Seraphine F. Maerz took lead on drafting of the text, and assisted with the data analysis and interpretation. Patrik Lindenfors developed the domination analysis methodology and contributed substantially to the data analysis process. Staffan I. Lindberg made contributions to the conception and design of the paper, as well as engaging in revisions of the written text. This research project was supported by Knut and Alice Wallenberg Foundation to Wallenberg Academy Fellow Staffan I. Lindberg, Grant 2013.0166 and 2018.0144; by European Research Council, Grant 724191, PI: Staffan I. Lindberg, V-Dem Institute, University of Gothenburg, Sweden; Marianne and Marcus Wallenberg Foundation to Patrik Lindenfors, Grant 2017.0049; as well as by internal grants from the Vice-Chancellor's office, the Dean of the College of Social Sciences, and the Department of Political Science at University of Gothenburg. Replication files will be uploaded here: <https://github.com/vdeminstitute>

# Abstract

How does the order in which liberalization unfolds affect the likelihood for a successful democratic transition? Dahl was among the first to argue that the sequence matters for the outcome when it comes to democratization. This paper builds upon his work and empirically analyzes pathways to democracy employing the newly developed method of domination analysis. We are the first to demonstrate three key findings: 1) There is a clear structure in terms of order of how most episodes of liberalization from authoritarian rule develop; 2) Such sequences are different in key respects for failed and successful episodes of liberalization; and 3) clean election elements – in the capacity of electoral management bodies – stand out as developing earlier in episodes that successfully lead to democracy.

# 1 Introduction

Which factors determine whether a democratizing country evolves into a stable democracy? While much of the literature is concerned with exogenous explanations of democratization (e.g. Lipset, 1959; Przeworski et al., 2000; Boix and Stokes, 2003), we focus on endogenous dynamics, i.e. the “sequence of transformations of a regime and the way in which a new regime is inaugurated” with attention to the specific institutional guarantees necessary for electoral democracy (or “polyarchy”) as outlined by Dahl (1971, p. 33). Are there identifiable patterns of institutional reform during episodes of political liberalization from authoritarian rule? Are there observable differences in these patterns between episodes that resulted in a democratic transition and those that did not? Which of these differences are critical for determining liberalization outcomes? This paper answers these questions empirically and provides descriptive evidence that will enhance our understanding of how democratization unfolds.

Previously, scholars have alluded to potential paths to democracy, most notably, the timing of political competition versus participation (e.g. Dahl, 1971; Huntington, 1968; O’Donnell and Schmitter, 1986), but until now, we lacked sufficient data and methods to investigate the details of how democracy develops. With detailed measures from the Varieties of Democracy (V-Dem, Coppedge et al., 2019b), a large sample of liberalization episodes from 1900 to 2018 (FASDEM), and new domination analysis techniques adapted from sequencing methods in evolutionary biology (Lindenfors et al., 2018; Lindenfors, Krusell, and Lindberg, 2019), we can for the first time identify the relative order of how electoral democracy develops. Deciphering the pattern of development across the ordinal scales of 24 components of electoral democracy (Teorell et al., 2019), the domination analysis identifies which institutional reforms came earlier in the liberalization sequence. We then compare how these sequences differ for episodes ending in a democratic transition and those that faltered.

Our findings provide several novel insights for the literature on democratization. We are the first to demonstrate that: 1) There is a clear order in how most episodes of liberalization from authoritarian rule develop; 2) Such sequences are different in key respects for failed and successful episodes of liberalization; and 3) Clean election elements, particularly the capacity of electoral management bodies (EMBs), develop earlier in episodes ending with a successful

Table 1. Elements of Polyarchy

Suffrage	Clean elections	Freedom of expression and alternative sources of information	Freedom of association
Suffrage	EMB autonomy	Government media censorship	Party ban
	EMB capacity	Harassment of journalists	Barriers to parties
	Voter registry	Media bias	Opposition parties autonomy
	Vote buying	Media self-censorship	Elections multiparty
	Other voting irregularities	Media critical	CSO entry and exit
	Election intimidation	Media perspectives	CSO repression
	Other electoral violence	Discussion for men	
	Election free and fair	Discussion for women	
		Academic and cultural expression	

Note: We use re-scaled versions of media critical, media perspective, media self-censorship, and suffrage so that all variables are measured on an ordinal scale from 0-4. For more information please see Coppedge et al., 2019a.

democratic transitions, when compared to those that do not produce regime change. These results reveal unique insights on how democratic transitions unfold that have important practical implications for democracy promotion. Future work can extend this to provide clues as to how to protect democracy during the current “third wave of autocratization” (Lührmann and Lindberg, 2019).

## 2 Materials and Methods

We employ a conceptualization of democracy based on Dahl’s (1971) notion of polyarchy, measured using the Electoral Democracy Index (EDI) by V-Dem (Coppedge et al., 2019b; Teorell et al., 2019). Covering 180 countries from 1900 to 2018, the EDI includes indicators for the six institutional guarantees highlighted by Dahl (1971; 1989; 1998). These data are uniquely designed to allow for fine-grained analysis of disaggregated indicators of democracy. We focus on the 24 key indicators included in the component-indices for suffrage, clean elections, freedom of expression, alternative sources of information, and freedom of association (see Table 1).<sup>1</sup>

To identify democratization episodes, we follow a slightly modified version of the FAS-DEM method described in Lindberg et al. (2018) that identifies periods of substantial *liberalization* in an authoritarian regime that may or may not result in a successful *democratic*

<sup>1</sup>Omitting the elected officials index due to limited variation.

*transition*.<sup>2</sup> To be considered substantial, the country must experience a net change  $\geq 0.10$  on the EDI during a period of time when it does not also experience any net annual declines of  $\geq 0.02$  (which is considered onset of autocratization), prolonged periods of stasis (i.e. no positive change for ten years), or a slow decline of  $\geq 0.10$  over ten years. Our scope is limited to liberalization periods that start in authoritarian regimes since we are interested in exploring the process of reforms leading to *democratic transition*, leaving aside questions of further liberalization in democracies for future research. Following the case study literature (e.g. O'Donnell and Schmitter, 1986; Linz and Stepan, 1996; Bratton and Walle, 1997), we consider successful democratization to occur when elected officials assume office through a “founding” democratic election.<sup>3</sup> Failed episodes do not achieve this criteria, either ending with a substantial drop in EDI scores (classified as *failed liberalization*), no change for ten years resulting in *stabilized electoral authoritarianism*, or a *preempted transition* having achieved electoral democracy but failing to hold elections before reverting back to authoritarianism. This method results in 146 successful episodes in 110 countries, 182 failed episodes in 91 countries, and nine ongoing (i.e. censored) episodes as of 2018 (using V-Dem v9, see Table A1 for a complete list).

To identify the order of reforms during these episodes, we rely on methods adapted from evolutionary models for exploring the temporal relationship between two ordinal variables (Lindenfors et al. 2018; Sillén-Tullberg 1993; used in Mechkova, Lührmann, and Lindberg 2019; Wang et al. 2017). Specifically, we analyze all possible combinations of values of all pairs of the 24 variables to establish which variables “dominate” other indicators (i.e. achieve higher values earlier), and thus establish the sequence by which elements of polyarchy develop.<sup>4</sup> Because the same sequence, or order of events, can play out quickly in one country and very slowly in another, we remove the year element and focus on state changes and their order, regardless of duration of transitions. To achieve this, we combine all yearly observations when values of all variables did not change into one observation and consider these as one observable “state”. This also resolves the potential problem that stable states may overwhelm changes in terms of

<sup>2</sup>The FASDEM data, codebook, and all replication files are available here: *blinded for review*

<sup>3</sup>Based on holding elections for the legislature or executive while being rated at least electoral democracy on RoW.

<sup>4</sup>Using the R-package *seqR*: <https://github.com/jsks/seqR>

numbers. To check that this compression does not bias the results, we report results for the uncompressed data in the replication materials.

We provide the results in domination tables indicating how many other variables each component dominates and is dominated by, meaning that it is larger or smaller than the other component in at least 50% of the observed states. Indicators dominating a high number of others can be said to develop comparatively early during an episode of democratization, while those frequently dominated are viewed as developing relatively later. Taking the difference or “balance” between dominates and dominated by, allows us to order variables from early movers to latecomers and allows us to look for differences in the reform sequences observed for successful and failed episodes.

### 3 Results

Figure 1 reports results of the domination analysis using the full sample of democratization episodes, ordered based on the balance (i.e. difference between dominates and is dominated by). Five indicators stand out as developing comparatively early in the democratization sequence: suffrage and four related to political parties. These variables dominate the greatest number of other indicators and are (almost) never dominated by another indicator, thus exhibit the greatest balance. By contrast, components found in V-Dem’s clean elections and freedom of expression indices develop comparatively late. Government media censorship, harassment of journalists, vote buying, voting irregularities, and election management body indicators never dominate but are frequently dominated by other components of electoral democracy. This is our first main result: evidence of a remarkable order across *all* episodes of democratization from 1900 to 2018.

Figure 2 compares successful and failed episodes. Our second main result is the *striking* similarities between successful and failed episodes. Those aspects of the EDI that develop relatively early and relatively late are nearly identical, with one notable exception: EMB capacity. During successful episodes, EMB capacity tends to develop toward the middle of the sequence, unlike in failed ones where it exhibits a very low balance (-16) driven by the indicator being dominated by 16 others without ever dominating. Figure 3 further illustrates this finding, plot-



	dominates	dominated by	balance
Suffrage	20	0	20
Party ban	19	0	19
Elections multiparty	17	0	17
Barriers to parties	17	0	17
Opposition parties autonomy	13	1	12
Other electoral violence	6	2	4
Election intimidation	5	3	2
Media perspectives	5	3	2
Media critical	5	4	1
Voter registry	4	4	0
CSO repression	4	4	0
Election free and fair	4	5	-1
Discussion for women	4	5	-1
Discussion for men	4	5	-1
Media bias	4	5	-1
Media self-censorship	4	5	-1
CSO entry and exit	3	5	-2
Academic & cultural expression	3	5	-2
EMB capacity	0	6	-6
Government media censorship	0	9	-9
Harassment of journalists	0	16	-16
Other voting irregularities	0	18	-18
Vote buying	0	18	-18
EMB autonomy	0	18	-18

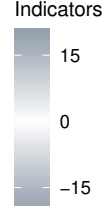


Figure 1. Domination analysis results for all observations in episodes of democratization. Reported values are the number of other components the given component is larger than (dominates) or smaller than (dominated by) in at least 50% of the observed states. Balance reflects the difference between dominates and dominated by.

ting the difference in balances for each indicator between successful and failed episodes. Higher positive values indicate that the component moves comparatively earlier in successful episodes. The sheer magnitude of the difference between failed and successful episodes for EMB capacity stands out.<sup>5</sup> Other components from the clean election index also exhibit relatively earlier development in successful episodes, but the magnitude of the difference is not as large.<sup>6</sup> By contrast, components of freedom of association and expression tend to move somewhat earlier in failed episodes, but again with smaller differences than EMB capacity. Thus, our third main finding is that higher levels of EMB capacity earlier on in the liberalization process distinguish those episodes that led to a successful democratization from those that failed.

We can naturally not make a causal claim at this point, but perhaps akin to switching on a genome, developing high EMB capacity earlier seems to play a critical role in the outcomes

<sup>5</sup>Figures A7, A8 and A9 of the Appendix provide network graphs as an additional visualization of these dominance relationships. The distinctness of EMB capacity is observable when comparing the graphs for failed (Figure A9) and successful episodes (Figure A8).

<sup>6</sup>Likewise, we are cautious to make any claims about these variables as their values are only measured on election years and carried forward so long as the electoral regime is uninterrupted.

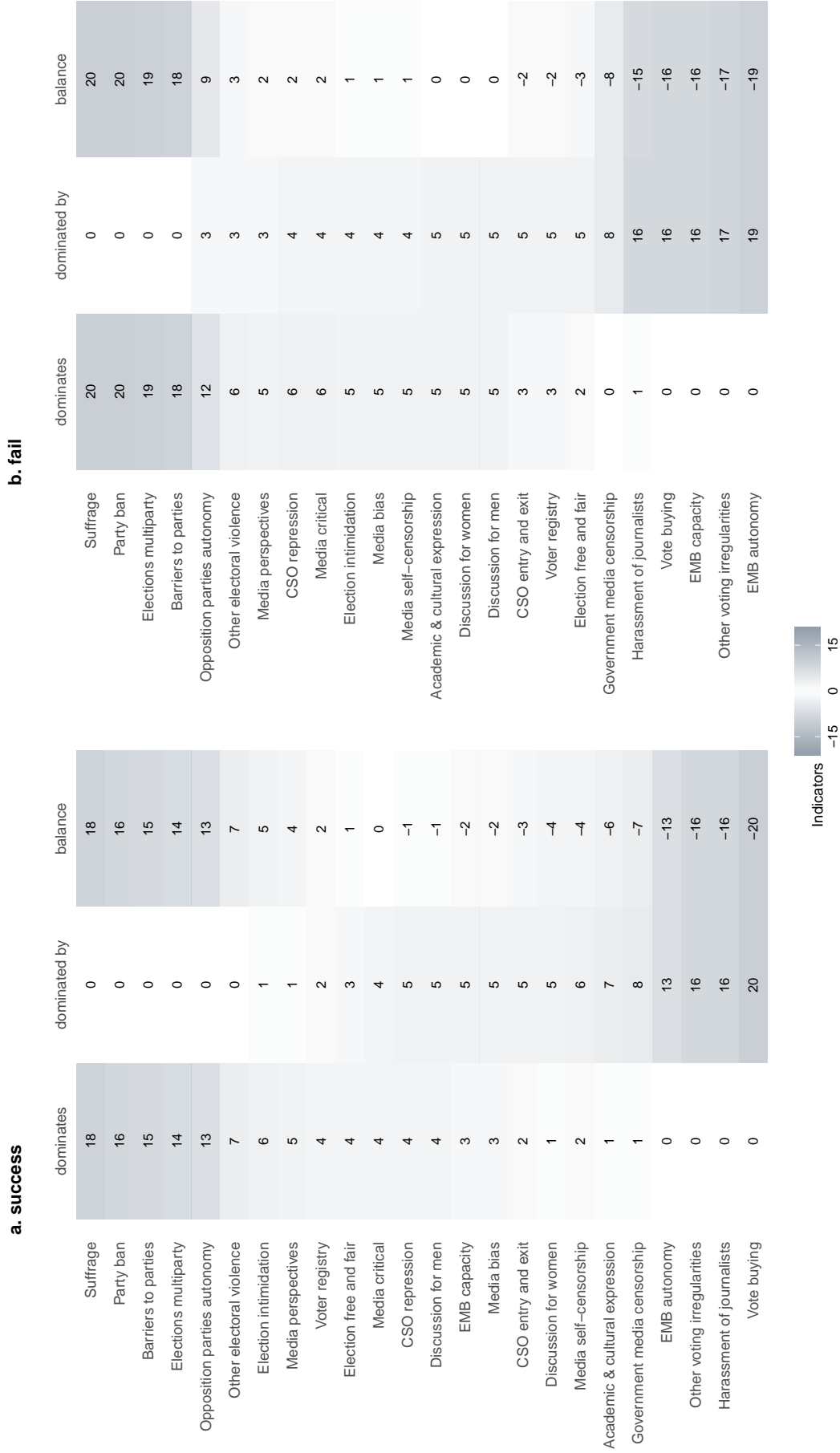


Figure 2. Domination analysis results for (a) successful and (b) failed episodes of democratization. Reported values are the number of other components the given component is larger than (dominates) or smaller than (dominated by) in at least 50% of the observed states. Balance reflects the difference between dominates and dominated by.

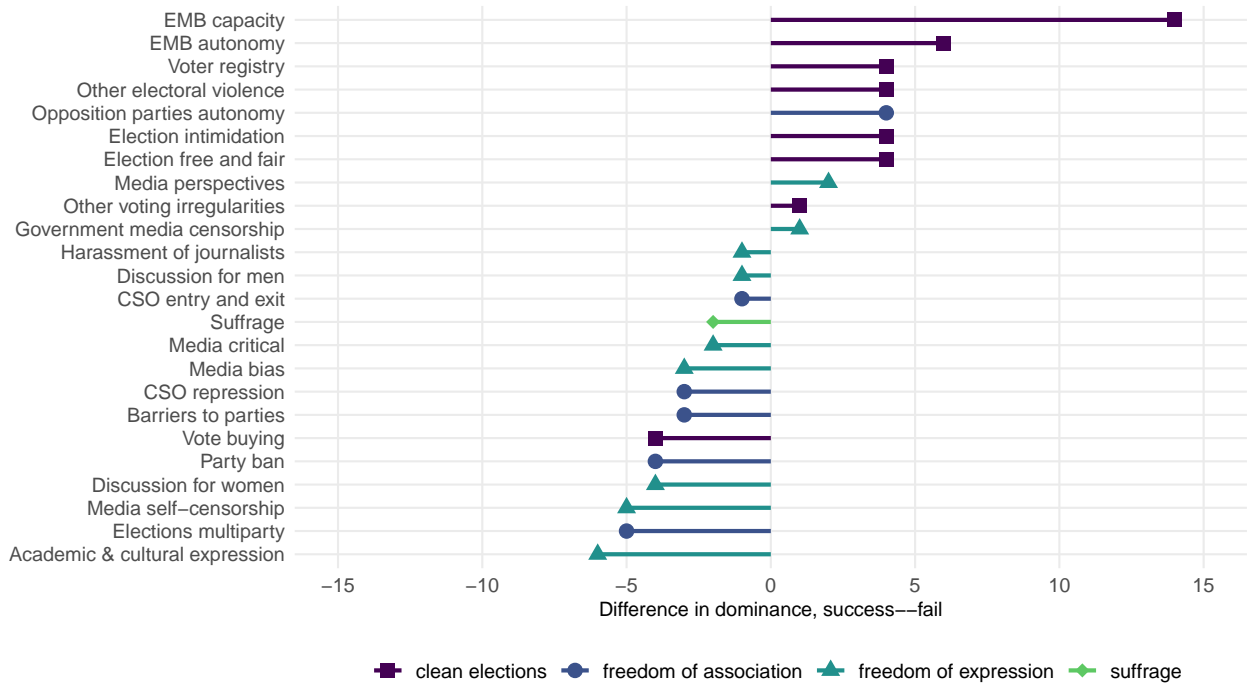


Figure 3. Difference in dominance for successful and failed episodes. Values are the difference in the balance of indicators the component dominates and is dominated by in successful versus failed episodes. Higher values suggest that the component develops earlier in successful episodes.

of liberalization processes. In particular, as shown in Figure 4, EMB capacity tends to develop later than suffrage and most of the freedom of association and expression variables and even some of the clean election indicators during failed episodes. By contrast, EMB capacity is dominated by only *five* indicators in successful episodes (opposition autonomy, elections multiparty, barriers to parties, party ban, and suffrage, i.e. those that also tend to come earliest in all episodes) and develops *before* three variables (vote buying, harassment of journalists, and other voting irregularities). It is therefore of special interest for future research to drill down deeper into which relationships to other variables are driving these observed differences and whether they are indeed causal.

In the online appendix, we also report domination analysis results for different types of failed episodes. Similar patterns emerge, especially regarding the role of EMB capacity, which continues to exhibit the greatest difference in balance between successful and all types of failed episodes. For preempted transitions, or those “near misses” for democracy, autonomy for opposition parties also comes much later than in successful episodes. Finally, in line with the

	success	fail	
Vote buying	58		
Harassment of journalists	54		
Other voting irregularities	52		
Opposition parties autonomy	55	71	
Elections multiparty	59	69	
Barriers to parties	64	76	
Party ban	68	82	
Suffrage	68	75	
Voter registry		50	
Media bias		51	
Election intimidation		52	
Media perspectives		54	
Academic & cultural expression		54	
Other electoral violence		54	
Discussion for women		55	
Media self-censorship		56	
Media critical		58	
CSO repression		59	
Discussion for men		59	

Relationship

dominates

dominated by

Figure 4. Dominance relationships between EMB capacity and 19 other components. Reported values are the percentage of states that EMB is greater than the other indicator if EMB dominates (darker grey) and less than the other indicator if EMB is dominated (lighter grey). Cells are white and empty if there is no clear dominance relationship between two variables (i.e. if  $X > Y$  occurs in less than 50% of the cases)

recent literature, we see women’s rights (to discussion) develop comparatively earlier for cases ending in stabilised electoral authoritarianism (Donno and Kreft, 2019; Edgell, 2019). While beyond the scope of this paper, these exploratory results provide tentative directions for future research

## 4 Conclusion

The results presented here reveal for the first time clear sequences in which the specific institutions of democracy develop during periods of liberalization. Several components of freedom of association (elections multiparty, opposition parties autonomy, party ban, and barriers to parties) and suffrage improve comparatively early. The “late movers” in all episodes are clean election variables (other voting irregularities, vote buying, EMB autonomy) and harassment of journalists. We also provide evidence that this order is almost identical across all episodes

from 1900 to 2018, regardless of whether they ended in democratic transition or continued autocratic rule. The relatively early development of higher EMB capacity stands out as a distinct component or “genetic marker” of liberalization episodes that eventually succeed. This finding has important policy implications for democracy promotion: donors, civil society organizations, and pro-democracy reform movements may benefit most by prioritizing reforms that enhance the professional capacity of EMBs. While our approach remains descriptive, future research could help unravel whether this relationship is truly causal.

To our knowledge this paper provides the first thorough empirical detailing of how sequences of liberalization unfold. As such, our analyses are but a first building block, and our results open up various avenues for further research. On the one hand, investigating the sequences in more detail and analysing whole chains of variable development would offer further insights on whether there are sequences between groups of variables rather than just pairs. Further analyzing the causal effect that EMB capacity has on the outcome of a democratization episode is another important next step. This would constitute an advancement toward developing an evidence-based theory of endogenous democratization. Finally, the methods we employ here could also be used to detail deliberalization or so-called autocratization episodes, which is especially relevant in the current “third wave of autocratization” (Lührmann and Lindberg, 2019).

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# Online appendix

Table A1. Failed and Successful Democratization Episodes, 1900-2018

Country	Start	End	Outcome
Afghanistan	2001	2008	Stabilized electoral autocracy
Albania	1916	1922	Failed liberalization
Albania	1946	1947	Failed liberalization
Albania	1991	1993	Failed liberalization
Albania	2001	2005	Success
Algeria	1962	1963	Failed liberalization
Algeria	1995	2002	Stabilized electoral autocracy
Angola	2008	2018	Censored
Argentina	1912	1928	Success
Argentina	1932	1933	Failed liberalization
Argentina	1946	1948	Failed liberalization
Argentina	1957	1961	Preempted transition
Argentina	1963	1965	Success
Argentina	1972	1974	Preempted transition
Argentina	1983	1985	Success
Armenia	2012	2018	Censored
Austria	1918	1923	Success
Azerbaijan	1991	1993	Stabilized electoral autocracy
Bangladesh	1972	1974	Failed liberalization
Bangladesh	1977	1980	Failed liberalization
Bangladesh	1985	1987	Failed liberalization
Bangladesh	1991	1996	Success
Bangladesh	2009	2009	Preempted transition
Barbados	1944	1961	Success
Belarus	1991	1994	Success
Belgium	1919	1921	Success
Belgium	1944	1949	Success
Benin	1945	1961	Failed liberalization
Benin	1968	1969	Failed liberalization
Benin	1980	1995	Success
Bhutan	1988	2013	Success
Bolivia	1952	1961	Failed liberalization
Bolivia	1982	1985	Success
Bosnia and Herzegovina	1996	1998	Success
Botswana	1960	1969	Success
Brazil	1945	1950	Failed liberalization
Brazil	1967	1989	Success
Bulgaria	1990	1991	Success
Burkina Faso	1949	1961	Failed liberalization
Burkina Faso	1978	1979	Failed liberalization
Burkina Faso	1991	1997	Success
Burkina Faso	2016	2018	Censored

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Table A1 – continued from previous page

Country	Start Year	End Year	Outcome
Burma/Myanmar	1945	1953	Failed liberalization
Burma/Myanmar	2010	2016	Stabilized electoral autocracy
Burundi	1982	1985	Failed liberalization
Burundi	1992	1995	Failed liberalization
Burundi	1999	2006	Stabilized electoral autocracy
Cambodia	1947	1956	Stabilized electoral autocracy
Cambodia	1981	1994	Stabilized electoral autocracy
Cameroon	1980	2015	Stabilized electoral autocracy
Canada	1920	1921	Success
Cape Verde	1972	1975	Failed liberalization
Cape Verde	1980	1991	Success
Central African Republic	1946	1961	Failed liberalization
Central African Republic	1987	2002	Failed liberalization
Central African Republic	2005	2006	Failed liberalization
Central African Republic	2016	2018	Censored
Chad	1946	1957	Failed liberalization
Chad	1990	1997	Stabilized electoral autocracy
Chile	1932	1961	Success
Chile	1988	1993	Success
Colombia	1903	1915	Stabilized electoral autocracy
Colombia	1958	1960	Failed liberalization
Colombia	1971	1975	Preempted transition
Colombia	1991	1991	Success
Comoros	1979	1992	Failed liberalization
Comoros	1997	1997	Failed liberalization
Comoros	2001	2002	Failed liberalization
Comoros	2004	2006	Success
Costa Rica	1919	1924	Stabilized electoral autocracy
Costa Rica	1950	1953	Success
Croatia	1992	1998	Preempted transition
Croatia	2000	2000	Success
Cuba	1901	1903	Failed liberalization
Cuba	1909	1917	Failed liberalization
Cuba	1936	1941	Stabilized electoral autocracy
Cyprus	1950	1968	Success
Cyprus	1970	1970	Success
Czech Republic	1919	1920	Success
Czech Republic	1990	1992	Success
Democratic Republic of the Congo	1960	1961	Failed liberalization
Democratic Republic of the Congo	2001	2009	Stabilized electoral autocracy
Denmark	1901	1903	Success
Denmark	1945	1947	Success
Djibouti	1992	2018	Censored
Dominican Republic	1924	1925	Failed liberalization
Dominican Republic	1963	1963	Failed liberalization

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Table A1 – continued from previous page

Country	Start Year	End Year	Outcome
Dominican Republic	1966	1982	Success
Dominican Republic	1991	1996	Success
Ecuador	1910	1912	Failed liberalization
Ecuador	1947	1962	Failed liberalization
Ecuador	1967	1969	Failed liberalization
Ecuador	1978	1984	Success
Egypt	1956	1976	Failed liberalization
Egypt	2012	2012	Stabilized electoral autocracy
El Salvador	1982	1999	Success
Equatorial Guinea	1959	1969	Failed liberalization
Equatorial Guinea	1982	1996	Stabilized electoral autocracy
Estonia	1919	1920	Success
Estonia	1993	1995	Success
Fiji	1963	1972	Success
Fiji	1992	1994	Success
Fiji	2002	2006	Success
Fiji	2014	2015	Preempted transition
Finland	1917	1919	Success
France	1945	1951	Success
Gabon	1946	1961	Failed liberalization
Gabon	1990	1997	Stabilized electoral autocracy
Georgia	1993	1998	Failed liberalization
Georgia	2004	2004	Success
Germany	1919	1920	Success
Ghana	1969	1971	Failed liberalization
Ghana	1979	1980	Preempted transition
Ghana	1992	2000	Success
Greece	1924	1924	Failed liberalization
Greece	1945	1953	Failed liberalization
Greece	1974	1977	Success
Guatemala	1945	1947	Failed liberalization
Guatemala	1966	1967	Stabilized electoral autocracy
Guatemala	1984	1999	Success
Guinea	1957	1959	Failed liberalization
Guinea	1985	2000	Failed liberalization
Guinea	2010	2016	Stabilized electoral autocracy
Guinea-Bissau	1992	2001	Failed liberalization
Guinea-Bissau	2004	2006	Preempted transition
Guinea-Bissau	2014	2015	Preempted transition
Guyana	1955	1967	Failed liberalization
Guyana	1986	2001	Success
Haiti	1951	1951	Failed liberalization
Haiti	1987	1988	Failed liberalization
Haiti	1991	1991	Failed liberalization
Haiti	1993	1998	Failed liberalization

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Table A1 – continued from previous page

Country	Start Year	End Year	Outcome
Haiti	2006	2007	Stabilized electoral autocracy
Honduras	1949	1950	Failed liberalization
Honduras	1971	1972	Failed liberalization
Honduras	1980	1993	Success
Hungary	1918	1918	Failed liberalization
Hungary	1920	1925	Failed liberalization
Hungary	1988	1990	Success
Iceland	1904	1908	Success
India	1950	1957	Success
India	1977	1977	Success
Indonesia	1945	1956	Preempted transition
Indonesia	1998	2004	Success
Iraq	2004	2008	Preempted transition
Ireland	1921	1922	Success
Israel	1949	1949	Success
Italy	1901	1914	Failed liberalization
Italy	1944	1948	Success
Ivory Coast	1990	1993	Failed liberalization
Ivory Coast	1995	1997	Failed liberalization
Ivory Coast	2001	2004	Failed liberalization
Ivory Coast	2015	2016	Success
Jamaica	1938	1959	Success
Jamaica	1984	1989	Success
Japan	1945	1952	Success
Kenya	1954	1965	Failed liberalization
Kenya	1990	2003	Stabilized electoral autocracy
Kosovo	2000	2004	Success
Kosovo	2013	2014	Success
Kyrgyzstan	2010	2011	Failed liberalization
Kyrgyzstan	2014	2015	Success
Laos	1944	1948	Failed liberalization
Laos	1951	1958	Stabilized electoral autocracy
Latvia	1922	1925	Success
Lebanon	1923	1953	Failed liberalization
Lebanon	2000	2016	Preempted transition
Lesotho	1952	1967	Failed liberalization
Lesotho	1987	1994	Failed liberalization
Lesotho	2002	2007	Success
Liberia	1985	1986	Failed liberalization
Liberia	1991	1999	Failed liberalization
Liberia	2005	2011	Success
Libya	2011	2013	Preempted transition
Lithuania	1920	1920	Success
Luxembourg	1917	1922	Success
Luxembourg	1945	1948	Success

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Table A1 – continued from previous page

Country	Start Year	End Year	Outcome
Macedonia	1994	1998	Success
Macedonia	2001	2002	Success
Macedonia	2015	2018	Censored
Madagascar	1957	1971	Failed liberalization
Madagascar	1975	1996	Success
Madagascar	2013	2017	Stabilized electoral autocracy
Malawi	1960	1964	Failed liberalization
Malawi	1992	1999	Success
Malaysia	1946	1962	Failed liberalization
Malaysia	1972	1975	Stabilized electoral autocracy
Malaysia	1991	2011	Stabilized electoral autocracy
Maldives	1990	2009	Success
Mali	1945	1961	Failed liberalization
Mali	1992	1997	Success
Mali	2014	2018	Success
Malta	1921	1922	Failed liberalization
Malta	1932	1933	Failed liberalization
Malta	1947	1950	Success
Malta	1962	1966	Success
Mauritania	1945	1961	Failed liberalization
Mauritania	1991	2002	Failed liberalization
Mauritania	2007	2007	Failed liberalization
Mauritania	2010	2010	Stabilized electoral autocracy
Mauritius	1948	1976	Success
Mexico	1967	1997	Success
Moldova	1991	1994	Success
Moldova	2009	2009	Success
Mongolia	1989	1992	Success
Montenegro	1999	2003	Preempted transition
Namibia	1985	1994	Success
Nepal	1950	1959	Failed liberalization
Nepal	1982	1992	Failed liberalization
Nepal	2007	2009	Preempted transition
Nepal	2014	2017	Success
Netherlands	1910	1918	Success
Netherlands	1945	1948	Success
Nicaragua	1980	1990	Success
Niger	1957	1961	Failed liberalization
Niger	1988	1991	Failed liberalization
Niger	1993	1993	Success
Niger	2000	2004	Success
Niger	2011	2011	Success
Nigeria	1978	1980	Failed liberalization
Nigeria	1998	2000	Preempted transition
Nigeria	2011	2015	Success

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Country	Start Year	End Year	Outcome
Norway	1906	1906	Success
Norway	1945	1949	Success
Pakistan	1985	1990	Failed liberalization
Pakistan	2002	2010	Preempted transition
Panama	1904	1905	Failed liberalization
Panama	1947	1949	Failed liberalization
Panama	1953	1957	Failed liberalization
Panama	1973	1991	Success
Papua New Guinea	1946	1972	Success
Paraguay	1987	1993	Success
Peru	1939	1946	Failed liberalization
Peru	1950	1960	Failed liberalization
Peru	1964	1964	Failed liberalization
Peru	1978	1985	Success
Peru	1993	1996	Failed liberalization
Peru	2001	2001	Success
Philippines	1944	1968	Failed liberalization
Philippines	1983	1992	Success
Philippines	2006	2010	Success
Poland	1919	1922	Success
Poland	1984	1990	Success
Portugal	1902	1912	Failed liberalization
Portugal	1970	1976	Success
Republic of the Congo	1945	1961	Failed liberalization
Republic of the Congo	1980	1993	Failed liberalization
Republic of the Congo	2002	2003	Stabilized electoral autocracy
Republic of Vietnam	1946	1956	Failed liberalization
Republic of Vietnam	1966	1968	Stabilized electoral autocracy
Romania	1990	1992	Success
Russia	1987	1995	Preempted transition
Rwanda	1955	1962	Failed liberalization
Rwanda	2003	2018	Censored
Sao Tome and Principe	1987	1994	Success
Senegal	1960	1961	Failed liberalization
Senegal	1968	1970	Failed liberalization
Senegal	1983	1988	Success
Serbia	1980	2002	Success
Seychelles	1963	1971	Failed liberalization
Seychelles	1979	1987	Failed liberalization
Seychelles	1992	2006	Failed liberalization
Seychelles	2008	2015	Success
Sierra Leone	1951	1963	Failed liberalization
Sierra Leone	1994	1997	Failed liberalization
Sierra Leone	2002	2007	Success
Singapore	1946	1960	Failed liberalization

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Country	Start Year	End Year	Outcome
Singapore	1968	2002	Stabilized electoral autocracy
Slovakia	1994	1998	Success
Slovenia	1990	1992	Success
Solomon Islands	1960	1980	Success
Solomon Islands	2002	2004	Preempted transition
Solomon Islands	2007	2010	Success
Somalia	1941	1966	Stabilized electoral autocracy
Somaliland	1993	2010	Success
South Africa	1989	1999	Success
South Korea	1946	1949	Failed liberalization
South Korea	1964	1971	Failed liberalization
South Korea	1981	1988	Success
Spain	1931	1933	Success
Spain	1968	1979	Success
Sri Lanka	1947	1947	Success
Sri Lanka	2011	2015	Success
Sudan	1940	1956	Failed liberalization
Sudan	1965	1966	Failed liberalization
Sudan	1986	1987	Failed liberalization
Sudan	1997	2018	Censored
Suriname	1946	1951	Success
Suriname	1985	1991	Success
Sweden	1909	1924	Success
Syria	1946	1948	Failed liberalization
Syria	1953	1955	Failed liberalization
Syria	1962	1962	Stabilized electoral autocracy
Taiwan	1970	1996	Success
Tanzania	1958	1964	Failed liberalization
Tanzania	1987	1995	Success
Tanzania	2005	2010	Success
Thailand	1933	1938	Failed liberalization
Thailand	1974	1975	Failed liberalization
Thailand	1979	1990	Failed liberalization
Thailand	1992	1995	Failed liberalization
Thailand	1997	1998	Preempted transition
Thailand	2008	2008	Failed liberalization
Thailand	2011	2012	Preempted transition
The Gambia	1960	1962	Failed liberalization
The Gambia	1966	1972	Success
The Gambia	1996	2012	Failed liberalization
The Gambia	2015	2018	Censored
Timor-Leste	1998	2007	Success
Togo	1944	1961	Failed liberalization
Togo	1991	2008	Preempted transition
Togo	2013	2015	Success

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Country	Start Year	End Year	Outcome
Trinidad and Tobago	1938	1966	Success
Tunisia	1956	1967	Failed liberalization
Tunisia	2005	2014	Success
Turkey	1946	1954	Failed liberalization
Turkey	1962	1969	Success
Turkey	1983	1991	Success
Uganda	1951	1963	Failed liberalization
Uganda	1981	1981	Stabilized electoral autocracy
Ukraine	1992	1994	Success
Ukraine	2003	2006	Success
United Kingdom	1916	1922	Success
United States of America	1920	1922	Success
Uruguay	1911	1920	Success
Uruguay	1922	1925	Success
Uruguay	1936	1942	Success
Uruguay	1980	1989	Success
Vanuatu	1970	1983	Success
Venezuela	1936	1948	Failed liberalization
Venezuela	1958	1960	Stabilized electoral autocracy
Vietnam	1946	1947	Stabilized electoral autocracy
Yemen	1988	1993	Stabilized electoral autocracy
Zambia	1964	1965	Failed liberalization
Zambia	1990	1996	Success
Zanzibar	1980	2009	Stabilized electoral autocracy
Zimbabwe	1979	1997	Stabilized electoral autocracy

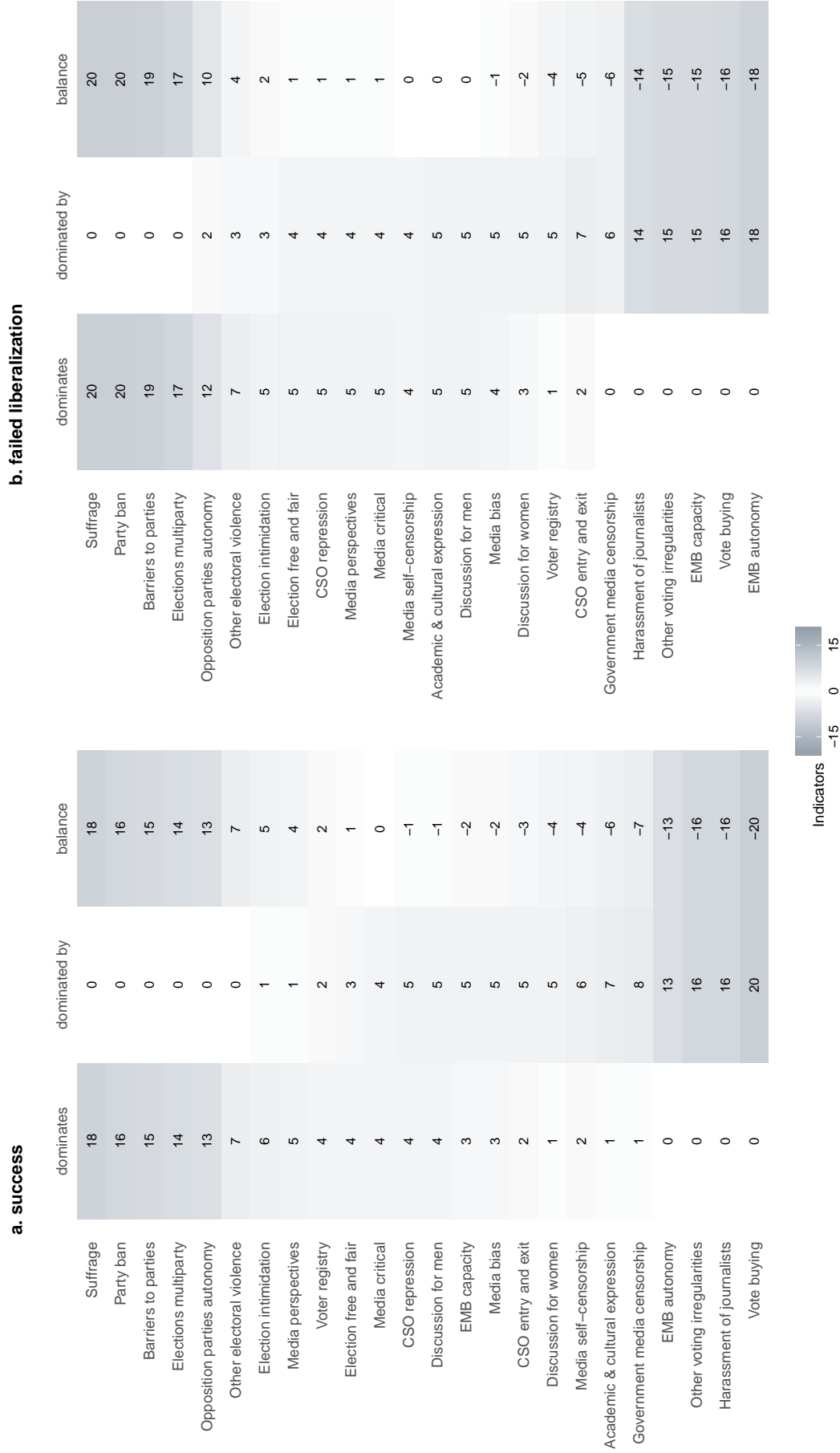


Figure A1. Domination analysis results for (a) successful and (b) failed liberalization episodes of democratization. Reported values are the number of other components the given component is larger than (dominates) or smaller than (dominated by) in at least 50% of the observed states. Balance reflects the difference between dominates and dominated by.



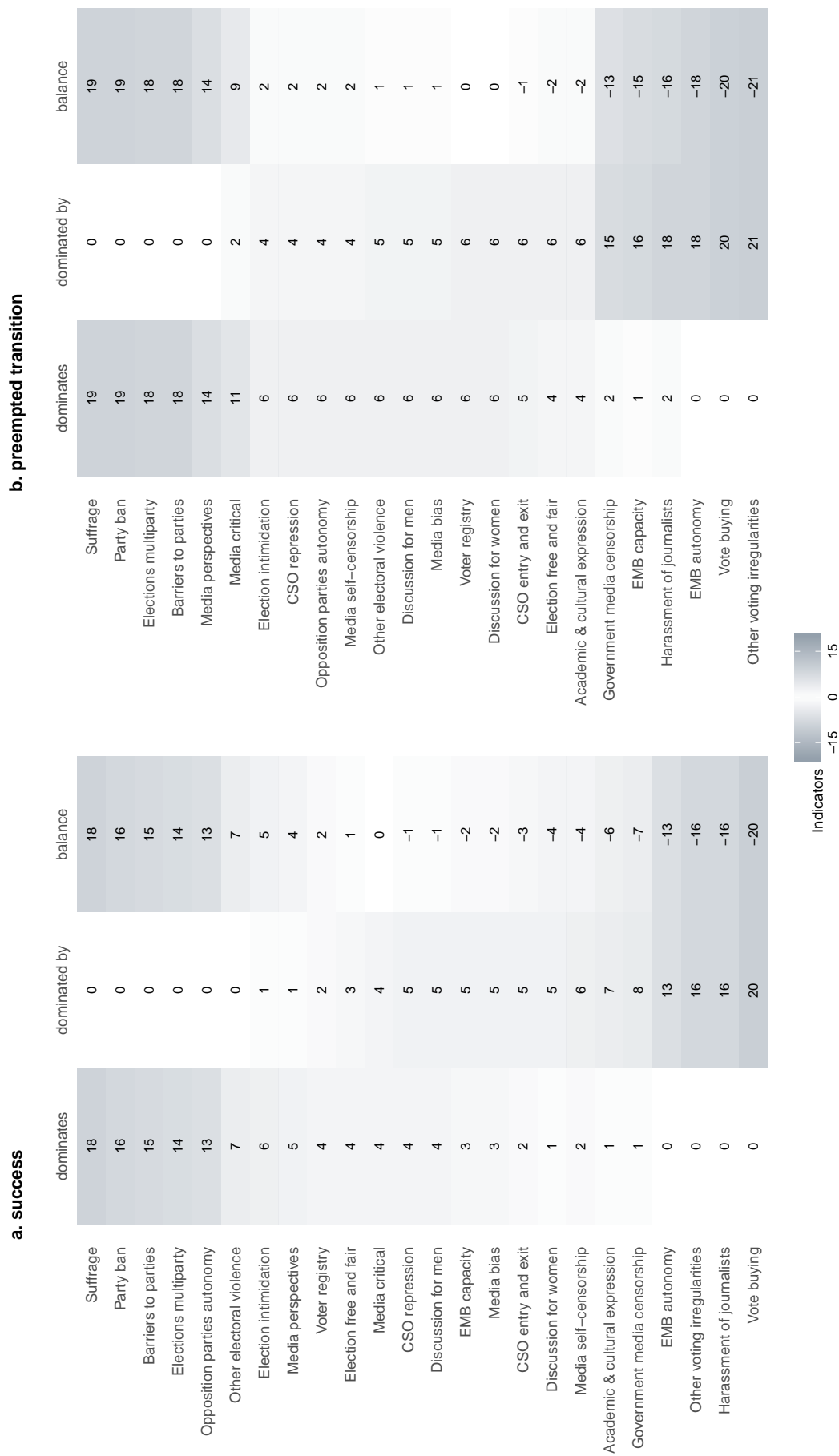


Figure A2. Domination analysis results for (a) successful and (b) preempted transition episodes of democratization. Reported values are the number of other components the given component is larger than (dominates) or smaller than (dominated by) in at least 50% of the observed states. Balance reflects the difference between dominates and dominated by.

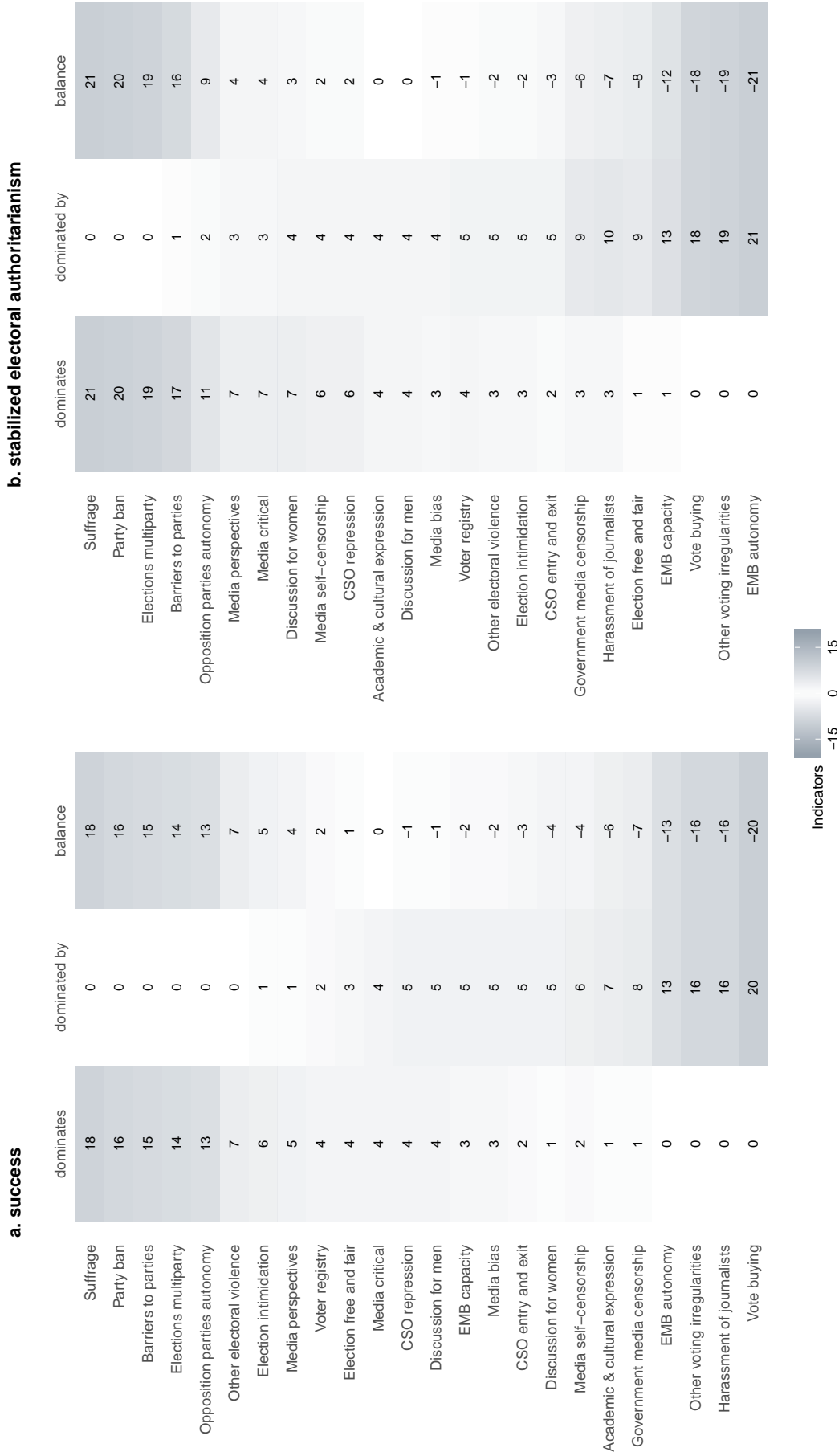


Figure A3. Domination analysis results for (a) successful and (b) stabilized electoral authoritarianism episodes of democratization. Reported values are the number of other components the given component is larger than (dominates) or smaller than (dominated by) in at least 50% of the observed states. Balance reflects the difference between dominates and dominated by.

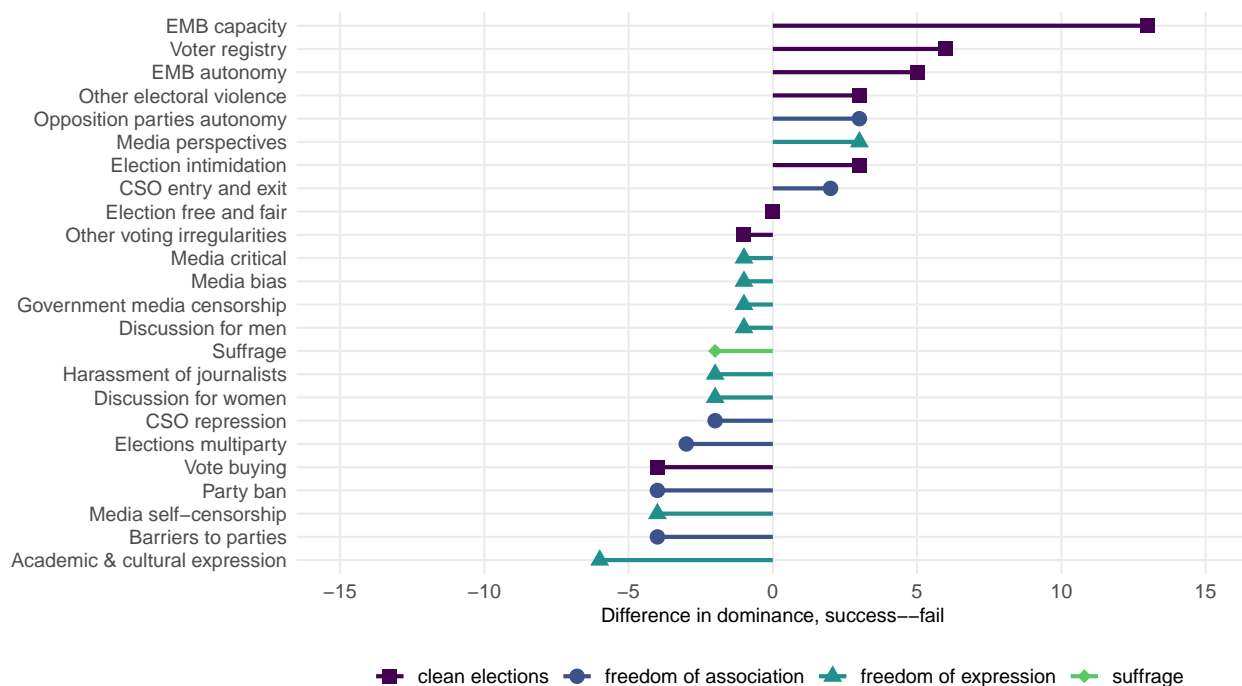


Figure A4. Difference in dominance for successful and failed liberalization episodes. Values are the difference in the balance of indicators the component dominates and is dominated by in successful versus failed liberalization. Higher values suggest that the component develops earlier in successful episodes.

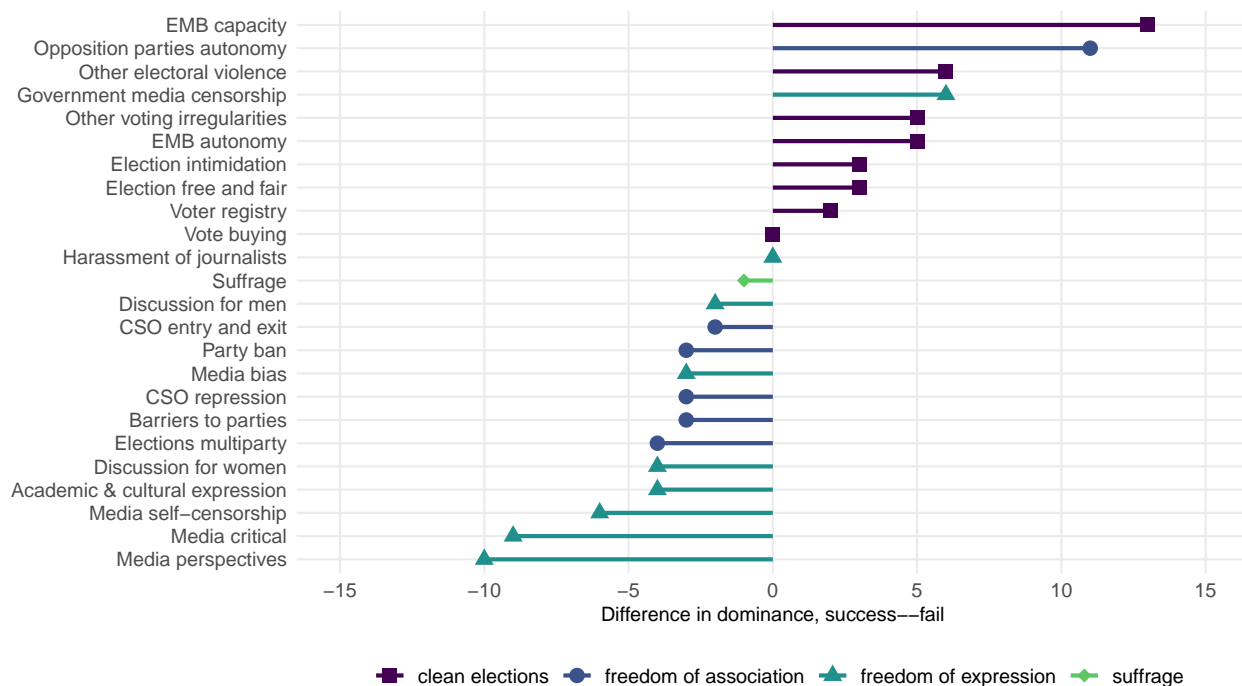


Figure A5. Difference in dominance for successful and preempted transition episodes. Values are the difference in the balance of indicators the component dominates and is dominated by in successful versus preempted transition. Higher values suggest that the component develops earlier in successful episodes.

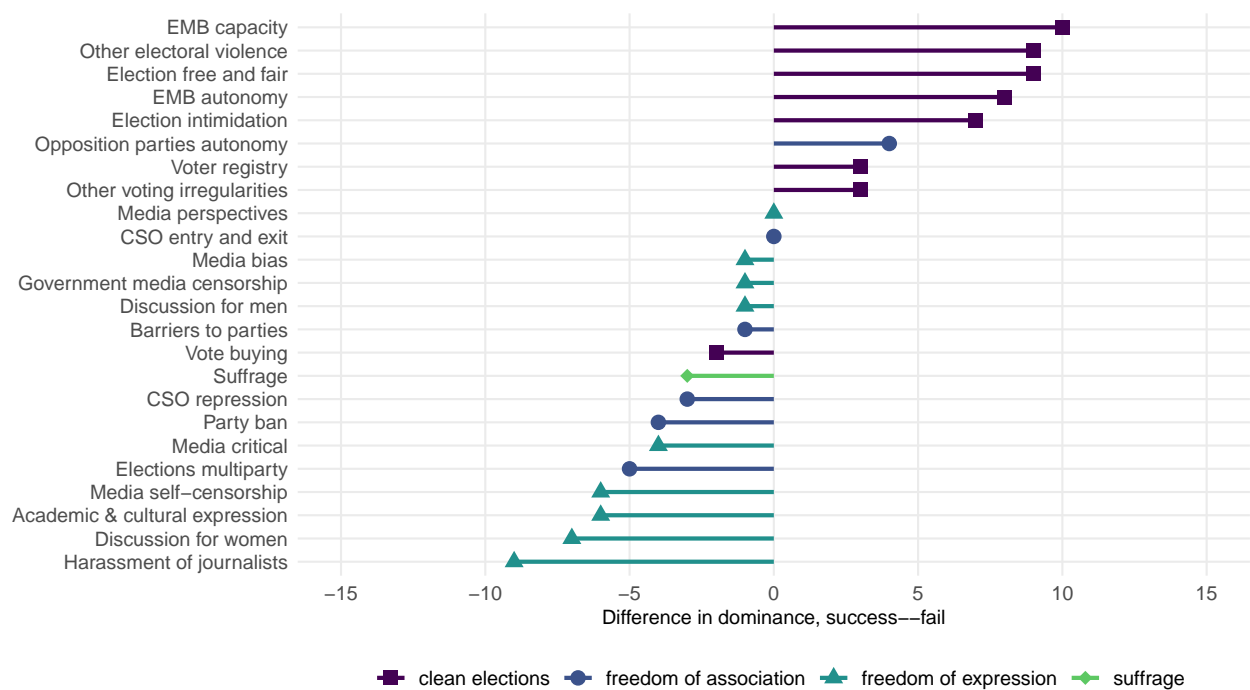


Figure A6. Difference in dominance for successful and stabilized electoral authoritarianism episodes. Values are the difference in the balance of indicators the component dominates and is dominated by in successful versus stabilized electoral authoritarianism. Higher values suggest that the component develops earlier in successful episodes.

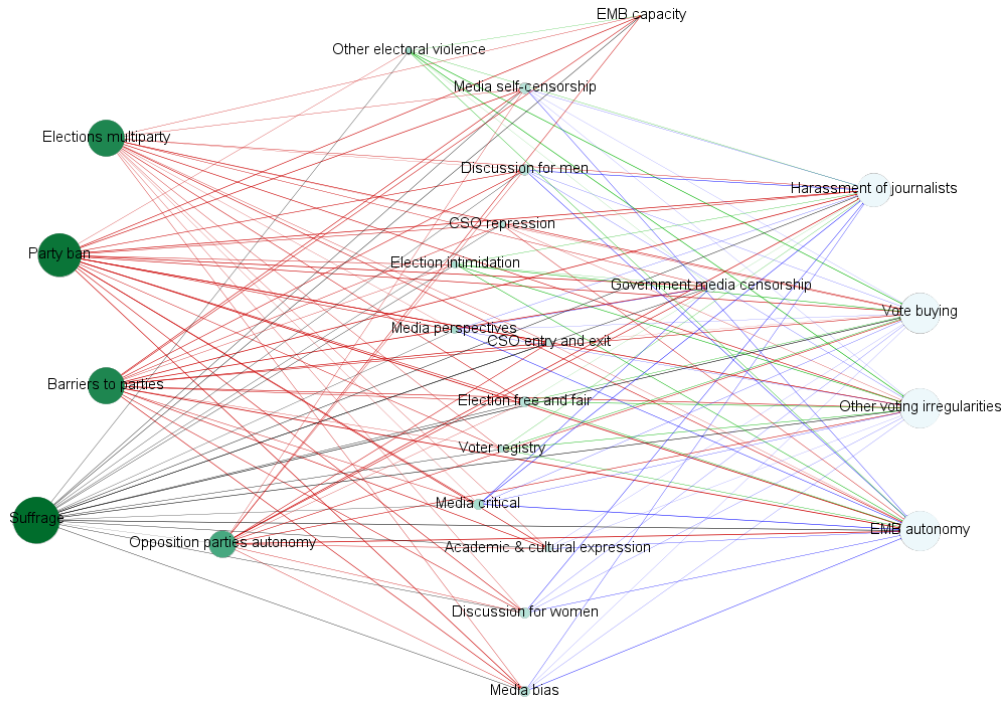


Figure A7. For all episodes: network graph showing domination relationships during democratization episodes. Early variables are situated on the left and late variables on the right (determined by how many variables each variable dominates, minus the number of variables they are dominated by). Nodes and edges are sized based on degree (links to others by weight). Nodes are colored depending on out-degree (green nodes indicate variables that dominate more other variables, whereas white nodes indicate variables that are dominated by more variables). Edge color depends on the subindex of the dominating variable (black: suffrage; red: freedom of association; blue: freedom of expression; green: clean elections). A broad general pattern that this graph conveys is that suffrage and freedom of association are early movers, whereas clean elections and freedom of expression come later.

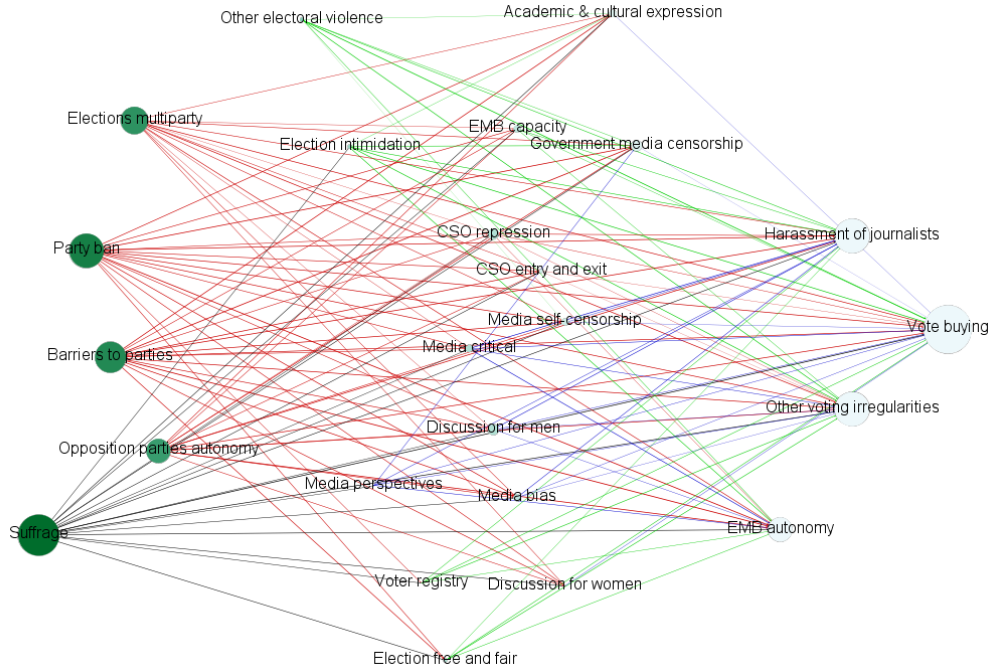


Figure A8. For successful episodes: network graphs showing domination relationships during successful democratization episodes. Early variables are situated on the left and late variables on the right (determined by how many variables each variables dominates, minus the number of variables they are dominated by). Nodes and edges are sized based on degree (links to others by weight). Nodes are colored depending on out-degree (green nodes indicate variables that dominate more other variables, whereas white nodes indicate variables that are dominated by more variables). Edge color depends on the subindex of the dominating variable (black: suffrage; red: freedom of association; blue: freedom of expression; green: clean elections). A result conveyed from comparing these graphs is that the ordering is generally very similar in successful and failed episodes, but that EMB capacity is secured later in failed episodes.

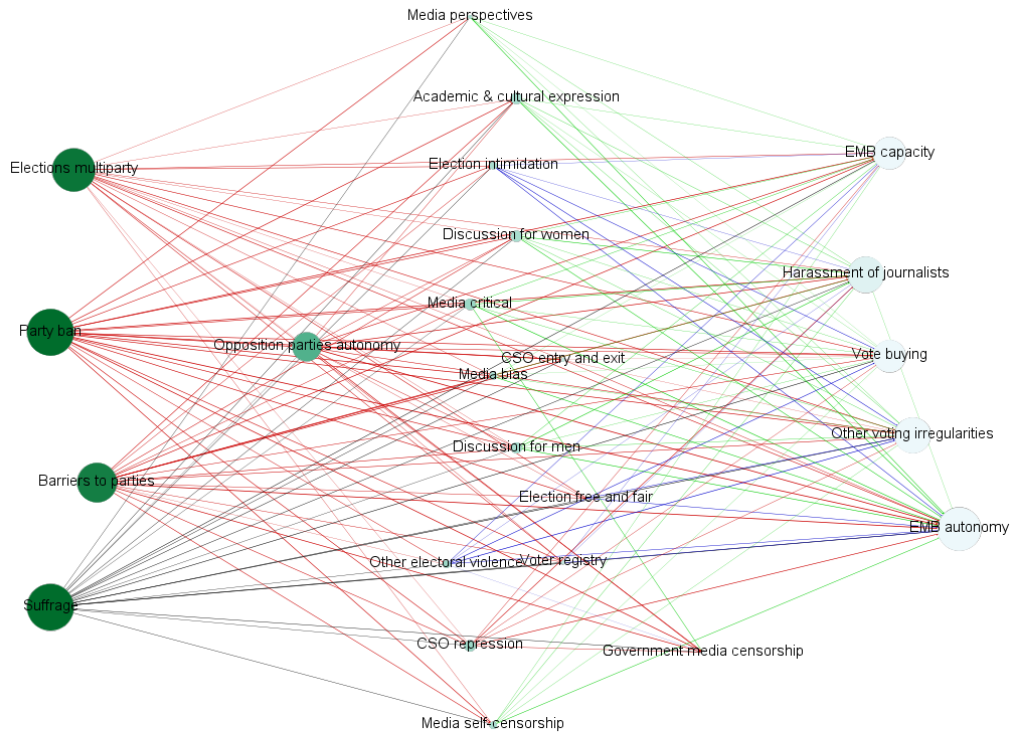


Figure A9. For failed episodes: network graphs showing domination relationships during failed democratization episodes. Early variables are situated on the left and late variables on the right (determined by how many variables each variables dominates, minus the number of variables they are dominated by). Nodes and edges are sized based on degree (links to others by weight). Nodes are colored depending on out-degree (green nodes indicate variables that dominate more other variables, whereas white nodes indicate variables that are dominated by more variables). Edge color depends on the subindex of the dominating variable (black: suffrage; red: freedom of association; blue: freedom of expression; green: clean elections). A result conveyed from comparing these graphs is that the ordering is generally very similar in successful and failed episodes, but that EMB capacity is secured later in failed episodes.