

Grievances, identity, and political opportunity: The effects of corporate and liberal power-sharing on ethnic conflict

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I, Andreas Juon, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the work.

Abstract

While much evidence supports the pacifying role of power-sharing for divided places, less is known about how it should be institutionalized. My dissertation addresses this gap. In particular, I focus on the distinction between two institutional types of power-sharing: On the one hand, corporate power-sharing, based on government quotas for specific ethnic groups, veto rights for their representatives, and ethnically-based autonomous regions. On the other hand, liberal power-sharing, based on low electoral hurdles for government inclusion, super-majority provisions, and national federal structures.

I argue that the institutionalization of power-sharing poses difficult trade-offs. Specifically, corporate power-sharing should strongly reduce conflict risks for included groups in the short-term, as it provides tangible reassurances and reduces their grievances. However, it often includes some groups at the expense of others and visibly deviates from majority rule. Hence, it is prone to violent backlashes. Furthermore, it provides mobilizational resources to included groups and increasingly reinforces ethnic divisions. In this way, it engenders renewed conflict in the long-term. In contrast, liberal power-sharing avoids these side-effects. However, at the same time, it provides less tangible reassurances and hence only weakly reduces conflict risks.

I test these expectations by relying on a novel, global dataset of institutionalized power-sharing. In addition to considering the link from power-sharing to conflict, I directly investigate its intermediate impact on mass grievances and ethnic salience. My findings offer partial support for my arguments. First, they indicate that corporate power-sharing indeed engenders

inclusive practices, alleviates mass grievances of targeted groups, and reduces their conflict risks. Conversely, it also results in backlashes from other groups. Second, while liberal power-sharing also incentivizes inclusive practices, it does not exert strong effects on grievances or conflict risks. However, I find only limited support for the expected destabilizing effects of corporate power-sharing in the long-term.

Impact Statement

The dissertation makes several key contributions that are of direct relevance both for future research on ethnic conflict and for policymakers working on institutional design for divided places.

First, it formulates a new theoretical framework on the effects of power-sharing on ethnic conflict risks. Innovating over previous work, it distinguishes between different institutional types, their effects on various types of ethnic groups, and variable impacts over the short- and long-term. This advances the scholarly debate on power-sharing by making explicit the difficult trade-offs faced by institutional engineers seeking to find transferable, institutional solutions for ethnic conflict.

Second, it provides a set of new data sources that will be useful both in aiding future research endeavors and in informing policy making based on global comparative evidence. Most importantly, this relates to a new dataset on power-sharing institutions, covering 180 countries since the Second World War or independence. Besides helping to compare different countries' changing institutional set-ups descriptively over time, this will also aid researchers seeking to investigate the impacts of power-sharing on other crucial outcomes and processes not considered in this dissertation, such as democratic quality, ethnic mobilization, and communal violence. Additionally, this also includes a newly ethnically-attributed set of global mass surveys. These help monitor the diverging mass attitudes of individuals belonging to different ethnic groups and comparatively investigate their determinants.

Finally, it provides crucial new evidence on how different institutional

types of power-sharing affect ethnic conflict risks. This not only includes their effects on the outbreak of violent conflict, but also how they shape mass attitudes, including grievances and ethnic identifications. Together, these findings are a further step in the broader debate on institutional design for divided places and are of relevance for ongoing international mediation and peace-building efforts in many contexts.

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Contents

1	Introduction	25
1.1	Plan for the dissertation and main contributions	33
1.2	Defining terms	42
I	Theory	57
2	Groups, institutional type, and time	59
2.1	Introduction	59
2.2	Grievance-based mechanisms	62
2.3	Opportunity-based mechanisms	84
2.4	Conclusion	97
3	A theory of two trade-offs	103
3.1	Introduction	103
3.2	Basic model: from power-sharing institutions to conflict	106
3.3	The trade-off along group-lines	117
3.4	The trade-off across time horizons	127
3.5	Hypotheses and Conclusion	136
II	Data	143
4	Data on power-sharing, ethnic attitudes, and spatial units	145
4.1	Introduction	145

4.2	The Constitutional Power-Sharing Dataset	147
4.3	Ethnically-attributed mass surveys	178
4.4	The Significant Administrative Unit dataset (SAU)	186
4.5	Conclusion	189
III Comparative empirical investigation		191
5	Power-sharing institutions and conflict	193
5.1	Introduction	193
5.2	Implications of the theoretical argument for conflict outcomes	197
5.3	Measuring power-sharing and conflict	201
5.4	Descriptive analysis	209
5.5	Quantitative analysis	214
5.6	Instrumental variable analysis	226
5.7	Mediation analysis	243
5.8	Conclusion	254
6	Power-sharing institutions and grievances	259
6.1	Introduction	259
6.2	Implications of the theoretical argument for ethnic grievances	262
6.3	Measuring grievances as attitudes	268
6.4	Descriptive analysis	272
6.5	Multi-level models	276
6.6	Conclusion	288
7	Power-sharing institutions and ethnic salience	291
7.1	Introduction	291
7.2	Implications of the theoretical argument for ethnic salience . .	294
7.3	Measuring ethnic salience and power-sharing over time	301
7.4	Descriptive analysis	306
7.5	Quantitative analysis	308

7.6	Conclusion	316
IV	Conclusion	319
8	General conclusions	321
8.1	Review of evidence	323
8.2	Limitations and avenues for further research	339
	Bibliography	345
V	Appendices	385
A	Appendix for Chapter 3	387
A.1	Detailed expectations and implications	387
B	Appendix for Chapter 4	389
B.1	The Constitutional Power-Sharing Dataset (CPSD)	389
C	Appendix for Chapter 5	497
C.1	Data description	497
C.2	Robustness checks	503
C.3	Panel matching procedure	511
C.4	Instrumental variables: Colonial heritage	512
C.5	Mediation analysis	530
D	Appendix for Chapter 6	557
D.1	Robustness checks	557
D.2	Alternative dependent variables	564
E	Appendix for Chapter 7	571
E.1	Descriptives (measures 1 and 3)	571
E.2	Robustness checks	575

List of Figures

1.1	% of non-core groups with significant power-sharing in multi-ethnic states, 1945-2018	28
1.2	Number of ethnic groups in multi-ethnic states involved in civil wars, 1945-2016	29
1.3	Group types and actors	45
1.4	Dimensions of power-sharing	48
1.5	Types of power-sharing and relation to dominant institutional approaches	54
2.1	From power-sharing practices to conflict via mass grievances	64
2.2	From power-sharing institutions to conflict via political opportunity	86
3.1	Actors and interactions	108
3.2	The model: from power-sharing institutions to conflict	117
3.3	Summary of expectations: effects of corporate and liberal power-sharing on different groups' conflict risks, over different time horizons	137
4.1	Attribution of indicators to the ethnic group level	154
4.2	Aggregation of indicators into horizontal power-sharing index)	165
4.3	Aggregation of indicators into vertical power-sharing index)	166
4.4	Average power-sharing across multi-ethnic countries, 1945-2018	167
4.5	Map of average power-sharing per dimension and type, 2018	168

4.6	Changing territorial units and degrees of vertical power-sharing: Example of Sudan	175
4.7	Combination of mass surveys: coverage	182
4.8	Attribution of survey respondents: Example of Bosnia	185
4.9	Significant Administrative Unit (SAU): Geocoded boundaries	188
5.1	Power-sharing stocks: Corporate power-sharing (horizontal), Serbs in Yugoslavia and successor states	207
5.2	Non core groups: civil war onsets per power-sharing category and conflict type	211
5.3	Core groups: coup onsets per power-sharing category (Sub- Saharan Africa, -2005)	212
5.4	Power-sharing stocks and onset density (selection)	213
5.5	Predicted probabilities: Civil war onset (non-core), depending on power-sharing stocks	219
5.6	Predicted probabilities: Coup onset (core)	221
5.7	Follow-up tracks: Instrumental variables approaches (1) and intermediate implications (2)	225
5.8	Colonial legacies: vertical power-sharing (rationale for instru- ment)	233
5.9	IV approach: included sample of cases	234
5.10	Colonial legacies: horizontal power-sharing	235
5.11	Colonial legacies: vertical power-sharing	236
5.12	Predicted vertical power-sharing	238
5.13	Evolution of power-sharing institutions over time	238
5.14	Coefficient comparison of direct power-sharing measures across specifications (change in odds ratios)	242
5.15	De-jure institutional status and de-facto political power	246
5.16	Mediation	250
5.17	Mediation: Core group coups	252

6.1	Feeling discriminated: grand averages	273
6.2	De-jure institutional status and feeling of belonging to discriminated group	274
6.3	Predicted non-core grievances, depending on power-sharing (direct)	282
6.4	Predicted non-core grievances, depending on power-sharing (indirect)	283
6.5	Predicted core grievances, depending on power-sharing (indirect)	286
7.1	Power-sharing institutions and ethnic salience: Expectations .	300
7.2	Ethnic identifiers: grand averages (non-core, measure 2) . . .	305
7.3	Proportion of ethnic identifiers, non-core (power-sharing stocks)	307
7.4	Proportion of ethnic identifiers, non-core (power-sharing lifetime)	308
7.5	Power-sharing and ethnic identification: predictions (measure 2)	314
8.1	Illustrative cases	325
A.1	Detailed expectations and step-wise mechanisms.	388
B.1	Territorial power-sharing units and ethnic settlement patterns in Serbia and Montenegro (2003)	409
B.2	Aggregation of indicators into economic power-sharing index)	437
B.3	Aggregation of indicators into cultural power-sharing index) .	438
B.4	Aggregation of indicators into corporate and liberal types . . .	439
B.5	Territorial boundaries and ethnic settlement patterns in Switzerland (1999)	449
B.6	Territorial boundaries and ethnic settlement patterns in Nigeria (1999)	457
B.7	Territorial boundaries and ethnic settlement patterns in Yugoslavia (1990)	461
C.1	PS stocks and onset density: Governmental conflict	501
C.2	PS stocks and onset density: Territorial conflict	501

C.3	Predicted probabilities: Civil war onset (non-core), depending on current power-sharing levels	502
C.4	Coefficient comparison of direct power-sharing measures across specifications with different lags (change in odds ratios)	504
C.5	Panel matching: ATT (non-core groups, governmental civil wars)	511
C.6	Panel matching: ATT (non-core groups, territorial civil wars)	511
C.7	Mediation (linear probability version)	531
C.8	Mediation: Core group coups (linear probability version)	532
C.9	Sensitivity: Governmental civil wars: average causally-mediated effect of corporate power-sharing (horizontal)	533
C.10	Sensitivity: Governmental civil wars: average causally-mediated effect of liberal power-sharing (horizontal)	534
C.11	Sensitivity: Governmental civil wars: average causally-mediated effect of corporate power-sharing (vertical)	535
C.12	Sensitivity: Governmental civil wars: average causally-mediated effect of liberal power-sharing (vertical)	536
C.13	Sensitivity: Governmental civil wars: average causally-mediated effect of corporate power-sharing (horizontal, negative difference)	537
C.14	Sensitivity: Governmental civil wars: average causally-mediated effect of corporate power-sharing (vertical, negative difference)	538
C.15	Sensitivity: Territorial civil wars: average causally-mediated effect of corporate power-sharing (horizontal)	539
C.16	Sensitivity: Territorial civil wars: average causally-mediated effect of liberal power-sharing (horizontal)	540
C.17	Sensitivity: Territorial civil wars: average causally-mediated effect of corporate power-sharing (vertical)	541
C.18	Sensitivity: Territorial civil wars: average causally-mediated effect of liberal power-sharing (vertical)	542

C.19 Sensitivity: Territorial civil wars: average causally-mediated effect of corporate power-sharing (horizontal, negative difference) 543

C.20 Sensitivity: Territorial civil wars: average causally-mediated effect of corporate power-sharing (vertical, negative difference) 544

C.21 Sensitivity: Coups: average causally-mediated effect of corporate power-sharing (horizontal, average) 545

C.22 Sensitivity: Coups: average causally-mediated effect of liberal power-sharing (horizontal, average) 546

C.23 Sensitivity: Coups: average causally-mediated effect of corporate power-sharing (vertical, average) 547

C.24 Sensitivity: Coups: average causally-mediated effect of liberal power-sharing (vertical, average) 548

C.25 Mediation (lag 2) 549

C.26 Mediation: Core group coups (lag 2) 550

C.27 Mediation (lag 5) 551

C.28 Mediation: Core group coups (lag 5) 552

C.29 Mediation (lag 10) 553

C.30 Mediation: Core group coups (lag 10) 554

C.31 Mediation (reversed) 555

C.32 Mediation: Core group coups (reversed) 556

D.1 Feeling unsatisfied: grand averages (non-core) 564

D.2 De-jure institutional status and feeling of belonging to discriminated group 565

D.3 Predicted non-core dissatisfaction with democracy, depending on power-sharing (direct) 568

D.4 Predicted non-core dissatisfaction with democracy, depending on power-sharing (indirect) 568

D.5 Predicted core dissatisfaction with democracy, depending on power-sharing (indirect) 569

E.1	Ethnic identifiers: grand averages (non-core, measure 1)	571
E.2	Ethnic identifiers: grand averages (non-core, measure 3)	572
E.3	Ethnic identifiers, non-core (power-sharing stocks)	573
E.4	Ethnic identifiers, non-core (power-sharing lifetime)	573
E.5	Ethnic identifiers, non-core (power-sharing stocks)	574
E.6	Ethnic identifiers, non-core (power-sharing lifetime)	574
E.7	Power-sharing and ethnic identification: predictions (measure 1)	581
E.8	Power-sharing and ethnic identification: predictions (measure 3)	582

List of Tables

1.1	Plan and main contributions: overview	34
2.1	From power-sharing to group-conflict through grievances and opportunity	98
4.1	Components of the horizontal dimension	157
4.2	Components of the vertical dimension	162
4.3	CPSD: Horizontal power-sharing - averages across non-core groups	170
4.4	CPSD: Vertical power-sharing - averages across non-core groups	173
4.5	Group-wise power-sharing indices: Example of Bosnia (2018) .	174
4.6	Correlations: CPSD (country avg.) and IDC	177
4.7	Correlations: CPSD (country avg.) and EPR	179
4.8	Ethnically-attributed mass surveys: Overview	181
5.1	Theoretical expectations for outcome measures	198
5.2	Example for absolute and relative power-sharing measures: Bosnia (2018)	205
5.3	Correlational analysis: power-sharing institutions and governmental civil war (non-core)	217
5.4	Correlational analysis: power-sharing institutions and territorial civil war (non-core)	218
5.5	Correlational analysis: power-sharing institutions and coups (core)	222
5.6	Instrumental variables estimates: Colonial legacies	240

5.7	Mediation analysis: power-sharing institutions, practice, and conflict	248
6.1	Power-sharing and grievances: expectations	263
6.2	Measure 1: Unequal group treatment	270
6.3	Measure 2: Satisfaction with democratic political system	271
6.4	Main results (Non-core groups)	281
6.5	Main results (Core groups)	285
7.1	Measures: Ethnic identification	303
7.2	Main results (Non-core groups, measure 2)	311
B.1	Components of the economic dimension	392
B.2	Components of the cultural dimension	396
B.3	Country / *Territory-level variables: example for documentation (Bosnia and Herzegovina 2018)	401
B.4	Original levels and interpretation	414
B.5	Group-level indicator variable types in the CPSD: Calculation and meaning of variation	421
B.6	Example of local ethnic demography calculation: Serbia and Montenegro (2003)	443
B.7	Local ethnic demography and resulting CPSD cabinet power-sharing calculations in the Swiss Canton of Jura (1999)	451
B.8	Cabinet territorial quota: Degree of corporate and liberal power-sharing (Switzerland, 1999)	452
B.9	Local ethnic demography and resulting CPSD constitutional amendment veto power-sharing calculations in the Swiss Canton of Jura (1999)	454
B.10	Territorial veto rights over constitutional amendments: Degree of corporate and liberal power-sharing (Switzerland, 1999)	455
B.11	Local ethnic demography and resulting CPSD territorial vote spread power-sharing calculations in Nigeria's Edo state (1999)	458

B.12 Local ethnic demography and resulting CPSD territorial vote spread power-sharing calculations in Nigeria's Edo state (1999)	460
B.13 Head of state linkage and ethnic designations (territorial, Yugoslavia 1990)	462
B.14 Head of state linkage: Degree of corporate power-sharing (Yugoslavia, 1990)	462
B.15 CPSD Variables: ID	463
B.16 CPSD Variables: Horizontal	463
B.17 CPSD Variables: Vertical	490
B.18 CPSD Variables: Cultural	491
B.19 CPSD Variables: Economic	493
B.20 CPSD indicators: Factor analysis	495
C.1 Descriptive statistics (non-core groups)	499
C.2 Descriptive statistics (core groups)	500
C.3 Robustness I: different independent variables	503
C.4 Robustness II: different time lags	505
C.5 Robustness III: More control variables	506
C.6 Robustness III: Random country-intercepts	507
C.7 Robustness IV: Subset of cases - no non-democracies	508
C.8 Robustness V: Subset of cases - no very consolidated democracies	509
C.9 Robustness VI: Region-fixed effects	510
C.10 Former British and French colonies: Ethnic + territorial power-sharing provisions in post-independence constitutions	512
C.11 IV Diagnostics (governmental civil wars model)	520
C.12 IV Diagnostics (territorial civil wars model)	520
C.13 Instrumental variables estimates: Colonial legacies [alternative approach]	522
C.14 Instrumental variables estimates: Colonial legacies (robustness 1)	524
C.15 Instrumental variables estimates: Colonial legacies (robustness 2)	525
C.16 Instrumental variables estimates: Colonial legacies (robustness 3)	526

C.17 Instrumental variables estimates: Colonial legacies (robustness 4)	527
C.18 Instrumental variables estimates: Colonial legacies (robustness 5)	528
C.19 IV approach: influence on other factors	529
C.20 Mediation analysis: power-sharing institutions, practice, and conflict	530
D.1 Additional controls and country-fixed effects (NC)	558
D.2 Additional controls (Core)	559
D.3 Different probability thresholds (NC): 0 / 0.2 / 0.4 / 0.6 / 1 / 0.8 + no group exclusion	560
D.4 Different probability thresholds (Core): 0 / 0.2 / 0.4 / 0.6 / 1 / 0.8 + no group exclusion	561
D.5 Survey-random effects (non-core)	562
D.6 Survey-random effects (Core)	563
D.7 Democratic dissatisfaction (Non-core)	566
D.8 Democratic dissatisfaction (Core)	567
E.1 Main results (Non-core groups, measure 1)	575
E.2 Main results (Non-core groups, measure 3)	576
E.3 Additional control variables	577
E.4 Main results (Non-core groups, measure 2 (FE))	578
E.5 Main results (Non-core groups, survey-random intercepts) . .	579
E.6 Main results (Non-core groups, measure 2 (thresholds))	580

Chapter 1

Introduction

The costs of inter-ethnic violence for divided places remain devastating around the world. A key hope to pacify them rests on the institutionalization of power-sharing: by including diverse ethnic groups in government and by providing them with autonomy, it should alleviate mass grievances and hence remove one of the key motivating factors in many conflicts. While there is increasing evidence supporting the pacifying effects of power-sharing more broadly, there is intense disagreement on its specific institutional design. The stakes are high: what works in some contexts may fail in others and give rise to destabilizing side-effects. First, power-sharing institutions may placate some groups at the cost of aggravating others. Second, they may exert pacifying effects in the short-term but encourage the outbreak of subsequent rounds of conflict later. Finally, they may fail to bring about the desired inclusive practices in the first place. Scholarly views on these potential pitfalls diverge. Some support the adoption of rigid and ethnically-based *corporate* types of power-sharing. These appear best suited to provide enforceable guarantees for ethnic minorities and actually translate into inclusive practices. Others are in favor of more flexible *liberal* types of power-sharing. These promise to avoid the alleged side-effects of their corporate alternative. Complicating a systematic investigation into these differing positions, there is little evidence on the effects of different institutional types of power-sharing beyond the experiences of a small number of prominent, often conflict-prone cases.

The idea behind the institutionalization of power-sharing is intuitive. As power-sharing practices are often difficult to establish, a key hope of institutional engineers rests on reaping their benefits by formally enshrining them, often in the form of state constitutions or other key legal documents (Kurtenbach & Mehler 2013). For example, rather than counting on local elites to willingly practice ethnic inclusiveness, they could be incentivized to do so through the imposition of proportional electoral systems or ethnic government quotas. As perhaps the most prominent advocate of power-sharing, Arend Lijphart (1977: 223), put it, his message to "political leaders of plural societies" is to "become consociational engineers" and to engineer peace among the masses through institutionalized compromises among the elites. Given the mounting evidence in favor of power-sharing practices, this message has found broad acclaim among policymakers. Both key international bodies, such as the United Nations, and conflict mediators from around the world increasingly promote a package of inclusive institutions designed to bring about power-sharing practices in divided places (Bogaards 2000; McCulloch & McEvoy 2018; Sisk 1996). Due to this, some scholars have even observed the emergence of what they call a new global inclusive norm (Wimmer 2015), often in the form of formal power-sharing institutions (Kymlicka 1995; Gurr 2002).

Yet, the increasing reliance on templates of institutionalized power-sharing coincides with highly uneven experiences of their "users". According to the advocates of power-sharing, its key goal is securing sustainable peace in divided places, while preventing state disintegration (McGarry & O'Leary 2008). Judged by this, then for every success story of power-sharing, there is a counter-example that appears to be at least a partial failure. A comprehensive power-sharing agreement in Nepal indeed brought its decade long civil war to an end, but almost immediately gave rise to violent contestations with Madhesi and Tarai groups who were sidelined by its otherwise inclusive protections. Power-sharing successfully enabled a peaceful transition towards democracy in post-Apartheid South Africa, yet in Rwanda was quickly dismantled

by Hutu majority extremists and proved unable to prevent the 1994 genocide. Power-sharing constitutions adopted or reinforced in the 1990s helped end the destructive civil wars in Lebanon and Bosnia. Yet, they left behind highly polarized societies facing the specter of renewed conflict.

This dissertation follows increasing calls to investigate these contradictory outcomes in divided places which have experimented with the formal institutionalization of power-sharing (Agarin 2019; Bormann et al. 2019; McCulloch 2014). In particular, it discusses and evaluates the two main alternatives proposed and applied by institutional engineers to bring about power-sharing practices: First, corporate power-sharing, based on explicitly ethnic criteria, and, second, liberal power-sharing, based on electoral rules and expansive individual rights. Both directly address the concerns of otherwise excluded or politically marginalized *non-core groups*, which often correspond to demographic minorities. By constitutionally enshrining clear, ethnically-based criteria, *corporate* power-sharing at the surface appears best-suited to actually enforce the desired practices. It does so, for example, through rigid ethnic government quotas, group-based veto rights, and ethnically-defined autonomous areas. In contrast, less tangible *liberal* types of power-sharing that lack elements of explicit group recognition offer the promise of encouraging power-sharing practices in a more flexible manner (McCulloch 2014). Rather than relying on ethnic criteria directly, these liberal alternatives aim to achieve broad-based government inclusion and autonomy indirectly. They do so, for example, by relying on low vote thresholds for parties' government inclusion, proportional electoral systems, or national types of federalism based on ethnically-mixed territorial units.

Given the apparent promise of both types of power-sharing, it is no wonder that an increasing number of states has followed the call by scholars and international bodies to formally enshrine them in their constitutions. Tempted by its seemingly straightforward and direct "fix", many conflict-affected states have come to rely on the ethnically-based guarantees offered by corporate

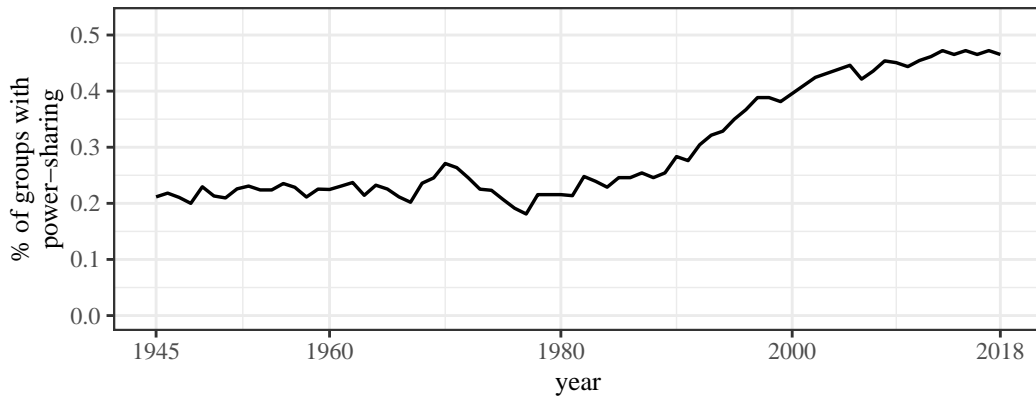


Figure 1.1: % of non-core groups with significant power-sharing in multi-ethnic states, 1945-2018

Note: The figure shows the clear upwards trend in institutionalized power-sharing, especially since the end of the Cold War. Specifically, it indicates the percentage of politically non-dominant (non-core) groups that are targeted by significant political power-sharing institutions, of either the corporate or liberal type (index > 0.33). The figure is based exclusively on multi-ethnic states, where the combined non-core group population is at least 5% of the total state population according to an augmented version of the Ethnic Power Relations Dataset (Vogt et al. 2015, see chapter 4). Source: Constitutional Power-Sharing Dataset (see chapter 4).

power-sharing. Its users comprise places as diverse as Belgium, Bosnia and Herzegovina, Lebanon, and, more recently, Burundi, Sudan, and the Comoros. They also include an even larger number of states that have adopted selective parts of its far-ranging prescriptions, for example India, Canada, and even China. At the same time, an increasing number of states follows the promise of liberal power-sharing to incentivize power-sharing practices through more flexible constitutional rules. The most prominent cases are Switzerland, Nigeria since 1999, South Africa in the first post-apartheid years, post-Saddam Iraq, and Fiji from 1997 to 2008. Together, these examples form but a small part of a wider global trend towards constitutionally-enshrined power-sharing, that has accelerated especially since the end of the Cold War (see figure 1.1).

Yet, as the introductory examples suggest, the increased global reliance on institutionalized power-sharing does not appear to comprehensively or sustainably eliminate ethnic conflict risks in all contexts. As figure 1.2 shows, the total number of politically non-dominant (*non-core*) groups involved in

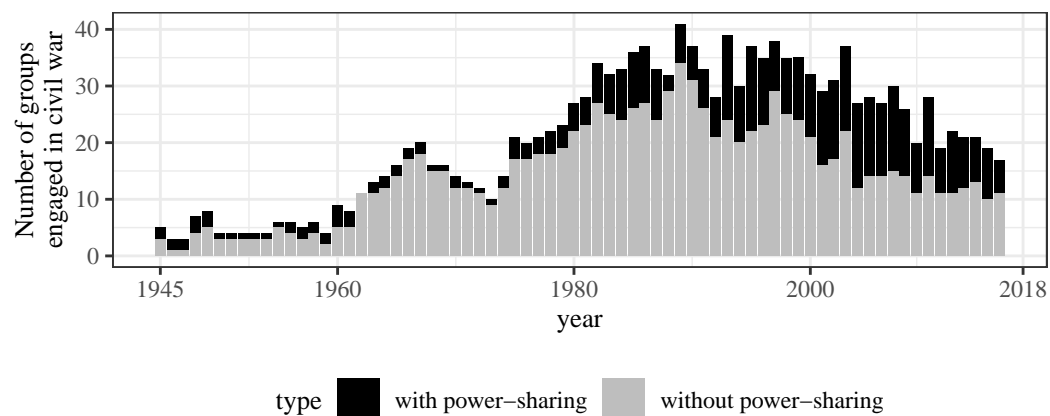


Figure 1.2: Number of ethnic groups in multi-ethnic states involved in civil wars, 1945-2016

Note: The figure shows the downwards trend in civil war prevalence since the end of the Cold War, when power-sharing institutions accelerated their global spread. Conversely, it also shows the growing proportion of civil wars waged by groups that are targeted by significant power-sharing provisions. Sources: UCDP Armed Conflict Dataset (Gleditsch et al. 2002), ACD2EPR dataset (Vogt et al. 2015; Wucherpfennig et al. 2012). Non-core groups coded as enjoying significant power-sharing if they had a value of 0.33 on any power-sharing index, cf. chapter 4.

civil wars has indeed steadily dropped since the end of the Cold War when power-sharing institutions accelerated their global spread. However, as is also apparent, an increasingly dominant share of still ongoing civil war episodes now involves groups that are, in fact, targeted by significant power-sharing provisions. Hence, while power-sharing institutions appear associated with an overall downward trend in conflict risks, they seem unable to reduce—or worse, according to some critical voices (Lieberman & Singh 2012b; Rothchild & Roeder 2005b; Spears 2002), might even fuel—a persistent subset of remaining inter-ethnic conflicts.

The pitfalls of engineering peace through institutional power-sharing become apparent when contrasting different divided places' experiences with its two main institutional types. As I shall argue throughout this dissertation, they face a number of difficult trade-offs when deciding between them. Through its strict and comparably clear ethnic criteria, the corporate type indeed appears better suited at actually leading to the government inclu-

sion and autonomy of diverse ethnic groups (McCulloch 2014; Lijphart 1995). However, it also often risks creating new discontents that threaten the inclusive practices it enshrines. First, almost inevitably, it includes some non-core groups at the expense of others. This, in turn, often engenders new, "second-order" grievances (Agarin 2019; Stojanović 2018). The example of Madhesi and Tarai mobilization in Nepal against their initial exclusion from a comprehensive power-sharing agreement is a case in point (Tamang 2011). Second, it often alienates formerly dominant core groups by visibly conflicting with widely-upheld principles of majority rule. Rwanda's "Hutu Power" movement that was explicitly directed against the 1994 Arusha peace agreement (Straus 2006) and India's Hindutva movement that mobilizes against cultural protections and citizenship rights for Muslims and against Kashmir's autonomy status (Sarkar 1996; Sharma 2003) are examples illustrating the destabilizing force of such counter-movements.

Moreover, while promising to pacify included non-core groups in the short-term, corporate power-sharing arguably often fails to bring about their sustainable moderation in the long run. Not only may it reinforce divisive identities, but it may also increasingly tilt the political opportunity structure in favor of centrifugal forces. Problematically, as I shall argue, it may provide non-core group elites with gradually accumulating institutional resources that may create incentives to mobilize for further rounds of conflict later on. For example, Cyprus' experiment with corporate power-sharing between Greek and Turkish communities culminated in the de-facto secession of the Northern Turkish part, leaving the island split to this day (Moulakis 2007; Sözen 2004). Similarly, in Sudan, transitional power-sharing ended in the secession of its institutionally accommodated Southern part, accompanied by significant and ongoing violence (de Vries & Schomerus 2017; Mehler 2013). In Yugoslavia, power-sharing between its ethnically-defined member republics ended in violent state collapse (Grigoryan 2012; Jenne 2004; Žagar 2005). And, in its successor state of Bosnia and Herzegovina, communal power-sharing is accom-

panied by the specter of renewed violence due to high societal polarization and ongoing secessionist threats by the Serb-dominated Republika Srpska (Bieber & Keil 2009).

Existing experiments with its second type, liberal power-sharing, do not look more encouraging either. As I shall argue in this dissertation, it avoids several side-effects that might arise under its corporate alternative, but may fail to engender the desired inclusive practices in the first place. By refraining from the use of explicitly ethnic criteria, it may avoid backlashes from groups that might be excluded or whose dominance might be visibly circumscribed under its corporate alternative. Further, it also abstains from reinforcing ethnic divisions and provides fewer institutional resources that opportunistic elites might exploit in future rounds of conflict. However, amid deep distrust after large-scale violence, proposals for liberal types power-sharing often prove unpopular with non-core groups who have been victims of prolonged discrimination or targeted violence (Lijphart 1995; McCulloch 2014). This preference is understandable, as liberal power-sharing may frequently fail to afford sufficient guarantees that institutions actually translate into practice, as Nigeria's experience with constitutional power-sharing based on non-ethnic territorial subunits indicates (Bogaards 2010; Kendhammer 2014, 2015). Alternatively, lacking strictly enforceable constraints, it risks resulting in a gradual erosion of power-sharing practices, which may become increasingly "voluntary", as the example of Iraq suggests (Bogaards 2019b).

These contradictory experiences have led to similarly diverging scholarly assessments on the merits of institutionalizing power-sharing (Horowitz 1985; Lijphart 2008; McGarry & O'Leary 2008). Some scholars argue that the institutionalization of power-sharing is the best chance to secure peace in multi-ethnic states (Lijphart 1977) and that the enduring inclusiveness offered by it is required to avert ethnic conflicts (Cederman et al. 2013). They hold that this is so even if its institutional underpinnings may exhibit some undesirable side-effects (Bormann et al. 2019) or may fail to afford a durable solution (An-

derson & Costa 2016). In contrast, others equate it to "making a deal with the devil" (Spears 2002:127) that "is most likely to succeed where it is least needed" (Spears 2002:132). Even among observers who accept the general need to institutionalize power-sharing, there remains fundamental disagreement on the respective merits of its two institutional alternatives. Some scholars have concluded that the problematic side-effects of corporate power-sharing are too costly. For example, McGarry and O'Leary (McGarry & O'Leary 2009:72) assert that "most sensible consociationalists . . . eschew [corporate power-sharing] devices, and prefer liberal rules" (cf. McCulloch 2014). Similarly, Lijphart (Lijphart 1995, cited in: Lijphart 2008:66) concludes that liberal power-sharing "has a number of great advantages and ought to be given much more attention by constitutional engineers". In contrast, others find that liberal power-sharing only offers insufficient protections to adequately reduce conflict risks. They equate it with "a homeopathic dose" that can be "no substitute for [the] sustained cure with proven medication" offered by its corporate alternative (Bogaards 2019b:11).

The uneven experiences of divided places experimenting with institutionalized power-sharing and the highly diverging assessments of prominent power-sharing scholars demarcate the main puzzle that this dissertation focuses on: Can peace be institutionally engineered by constitutionally enshrining power-sharing practices? If so, which type, corporate or liberal, offers the better chance of doing so both comprehensively and sustainably across different time horizons? In other words, which type of power-sharing effectively decreases conflict risks both across different types of ethnic groups and in both the short- and the long-term? This dissertation addresses these questions both theoretically and empirically. On a theoretical level, it postulates two difficult trade-offs that are involved in the institutionalization of power-sharing. These relate to their diverging effects, first, on different groups and, second, across variable time horizons. It then tests this argument comparatively by using newly-collected global data sources on power-sharing institutions and ethnic

mass attitudes. These enable it to conduct a series of large-N quantitative comparisons which reduce problems of self-selection by widening the analytic lens beyond the most prominent, conflict-prone cases. They further enable it to address issues of reverse causation, by conducting a series of instrumental variable analyses that explicitly consider the initial adoption of power-sharing institutions. Finally, they allow it to test the individual steps involved in the posited causal mechanisms, thus offering a chance to probe the arguments by tracing their step-wise implications.

The rest of this chapter sets up these theoretical arguments and empirical procedures. The following section describes the plan for this dissertation and the main contributions made along the way in more detail. The subsequent section sets up the following chapters conceptually by explicating the key terms and concepts used throughout them.

1.1 Plan for the dissertation and main contributions

As introduced above, this dissertation seeks to advance our understanding of the apparent contradictions and trade-offs involved in the institutionalization of power-sharing. It is split in three parts, each making a set of key contributions. A first part advances a novel, disaggregated theoretical framework on how corporate and liberal power-sharing affect conflict risks for different types of ethnic groups in both the short- and the long-term. A second part presents a set of newly-collected global data sources required to test these expectations in a comparative manner. A third part supplies empirical evidence by engaging in a series of global large-N investigations. These probe the theoretical expectations not only on the main outcome of interest, the outbreak of overt violent conflict, but also on the intermediate steps involved in the posited causal mechanisms, including the translation of power-sharing institutions into practices and their step-wise effects on mass grievances and ethnic salience (see table 1.1 for an overview).

Table 1.1: Plan and main contributions: overview

	Plan	Contributions
Theory		
Chapter 2	Derivation of theoretical requirements	disaggregation along: 1) ethnic groups 2) institutional type of power-sharing 3) time horizons (short- vs. long-term)
	Derivation of empirical requirements	4) accounting for selection-bias and endogeneity 5) evidence on intermediate causal steps
Chapter 3	Formulation of theoretical expectations	Two trade-offs: 1) along group-lines (included non-core, core, excluded non-core) 2) across time horizons (short- vs. long-term)
Data		
Chapter 4	Presentation of new data sources	1) Constitutional Power-Sharing Dataset (CPSD) 2) Ethnically-attributed mass surveys 3) Significant Administrative Unit (SAU) dataset
Empirics		
Chapter 5	Comparative examination I: conflict	1) correlational models 2) instrumental variable approaches 3) causal mediation analyses (intermediate causal steps I)
Chapter 6	Comparative examination II: grievances	multi-level models (intermediate causal steps II)
Chapter 7	Comparative examination III: ethnic salience	multi-level models (intermediate causal steps III)

Chapter 2 kicks off the theoretical part. By drawing on existing literature, it argues that the relationship of power-sharing with ethnic conflict should be theorized and empirically analyzed in a "triple-disaggregated" manner, along the lines of different ethnic groups, institutional types of power-sharing, and time horizons. The first need for disaggregation is along *group lines*. The predominant focus in the existing literature is on the benefits of power-sharing practices for included non-core groups that would lack political power otherwise and that are empowered by it. This yields important insights on the motivational factors underlying conflict and their alleviation. However, this needs to be complemented by a firmer theory on the group-differentiated side-effects of their inclusion through power-sharing institutions. Most notably, we need to know how power-sharing institutions indirectly affect non-core groups that remain outside of their inclusive umbrella and without political influence. Further, we also need to know how they affect the formerly politically dominant core groups that have lost much of their influence due to the institutionalization of power-sharing. Only by considering the potential of power-sharing institutions to stoke "second-order" grievances from these groups, can we comprehensively understand the group-wise patterns of conflict that eventually emerge.

Second, it argues that we need to clearly distinguish between different types of power-sharing, depending on their *underlying institutional basis*. Specifically, the conflict patterns emerging under power-sharing should be crucially shaped by whether its inclusive practices are formally enshrined through corporate or liberal means. Extant theory suggests that these two types of power-sharing diverge not only in the degree of reassurance they provide to different groups, but also in the type of actors they empower. Most importantly, the ethnically-based guarantees of corporate power-sharing inevitably include some groups at the expense of others and may incentivize elites to mobilize along specifically ethnic lines. In contrast, the electoral and individual rights-based measures that are part of liberal power-sharing are likely to

constitute weaker, but more equal reassurances for individuals belonging to all ethnic groups in a society.

Finally, it also argues that we need to systematically consider the diverging effects of both types of power-sharing across *different time horizons*. These are likely to be most pronounced for its corporate type. By explicitly relying on ethnic criteria, it might affect the salience of ethnic identifications, which in turn co-determine whether grievances emerge along specifically ethnic lines. However, the existing literature is split between diametrically opposed view points on these potential identity-related effects and offers only very limited direct evidence for them. Further, by providing a set of institutional resources that non-core ethnic elites can exploit in future rounds of conflict, corporate power-sharing might also create undesirable incentives for them to mobilize on an ethnic basis in the long-term, especially if ethnic divisions become solidified through its use. In contrast, liberal power-sharing may exert weaker, but more homogeneous effects across time horizons.

In addition to these theoretical points, chapter 2 also outlines two key empirical avenues by which a theoretical framework disaggregated along these three lines (groups, institutions, and time) should be tested. First, problems of selection bias and reverse causation need to be considered. In many cases, it is precisely the most unstable states that resort to power-sharing, especially of the corporate type. Further, they are likely to predominantly award its inclusive provisions to those groups that were already the most conflict-prone in the first place. This not only underlines the need for evidence based on a broad, globally representative set of cases that goes beyond a near-exclusive focus on the most prominent instances of violent conflict to prevent selection bias. It also requires the use of analytic methods that explicitly account for the origins of power-sharing institutions, depending on the preceding context and the degree of pre-existing ethnic divisions.

Second, to test the posited causal mechanisms by which power-sharing affects conflict risks, evidence on their potentially less visible, intermediate

implications is required. At the most basic level, this relates to whether power-sharing institutions indeed translate into the desired practices. Such evidence is required to differentiate between causal mechanisms whereby power-sharing institutions actually affect non-core groups' status position and alternative mechanisms whereby it mostly works through institutional signaling effects or by shaping expectations of future cooperation. Crucially, these might be of foremost importance to explain its side-effects on excluded non-core groups and the formerly-dominant core group. As regards mass attitudes, it also relates to how the impacts of power-sharing institutions on conflict are mediated by mass grievances and the degree of ethnic salience. Direct tests of these attitudinal impacts are needed to bolster evidence on the grievance-alleviating effects of power-sharing. Perhaps even more importantly, they are also needed to build otherwise elusive evidence on its controversial impacts on the salience of ethnic identifications.

Following the three theoretical requirements formulated in the last chapter, chapter 3 proceeds to set up a novel theoretical framework. By considering the effects of power-sharing institutions as disaggregated along the lines of groups, institutions, and time, the framework posits the existence of two trade-offs. The first of these trade-offs is along *group lines*. By providing ethnically-based guarantees for their government inclusion and autonomy, corporate power-sharing strongly alleviates the grievances of included non-core groups. However, wherever it accommodates some groups at the expense of others, it risks giving rise to "second-order" grievances. These may create incentives for left-out elites to mobilize on an ethnic basis as well in order to attain a share of political power. Additionally, by visibly deviating from principles of majority rule, it is also likely to be perceived as unjust by members of the formerly dominant core-group. This in turn encourages core group elites to mobilize on an ethno-nationalist basis and seek to roll-back non-core group protections. Hence, corporate power-sharing should be associated with lower short-term conflict risks for included non-core groups but increased ones for

excluded non-core groups and for the formerly-dominant core group. Conversely, lacking group-differentiated criteria, liberal power-sharing only weakly alleviates the grievances of non-core groups. However, by the same means, it should not be associated with equally severe backlashes from any group and prove more sustainable wherever it manages to persist through an initially unstable period.

The second posited trade-off is across *time horizons*: In the short-term, corporate power-sharing reassures members of included non-core groups of the continued existence of their group and in this way decreases the salience of ethnic identifications. Combined with its grievance-alleviating impacts, this strongly reduces their conflict risks. However, in the long run, this identity-related effect might reverse, as the constitutional entrenchment of ethnic divisions incrementally renders them more salient. Simultaneously, corporate power-sharing also provides gradually accumulating institutional resources, such as control over ethnically-defined autonomous areas, which elites of included non-core groups might exploit in future bargaining processes with the core group. Hence, it creates incentives for elites of newly-empowered groups to act on solidified ethnic divisions and escalate their demands. In this way, corporate power-sharing should initially reduce conflict risks of included non-core groups, yet increase them in the long term. In contrast, liberal power-sharing should not exert similarly heterogeneous impacts across time horizons. Not only does it leave ethnic identifications mostly untouched, but it also does not provide similarly exploitable institutional resources for non-core groups, for example by splitting them up into multiple heterogeneous autonomous territories. In this way, liberal power-sharing should weakly decrease non-core groups' conflict risks both in the short and long-term.

These hypotheses are systematically investigated in a large-N manner in the rest of the dissertation. Chapter 4 presents three new data sources, specifically created for this purpose, including a new dataset on power-sharing institutions, new mass survey data on ethnic attitudes, and a geo-coded dataset

on administrative boundaries. The first is the *Constitutional Power-Sharing Dataset* (CPSD). Drawing on hand-coded constitutional documents and autonomy statutes from 180 independent countries since the Second World War, it codes corporate and liberal power-sharing institutions on the ethnic group-level. The CPSD permits this dissertation to go beyond the systematic investigation of power-sharing practices on the ethnic group-level and to distinguish between their underlying institutional types in a global, representative sample of multi-ethnic countries. The second new data source is a combination of extensive, newly *ethnically-attributed mass surveys*. These allow the present dissertation to investigate the impact of power-sharing institutions not only on the eventual outcome of interest, the occurrence of violent conflict, but additionally to consider the intermediate attitudinal steps of the posited causal mechanisms leading there. Specifically, this enables it to directly test the impacts of power-sharing on mass grievances and on the salience of ethnic identifications. A third and final data contribution is the *Significant Administrative Units* (SAU) dataset. This provides geo-coded boundaries of territorial units for all countries and time periods encompassed in the empirical analysis. In this dissertation, it played an auxiliary role in the collection of the other two data contributions.

Using these new data sources, chapter 5 starts the empirical part of this dissertation. It does so by comparatively investigating the impact of corporate and liberal power-sharing institutions on the main outcome of interest: the outbreak of violent conflict. Specifically, it focuses on three dependent variables: the outbreak of (governmental and territorial) civil wars for politically subordinate non-core groups and the instigation of coup attempts for politically dominant core groups. Following a series of descriptive and correlational analyses, it expands on these by closely following the two empirical requirements formulated in chapter 2. First, it conducts an *instrumental variable analysis* that enables it to submit the attained correlational findings to a stricter causal examination and to address concerns of self-selection and reverse

causation. Second, it conducts a *causal mediation analysis*. This provides a test for the degree to which power-sharing institutions affect conflict risks by actually engendering the corresponding power-sharing practices. This enables it to conduct a first probe into the importance of the theoretical framework's posited causal mechanisms.

The findings from this first empirical chapter provide partial evidence in line with the view that power-sharing institutions indeed shape conflict risks through a series of trade-offs, as argued in this dissertation. By leading to their de-facto government inclusion, power-sharing institutions of both types indeed reduce non-core groups' propensities to participate in civil wars. The findings also support the expectation that core groups are more likely to instigate coups against corporate power-sharing institutions that strongly circumscribe their former dominance. Yet, little evidence is found for direct institutional effects that are not mediated by actual practices, as should be the case if this dissertation's arguments apply. Further, the findings do not support the view that corporate power-sharing systematically induces excluded non-core groups to revolt or that it significantly increases the risks of renewed conflict for included groups in the long-term. Hence, the results are mixed: Power-sharing institutions indeed translate into the corresponding practices and in turn affect short-term conflict risks as expected. However, their side-effects appear more limited than expected, especially as regards the posited long-term destabilizing role of their corporate type.

Chapters 6 and 7 expand on these preliminary results by investigating the impacts of power-sharing institutions on mass grievances and ethnic salience, respectively. Thereby, they further follow the second empirical requirement formulated in chapter 2 to test the intermediate steps of the posited causal mechanisms. To do so, both chapters rely on the series of newly ethnically-attributed mass surveys presented in chapter 4. Chapter 6 focuses on *mass grievances*. This enables it to provide a further test of the expected trade-off along group lines. Specifically, it investigates the expectation that power-

sharing should reduce the grievances of some groups, whereas it should lead to backlashes from others, at least if institutionalized in a corporate way. Chapter 7 turns to *ethnic salience*. This enables it to test a key intermediate step in the posited trade-off across time horizons. Specifically, it tests the expectation that corporate power-sharing should initially reduce, but in the long term reinforce, the salience of ethnic identifications, while similar impacts should not be observed for the liberal type. Overall, the findings from both attitudinal tests again appear mixed. The results in chapter 6 are in line with the view that corporate power-sharing reduces the grievances of included non-core groups but might exacerbate them for excluded ones and for the formerly-dominant core group. They offer little support, however, for the expectation that liberal power-sharing should have similar grievance-alleviating impacts for non-core groups in general. The findings are less consistent as regards ethnic salience, as given by the results offered in chapter 7. Some evidence is found that ethnic salience increases as corporate power-sharing institutions become more consolidated, although this seems limited to particular institutional subsets and to depend on the way these are operationalized. In sum, these two chapters provide further evidence that supports the expectation that power-sharing institutions lead to a trade-off along group lines, by alleviating the grievances of some groups at the expense of others. However, again, they do not substantiate expectations that corporate power-sharing should lead to destabilization in the long-term.

Chapter 8 concludes. It starts by summing up the findings and recapping the evidence found for the dissertation's main hypotheses throughout its empirical chapters. Most fundamentally, this relates to the support found for a step-wise short-term mechanism that pertains to the trade-off along group-lines. Thereby, power-sharing institutions engender the desired inclusive practices and alleviate the grievances and conflict risks of some groups, while in contrast excluding others and boosting their grievances and conflict risks. Conversely, little evidence is found for long-term diverging effects of corporate

power-sharing, whereby it would increase the salience of ethnic identifications and boost conflict risks in the long-term. Based on these findings, the chapter outlines several key limitations of the present dissertation and indicates avenues for further research. In the process, it relates the findings to the broader overall debate referenced at the start of this introductory chapter on whether, and how, peace can be institutionally engineered in divided places.

1.2 Defining terms

Before turning to the theoretical and empirical steps outlined above, it is necessary to clarify several key terms I rely on throughout the dissertation. Many of these terms have already figured prominently in the above introductory remarks and need to be more formally defined in order to make clearer both the aim as well as the theoretical foundations of this thesis. Three groups of terms can be distinguished, roughly corresponding to the three factors along which the theory advanced in this dissertation is disaggregated: ethnic groups and their key characteristics (including the relevant actors reacting to grievances and political opportunity), power-sharing (including its dimensions and institutional types), and the temporal dimension (short- vs. long-term). They are now discussed in turn.

1.2.1 Ethnic groups, relevant actors, and outcomes of interest

Following much of the literature on ethnic conflict (Hale 2004b), I adopt a Weberian conception of ethnicity throughout this dissertation. This sees an *ethnic group* as a set of individuals that "entertain a subjective belief in their common descent" based on "similarities of physical type or of customs or both" (Weber 1978: 389). Hence, this belief can rest on different types of perceptible cultural markers, such as religion, language, phenotype, or regional settlement patterns.

I use the admittedly problematic term "group" mainly for convenience's sake to substitute for the more unwieldy expression "referents of a given (eth-

nic) category". Hence, I explicitly do so without a priori expecting an ethnic group to be a unitary actor capable of collective action. Rather, the variable "groupness" (Brubaker 2002) of different individuals in an ethnic group forms a key characteristic that this dissertation is interested in. However, I do assume that the boundaries between different ethnic groups are reasonably durable and that most individuals are clearly attributable to one group or another. While the relevant ethnic boundaries may shift (for instance from religion- to language-based ones), such processes mostly take long periods of time (Hale 2004a, 2008) and any given individual's freedom to actively engineer such shifts is limited. And while individuals may have a degree of freedom to redefine their group membership (for instance by emphasizing different cultural traits), the fact that group identities are partly externally ascribed and socially constructed means that this freedom is often highly circumscribed in practice (Wimmer 2008).

Within each ethnic group, I furthermore assume a reasonably clear-cut distinction between elites and masses. This is directly related to the identification of central actors in my theoretical argument. *Elites* are individuals with the resources and aims to decisively influence the political discourse and decision-making processes within and beyond the group. This refers, most importantly, to elected or appointed representatives in state organs, chairs of political parties, or leaders of (ethnic or non-ethnic) political and cultural movements. While distinguishing between elites belonging to different ethnic groups, I do not assume that they inevitably voice their claims in ethnic terms. Similar to "groupness", this again forms a key outcome of interest, as elites may conceivably prefer to express their political demands in civic or other non-ethnic terms or to switch between different types of claims. However, I again assume that elites are identifiable and that they are constrained by their group membership, most strongly by the political identifications and political views held by the wider *masses* belonging to their group from whom they seek support. By extension of the preceding definition, the term "masses" thus refers

to those ethnic group members outside of formally-organized elite circles.

In this dissertation, the political arena of interest where group elites make their claims are *multi-ethnic states*. These are territorially-delimited states that "host" multiple ethnic groups of reasonable size.

Within multi-ethnic states, the various ethnic groups differ by several status characteristics. Most fundamentally, they differ in the degree to which they have access to political power. Often, the state is controlled by a specific ethnic group, while others have only limited access to it, for instance by being excluded from state organs or lacking the means to decisively shape political decision-making (Bormann et al. 2017). To denote this, I borrow the term *core group* from Mylonas (2012) to refer to the ethnic group whose elites have the largest "military and administrative capacity to enforce its decisions within the borders of a state" (ibid: 24). For instance, the core-group of Switzerland are the Swiss Germans, identified by their common language, as they occupy the large share of the most influential political positions and have the demographic numbers to sway political decision-making in their own favor, should their masses so desire.¹

Non-core groups are, conversely, all other ethnic groups lacking this degree of capacity. Often, the distinction between core- and non-core groups corresponds to the one between the demographic majority and the rest of the population, made up by a set of distinctly smaller minority groups. However, the terms are not always equivalent. For example, in contemporary Rwanda, the minority Tutsi dominate the organs of the dominant-party state and are hence the core-group. Similarly, in Syria the small group of Alawites dominate the administrative and military organs and are consequently the core-group

¹This needs to be differentiated from the term "core regions", used by (Hale 2004a) to denote demographically dominant regions in ethno-federal states. While there may be an overlap in practice (e.g., when the core group predominantly resides in an ethnic core region), the concepts are clearly distinct: The term "core region" exclusively refers to administrative territorial entities, defined by demographic factors, while the term "core group" refers to politically dominant ethnic groups, whichever their settlement patterns and relation to administrative units, and independently of their demographic size (in so far, as this does not lead to their actual political dominance). See Bormann et al. 2017 for a term that more closely corresponds to the concept of a core group used here: "reference groups".

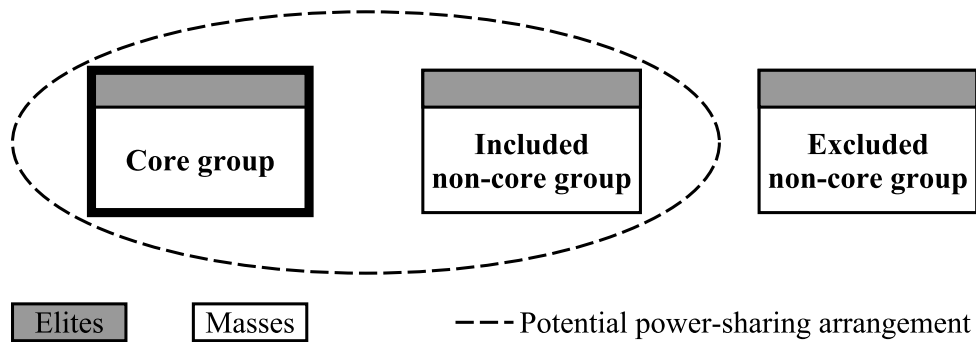


Figure 1.3: Group types and actors

(Kaufmann & Haklai 2008). For this dissertation’s main argument that focuses on the effects of institutionalized power-sharing, the distinction between core- and non-core groups, which emphasizes political rather than only demographic dominance, is consciously adopted (rather than the more widely-used distinction between majority and minority groups).

Within the umbrella category of non-core groups, I furthermore differentiate between two different group types, in cases where a power-sharing agreement is in place. *Included non-core groups* are those that are part of a given type of power-sharing, for instance those that are given cabinet seats or those that are awarded territorial autonomy. While these aspects may not always overlap (i.e., some groups are given cabinet seats but not autonomy, and vice versa), for the clarity of the argument I assume they do, although I do discuss deviations from this ideal type both theoretically and empirically. Conversely, *excluded non-core groups* are those left out of political power while other groups are, simultaneously, included due to an existing power-sharing agreement. Figure 1.3 gives a graphical overview on these actors.

As already alluded to in the last paragraph, these ethnic groups differ along several status dimensions, in addition to differential access to political power. Not only do they possess different means to influence the political decision-making process, but also have diverging economic and educational attainments, access to health services, and degrees to which their cultural

practices are societally recognized. Following Stewart (2008), I use the term *horizontal inequalities* to refer to such group-based status differences more generally, in contrast to individual, *vertical* inequalities.

These horizontal status differences are directly related to several time-variant outcomes on the group-level that this dissertation is centrally interested in. First and most fundamentally, and as already alluded to above, ethnic groups critically differ in the degree of their internal cohesion, their "groupness". I use the term *ethnic salience* to refer to its cognitive aspects, meaning the degree to which individuals belonging to the masses identify with their ethnic group during political behavior, as compared to other identifications (for instance, the state, gender, or a region that is not contiguous with ethnic settlement patterns). I furthermore use the term *pillarization* (cf. Lijphart 1977) to refer to its organizational aspects, meaning the degree to which ethnic groups are vertically organized into distinct, ethnically-based organizations purporting to speak for them, most prominently political parties or movements.

Second, the various ethnic groups differ in the level of mass *grievances* held by the masses of each group. These are perceptions that one's group is unjustly treated which are blamed upon another actor, be it on the state, another group, or one's own group elites. Grievances are directly linked to perceptible horizontal inequalities, which are necessary for their articulation. However, they also require a minimal level of ethnic salience (which enables the perception of inequalities in ethnic terms in the first place) and a subsequent attribution of blame on a specific actor (for instance on the state, due to unequal or discriminatory treatment). (Cederman et al. 2013; Stewart et al. 2008)

Finally, groups differ in the level of their *mobilization*. This refers to the elite-articulation of group-claims in organized parties, political movements, or armed factions in civil wars. The formulation of mass grievances is often necessary for such mobilization to successfully occur in the first place, but not

sufficient for it. Characteristics such as state repression, geographic dispersion of group members, or an inability to induce group members to participate in organized action (i.e., what has been referred to as the *opportunity structure*, cf. Almeida 2003; Goldstone & Tilly 2001; McAdam 1982) may limit mobilization even in the face of widespread grievances. If ethnic mobilization runs into resistance based on counter-claims, be it from the state or from another group, I speak of *ethnic conflict*) Such a conflict may become *violent*, of which I speak when there is physical damage done to individuals of one side or the other.

1.2.2 Power-sharing, its dimensions, and types

Throughout the dissertation, I refer to various dimensions and types of power-sharing. In what follows, I discuss my overarching conceptualization power-sharing, including its dimensions (the horizontal, vertical, economic, and cultural ones), its underlying elements (institutions and practices), and its main overarching types (the corporate-liberal distinction). I limit myself here to providing the general intuition behind my conceptualization, which I juxtapose with alternatives used in the existing literature. I leave a more comprehensive discussion of the specific component institutions within each dimension and type of power-sharing to chapter 4, where I will also turn to operationalize my concept for the empirical analyses of this dissertation.

Dimensions of power-sharing

I consciously adopt a broad concept of power-sharing, which comprises four dimensions: the horizontal, the vertical, the cultural, and the economic ones. Each of these dimensions comprises measures that address a particular horizontal inequality often faced by non-core groups (see figure 1.4): horizontal power-sharing includes non-core groups into central government, vertical power-sharing provides them with political autonomy, economic power-sharing enhances their position in material and educational terms, and cultural power-sharing recognizes and elevates their customs and cultural practices.

As a starting point to derive this concept, I build on Arend Lijphart's

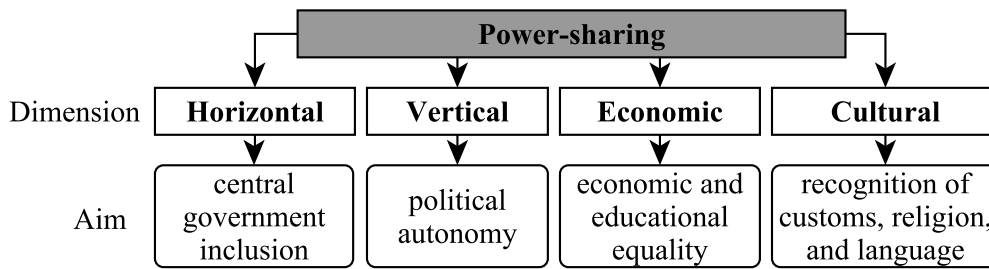


Figure 1.4: Dimensions of power-sharing

conceptualization of "consociationalism", whose arguments lie at the heart of much of the power-sharing literature. This comprises four main principles: The inclusion of minorities in the central government through grand coalitions; their proportional representation across state organs, for example in the legislature, judiciary, and the military (cf. also Lijphart 2004); mutual veto rights given to their representatives that enable them to block legislation detrimental to their core interests; and segmental autonomy, which gives minorities exclusive say over matters that do not concern other groups (Lijphart 1977). Following contributions that show crucial differences between them (Cederman et al. 2015a; Gates et al. 2016; Linder & Bächtiger 2005), I conceive of the first three of these principles (grand coalitions, proportional representation, and mutual veto rights) as forming part of a *horizontal dimension* of power-sharing. And I conceive of the fourth principle, segmental autonomy, as forming a separate, *vertical dimension* of power-sharing.

However, my concept is broader than what is commonly understood as "consociationalism" in two ways. First, I define horizontal power-sharing more broadly. Most importantly, I subsume some practices and institutions that are sometimes seen as belonging to the alternate, centripetal approach (Horowitz 1985, 2003) under horizontal power-sharing as well. This is justified by the fact that centripetal institutions, such as territorial vote-spread requirements or super-majorities for executive elections, encourage similarly inclusive outcomes (such as minority inclusion in executives) as the more direct consociational ones (Binningsbø 2013; McGarry & O'Leary 2008).

Second, I follow more recent arguments from the literature on post-conflict power-sharing that, beyond political inclusion, the logic of power-sharing extends to further dimensions as well, including the *economic* and *cultural dimensions* (Hartzell & Hoddie 2008; Mattes & Savun 2009; Stewart et al. 2008; Walter 2002). Hence, my concept of power-sharing extends, in principle, beyond the political measures which are commonly seen as forming the main aspects of power-sharing (Lijphart 2004). Nevertheless, in the rest of this dissertation I mainly focus on the horizontal and vertical dimensions of power-sharing. These are arguably the "core aspects" of power-sharing (Lijphart 2004), which in turn also enable advances for non-core groups on its other two dimensions.² Hence, unless I explicitly refer to a particular dimension, I use the term "power-sharing" in later chapters to refer to the combination of its horizontal and vertical dimensions.

Elements within the power-sharing dimensions

I furthermore conceive of power-sharing as a set of mutually reinforcing measures whose overall strength varies gradually. This goes against prominent arguments in the field that its strictest underlying measures—especially ethnic grand coalitions, but also segmental autonomy—constitute a sine qua non for power-sharing (e.g., Bogaards 2000; Lijphart 2004). While I do consider these measures necessary for a political system to be characterized by "full" power-sharing, I expect similar systematic, although weaker, relationships for institutional set-ups limited to comparably less restrictive components, such as quotas for the legislature and mutual veto rights. This assumption enables me to consider systematic evidence from a large number of cases not limited to the small number of comprehensive consociations, which some scholars have cautioned limit large-N investigations (Bogaards et al. 2019).

As I have already alluded to numerous times, within each of these dimen-

²For example, by providing for their descriptive representation, the horizontal and vertical dimensions of power-sharing enable non-core group elites to gradually augment their substantive representation as well, for example by pushing for the adoption of cultural power-sharing policies (Hänni 2017).

sions, I differentiate between power-sharing practices and power-sharing institutions. Both directly address specific horizontal inequalities between different groups. However, importantly for my argument, they are clearly distinct. The former, *power-sharing practices*, refer to de-facto measures, such as the actual inclusion of ethnic non-core groups into central government. The latter, *power-sharing institutions*, refer to a set of variable de-jure requirements mandating these outcomes.³ They can be found in formal state institutions, most prominently in the constitution or in regional autonomy statutes. While often overlapping, practices and institutions are not empirically coterminous. On the one hand, power-sharing practices may be the result of non-institutional factors, such as ad-hoc decisions of accommodative governments or long-standing societal norms. On the other, power-sharing institutions may fail to be implemented and not result in actual power-sharing practice (for instance, due to potentially politically meaningless inclusion of token members of government).

Types of power-sharing

Within the overarching category of power-sharing institutions, I furthermore distinguish corporate from liberal types of power-sharing. In doing so, I follow the pioneering work of Lijphart (1995) and McGarry and O’Leary (2006a; 2006b; 2007) who have introduced these concepts. Seen as forming part of a wider accommodative approach, both are usually contrasted with alternative, integrationist strategies: Where accommodation seeks to ensure each “group’s public space” through measures explicitly or implicitly targeting them, integration aims to build “institutions that transcend, crosscut, and minimize [these] differences” (McGarry & O’Leary 2008:42). And where accommodation aims to build a citizenry characterized by strong “dual or multiple public identities”, integration in contrast promotes “a single public identity coterminous with the state’s territory” (ibid.: 41). In my conceptualization, I mostly follow this juxtaposition. However, as I will outline in the following paragraphs, I do

³In chapter 4 and its appendix, I provide an extensive discussion of the different institutional measures within each dimension of power-sharing.

so with some caveats, especially for liberal power-sharing.

The difference to integrationist strategies is most clear-cut for the *corporate* type of power-sharing. Corporate, or pre-determined, power-sharing "entails the constitutional entrenchment of group representation" (McCulloch 2014: 503; cf. Lijphart 1995). It encourages accommodative behavior through *ethnically-differentiated institutional measures, which directly target specific ethnic groups, organizations purporting to represent them, or territorial units that correspond with them.*⁴ This includes, most prominently, inclusive and dispersive institutional measures such as government quotas for ethnic minorities, veto rights provided for their representatives, ethnically-based autonomous areas, ethnic affirmative action policies, and the recognition of group-specific cultural practices. In contrast to integrationist approaches, corporate power-sharing is thus explicitly based on a "politics of difference", characterized by the mutual recognition and direct empowerment of subnational social groups (cf. Taylor 1994). By relying on explicitly group-differentiated rights, it gives rise to what Kymlicka (2011:281; cf. Kymlicka 2010) calls a "distinctly multinational conception of citizenship".

Similar to their corporate alternative, *liberal* power-sharing also accommodates ethnic diversity, rather than actively eroding it. However, the liberal type of power-sharing is closer to integrationist strategies as it refrains from doing so in an explicit, pre-determined way (McGarry & O'Leary 2008). Rather than specifying the recipients of accommodative practices in advance, it leaves open the question of group determination to changing societal circumstances and mass preferences and thus avoids institutionally entrenching a group-differentiated citizenship regime. Specifically, it relies on electorally-based accommodative measures or on far-reaching individual rights that indirectly (whether this is intended by its institutional designers or not)⁵ alleviate

⁴As chapter 4 will discuss in more detail, this includes both territorial units that are demarcated so as to be equivalent with ethnic settlement patterns in demographic terms and those that are, regardless of local demography, designated as territorial "homelands" for a given ethnic group.

⁵For example, proportional electoral systems have in many contexts been adopted due to colonial legacies or due to pressure from working class parties, with no intention to result

horizontal inequalities between different ethnic groups. Consequently, it is, like its integrationist alternative, at least formally based on a model of "universal citizenship" (cf. Patten 2008).

In defining liberal power-sharing in this way, I depart slightly from dominant definitions in the literature, which generally focus exclusively on electoral requirements and incentives as component parts of liberal power-sharing (for example, McGarry & O'Leary 2007: 675). My somewhat more expansive definition subsumes these by similarly including accommodative measures that reward "whatever salient identities emerge in democratic elections, whether these are based on ethnic groups or on other subgroups or transgroup identities" (ibid., McGarry & O'Leary 2007; Lijphart 1995). These can be conceived of as being the direct equivalents to corporate power-sharing measures, substituting for direct measures of group empowerment with indirect ones encouraging the same outcomes by electoral means. For example, instead of relying on quotas, liberal power-sharing realizes executive power-sharing by using low electoral hurdles for cabinet inclusion or by relying on supermajorities for the election of important executive posts (McCulloch 2014; McGarry & O'Leary 2007). Similarly, proportional representation can be achieved through proportional electoral systems with low thresholds (rather than quotas), veto powers can be indirectly encouraged by institutionalizing parliamentary supermajority requirements (rather than veto rights for ethnic groups' representatives), and autonomy can be realized through bottom-up principles of territorial self-determination (rather than ethnically-defined autonomous areas, see McGarry & O'Leary 2007).

However, my definition of liberal power-sharing also includes some institutional measures that are often seen as a part of integrationist approaches. Specifically, it includes those belonging to what have been called "disestablishment"/"cosmopolitan" strategies of integration, which are based on extensive

in the inclusion of non-core groups (Rodden 2009). Nevertheless, they do make such an ethnically inclusive result more likely as a side-effect as well and are hence, in my concept, counted as part of liberal power-sharing.

individual, rather than group-based, rights (Patten 2008; Sears et al. 1999). Most notably, this includes "national" or "cross-cutting" federal systems, promoted by liberal and centripetal integrationists respectively, both of which use non-ethnic criteria to demarcate territorial boundaries (McGarry & O'Leary 2005, 2008). They also include territorial vote spread requirements which indirectly encourage broad-based electoral coalitions (promoted by centripetalists, cf. above and Horowitz 1985, 2003; Reilly 2001) and individual cultural and economic rights which abstain from explicit group recognition (promoted, among others, by liberal and socialist integrationists, cf. Barry 2001; McGarry & O'Leary 2008; Piketty 2014). It does not include, however, integrationist measures aimed at actively subverting group identifications, or expressions thereof, for instance administrative centralization or ethnic party bans especially promoted by republican integrationists, cf. (McGarry & O'Leary 2008; Stewart et al. 2008). In sum, my conceptualization of liberal power-sharing includes *measures that indirectly alleviate horizontal inequalities in a non-group-differentiated way, either through difference-blind electoral means or through expansive individual rights.*

Figure 1.5 shows how my concepts of corporate and liberal power-sharing relate to alternative institutional approaches. The figure visualizes the comparable breadth of my overall power-sharing concept, which takes elements not only from its consociational and multicultural "core" (Kymlicka 1995; Lijphart 1977), but also includes integrationist policies that indirectly address horizontal inequalities facing non-core groups based on individual rights or electoral rules. It also shows the diverging institutional basis of its corporate and liberal types. The former, corporate, type almost exclusively relies on "classical" accommodationist measures from consociational, multiculturalist and territorial pluralist approaches. These are explicitly based on ethnic groups, organizations purporting to represent them, or territorial boundaries that correspond with them. In contrast, the latter, liberal, type extends into integrationist "territory": It not only includes electoral implementations of consociational-

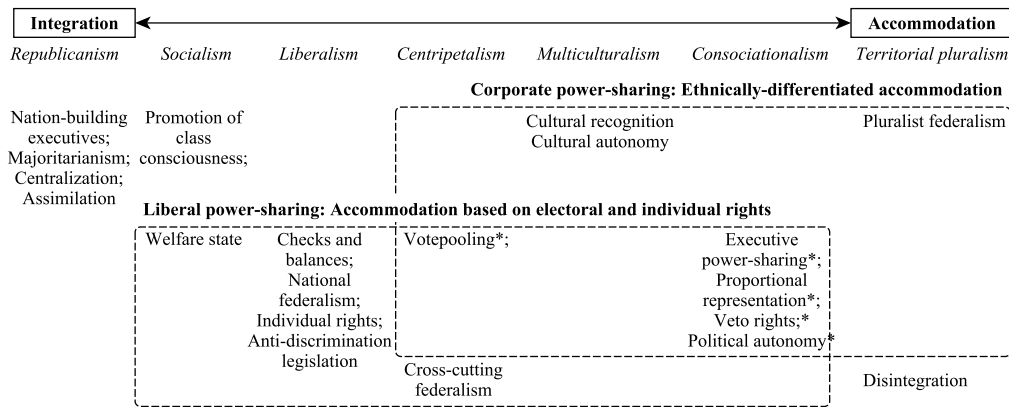


Figure 1.5: Types of power-sharing and relation to dominant institutional approaches

* *Votepooling and consociational strategies that explicitly rely on ethnic groups, organizations representing them, or territories that are coterminous with them belong to the corporate type; votepooling and consociational strategies that rely on electoral criteria or on territorial units that cross-cut ethnic settlement patterns belong to the liberal type.*

Note: Adopted from McGarry & O’Leary 2008. The component institutions listed under each integrationist and accommodationist “school” are taken selectively from McGarry & O’Leary 2008 and are not meant to be exhaustive. Rather, they illustrate how the two types of power-sharing as conceptualized in this dissertation relate to these alternative “schools” and concepts used in existing studies. See chapter 4 for a more detailed discussion of component institutions of each dimension of power-sharing.

ism (McCulloch 2014; McGarry & O’Leary 2007), but also “borrows” from socialist, liberal, and centripetalist integrationist policies that indirectly address horizontal inequalities on an individual basis. These include policies such as individual cultural and economic rights, national types of federalism, or welfare state policies.

1.2.3 Short- and long-term

Throughout my theoretical argument, I juxtapose different effects of power-sharing on these outcomes in the *short- and long-term*. These terms are not meant as referring to specific, absolute time-frames, measurable in years or months. Rather, they are consciously used only in relation to one another:

"Short-term" refers to processes occurring in the immediate temporal vicinity of an event (for instance, after the eruption of conflict or after the adoption of power-sharing), while "long-term" denotes processes that gradually become more important as time goes by. For example, while the adoption of power-sharing constitutes an almost immediate reassurance by signaling accommodative intent by the government adopting it (and is hence a short-term effect), changes of horizontal inequalities (for instance, of unequal economic resources of different groups) accrue only gradually (and are hence a long-term process).

Part I

Theory

Chapter 2

Groups, institutional type, and time: The need for a triple-disaggregated theory of power-sharing

2.1 Introduction

The first core proposition of this dissertation is: To comprehensively understand the impact of power-sharing on ethnic conflict patterns, we need a theory that is disaggregated in three ways—one that considers both groups whose political status is bolstered or diminished by it, one that takes into account how the institutional type on which it rests affects them, and one that is sensitive to how their resulting impacts play out in contrasting ways across different time horizons. The existing literature on power-sharing and conflict provides important insights on each of these factors, but, as I shall argue, falls short of combining them into a unified framework. However, only through such a “triple-disaggregated” lens can we understand the highly differentiated, and at the surface, contradictory effects of power-sharing on ethnic conflict.

The examples referenced in the introductory chapter indicate the kind of questions such a theory should seek to explain. Most fundamentally, when

does power-sharing reduce the tendencies of otherwise politically excluded and marginalized non-core groups' to revolt? When does it, conversely, enable opportunistic elites to pursue conflict? And, beyond included non-core groups, under which circumstances does power-sharing lead to "second-order" violence, in the form of backlashes against it by excluded non-core groups who remain outside of its protective provisions or by the formerly dominant core-group whose dominance is now circumscribed by it? In other words, what we want is an integrated theory that links power-sharing to conflict patterns across both different types of groups and time periods and that is sensitive to how its underlying institutional type shapes these patterns.

This chapter discusses how the existing literature has dealt with these questions and makes the case for a unified theoretical framework disaggregated along the three lines advanced above: ethnic groups, institutional type, and time. Rather than attempting to discuss every facet of this sprawling literature in detail, I limit myself to reviewing existing theory and evidence as regards the three factors I have advanced as central above:¹ the group-differentiated mechanisms through which power-sharing affects conflict risks, the institutional basis on which it rests, and its diverging effects in the short and the long-term.²

I proceed as follows: First, I discuss the existing evidence on how power-sharing shapes ethnic conflict risks by alleviating mass grievances. Second, I discuss the ways by which power-sharing may in contrast exacerbate them by increasing non-core groups' political opportunities to revolt. In the pro-

¹See Binningsbø 2013; McGarry & O'Leary 2008 and, more recently, Bogaards et al. 2019; O'Leary 2019 for more comprehensive reviews on power-sharing in general, McGarry & O'Leary 2005 for the vertical dimension of power-sharing, and Langer & Brown 2008 for its cultural dimension.

²Obviously, reading many of these studies with the specific propositions underlying this dissertation in mind risks doing them injustice. While the factors I highlight figure prominently in many contributions, they are certainly not equally central for all purposes. For instance, it is completely legitimate to exclusively focus on the short-term effects of power-sharing when investigating possibilities to stop the killing in the immediate wake of civil war. However, my critical reading and focus on gaps related to these factors is not meant to disparage these studies' important insights. Rather, it is meant to highlight the challenges involved in incorporating these findings into a comprehensive framework that considers conflict risks across different groups, institutional types, and time horizons.

cess, I argue that approaches focusing on both mechanisms offer important insights, yet are incomplete, even when combined. In particular, I identify five key avenues that need to be systematically expanded upon in order to comprehensively explain and empirically trace the impact of power-sharing on patterns of ethnic conflict. As regards theory-building, these broadly relate to the existing literature's predominant focus (1) on power-sharing practices (in grievance-based approaches), a specific institutional type (especially in opportunity-based approaches), or specific component institutions without considering their type (in contributions to both approaches from quantitative conflict studies), (2) on included non-core groups (which neglects its side-effects on excluded non-core groups or the formerly dominant core group), and (3) on groups whose identity boundaries are assumed to be fixed (with changes in ethnic salience remaining under-theorized). As regards empirical methods, these relate to (4) the need to explicitly account for the origins of both power-sharing practices and their underlying institutions and to (5) its predominant focus on extreme, behavioral outcomes, such as large-scale civil war (which needs to be complemented by evidence on the posited attitudinal mechanisms).

These identified avenues correspond to the five main requirements that the rest of the dissertation seeks to address. Theoretically, I argue that the current arguments in the literature need to be expanded (1) by considering the effects of power-sharing on different groups, including those left out of power-sharing institutions or disadvantaged by them, (2) by paying closer attention to its institutional type, and (3) by formulating expectations as to how their impacts play out differently across various time horizons. Empirically, I argue that the main current disagreements in the literature point to (4) the need to assemble broad evidence from a multitude of cases to prevent selection-bias and to probe their causal properties to account for reverse causation. I further argue (5) that empirical evaluations should probe in more detail the intermediate steps of the posited causal mechanisms, most fundamentally as regards the translation of power-sharing institutions into practices and as

regards their mediation through changes in mass grievances and ethnic salience.

I conclude by distilling four causal pathways through which power-sharing affects ethnic conflict risks. By relating them to the avenues for theoretical and empirical research I identify throughout my discussion, I set up my own theoretical argument in the next chapter and ground my empirical approach in the subsequent chapters. Specifically, I identify relevant pathways linking power-sharing and ethnic conflict through its impacts on mass grievances (via horizontal inequalities), ethnic salience, organizational capabilities, and perceived opportunities to revolt.

Although I split the following discussion of grievance- and opportunity-based mechanisms into separate sections, they should be seen as complementary: political opportunities are a key mobilizational element in the mechanisms emphasized by the grievance approach and grievances are, conversely, a key element of the political opportunity structure (Cederman & Vogt 2017; Shadmehr 2014). Yet, many studies arguably do focus on one of the two mechanisms in explaining the substantial variation of ethnic conflict they are interested in. In this vein, discussing them in turn provides not only greater clarity when tracing the individual steps of the two mechanisms, but also enables me to contrast their underlying assumptions, in particular as regards their emphasis on specific groups, institutional types of power-sharing, and time horizons.

2.2 Grievance-based mechanisms

I start my discussion with grievance-based approaches, which hold a dominant position in much of the recent literature on power-sharing. These generally start off by positing a key role of motivational factors, in particular of mass grievances, in driving conflict. Horizontal inequalities giving rise to such grievances—most notably, the exclusion of non-core groups from political power—have long figured prominently in seminal contributions in the conflict

literature (cf. e.g. Gurr 1970; Horowitz 1985). After intermittent skepticism,³ grievance-based explanations for ethnic conflict have firmly (re)established for themselves a central position in the literature on power-sharing (Cederman et al. 2013; Cederman & Vogt 2017). In what follows, I first review our existing knowledge on how power-sharing affects conflict risks through grievance mechanisms before discussing four topics in more detail. These relate to the several of the afore-mentioned avenues for further research presented above: First, I discuss how existing arguments relate to different institutional types of power-sharing; second, I consider what their implications are for groups adversely impacted by power-sharing; third, I take stock of the existing evidence for the intermediate causal steps of this mechanism as given by mass grievances; and, fourth, I look at what scholars loosely associated with this perspective have to say on its intermediate implications for ethnic identity salience.

2.2.1 Reducing motivations to revolt: from power-sharing practices to grievance alleviation

In accounts emphasizing the effects of power-sharing through grievance alleviation, mass grievances tie together horizontal inequalities and ethnic conflict through a step-wise mechanism. To set up the following discussion, in particular of the remaining gaps and additional implications, it is useful to briefly consider the individual steps involved in this basic mechanism: First, horizontal inequalities need to be perceived. This requires a minimum degree of ethnic salience, which enables group-wise status comparisons to be made in the first place. Second, perceived inequalities along ethnic lines need to be evaluated as unjust and their blame attributed to specific (state or ethnic) actors, which leads to the emergence of mass grievances. Finally, the resulting grievances

³Most notably, by scholars emphasizing the centrality of opportunity- or greed-based factors (most prominently Collier & Hoeffler 2004; Fearon & Laitin 2003; Skocpol 1979; Tilly 1978) and by researchers positing a disjuncture between purported grievance-based causes of conflict and actual reasons for violence “on the ground” (Gilley 2004; Kalyvas 2003; Mueller 2000).

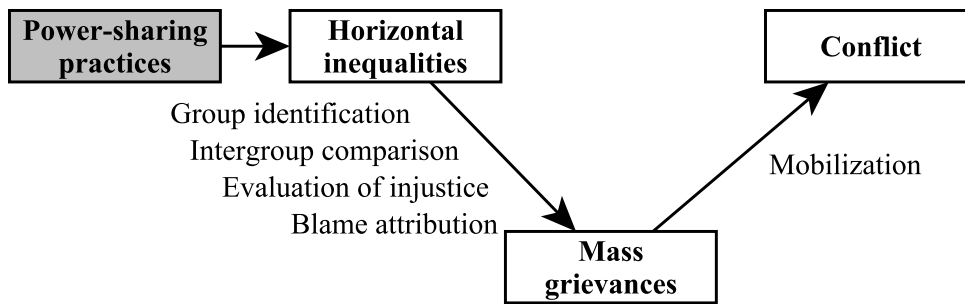


Figure 2.1: From power-sharing practices to conflict via mass grievances

Note: For horizontal inequalities to give rise to grievances, four distinct steps are required: First, the relevant groups and their boundaries need to be perceived by individuals; second, their relative status attainments compared; third, these differences need to be evaluated as unjust; and, fourth, they need to be blamed (e.g., on the state or on the ethnic core group). For mass grievances to give rise to conflict, they need to be mobilized upon by elite actors.

need to be mobilized upon by organized actors, which in turn increases the risk of violent conflict. Power-sharing practices hold the promise of breaking this mechanism at several of its nodes, most notably at its roots, by alleviating horizontal inequalities, but also later in the process, by preventing the attribution of blame, for instance on discriminatory state policies. Figure 2.1 gives an overview on these steps (adopted from Cederman et al. 2013; Stewart et al. 2008).

The evidence for this hypothesized grievance-to-conflict mechanism is large. Representing a first comprehensive effort at mapping ethnic minority groups' differential status attainments, Gurr (1993) for instance finds a strong role of relative deprivation in motivating conflict among national minorities "at risk". In a similar vein, Østby (2008) shows that high levels of economic polarization between ethnic groups are associated with higher probabilities of conflict onset in a given state. Even further building on such empirical approaches, Cederman and colleagues (2013, cf. Buhaug et al. 2014) assemble a comprehensive data-set on ethnic groups' access to political power, autonomy and economic resources, showing that political exclusion and economic

inequality are clear predictors of ethnic groups' propensities to engage in conflict.

Based on the demonstrated destabilizing effects of these horizontal inequalities, many contributions then propose addressing them through power-sharing institutions. Most prominently, a whole strand in the power-sharing literature, originally based on Arend Lijphart's seminal work on consociationalism (Lijphart 1968, 1969, 1977), has proposed the introduction of power-sharing in order to alleviate the political inequalities facing non-core groups. These arguments commonly focus on its horizontal and vertical dimensions: By boosting the descriptive and substantive representation of non-core groups in government, the former can alleviate mass grievances and in this way reduce conflict risks (Cederman et al. 2013, 2015a; Norris 2008). Similar arguments have been made in favor of the latter, including for political (Bächtiger & Steiner 2004; Kohli 2004) and cultural autonomy (Langer & Brown 2008). Through a more efficient public goods provision oriented along local cultural demands (Hechter 2000; Tiebout 1956; Oates 1972) and by allowing groups to govern themselves, issues of contention can be taken off the central state agenda and incentives created for local elites to guarantee minority rights (Bermeo 2002; Kohli 2004; Stepan et al. 2011). In this way, localized grievances may be avoided and ethnic-conflict pre-empted (Bermeo 2002; Cederman et al. 2015a; Stepan 1999). Beyond the overall "package" of power-sharing institutions, these arguments have also been extended to prominent individual component institutions that could encourage power-sharing practices, especially proportional electoral systems and federal state structures (Cohen 1997; Gates et al. 2016; Mukherjee 2006; Reynal-Querol 2002, 2005; Saideman et al. 2002).

Again, evidence supporting the proposition that inclusive practices (and institutions encouraging them) reduce grievances and, in turn, decrease the risks of ethnic conflict, is large. This is especially so as regards the de-facto government inclusion of non-core groups (cf. for example Cederman et al. 2013, 2015a; Norris 2008) or of warring factions claiming to represent them

through peace treaties (Cammett & Malesky 2012; Derouen et al. 2009; Gurses & Mason 2008; Hartzell & Hoddie 2003, 2008, 2015; Walter 2002). Similar results have also been attained for more durable inclusive institutions which are supposed to result in the actual government inclusion and autonomy of ethnic groups (Bormann et al. 2019), such as proportional electoral systems, checks and balances, and federalism (Cohen 1997; Gates et al. 2016; Mukherjee 2006; Reynal-Querol 2002, 2005; Saideman et al. 2002; but see also Schneider & Wiesehomeier 2008; Pospieszna & Schneider 2013; Selway & Templeman 2012), although the evidence is more tentative and disputed as regards ethno-federalism specifically (Brancati 2006; Christin & Hug 2012; Grigoryan 2012).

These studies offer a convincing account of how power-sharing practices shape the conflict risks of non-core groups whose political, economic and cultural status is bolstered by it. Certainly, they thus form an important element of any theory seeking to comprehensively link power-sharing to ethnic conflict. However, they offer less guidance on how to design institutions encouraging such practices in difficult contexts, such as divided places that lack long-standing informal norms of inclusiveness. Some studies do discuss durable institutional set-ups, such as proportional electoral systems and federal state structures. Yet, they mostly abstain from empirically investigating alternatives to these broad measures that belong to alternative types of power-sharing (such as the juxtaposition between proportional electoral systems and ethnic quotas). Most work within this strand also remains rather silent on the implications of power-sharing for groups whose political status is adversely impacted by it. As already alluded to previously, this most notably refers to non-core groups that remain excluded from power-sharing and to core groups whose former dominance is circumscribed by it. Furthermore, they are also both theoretically and empirically incomplete concerning the grievance mechanism's intermediate attitudinal steps. These include both the construction of grievances on the individual level and of salient ethnic identities (for the initial group identification step of the mechanism) themselves. The following

four sub-sections expand on these gaps.

2.2.2 The institutional basis of power-sharing and non-core group grievances

Most arguments discussing the impacts of power-sharing through grievance alleviation rely on a concept that is largely agnostic as regards its underlying institutional basis. This is most prominent in Lijphart's classic contributions on consociationalism, which continue to influence much of the power-sharing literature to this day. In these, he convincingly argues that the threats of ethnic divisions among the masses should be countered through the formation of an "elite cartel" (Lijphart 1969:216), thereby substituting for missing "cross-cutting cleavages at the mass level" with overarching cooperation at the elite level (Lijphart 1968). In this argument, what matters most is not the "particular form and shape" of power-sharing, but that its inclusive "consociational principles are adhered to" (Bogaards 2019a:29; cf. Andeweg 2000; Bogaards 2000; Kaiser 1997). While making a powerful case for reducing horizontal inequalities through power-sharing, these arguments are less informative on how and in which way to institutionally "engineer" it in many divided places (Bogaards 2019a:29; Bormann et al. 2019).

The focus on power-sharing practices at the expense of underlying institutions is also apparent in prominent comparative studies that discuss and investigate the effects of de-facto government inclusion and autonomy on the ethnic group level (e.g., Cederman et al. 2013; Wucherpfennig et al. 2016; see Bormann et al. 2019 for an exception)⁴. While these studies convincingly show that power-sharing practices decrease conflict risks, they do not consider whether they are based on corporate or liberal power-sharing institutions or, alternatively, represent ad-hoc measures by accommodative governments or are based on long-standing, informal norms.

⁴While helpfully advancing this debate by indicating a disjuncture between the effects of power-sharing practices and institutions, this study does not attribute these differential effects to a particular type of power-sharing institutions, depending on whether these are corporate or liberal.

However, within a grievance-perspective, such institutional differences between different types of power-sharing may be crucial in numerous ways. Most directly, they may play a central role in determining the degree to which power-sharing actually reduces the grievances of included non-core groups. In many contexts, non-core groups demand explicit recognition and tangible reassurances that go beyond informal practices, especially in the wake of large-scale discrimination or targeted violence against them (McCulloch 2014). It seems likely that, by providing such ethnically-based recognition and formally enshrining them constitutionally, corporate forms of power-sharing are better suited to do this "job". Conversely, weaker group-blind, liberal forms of power-sharing or ad-hoc measures might induce only smaller grievance reductions (Lijphart 1995). Yet, in the absence of comparative data on the underlying institutional type of power-sharing, a systematic exploration of such a conditioning role has so far remained off-limits in the empirical literature.

Similarly, studies that focus on post-conflict power-sharing found in peace agreements or on power-sharing in state constitutions do not systematically consider the corporate-liberal distinction. This is despite the explicitly institutional argument that these studies add on to mass-based grievance mechanisms, whereby the formal enshrinement of power-sharing enables actors to commit to mutually beneficial practices by reducing the risk of future defections (Gates et al. 2016; Hartzell et al. 2001; Magaloni 2008; Mattes & Savun 2009; Walter 2002). Especially in distrust-laden post-conflict environments, such additional benefits may be crucial. However, as they focus on informal, weakly-institutionalized and frequently unimplemented peace treaty provisions (Jarstad & Nilsson 2008; Jarstad 2009), many existing studies may thus predominantly capture ad-hoc decisions of elites belonging to different warring factions and, in this way, echo the behavioral concepts of studies on power-sharing practices. Existing studies that do investigate the merits of durable institutions also rarely differentiate between the corporate and liberal types, often focusing on the mere presence of proportional electoral systems,

parliamentarism, and federal state structures, measured as dummy variables (Cohen 1997; Pospieszna & Schneider 2013; Reynal-Querol 2002, 2005; Saide-man et al. 2002; Schneider & Wiesehomeier 2008; Selway & Templeman 2012), with some exceptions, particularly in the literature on federalism (Christin & Hug 2012; Hale 2004b). Additionally, while arguments provided by these studies would similarly imply higher peace-inducing effects of corporate forms of power-sharing (due to their higher enforceability), this distinction is not considered either.

This point is thus predominantly an empirical one, calling for an analytic disaggregation of power-sharing into its different institutional types. However, as I argue below, accounting for the institutional basis of power-sharing is also relevant theoretically, as it is likely to crucially structure the degree to which power-sharing practices engender "second-order" grievances, which might spark renewed violence "down the road". I consider the additional relevance of this factor in the next subsection, where I turn to the group-specific focus of much of the literature on power-sharing and grievances.

2.2.3 Indirect side-effects on groups excluded by power-sharing

As alluded to above, a second characteristic of the grievance strand relates to its predominant focus on the non-core groups that are included by power-sharing. Indeed, most studies' arguments focus on the benefits of power-sharing practices for those groups that are given office in central government or those that are awarded political autonomy. However, the grievance mechanism gives important reasons to suspect that power-sharing should exert second-order effects that extend beyond included groups. While these are side-effects, they are arguably no less essential. Indeed, they should be of vital importance to ensure both the sustainability of power-sharing practices and of its peace-inducing effects. Most notably, drawing on theoretical contributions and observations from individual cases, power-sharing should also affect the grievance formation process for non-core groups that remain excluded from its reassurances and for

the core-group whose former dominance is circumscribed by it. However, these indirect effects are currently not only under-theorized, but call for additional empirical comparisons as well.

Excluded non-core groups

As concerns the first of these two group types, power-sharing often excludes some non-core groups at the expense of others. In the literature on power-sharing in general, these have received almost no scholarly attention at all until fairly recently (Agarin et al. 2018; Stojanović 2018). This type of groups predominantly includes micro-minorities that are not considered large or “significant” (Lijphart 1977:31) enough to merit consideration when crafting power-sharing arrangements, such as the Roma and Jews in Bosnia and Herzegovina or the Twa and Ganwa in Burundi. However, it also encompasses larger groups that are excluded from power-sharing arrangements for other reasons, such as Palestinian Arabs in Lebanon or Madhesi and Tarai groups in Nepal’s initial transitional power-sharing arrangement of 2006 (Juon 2020; Stojanović 2018).

Of course, existing studies do consider excluded groups by comparing their conflict risks with those of included groups (Cederman et al. 2013). However, it seems likely that a second comparison would be fruitful as well: Beyond their absolute political attainments (which are captured by the large share of existing arguments and investigations), their *relative* status position should be of crucial importance as well. In other words, it not only matters whether non-core groups are excluded, but whether they are excluded *while other groups are, in contrast, included*. The grievance mechanism’s intermediate step of inter-group comparison would certainly suggest that such relative attainments might matter.

Case studies support the expectation that *relative* status comparisons induced by power-sharing do play a role. In several cases, power-sharing has been shown to diminish the status gap between the core-group and targeted non-core groups, but at the same time to have opened up new status hierarchies within the overall non-core group population. For example, power-sharing in

Kosovo appears to have bolstered the inclusiveness of the political system for larger ethnic minorities, especially the Serbian population. However, it appears to have conversely reinforced the difference between them and smaller groups, such as the Roma, Ashkali and Egyptians. These excluded groups' relative political position may even have shifted further downwards, with power-sharing thus causing new, "second-order" grievances (Krasniqi 2015). Similar unequal outcomes have been shown to apply in many other power-sharing systems that exclude some groups at the expense of others, for example in Belgium, Burundi, and Lebanon (Stojanović 2018). Unequal treatment may also create resentment in asymmetric federal systems among groups that receive comparably lower levels autonomy, for example in several of India's linguistically-defined states (at Kashmir's institutionally privileged position, see Ghai 2002) or in Canada (over Quebec's special treatment, see Gibbins 1998, cited in Bickerton 2011). Similar developments have also been observed for power-sharing in peace treaties, where excluded groups are resentful over their exclusion from agreements benefiting other segments (Jarstad 2008; Mehler 2009).

Going back to the case for considering the institutional basis of power-sharing raised in the last sub-section, the relevance of such grievance-inducing side-effects is likely higher where power-sharing is based on corporate criteria. This is so, as corporate power-sharing institutions are almost by default forced to discriminate between different non-core groups (Lijphart 1994; McCulloch 2014). In such arrangements, excluded non-core groups are now not only *de-facto* (as might be the case under alternative institutional systems) but also *de-jure* excluded from power. Such institutionally-enshrined differential treatment additionally provides a concrete and visible target for the attribution of blame necessary for the creation of grievances (Cederman et al. 2013). For example, Jewish and Roma citizens might not be able to enter the three-member Bosnian presidency in the absence of power-sharing either, but the ethnic split of Presidential posts between the "constituent peoples" means they are now *a priori* institutionally barred from running for office. A lawsuit which

resulted in the condemnation of these unequal political rights as discriminatory by the European Court of Human Rights certainly indicates that at least some members of these groups feel aggrieved about their legal exclusion from the Presidential and other political offices (Bell 2013; Milanovic 2010). The violent escalation of ethnically-based protests by Nepal's Madhesi and Tarai communities against the transitional constitution containing strong elements of corporate power-sharing that excluded them suggests that such situations might also spark wider, secondary conflicts (Tamang 2011).

Formerly-dominant core groups

Second, power-sharing also almost by definition diminishes the relative political status of formerly-dominant core-groups. Where they were able to dominate the political scene before, especially if they were demographic majorities, the logic of power-sharing means that this position is now heavily and visibly circumscribed. This may in turn lead to the formation of core-group grievances and induce backlashes against power-sharing. In this vein, Horowitz asserts that "minorities may prefer consociation; majorities do not" (2014:8), while Wippmann (1996:209) warns that "members of a majority ethnic group may come to resent what they view as unfair privileges conferred on members of other ethnic groups". As the example of "Hutu Power" ideology in Rwanda indicates (Straus 2006), such backlashes risk not only overturning frequently volatile power-sharing arrangements, but also, at least under some conditions, sparking renewed, sometimes extreme, forms of violence.

However, beyond scattered observations from select cases, such backlashes have not been theorized upon in the literature on power-sharing and certainly not systematically investigated. Horowitz notes that "discontent with the consociational scheme has been greater among majorities than minorities", indicating at least a relative loss of confidence in the political system among core-group citizens in Northern Ireland, Belgium, Bosnia and Herzegovina, and Burundi (2014:12). Similarly, discussing the case of Kosovo, Bieber (2004:236) points to the likelihood of mandated minority representation attracting the ma-

majority's "resentment". And Ghai (2002:146) observes that the power-sharing pact in Cyprus' independence constitution was "resented by the Greeks for giving disproportionate powers to Turks".

Two peripherally related literatures bolster the expectation that a more expansive investigation into majority backlashes caused by power-sharing might be fruitful. A first is the literature on multiculturalism, especially studies on how majority group members perceive Western countries' multicultural policies for immigrants. Several of these studies indicate that these accommodative policies, which share some overlaps with power-sharing, may create resentment by majority group members who feel threatened over their perceived cultural and political status loss (Citrin et al. 2014; Hooghe & de Vroome 2015; Jackson & Doerschler 2016; Kauff et al. 2013; Schlueter et al. 2013; Wright 2011, cf. Mounk 2018). A similar process seems likely to apply to power-sharing as well, which generally comprises far stricter and often even more politicized institutional measures. A second is the literature on the determinants of genocide and ethnic cleansing. Among a plethora of other factors, several studies indicate that ethnic status reversals, for example induced by foreign occupation, are a key contributing factor which increase the risk of ethnic cleansing. Most importantly, they show that, where formerly dominant groups are (temporarily) put into a subordinate role through occupation, resentment may build against newly-empowered groups that are allied with occupant forces. If, after the war, these formerly dominant groups are subsequently able to reclaim their politically central status position, this resentment may be a key motivating factor behind the ethnic cleansing of the now again-subordinate group (Bulutgil 2015, 2016, 2018; Midlarsky 2005; Petersen 2002). While power-sharing does not entail a full status reversal as foreign occupation might, similar resentment mechanisms might still be triggered by it and make violent retribution against non-core groups more likely (Straus 2006).

Again, due to the high visibility of anti-majoritarian elements, core-group grievances seem particularly likely to arise where power-sharing relies on corpo-

rate criteria. Going by existing case studies, these tendencies are exacerbated where they coincide with core group perceptions that power-sharing represents a threat to their own particular vision of national statehood. For instance, adopted in the aftermath of a violent independence struggle and amid popular fears of a “Greater Albanian” project that might split up the state, the 2001 introduction of mainly cultural power-sharing in (North) Macedonia has reportedly been met with a predominantly hostile reaction from ethnic Macedonians, sparking a large protest movement. Not only do many ethnic Macedonians perceive power-sharing as constituting a loss of security, but also as increasing the likelihood of losing part of “their” state territory (Brunnbauer 2002). Similar resentment has been observed among ethnic Bosniaks in Bosnia and Herzegovina, with many citizens rejecting ethnic power-sharing as a foreign-influenced construct that makes secessionism more likely (Basta 2016). While predominantly appearing in post-conflict societies, accounts of similar backlashes also feature prominently in other contexts where ethnically-defined, territorial power-sharing institutions reinforce existing fears of state breakup, for instance as regards autonomy arrangements granted to Catalonia in Spain and to Quebec in Canada (Basta 2017).

This point thus calls for more theoretical attention to “second-order” grievances induced by power-sharing and their effect on subsequent conflict risks. Averting these side-effects on excluded non-core groups and the formerly dominant core group may be no less central to securing both the sustainability of power-sharing and inter-ethnic peace than its “primary” and intended effects on included core-groups. Evidence from several cases again prominently raises the question of institutional design: the high visibility of group-wise unequal treatment under corporate forms of power-sharing seems to make backlashes against it by both excluded non-core groups and the formerly-dominant core group comparably more likely than under its liberal alternative. However, such expectations clearly need to be theorized on more explicitly and empirically investigated by future research.

2.2.4 Attitudinal evidence for grievance-mechanisms

Beyond the theoretical rationale for considering the institutional basis of power-sharing and the groups disadvantaged by it, there is also a related need to empirically investigate attitudinal evidence for the grievance mechanism. In the absence of comparable, ethnically-attributed, and time-variant attitudinal evidence, most studies are forced to take the leap directly from horizontal inequalities to conflict. Hence, they are unable to directly consider the intermediate steps of the posited mechanism. Of course, this does not invalidate their findings, especially as it seems unclear which other mechanisms might cause the attained correlation (Cederman et al. 2013). However, considering that power-sharing might exert highly heterogeneous impacts on various groups, such evidence would be important not only to determine how it shapes non-core group grievances, but also the conditions under which it proves acceptable to excluded non-core groups and to the formerly dominant core group as well.

Of course, there are studies investigating the impact of specific inclusive institutions and practices on popular attitudes towards the political system, which might partly proxy for grievances. Several of the investigated institutions are also often seen as components of power-sharing – such as proportional electoral systems or federal state structures (for example, Aarts & Thomassen 2008; Kittilson & Schwindt-Bayer 2010). However, it appears that none of the existing studies on the link between power-sharing components and attitudes consider what has been argued to be the *sine qua non* of power-sharing: the institutionalized inclusion of non-core groups into central government (Lijphart 2004). Other studies investigate the impact of consensus democratic institutions on political legitimacy (for example, Anderson & Guillory 1997). Consensus democracies, while related to power-sharing, are a broader regime type (Andeweg 2000) with only partial overlaps (Bogaards 2000). As they not necessarily include grand coalitions either, consensus democracies generally represent a far less rigid measure (Lijphart 1989). Given arguments

that executive power-sharing may exert different or stronger effects than other components of power-sharing (Christensen 2015), the evidence attained from investigating these comparably less rigid, and ethnically undifferentiated, inclusive institutions is certainly instructive. However, their findings cannot be assumed to automatically map onto more rigid power-sharing concepts overall.

Similar points can be raised as regards sophisticated studies investigating the impact of multicultural policies on mass attitudes. These show that for specific minorities, cultural recognition (including aspects that might be conceived as vital components of cultural power-sharing) alleviates feelings of threat and reduce perceptions of belonging to a discriminated group. Conversely, these studies also show that it may engender backlashes among some individuals belonging to the majority group, especially those who are in an economically weak position or exhibit authoritarian value orientations (e.g. Citrin et al. 2014; Hooghe & de Vroome 2015; Jackson & Doerschler 2016; Kauff et al. 2013; Schlueter et al. 2013; Wright 2011, cf. Mounk 2018). Again, while these findings are instructive, they are not necessarily transferable to fully-fledged forms of power-sharing, which often comprise far more restrictive measures for established non-core groups, rather than limited cultural assurances for often comparably small, albeit politicized, immigrant communities.

Possibly even more important than the consideration of specific institutions, however, is the current paucity of evidence concerning the *ethnically-differentiated* impacts of power-sharing on mass attitudes. However, this should be particularly important in light of their frequently unequal treatment of different groups, especially in corporate types of power-sharing. While offering compelling evidence of “citizen-averaged” effects, most attitudinal studies do not investigate whether group-differentiated power-sharing translates into diverging assessments of the political system along group lines as well. With few exceptions (Hänni 2017; see also the contributions on multiculturalism cited above), existing studies either do not consider ethnic distinctions among respondents at all or distinguish between the majority and “the minority”

without considering potentially crucial differences between different non-core groups, some of which are accommodated by power-sharing, while others are left out (Bühlmann & Hänni 2012).

Of course, in many of these studies ethnic considerations may be only of secondary importance. For example, the lack of group-differentiated analysis may not be a key issue when studying formally group-blind institutions, such a proportional electoral systems or consensus democracy. It seems likely, however, to overlook the diverging impacts of corporate power-sharing, such as ethnic government quotas or asymmetric federal systems. Especially when considering recent arguments emphasizing how power-sharing includes some groups at the expense of others (Agarin et al. 2018; Stojanović 2018; see above), a re-appraisal of such a group-differentiated effects seems in order.

This point is thus an empirical one, calling for complementing studies of how power-sharing affects conflict risks with individual-level evidence on the mechanism's intermediate attitudinal steps. Beyond bolstering existing investigations into the "main" effects of power-sharing on the construction of grievances, such an endeavor would also yield crucial evidence on its alleged side-effects on excluded non-core groups and on the formerly-dominant core group. Especially for core groups, indirect grievances might not result in directly-observable ethnic conflict, but nevertheless have important ramifications. For instance, they might conceivably lead to increased pressure on central governments to withdraw non-core group protections, which in turn might spark "downgrading"-related conflicts later on (Cederman et al. 2013).

2.2.5 The long-term: Does the alleviation of grievances erode underlying ethnic divisions?

So far, this discussion of the grievance-mechanism has followed the major empirical contributions in this strand by mostly bracketing the issue of ethnic identity salience. Yet, for the formulation of grievances, this clearly forms a nontrivial factor as well. Indeed, for inter-group comparisons between an ethnic "us" and "other" to be made in the first place, group "members" need

to be at least moderately conscious of "their" group identity (Brubaker 2002; Hale 2008). Of course, this factor has not been ignored by the literature on power-sharing and grievances. However, its underlying assumptions on ethnic identity and predictions resulting from it would arguably benefit from being put on a more solid theoretical and empirical basis.

Studies broadly emphasizing the grievance mechanism cluster into two views on the relationship between power-sharing and ethnic identity salience: On the one hand, there are wide-spread arguments that the gradual reduction of horizontal inequalities induced by power-sharing makes the politicization of ethnicity less likely and, in turn, gradually decreases the salience of ethnic divisions. In this way, power-sharing might make itself "superfluous". On the other hand, there are numerous contributions that conceive of ethnic identifications as a largely permanent feature of the political landscape, which are mostly unaffected by power-sharing. In this way, power-sharing might be seen as an enduring solution for enduring divisions. I now discuss arguments from and evidence from both views. This highlights in particular the need to specify the hypothesized mechanisms in the first view, and the need to empirically test the contrasting predictions of both.

Arguments in the first view are united in their expectation that power-sharing at the elite level will, in the long run, "depoliticize segmental divergences" at the mass level, thus "render[ing] itself superfluous" (Lijphart 1977:228). Not only will an extended period of power-sharing enable different ethnic groups to "resolve some of the major disagreements", but it will also "create sufficient mutual trust at both elite and mass levels" to enable gradual transitions away from power-sharing principles (ibid.). As "inter-elite cooperation becomes habitual", writes Lijphart, so can norms of inter-segmental accommodation be expected to gradually spread to the masses, thus resulting in weakening divisions along segmental lines (Lijphart 1969). In other words, the alleviation of grievances is expected to reduce political divisions associated with ethnicity, which in turn decreases the salience of ethnic identifications

among the masses itself.

While the first view perceives of power-sharing as a transitional device, it may conversely also be seen as a "fixed destination" (Maphai 1996:78, cited in McCulloch 2017). In this second view, ethnic identifications are seen as much more resilient over time - while power-sharing can address the grievances constructed on their basis, it is unlikely to erode their underlying identity boundaries, at least in feasible time horizons. For example, while acknowledging the potential of identity shifts over longer time periods, Cederman and colleagues, argue that "where time spans are more limited ... the assumption of stable group identification makes a lot of sense" (Cederman et al. 2013). Similarly, McGarry and O'Leary (2008:74) summarize the rationale for accommodationist strategies by pointing out that alternative strategies such as "engineering mixing and integration are either unrealistic in any reasonable time horizon" during which ethnic identities are likely to prove stable (McGarry & O'Leary 2008:74). While such arguments do not preclude power-sharing eventually rendering itself "superfluous", they do not realistically expect such processes to be feasible in the time horizons available to institutional engineers.

Partly due to the predominant interest in the eventual behavioral outcome, the outbreak of violent conflict, partly due to the inherent difficulty of observing and measuring ethnic salience, the existing evidence for both views is inconclusive. Lijphart (1968) builds his argument for the "depillarization" view by referring to the case of the Netherlands, where inter-confessional power-sharing practices were associated with the decreasing political salience of religious cleavages. These had pitted Roman Catholics and Protestants against Liberals and Socialists, with political conflict polarized around socio-cultural issues such as religious education, suffrage, and abortion rights (Andeweg 2019). Not only did an extended period of coalition government between these groups create multiple cross-community stakeholders who learned to reach mutually beneficial compromises, but it also eventually fostered a "spirit of tolerance" among the wider citizenry, leading to an erosion of the

religious "pillars" (Lijphart 1968). Similar processes of "depillarization", have also been observed in the three other "classical" consociational cases in Western Europe (Andeweg 2019).⁵

While intuitively appealing and illustrated by these cases, the precise mechanism whereby "depillarization", and thus an erosion of ethnic identity salience, occurs remains underspecified (Dixon 2012; McCulloch 2017). Moreover, it remains unclear whether power-sharing practices at the elite-level indeed resulted in an erosion of identity-based divisions in the "classic" consociational cases, as theoretical accounts based on Lijphart would suggest. On the one hand, a number of structural and cultural changes affecting these cases may have constituted more important influences in this regard, such as the demographic disappearance of originally clear-cut voting bases or the gradual secularization of Western Europe (Plasser et al. 1992). On the other, it remains disputed how strong the purported inter-group divisions in these cases actually were at the outset, with the sequencing between mass divisions and elite accommodation often cast in doubt (Andeweg 2000).⁶ As all of these cases concern comparably homogeneous, Western European countries, it additionally remains unclear if such processes, where they were indeed induced by an extended period of power-sharing, are transferable to more divided contexts in other parts of the world, for example post-colonial states in the wake of civil

⁵In Belgium, religious cleavages organized in Catholic, Socialist and Liberal pillars were dealt with similarly as in the neighboring Netherlands, resulting in their gradual erosion, although accompanied by an increasing salience of linguistic cleavages (Andeweg 2019; Deschouwer 2006). In Austria, post-war "Lager" mentality, characterized by polarized religious, class, and national identities, was addressed by an extended period of grand coalition government between the Austrian People's Party (ÖVP) and the Social Democrats (SPÖ). During this period, lasting until 1966, societal pillarization subsided, thus eventually enabling the political system to transition to a more majoritarian mode of decision-making (Plasser et al. 1992). Finally, in Switzerland, divisions between Catholics and Protestants, which crystallized during its brief civil war and during the federalization process, were contained and gradually weakened through their proportional inclusion into central government (Lehmbruch 1993, 2003) and through significant cultural autonomy (Bächtiger & Steiner 2004), also enabling an erosion of the religious cleavage.

⁶For example, Deschouwer (2006:76) argues that it was only "after the initial accommodative agreement that the real institutionalization, or pillarization, of the subcultures took off" in the Netherlands. Rather than constituting a simple reaction to salient political divisions, power-sharing may have played a role in the politicization of cultural cleavages in organized form in the first place.

war.

However, together with the extension of consociational theory to non-European cases (cf. Bogaards 2000), similar views of "depillarization" induced by power-sharing have since indeed been articulated as regards these possibly more difficult contexts as well. In particular, several studies of power-sharing in peace-agreements theorize on its long-term effects on societal divisions. For instance, Cammett and Malesky (2012:986) argue that, over the long-run, power-sharing can "foster and reinforce a cooperative atmosphere", thus gradually reducing the need for its inclusive provisions. Similarly, Hartzell and Hoddie (2003) theorize on the existence of a long-term mechanism whereby power-sharing makes itself obsolete. According to them (ibid: 320), this depends on "groups having learned to transact with one another and perhaps having even developed new rules of conflict management on the basis of their interactions at the political center" (cf. also Linder & Bächtiger 2005:863). A similar elite-centered argument is made by Graham, Miller, and Strøm (2016), who hold that power-sharing can lead to a culture of political accommodation among elites, with the need for strict institutional circumscription thus fading over time as these inclusive norms are extended to the masses.

In spite of their popularity, the empirical evidence for such long-term depillarization effects in these contexts is scarce. Sisk (1995) even argues that its purported effects of long-term moderation can be traced back to (consociational) power-sharing in only one post-conflict case, namely in South Africa's transitional post-Apartheid arrangement. At least, Sisk and Stefes' (2005) description of this case indeed reflects the hypothesized mechanism whereby an initial period of shared government creates sustained trust between formerly opposing sides and eventually erodes underlying identity-based divisions. In conjunction with economic and cultural reassurances for the different segments, they argue that this fostered an atmosphere whereby South Africa's subsequent transition to a more integrative political system became possible. As a key characteristic of South Africa's power-sharing system was its reliance

on liberal criteria (McCulloch 2014), this again highlights the potential role of the underlying institutional system in conditioning the effects of power-sharing practices.

While South Africa's post-Apartheid transition appears to fit with a "de-pillarization"-logic, evidence from other cases appears more mixed. Some case descriptions partly correspond with the long-term dynamics expected by depillarization-arguments. An example is Northern Ireland's regional power-sharing arrangement, where, in spite of continuing electoral dominance of ethnonationalist parties, the population seems to be gradually converging around more moderate political views (Mitchell et al. 2009), although societal divisions remain sharp (Hayes & McAllister 2013). Such political moderation, moreover, has enabled incremental institutional reforms that "softened" some of the more rigid aspects of its power-sharing structure, although it is clearly far from having made itself "superfluous" (McCulloch 2017). Similar developments appear to be under way in South Tyrol's local power-sharing system, equally accompanied by increasing pressure to remove parts of the initially strict power-sharing provisions (ibid.; Larin & Rögglä 2016).

Other case descriptions appear less in line with "de-pillarization" processes, and more with the alternative of relatively stable ethnic identifications. These indicate that, in contrast to cases like the Netherlands, an erosion of group salience might be less realistic where power-sharing was adopted in the wake of mass violence. This is most pronounced in Lebanon, where power-sharing was adopted explicitly as a transitional measure aimed to induce an erosion of ethnic identity salience, but has proved extraordinarily long-lived. The hope expressed in its constitution (originally in 1943, expanded in 1990) that its religiously-split Chamber of Deputies take "the appropriate measures to eliminate political sectarianism" (art. 95), thus enabling its own abolition and a transition to elections "on a national basis" (art. 22), has clearly not materialized. Instead, continuing divisions have cemented the strict power-sharing system, precluding a transition away from it even after decades (Bogaards

2019a; Ghosn & Khoury 2011; Rosiny 2015). Other prominent cases, such as Bosnia and Herzegovina, have also remained locked in power-sharing characterized by the continuing dominance of ethnonationalist hardliners (Keil & Perry 2015; Manning 2004), which appears undergirded by strong inter-segmental divisions and high distrust (Leonard et al. 2016).

Clearly, the conditions whereby power-sharing engenders "depillarization" dynamics need to be further theorized, especially as regards the precise mechanism and its scope conditions. While evidence from existing studies appears inconclusive, some observations point to a potential role of its institutional basis and of the wider societal context. Again echoing the arguments of the last section, to systematically investigate evidence for the contrasting expectations of "depillarization" or stable identifications views, it seems vital to consider attitudinal evidence across a large number of cases. This would not only allow to test which time horizons are needed for changes in ethnic salience, but also to control for structural confounders whose impacts need to be differentiated from those directly induced by power-sharing.

In sum, arguments that power-sharing reduces conflict risks by alleviating grievances are persuasive and rest on convincing empirical evidence. Most importantly, they help us understand the peace-inducing effects of power-sharing practices on included non-core groups. However, they appear incomplete. First, the reliance of most studies in this strand on a behavioral concept of power-sharing makes it difficult to judge how power-sharing can or should be institutionally "engineered" in divided places that lack coalescent elites or long-standing inclusive norms. Second, arguments on how power-sharing alleviates the grievances of included groups should be extended by considering how it affects non-core groups that remain excluded from its protective "umbrella" and the core group whose former political dominance is circumscribed by it. In order to understand emerging conflict patterns during power-sharing, these arguably form an important missing "puzzle piece". Third, an empirical investigation into the intermediate, attitudinal steps implied by the grievance-

mechanism would be of great importance, especially to trace its heterogeneous impacts on different groups' grievances. Fourth, and relatedly, the contrary arguments whereby power-sharing affects the salience of ethnic identifications should be theoretically specified and investigated. Again, this clearly forms a key factor when considering effects of power-sharing on conflict patterns in the long-term.

2.3 Opportunity-based mechanisms

Having reviewed the large literature on the effects of power-sharing through the grievance mechanism, I now turn to arguments emphasizing its effects through the political opportunity structure. I again start off by discussing the overall opportunity-based mechanism described by scholars who analyze the impacts of power-sharing on conflict in such terms. Thereafter, I focus on two theoretical and empirical avenues that are critical issues within this approach. First, I consider the issue of reverse causality, whereby power-sharing might be predominantly adopted in difficult contexts. This makes it difficult to causally attribute attained correlations between power-sharing and conflict to the latter. I argue that this issue is exacerbated when considering that many contributions in this strand focus on one particular type of power-sharing - its corporate type, which is often adopted in the wake of particularly destructive violence and amid continuing inter-ethnic distrust. Second, I discuss a third perspective on the long-term effects of power-sharing on ethnic identity salience. In contrast to the "depillarization" and "stable identifications" views already discussed above, scholars in this third view argue that power-sharing *increases* the salience of ethnic identifications in the long term, engendering centrifugal dynamics. While such arguments are persuasive, their contrast to the before-discussed arguments from grievance-based approaches call for more attention to how the institutional type and gradual erosion of horizontal inequalities might play into this process. Furthermore, I again raise the importance of considering attitudinal evidence to test these contrary expectations.

2.3.1 Increasing opportunities to revolt: from power-sharing institutions to paralyzed states, empowered non-core groups, and destabilizing incentives

Where grievance-based arguments focus on the conflict-alleviating effect of power-sharing among the masses, a second strand in the literature in contrast emphasizes its conflict-inducing effects by increasing elite opportunities to revolt. This also builds on a long scholarly tradition, advancing similar factors as advanced by political opportunity theory that has long dominated the study of social movements (Almeida 2003; Goldstone & Tilly 2001; McAdam 1982; cf. Meyer & Minkoff 2004; Shadmehr 2014). In this view, contestations against the state emerge when three factors coincide: First, the creation of "insurgent consciousness" through the attribution of blame for perceived injustices to the state. Second, shifts in the political opportunity structure in ways that concurrently weaken the state and strengthen aggrieved groups. Third, increases in aggrieved groups' organizational resources, for instance through communication networks or established and hierarchical leaderships, which enable them to overcome free-rider problems that would otherwise inhibit mobilization.

Mirroring these basic arguments of the political opportunity approach, a large literature within this strand emphasizes ways through which power-sharing concurrently weakens the central state, affects its perception by sending a reputational signal on state weakness, increases incentives for non-core group elites to revolt, and augments their organizational capacity to do so. Summarizing these views, Rothchild and Roeder (2005b) argue that power-sharing institutions "empower ethnic elites from previously warring groups, create incentives for these elites to press radical demands once the peace is in place, and lower the costs for these elites to escalate conflicts in ways that threaten democracy and peace". Figure 2.2 provides a graphical overview on the basic mechanism by which power-sharing increases ethnic conflict risks that emerges from literature within this strand.

While not necessarily limited to it, the expectation that power-sharing in-

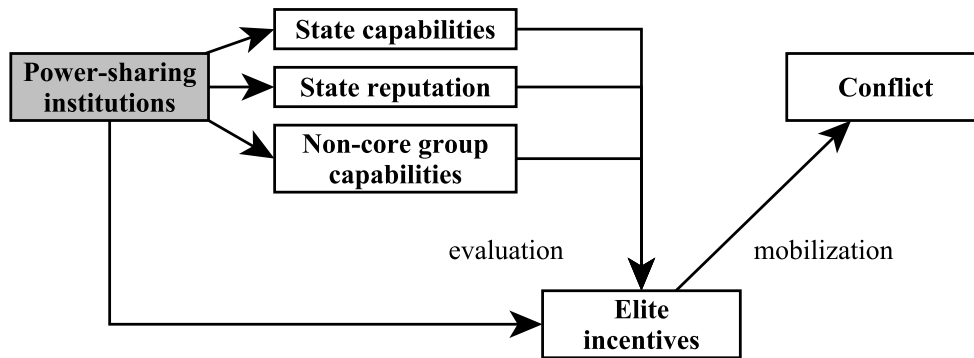


Figure 2.2: From power-sharing institutions to conflict via political opportunity

Note: The figure depicts the effects of power-sharing institutions on three key elements in the political opportunity structure connecting the state and potential challengers from among its ethnic non-core groups: state capabilities, state reputation, and non-core group capabilities.

creates opportunities to revolt is usually derived from an explicitly institutional concept of power-sharing. This allows scholars to juxtapose the political and societal pressures to adopt power-sharing at critical junctures with what they argue are its long-run adverse, and sometimes unanticipated, consequences. In this vein, Rothchild and Roeder (2005a) hold that the “very same institutions” that end conflict in a divided society “are likely to hinder the consolidation of peace and democracy over the longer term.” Similarly, Sisk (2010: 105) asserts that “the war-ending peace agreement itself—to stop the immediate fighting—may well be counterproductive to long-term peace”. And, Jarstad (2008: 112-113) warns that inclusive and constraining provisions frequently employed to end conflict “can have negative consequences for peacebuilding as well as on democratization”.

A first part of the overall argument arising from these studies focuses on how power-sharing decreases central state capabilities. In many contexts, especially in the wake of civil war, power-sharing necessitates the government inclusion of political or military hardliners with mutually incompatible, immoderate views and questionable democratic orientations (Sriram & Zahar

2009; Spears 2002). This risks creating highly immobile governments and institutional deadlock, especially if these actors are endowed with mutual veto rights (Roeder 2005; Rothchild & Roeder 2005a; Spears 2000).

A second part complements these arguments on how power-sharing shapes objective state capabilities with how it affects their perception by potential challengers. In particular, some scholars argue that, through power-sharing concessions, states build a "reputation" of being accommodative, thereby signaling their inability or unwillingness to react to future challenges with force. This in turn affects the calculus of potential challengers on whether or not contestations are a feasible instrument to achieve their political objectives. Predominantly articulated as regards self-determination movements, such reputation-effects have been held as explaining both the frequent reluctance of central governments to grant autonomy when facing multiple potential challengers (to avoid attaining a reputation of being accommodative) and the indirect destabilizing effects of such concessions, which encourage other groups to "try their luck" and revolt (Sambanis et al. 2018; Walter 2006a,b, 2009). As Bormann and Savun (2018) show, similar reputation dynamics may also apply for political power-sharing concessions, whereby inclusion into government encourages the emergence of additional claims by left-out actors.

A third part in opportunity-based arguments addresses the destabilizing incentives power-sharing may create for elites representing included non-core groups. Especially where power-sharing institutions structure government access along ethnic lines, they risk encouraging intra-group competition for political office, which incentivizes elites occupying reserved seats to engage in destabilizing outbidding processes. Exclusively faced with challengers from within their own respective segments, for example when competing over reserved seats, non-core group elites face strong incentives to press maximal demands lest they be outbid by emerging rivals promising more benefits to their segmentally-defined electorate. (Rothchild & Roeder 2005b,a; Rabushka & Shepsle 1972; Horowitz 1985; Zuber & Szöcsik 2015)

Additionally, some contributions in this strand argue that power-sharing may also create incentives for excluded non-core groups to revolt. Specifically, the creation of strict, predetermined elite cartels may put pressure on other, excluded and possibly previously demobilized, groups to "fight their way" into the agreement (Jarstad 2008:119, cf. Gates et al. 2016:513). In many cases, due to the rigidity of elite cartels, newly emergent social groups left out of formal power-sharing provisions may have no other choice but to aim at the subversion of the entire system in order to later have a chance at government inclusion (Jung 2012; Sriram & Zahar 2009). Similar arguments have been prominently made in the literature on ethnofederal arrangements more specifically, whereby concessions granted by the government to specific groups encourage others to "try their luck" and engage in violent bargaining tactics to attain similar degrees of accommodation (Bormann & Savun 2018; Sambanis et al. 2018; Walter 2006b, 2009). An example for such mobilization by excluded groups have been Burundi's repeated attempts at institutionalized power-sharing, where excluded factions have continued to fight for inclusion and where the number of parties proliferated in attempts to grab a slice of the emerging coalition government (Jarstad & Sisk 2008; Lemarchand 2007).

A fourth argument focuses on the increased organizational resources that power-sharing provides to non-core group elites, especially where it contains an element of territorial autonomy (which is an indispensable element of "fully-fledged" power-sharing systems, cf. Lijphart 1977, 1994). The creation of autonomous government tiers risks giving local leaders, often equated with ethnic entrepreneurs in this literature, more resources with which to credibly threaten the escalation of bargaining demands. For instance, autonomous devolved government institutions create a legitimate leadership behind which independence movements can rally; furthermore, authority over coercive organs can level the playing field with the central state, thus making threats of escalating conflict more credible and rendering the escalation of bargaining tactics more tempting (Roeder 2007; Treisman 1997).

The evidence for such destabilizing bargaining behavior engendered by power-sharing appears large, especially over the long-term. In correlational terms, power-sharing is indeed associated with severe instability and frequent secessionist conflict, especially if it contains ethno-federal elements which show high propensities of breaking down (Bunce 1999; Hale 2008). The partly violent dissolution of former socialist states, such as the Soviet Union, Yugoslavia, and Czechoslovakia, are particularly oft-cited examples whereby critiques of corporate power-sharing institutions have illustrated their purported side-effects (Bunce 1999; Suny 1993; Slezkine 22; Roeder 1991). More evidence comes from recent case studies. For example, as concerns the prominent case of Bosnia and Herzegovina, it has been argued that power-sharing “provisions were necessary to achieve peace” initially, but that they later “proved daunting to the construction of a viable, integrated state” (Manning 2004) and that they had “prevented Bosnia from becoming a functional state” (Bieber & Keil 2009:356) even decades after their adoption, with a paralyzed central government and continuing secessionist ambitions of the Republika Srpska. Similarly, Lebanon’s power-sharing government remains deadlocked on the most important issues, with countervailing demands made by elites mobilizing exclusively their own ethnically-defined constituency (Bogaards 2019a; Ghosn & Khoury 2011; Rosiny 2015).

2.3.2 Counterfactuals: Difficult contexts and institutional set-ups

Studies advancing political opportunity-based arguments clearly make powerful arguments and underline them with compelling evidence from many cases. However, two related empirical problems make a causal interpretation of these findings difficult.

A first potential problem is selection-bias, as predominant attention is paid to the most conflict-ridden contexts such as Bosnia and Herzegovina and Lebanon. Of course, such a focus is understandable, given that preventing the kind of inter-ethnic atrocities seen in those places forms a key rationale

for the adoption of power-sharing. However, the focus on these post-conflict cases might potentially neglect evidence from other places where power-sharing had more beneficial effects and never resulted in visible conflict escalation processes that gain attention in the literature (Bormann et al. 2019; Cederman et al. 2013; see also Hug 2003). Grigoryan (2012), for instance, indicates that skepticism against ethno-federal arrangements rests on evidence from a very limited number of prominent cases, holding that a large number of autonomy arrangements understood in a broader way did not in fact collapse, citing cases such as India, China, Switzerland, and Nigeria. Beyond the enduring legacies of past conflicts, the focus on specific post-conflict cases might also mask the conditioning role played by societal characteristics that mean power-sharing might exert more beneficial impacts in others. Bakke (2015), for example shows that the impact of different aspects of territorial autonomy is crucially mediated by inter-regional inequalities and co-partisanship between the center and autonomous units. As ethnic conflict often exacerbates these inequalities and leads to political polarization, this might mean that a focus on post-conflict cases risks underestimating the potential for corporate power-sharing in other contexts where it is not preceded by ethnic conflict.

A second fundamental empirical difficulty that many studies in this strand face is the identification of appropriate counterfactuals. Power-sharing institutions are predominantly adopted in the most difficult contexts (Cederman et al. 2013): in ethnically divided places (Schneider & Wiesehomeier 2008; Selway & Templeman 2012), in many cases after previous failed experiments with more integrative institutional set-ups (Anderson 2016) and when mutual distrust means that half-hearted measures may prove "too little, too late" (Cederman et al. 2015a; cf. McGarry & O'Leary 2008:86). Hence, its association with continuing instability may not be its own making. Rather, in many cases, both its adoption as well as subsequent conflict may be the result of enduring divisions or of continuing legacies of mass violence (McGarry & O'Leary 2009; Pospieszna & Schneider 2013). In this alternative view, tensions and violence

in power-sharing systems such as Bosnia, Lebanon, and Burundi, might thus be the result of previous conflicts that necessitated their adoption in the first place.

Indeed, several comparative studies indicate that, when addressing the conditions initially underlying its adoption explicitly, more systematically positive relationships with subsequent stability tend to emerge (Cederman et al. 2015b; Hartzell & Hoddie 2015; Wucherpfennig et al. 2016). Moreover, in the presence of deep pillarization and risk of immediate conflict, power-sharing may still be the "least worst option" (McCrudden & O'Leary 2013:490), with alternative set-ups possibly being prone to even worse side-effects. While these contrary arguments do not a priori invalidate the existence of destabilizing elite incentives, they clearly raise the question which alternative institutional arrangements might prove acceptable in the wake of mass violence while avoiding the much-criticized side-effects of power-sharing.

Moreover, the reverse-causality logic may particularly apply to corporate power-sharing institutions, on which many studies within the political opportunity approach focus. These may indeed display severe negative side-effects, including by creating institutional deadlock and increasing non-core group organizational capacity. However, demand for power-sharing that explicitly recognizes specific ethnic groups is often especially high in the "most difficult of difficult contexts", for instance in the wake of large-scale violence or histories of ethnically-based repression (Lijphart 1995; McCulloch 2014). As a result, only the most conflict-prone groups might be provided with corporate power-sharing provisions in the first place. If this were the case, this would exacerbate the potential for bias when comparing the merits of specifically corporate power-sharing with alternative institutional set-ups. For example, a naive comparison of Bosnia's corporate power-sharing arrangement with Switzerland's comparably liberal mode of power-sharing is clearly problematic for a variety of reasons, but especially so due to the unequal considerations underlying their initial adoption.

Overall, this point thus raises the empirical importance of considering concerns of selection bias and reverse causation. Not only do studies need to consider the implications of corporate and liberal power-sharing beyond the most drastic post-conflict contexts. But, additionally, they need to try and account for the origins of power-sharing. Legacies of previous conflict might not only shape both the adoption of power-sharing, especially in its corporate institutional form, and subsequent conflict risks, but crucially condition the effects of power-sharing in its wake. These points seem especially pertinent as many studies in the political opportunities approach are predominantly concerned with corporate power-sharing institutions, such as ethnically-based grand coalitions, veto rights, and ethno-federal arrangements, and strongly focus on post-conflict cases.

2.3.3 Long-term reification

Beyond arguments that power-sharing bolsters opportunities to revolt by increasing the relative and perceived capabilities of non-core groups vis-a-vis the state, many scholars in this strand hold that it simultaneously reinforces underlying ethnic divisions. These divisions in turn constitute an additional component in the political opportunity structure by encouraging non-core group elites to engage in ethnically-based mobilization and conflict. Such expectations directly contrast with the ones arising under the "depillarization" and "stable identities" logics discussed under the grievance heading above that expects power-sharing to either decrease ethnic divisions or leave them largely unaffected.

Similar to relative capabilities-arguments, these expectations are usually derived from an explicitly institutional concept of power-sharing and presented as a trade-off between short-term necessities and adverse long-term dynamics. For example, McCulloch (2014:508) warns that by "freezing" group identities precisely at the moment in time when they are most polarized and by taking them "as the basis for future governing", states may fail to address the deeper (attitudinal) problems underlying instability and instead simply postpone the

outbreak of conflict to a later point in time. Similar arguments have been raised in a whole multitude of studies (McGarry & O’Leary 2006a:271, Rothchild & Roeder 2005b,a; Snyder 2000:36).⁷

Such identity-hardening (or preserving) dynamics have been argued to be especially likely if power-sharing institutions, for example government access or territorial autonomy, are based on corporate criteria. By tying political resources to ethnic categories, such corporate forms of power-sharing may institutionally lock in conflictual identities long after the conflict providing the initial rationale for such provisions has receded (Dixon 2012; McCrudden & O’Leary 2013; Rothchild & Roeder 2005b,a). If consistent across multiple institutions, state-led ethnic categorization may directly affect individuals’ self-identification and hinder the establishment of cross-cutting ties in the long-run (Lieberman & Singh 2012b,a; McCulloch 2014). Echoing such concerns, in several prominent contributions, Brubaker (2002; Brubaker et al. 2004) and Hale (2004b; 2008) warn that the institutionalization of ethnic categories, for example through power-sharing, may increase the salience of ethnic divisions by structuring citizens’ modes of thinking along ethnic lines and by simultaneously limiting inter-group contact, which can then more easily be exploited by ethnic entrepreneurs for ethnically-based mobilization.

Furthermore, these impacts may be exacerbated in contexts where power-sharing initially empowered radical hardliners. Instead of bringing under way processes of moderation and ”depillarization” that would erode their power base, empowered ethnonationalists have a stake in continuing segmental mobilization and in the enduring radicalization of co-ethnics in order to remain in power and be seen as the legitimate voice of their group’s concerns (Rothchild & Roeder 2005b,a). A common, well-studied example for such processes is Lebanon: Rosiny (2015) shows that the transitional power-sharing envisioned

⁷Pildes (2008:173) neatly summarizes this view by framing it as a dilemma faced by institutional engineers: ”Dominated by the urgency of [inter-ethnic] tensions at the moment of institutional formation, constitutional framers often respond to the problem as it presents itself at that moment”. However, the ”stickiness” of power-sharing institutions may keep politics pillarized and ”undermine the dynamic possibilities for how these identities might shift and become more muted over time” (ibid.: 174).

in the 1989 Ta'if agreement has proven far more durable than expected, as sectarian leaders and militias empowered by it resisted the creation of integrated national institutions which would threaten their guaranteed "slice of the cake". Additionally, they "profited from keeping the country in a permanent mode of crisis that mobilised and united their followers and discouraged them from questioning the [ethnically-divided] status quo" (ibid:495; cf. Ghosn & Khoury 2011). A similar case has been made for post-Dayton Bosnia and Herzegovina, where wartime nationalist parties have continued to dominate the political arena (Manning 2004) and actively worked to keep inter-ethnic divisions salient. Some scholars even concluded that under its segmental power-sharing regime, the "permanent condition of threat is the only effective way for [Bosnia's segmental] politicians to remain in power" (Mujkic 2007:119, cf. Kaldor 2016).

Evidence for such institutionally-induced reification effects has been reported for a large range of contexts. One piece of evidence comes from studies of colonial rulers' efforts to make local populations "legible" through the imposition of formal social categories (Scott 1998). These have been shown as, in some cases, essentially having *created* ethnic identifications (Fox 1985; Kertzer & Arel 2002; Laitin 1986; Marx 1998; Nobles 2000; Lieberman & Singh 2012b). These findings are partly echoed in a series of studies showing that corporate power-sharing bolstered ethnic identity boundaries, for example as regards Bosnia and Herzegovina's corporate consociation (Bieber & Keil 2009; Kaldor 2016; Manning 2004), the USSR's broad system of ethnolinguistic classification (Beissinger 2002; Brubaker 1994, 1996; Bunce 1999; Roeder 1991, 2007; Slezkine 22; Suny 1993), as well as concerning the identity-hardening effects of ethnofederalism in general (Brancati 2006; Deiwiiks 2010; Hale 2004b, 2008; Roeder 1991, 2005).

Similar to "depillarization" and "stable identities" arguments, a key limitation confronting many of these studies, however, is the lack of comparable attitudinal data over longer time periods. This often forces them to proxy

for ethnic salience by using electoral data, which typically involves difficult classifications of parties as being either moderate or radical. Alternatively, they are forced to rely on the behavioral implications of attitudinal impacts. However, this is problematic, as increased ethnic mobilization may be the result of other factors, including capabilities-related ones discussed in the last subsection above. For example, continuing mobilization on ethnic identity in Bosnia and Herzegovina may not be the result of high ethnic salience among the masses, but of increased organizational capabilities by ethno-nationalists empowered by corporate power-sharing. One exception is the Northern Irish case, where detailed attitudinal data exist. Exploiting these detailed survey sources, Hayes and McAllister (2013) do attain an identity-preserving effect to power-sharing, as given by the prevalence of exclusive social identifications since the adoption of the Good Friday Agreement in 1998.

More fundamentally, while these studies do suggest connections between power-sharing, especially of the corporate type, and increased ethnic salience, the direction of the attained empirical relationships again seems less clear in many cases. Indeed, a whole range of comparative studies have argued that the main causal impact may instead work in the reverse direction, similar to capability-related factors. As a number of influential studies indicate, high levels of pre-existing ethnic mobilization may result in increased power-sharing (Cederman et al. 2015b; Hug 2005; McGarry & O’Leary 2008; Schneider & Wiesehomeier 2008; Wucherpfennig 2011), which may specifically target the most salient categories (Bormann 2014; Lieberman & Singh 2017; Lijphart 1995). Again, it remains unclear for many cases whether salient ethnic cleavages and their political polarization are not the legacies of previous conflict. This is especially acute as comparable attitudinal data are lacking for many cases, with researchers being forced to refer directly to behavioral outcomes or proxy for attitudes with party seat shares.

Overall, this point thus again underlines the need to consider two factors in more depth: First, it reinforces arguments already advanced as regards

capability-related impacts, that it is vital to account for the origins of power-sharing. In this vein, high identity salience might result in its initial adoption, rather than the other way around. Second, it appears crucial to investigate the relationship between power-sharing and ethnic identity salience across a large number of cases directly, rather than relying on evidence from select, conflict-ridden cases, or on behavioral outcomes, such as civil war occurrence, which might conceivably be the result of other factors.

In sum, arguments that power-sharing increases conflict risks by increasing opportunities to challenge the state offer a persuasive account of elite incentives under institutionalized forms of power-sharing, especially under its corporate type. Several clear theoretical and empirical avenues for future research remain, however. First, it often remains unclear whether the observed conflict patterns under power-sharing really represent causal effects of power-sharing itself or were caused by the same factors necessitating its adoption in the first place. Given the predominant focus of this strand on corporate forms of power-sharing, which are often adopted in the most unstable environments, such concerns seem even more pertinent. Secondly, the predominant focus of this strand on post-conflict cases may obscure evidence from cases where power-sharing actually reduced conflict propensities to the point of preventing the emergence of large-scale violence in the first place. Finally, such case selection issues mean that the purported long-term effect of power-sharing institutions on ethnic identity salience may also go the other way around, with high salience necessitating the adoption of power-sharing in the first place. Especially as the identity-reinforcing arguments propagated by some scholars are in direct opposition with those arising under "depillarization" and "stable identities" logics discussed above, more theoretical attention on potentially diverging effects and their direct attitudinal investigation seem important components of future research as well.

2.4 Conclusion

The literature from both grievances and political opportunity-based approaches reviewed above provides a large number of important insights. These inevitably form key elements in any theory seeking to comprehensively link power-sharing institutions with subsequent patterns of ethnic conflict. Grievance-based approaches provide one piece of the puzzle, focusing on how power-sharing practices engendered by institutions affect inter-ethnic inequalities and their mobilizational potential among the masses. Opportunity-based approaches add another one, elucidating elite incentives under corporate power-sharing institutions that are frequently used to enforce such practices. Both approaches overlap, as elite mobilization on grievances forms a necessary step from horizontal inequality to conflict in the first, while grievances inevitably form an element of the political opportunity structure that shapes elite incentives in the second. Both help explain important parts of variance in the ethnic conflict patterns this dissertation is interested in: Grievance-based approaches help explain the robust, cross-sectional relationship of power-sharing practices with conflict. Conversely, opportunity-based ones help make sense of temporal patterns whereby corporate power-sharing institutions might engender destabilizing tendencies in the long-term.

Four distinct causal pathways whereby power-sharing affects conflict risks emerge from this combined reading of both approaches (see table 2.1). First, power-sharing practices crucially shape the formation of *mass grievances*, which in many cases are a key motivating factor of conflict. Second, power-sharing might affect the *salience of ethnic identifications* underlying the formation of grievances. It might do so either by "depillarizing" society in the long-term or by solidifying ethnic identities, although these impacts are both theoretically and empirically disputed, including by a "stable identifications" perspective that doubts whether such impacts exist in the time horizons that are commonly analyzed. Third, power-sharing institutions affect the balance of power between the state and non-core groups, most importantly by de-

Table 2.1: From power-sharing to group-conflict through grievances and opportunity

Element	Included non-core groups	Excluded non-core groups	Core group
grievances	- [status comparison]	?	?
ethnic salience	? [depillarization / reification]	?	?
relative capability	+ [inst. deadlock / coordination]	+ [inst. deadlock]	?
perceived opportunity	+ [signal of state weakness]	+ [signal of state weakness]	0

Note: + positive effect; - negative effect; 0 null effect; ? unclear effect; all effects are in comparison to a situation without power-sharing in place: for example, power-sharing is expected to reduce the grievances of included non-core groups, indicated by the - sign.

creasing the *relative capability* of the former in favor of the latter. Fourth, by sending out a reputational signal on state willingness to concede to potential challengers, they also affect the *perceived opportunity* for ethnic mobilization and the expectation for conflict to result in institutional benefits.

However, while elucidating many important relationships, these elements appear both theoretically and empirically incomplete. Focusing on power-sharing practices and included non-core groups, grievance-based accounts often remain silent on how institutionalized forms of power-sharing advantage some groups at the expense of others. Yet, this should have important ramifications for subsequent conflict patterns, as arguments underlying this mechanism imply that such situations are likely to lead to "second-order" grievances, both among masses belonging to excluded non-core groups to the formerly-dominant core group. Both approaches discuss impacts of power-sharing on ethnic salience, which appear crucial for both mechanisms, either by underlying the construction of grievances by enabling inter-group comparisons in the first place, or by increasing incentives and capabilities to mobilize on an ethnic ba-

sis. However, disagreement between different scholars on these purported long-term identity-related effects remains large and evidence for them inconclusive. Furthermore, opportunity-based accounts show how corporate power-sharing institutions might exert considerable side-effects leading to renewed conflict "down the road", by boosting the relative capabilities of non-core groups vis-a-vis the state and by creating a perception of favorable political opportunities for would-be challengers. However, by mostly focusing on corporate forms of power-sharing in post-conflict contexts, they conversely remain unable to consider potentially diverging impacts of power-sharing practices lacking such an institutional "undergirding". This includes, for example, those that are built on alternative, liberal forms of accommodation, or that are enacted in contexts where violent conflict never erupts.

Together, these arguments call for increased attention to the five key points which this dissertation seeks to consider in the following chapters. At a theoretical level, they call for a unified theoretical framework linking power-sharing institutions and conflict in a triple-disaggregated manner: groups, institutional type, and time. First, it needs to account for how power-sharing affects conflict risks *beyond included non-core groups*. In many cases, power-sharing includes some groups at the expense of others, and may lead to "second-order" grievances by excluded non-core groups and by the formerly-dominant core group. This may lead the former to revolt violently or lead to destabilizing backlashes from the latter. Second, it needs to consider the *institutional type* by which power-sharing practices are engendered. Grievance-based arguments suggest that the beneficial effects of power-sharing through grievance-alleviation are stronger in strict, corporate forms, but may come at the cost of adverse side-effects on excluded non-core groups and the formerly dominant core group. Conversely, arguments in the opportunity-approach suggest that its destabilizing side-effects are particularly likely to accrue under corporate types of power-sharing, which may reinforce ethnic divisions and tilt the political opportunity structure in favor of potential challengers. Third, it needs

to pay attention to potentially heterogeneous impacts of power-sharing across different *time horizons*. This especially applies to the controversial effects of power-sharing on ethnic salience, whereby it might eventually "depillarize" society or, alternatively, solidify ethnic divisions.

Empirically, the discussion of both approaches highlights two key points that need to be considered when testing the group- and time-variegated impacts of different power-sharing institutions: First, it is of vital importance to consider the empirical issues posed by *selection bias and reverse causation*. The fact that power-sharing may face exceptional difficulties in the wake of conflict raises the importance of studying a broad set of cases that extends beyond the most prominent post-conflict contexts. Further, the context-dependent conditions that originally gave rise to different types of power-sharing need to be explicitly considered, as these might structure its subsequent effects on ethnic conflict as well. Power-sharing, especially of the corporate type, is often adopted in particularly difficult contexts and provided to the most conflict-prone groups. This indicates not only the necessity of causal identification strategies sensitive to such selection effects, but also the importance of considering broader evidence from beyond the set of cases where power-sharing was, in fact, adopted in the wake of severe ethnic conflict.

Second, the *intermediate steps* in the posited causal mechanisms connecting power-sharing institutions and conflict also need to be investigated in more detail. Most fundamentally, this refers to whether and how power-sharing institutions actually translate into the corresponding practices they aim to engender. This is an open question especially for its comparably less rigid liberal type, but also for its corporate alternative. Beyond this, a focus on the intermediate attitudinal steps in the posited mechanisms is also vital to tackle two key open questions. On the one hand, this is vital to investigate the potentially diverging effects of power-sharing institutions on different groups' grievances, whereby it might lead to backlashes from excluded non-core and core groups. On the other, attitudinal evidence is of crucial importance to test

the highly diverging arguments on its long-term impacts on ethnic identities themselves. Without such tests, it remains unclear whether ethnic identifications are stable and essentially untouched by power-sharing or whether they are shaped by it, be it through depillarization or be it through reification processes.

The remainder of the dissertation builds directly on these five theoretical and empirical points and seeks to address them through a variety of strategies. The theoretical points are addressed in the next chapter, which builds a unified theoretical framework linking power-sharing with conflict. This is disaggregated along the three lines advanced as important in this chapter: ethnic groups, institutional types of power-sharing (corporate and liberal), and variable time horizons (short- and long-term). Following the rationale to account for the impacts of power-sharing institutions across a large number of contexts to alleviate concerns of selection bias, chapter 4 presents a new dataset on corporate and liberal power-sharing institutions for a global sample of countries since the Second World War. This includes both the most prominent post-conflict power-sharing systems as well as cases that are less in the spotlight as conflict never erupted there. Additionally, following the call to investigate the intermediate causal impacts in the posited mechanisms, chapter 4 also presents a set of newly ethnically-attributed mass surveys. These enable a direct investigation of how power-sharing affects mass grievances and ethnic salience and hence to consider the intermediate attitudinal steps of the posited causal mechanisms.

The subsequent chapters then proceed to make use of these new data sources to test the disaggregated theoretical framework empirically, while seeking to address the empirical issues raised above. Chapter 5 starts this endeavor by investigating the impacts of corporate and liberal power-sharing institutions on group-wise conflict risks in both the short and long-term. Seeking to account for concerns of self-selection and reverse causation, it combines a comprehensive global large-N analysis with an instrumental variable approach that

considers the origins of power-sharing institutions explicitly. Building on this, the remaining empirical analyses of this dissertation further follow the call to consider the intermediate causal steps implied by its theoretical expectations. Chapter 5 does so by conducting a causal mediation analysis that considers the degree to which power-sharing institutions actually influence conflict risks by giving rise to the corresponding power-sharing practices. Chapters 6 and 7 go one step further by making use of the afore-mentioned ethnically-attributed mass surveys. Specifically, they test the attitudinal impacts of power-sharing on mass grievances and ethnic salience.

Chapter 3

A theory of two trade-offs: Corporate and liberal power-sharing institutions in the short- and long-term

3.1 Introduction

The second core proposition of this thesis is: the institutionalization of power-sharing in either corporate or liberal form entails two trade-offs for engineering peace: The first is along group lines—between included non-core groups, who benefit from power-sharing provisions, excluded non-core groups who remain at their sidelines, and core groups whose former dominance is diminished by them. The second is across time horizons—between the short-term, where power-sharing pacifies included non-core groups, and the long-term where it creates incentives for their elites to renege on them and revolt. Together, these two trade-offs form part of a larger theoretical framework, disaggregated along the lines advanced in chapter 2. Specifically, they give rise to distinct, testable hypotheses on how power-sharing should affect different groups' conflict risks, depending on its underlying institutional type, and on the time horizon considered.

A first trade-off is along *group lines*: Corporate power-sharing should strongly decrease conflict risks of included non-core groups in the short-term. However, it conversely makes violent backlashes from excluded non-core groups and from the formerly-dominant core group more likely. In contrast, liberal power-sharing only weakly decreases conflict risks of non-core groups, yet does not create excluded non-core groups and avoids engendering violent backlashes from the core group.

The rationale for this expectation, which I will detail later in this chapter, is as follows: Corporate power-sharing relies on clear, enforceable criteria that are likely to translate de-jure provisions into de-facto practices. By explicitly naming ethnic groups, it furthermore constitutes a clear, direct signal from the core group of its accommodative intent to included non-core groups. Through this, it effectively decreases the mass grievances of included non-core groups, and hence reduces the incentives and opportunities for violent elite mobilization upon them. However, these same criteria almost inevitably bar other non-core groups from political office, perceptibly signal a suitable political opportunity structure to would-be contenders, and ostensibly differ from majoritarian principles. In this way, corporate power-sharing makes violent backlashes and opportunistic mobilization from excluded non-core groups and from the formerly-dominant core group more likely.

Conversely, by relying on formally group-blind criteria, liberal forms of power-sharing only offer weaker reassurances to non-core groups. In this way, they should alleviate conflict risks of non-core groups only more weakly. However, by avoiding rigid and visible forms of group-differentiation, they reduce the risk of backlashes: As regards non-core groups, they avoid formally dividing them into included and excluded parts. Additionally, they also refrain from visibly signaling state weakness. In this way, they simultaneously avoid the formation of "second-order" grievances and perceptions of higher political opportunity. As regards core groups, they less visibly deviate from majoritarian rule and thus constitute a less suitable target for mobilization aimed at

restoring core group dominance.

A second trade-off is across different *time horizons*: While corporate power-sharing alleviates conflict risks for included non-core groups strongly in the short-term, it conversely increases them in the long-term. In contrast, liberal power-sharing only weakly alleviates the conflict risks of non-core groups, yet does so consistently across different time horizons.

The rationale for this second expectation, which I will again flesh out throughout this chapter, is as follows: In the short-term, by relying on group-specific criteria, corporate power-sharing strongly alleviates perceived identity threats by included non-core groups. Especially in contexts of recent mass violence, this decreases the salience of ethnic identifications and, in turn, initially reduces elite incentives to mobilize upon them. However, by enshrining these criteria constitutionally and tying them to important political, economic, and cultural resources, it prevents group divisions from losing salience, and may even solidify them in the long-term. Additionally, it provides powerful institutional resources that enable included non-core group elites to solve coordination problems. These resources are likely to become relevant for conflict mobilization over time, as power-sharing institutions consolidate. Through this, corporate power-sharing encourages violent mobilization upon solidified group identifications and using accumulated institutional resources later, especially by included non-core groups.

In contrast, the liberal type of power-sharing avoid these heterogeneous effects over time. It refrains from entrenching ethnic criteria institutionally and provides fewer organizational resources to non-core group elites. Yet, it also cannot send a similarly reassuring signal initially. In this way, liberal power-sharing institutions should be associated with a constant, but initially weaker, effect of decreasing ethnic salience. Furthermore, it is unlikely to decisively tilt the balance of capabilities of non-core group elites vis-a-vis the core group. Thus, it should exert weaker conflict-alleviating effects in the short-term, yet more sustainably reduce these risks where it manages to persist in the long-

term.

I flesh out the two trade-offs by drawing on both grievance- and opportunity-based approaches, as reviewed in the last chapter. I base my expectations on the four elements identified there as connecting power-sharing to ethnic conflict: grievances, ethnic salience, relative capabilities, and perceived opportunity. I innovate by combining them into a framework that is explicitly disaggregated, as also demanded in the last chapter, along the lines of different groups, institutional type of power-sharing, and time. In turn, this enables me to form expectations not only on the eventual effects of power-sharing on conflict, but also on the intermediate, testable attitudinal implications of the involved causal mechanisms.

The rest of this chapter proceeds as follows: In a first section, I start by identifying the basic actors, parameters and variables comprised by this framework linking power-sharing institutions with ethnic conflict. Second, I discuss the trade-off along group lines. I do so by describing how corporate and liberal types of power-sharing set up the "playing field" in different ways, by influencing both the selection of relevant actors and the political status differentials between them. Third, I outline the trade-off across time-horizons, focusing on the long-term impacts of corporate and liberal power-sharing on the salience of ethnic divisions and relative capabilities. In a final section, I pull these arguments together to formulate group-wise and time-differentiated hypotheses on the impacts of corporate and liberal types of power-sharing on conflict.

3.2 Basic model: from power-sharing institutions to conflict

In this section, I discuss the basic model linking power-sharing institutions and conflict that underlies my subsequent theoretical argument. I start off by discussing the relevant actors in this model and their relationships. I then present my basic assumptions underlying it. Finally, I elaborate on how power-sharing

practices affect elite incentives to mobilize on an ethnic basis through indirect causal pathways that affect conflict risks through a reduction of horizontal inequalities. This sets up my subsequent theoretical argument on how their institutional underpinning directly modifies these impacts.

3.2.1 Actors

The relevant actors in my model linking power-sharing to conflict are different ethnic groups, ideal-typically divided into their respective elites and masses (see figure 3.1). These actors are identified by a simple two-dimensional social structure characterizing a given polity.¹ As outlined in chapter 1, this foresees a multi-ethnic state that is vertically split into different types of ethnic groups, assuming that their boundaries are perceptible by the individuals inhabiting it, with group membership in this way being partly externally ascribed. While individuals are thus clearly linked to a given ethnic group, this does not necessarily imply a high degree of in-group identification. Importantly, members of a given non-core group might show different levels of "groupness" (Brubaker 2002), both in the degree to which they identify with their group identity and to which they mobilize politically upon it. For example, German speakers in Switzerland might predominantly identify with the territorial unit they inhabit (rather than their ethnicity) and not mobilize on an ethnic basis, yet still be clearly identifiable as members of the "Swiss German" group.

These groups are further differentiated by their relative political status position. By virtue of their demographic, military or bureaucratic dominance, core-groups hold the predominant share of political power. This often, but not always, refers to demographic majorities. For example, in Spain this refers to the Castilians and in China to the Han Chinese. However, in some cases, this may also refer to minorities that hold a disproportionate share of political or economic power. For instance, in Burundi this refers to the Tutsi and in

¹This closely resembles Wimmer's (2013) state formation model. Its vertical elite-masses dimension is identical to Wimmer's model, while its horizontal dimension is very similar to his distinction between central and peripheral groups, although my distinction runs exclusively along the lines of group-wise political power and not geographic ones.

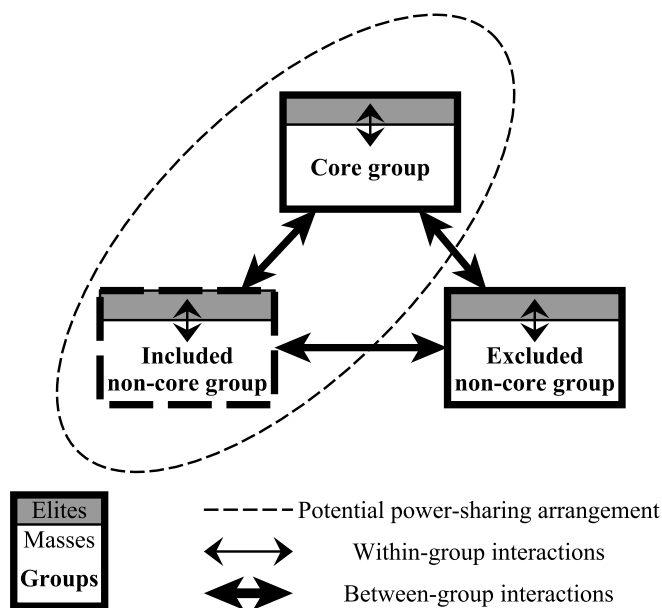


Figure 3.1: Actors and interactions

contemporary Syria to the Alawites. In contrast, as a result of their small size or their relative political marginalization, excluded non-core groups are in a subordinate political position and are, at most times, barred from exerting significant political influence. If power-sharing practices or institutions are in place, this creates a third group type: included non-core groups, who, by virtue of inclusive practices or institutions, are awarded a share of political power. In the ideal case where power-sharing encompassed representatives from "all" groups (Lijphart 1977), this would mean that the category of excluded non-core groups disappeared completely, although this is very unlikely in practice (Stojanović 2018). To illustrate these group types, take the case of Lebanon: There, Maronite Christians are the core group due to their political and military "senior" partner status, other Christian and Muslim groups that are targeted with ethnic quotas are included non-core groups, while the politically marginalized Palestinian Arabs are an excluded non-core group.

I further ideal-typically assume that each group is horizontally split into

a small proportion of elites who are in a position to influence political outcomes and into a larger proportion of "masses" that lack direct influence over such decisions (i.e. similar as in Tilly's (1978) polity model). Both seek to protect their rights and interests in the form of access to political, economic and cultural resources. In these efforts, elites and masses mutually constrain one another. On the one hand, elites are constrained in their efforts to attain political power by varying levels of mass support. For example, whether they seek to gain access to political office through elections or force their way into them by mobilizing their constituents in the streets, their prospects in both cases hinges critically on mass support. On the other hand, masses face serious coordination problems and are typically unable to mobilize for advancing their interests absent leadership or focal points provided by elites. For example, mass grievances may be widespread, but to exert significant pressure for their alleviation, the masses need to mobilize in political parties, protests movements, or armed factions, all of which require elite coordination.

Hence, three key exchange relationships arise between these actors. First, elites interact with one another, competing over access to political power. They can do so in an uncoordinated way (i.e., through electoral competition or by non-institutional mobilization) or coordinate their efforts (i.e., through power-sharing). Second, in these efforts, elites interact with the masses in bids to seek their support, which is crucial to achieve these objectives, as outlined in the last paragraph. Third, masses consider their relative status position and evaluate it normatively. They do so by comparing it with specific reference points (for example their past status position or their relative position to the one of other groups). In turn, they form expectations on which elites they should support to advance their interests.

3.2.2 Key assumptions

Having discussed the main actors and their exchange relationships, I now discuss my key assumptions regarding the factors that influence these interactions.

First, I treat several key factors as exogenously given, and hence they

remain outside my model. This applies in particular to the main explanatory variable I am interested in, i.e. the type and strength of power-sharing institutions in place at a given time. This is a critical theoretical assumption that will be further discussed and addressed in the empirical investigation, especially in light of issues of selection bias and reverse causation (see chapter 2). In addition to power-sharing institutions, I also take as given the division of a polity into different ethnic groups, by treating their boundaries as exogenous parameters. However, as already indicated above, this does not entail specific expectations regarding the degree of "groupness" characterizing these boundaries beyond the assumption that these boundaries exist and are at least minimally perceptible.

Second, the main factors on which I base my theoretical expectations are the four key elements identified in last chapter's discussion of grievance and opportunity mechanisms: grievances (via horizontal inequalities), ethnic salience, relative capabilities, and perceived opportunity. Each of these factors is crucially shaped by the institutionalization of power-sharing in one form or another and hence co-varies with this decision. As they are directly affected by power-sharing institutions, I treat grievances and perceived opportunity as mediating variables linking them to conflict. In contrast, as they exert both a critical influence on the adoption of power-sharing, yet are in turn also strongly shaped by it, I conceive of ethnic salience and the distribution of relative capabilities as quasi-parameters: in the short-term, they influence institutional change (such as bargaining over power-sharing), yet in the long-term they are gradually modified by it.²

²Such a conception closely reflects prominent work on endogenous institutional change by rational choice institutionalists. These emphasize that institutions frequently reflect strategic, self-enforcing equilibria agreed upon by broadly rational or self-interested actors (Shepsle 2006; Weingast 1998). The preferences and capabilities of these actors are determined by parameters often assumed to be exogenous to the institution itself. However, I follow Greif and Laitin (2004) who argue that the key societal characteristics sustaining institutional equilibria may be better conceived of as "quasi-parameters" when considering their long-term institutional dynamics: in the short-run, they appear relatively stable, mainly driven by time-persistent structural factors or modified by the actions of external actors. In the long-run, however, they are endogenously modified by the underlying institutional set-up itself, thus causing "institutions to be self-enforcing in a larger or smaller set of situations"

Third, echoing my discussion of the term "power-sharing" in chapter 1, my overarching theoretical argument assumes it, in a simplifying manner, to concurrently encompass both its horizontal and vertical dimensions. I further expect both dimensions' eventual effects on conflict to be affected by the choice between a corporate and a liberal institutionalization in broadly similar ways. These are, of course, strong simplifications. While the two dimensions often coincide (and are frequently assumed to do so, cf. Andeweg 2000; Bogaards 2000; Lijphart 1977, 2004), there are many empirical instances of horizontal power-sharing which are not accompanied by corresponding vertical power-sharing, and vice-versa (McGarry & O'Leary 2008, see chapter 4). Furthermore, the two dimensions are likely to have dissimilar effects on specific manifestations of ethnic conflict (Cederman et al. 2015a; Gates et al. 2016; Linder & Bächtiger 2005, see chapter 5). Nevertheless, for the moment I assume that they do come as an overall institutional cluster. Pragmatically, this permits me to formulate my overarching theoretical argument in a clearer and more concise fashion and to avoid, for the moment, adding a further line of disaggregation to an already rather complex framework (in addition to groups, institutional type, and time). Substantially, this is further justified, as the effects of both dimensions should be modified in similar ways by whether they are institutionalized in a corporate or in a liberal form. This should apply both to whether they are actually implemented (which in turn affects their indirect, mediated effects)

(*ibid.*: 649). As I shall argue in more depth later, this characterization directly applies to both ethnic salience and relative capabilities.

The structure of this argument also borrows strongly from historical institutionalist accounts of institutional change. These emphasize that radical institutional transformations are most likely at critical junctures, occurring due to exogenous shocks, for instance during times of war or social revolution (Ikenberry 1994; Thelen 1999). However, once adopted, institutions interact with societal context, leading to endogenous institutional changes by way of feedback loops. These can be both distributional, whereby distinct sets of actors are disproportionately empowered by the adoption of a given institution, or functional, whereby the adaptation of social actors to new institutional realities reinforces, or undermines, their systemic logic (Ikenberry 1994; Pierson 2000; Thelen 1999). In my argument, both types of feedback effects feature prominently. Most importantly, the choice of one form of power-sharing or the other empowers specific actors, and raises their relative capabilities. It also influences which set of actions are "thinkable", by either encouraging or discouraging mobilization on an ethnic basis, which is similar to Goodwin's state-centered approach (Goodwin 2001).

and to the type of signals they send out to different actors (which in turn shapes their direct, unmediated effects). While noting several aspects where differences may exist in the following discussion, I hence leave a more detailed discussion of the differential importance of the two dimensions to the empirical chapters where I investigate their effects on specific conflict outcomes.

Fourth, simplifying in a similar way, I also summarily discuss "ethnic conflict" as one overall, "latent", outcome variable. This ignores crucial differences between its diverging empirical manifestations, such as violent protests, governmental and territorial civil wars, coups, and ethnic cleansing (cf. Bodea & Elbadawi 2007; Leventoglu & Metternich 2018). This is also mostly a simplification out of convenience, which serves to prevent an overburdening of the theoretical argument to follow. However, in the subsequent empirical chapters, I apply and refine my theoretical argument for specific conflict outcomes, most importantly governmental and territorial civil wars (for non-core groups), coups (for core groups), and intermediate outcomes related to conflict which stop short of erupting into violence (grievances and ethnic salience).

3.2.3 Basic model: indirect effects of power-sharing on conflict risks

Having discussed my main assumptions, I now discuss how power-sharing shapes conflict risks by influencing both mass attitudes and elite incentives. In deriving these expectations, I differentiate between the indirect effects mediated by power-sharing practices and horizontal inequalities on the one hand and direct ones influenced by their underlying institutional set-up on the other. This distinction between direct and indirect effects does not presuppose that one channel is more influential than the other—indeed, as I shall argue, depending on the chosen institutional form, direct institutional effects can "overpower" indirect ones. In this subsection, I am concerned with the indirect effects mediated by power-sharing practices and horizontal inequalities, while I turn to direct institutional effects, and their implied institutional trade-offs, in the next two sections.

Before discussing these indirect impacts of power-sharing practices, it is useful to first consider the conditions that enhance the likelihood of violent ethnic conflict emanating from a given group. I build these basic expectations on both grievance- and opportunity-based arguments. These have been described in more detail in the literature reviewed in the last chapter and are here summarily restated. Not only do they remain of central importance in my basic model, but are crucial in setting up my later argument as regards differential indirect impacts of the institutional set-up as well.

Grievances are the result of inter-group comparisons whereby the masses unfavorably evaluate their own political, economic, or cultural status position with respect to a given reference point. Importantly, this reference point can be constructed both in terms of ethnic group membership (by comparison with other groups' status attainments) or in terms of other, cross- or sub-ethnic identifications (for example, social class or gender). For grievances to emerge along specifically ethnic lines, two factors need to coincide: First, a *high salience of ethnicity* among a given group's masses as compared to other identifications. Second, a perceived status position that is below what ethnic group members feel they are "entitled" to, for example in comparison to other ethnic groups. As grievances are directed evaluations of injustice, these furthermore need to be attributed to an external "other" in a blaming and framing process. For example, for grievances to arise, a non-core group's political exclusion from government needs to be evaluated as unjust and blamed upon the political system or upon the ethnic core group controlling it. (Cederman et al. 2013; Stewart 2008)

Although for analytical purposes I treat them separately, grievances are part of a wider political opportunity structure that shapes elite incentives (Goodwin 2001; Shadmehr 2014). As mass support is vital for elites to attain political influence, specifically ethnic grievances should encourage them to mobilize on an ethnic basis. Should they refrain from doing so, they risk losing their support base, as they could conceivably be replaced by alternative elites

from within the same groups that follow such calls. The degree of a group's grievances should also influence its elite's calculations on the mobilizing power they can bring to bear for the realization of these objectives. For example, high grievances are likely to create large reservoirs of mass support, should elites seek to mobilize upon them. In this way, grievances shape the form that elite actions take. If grievances are severe and widespread, there is intense pressure on group elites to act under the threat of being replaced by more radical contenders who might take over. Simultaneously, this means that elites should have a solid support base to engage in more violent forms of contestation, for example a reservoir of potential recruits in civil war mobilization.

Beyond the group-internal motivational aspects covered by grievances, elite evaluations of the political opportunity structure are crucially shaped by the *relative distribution of material and institutional coercive capabilities*. Specifically, elites are likely to compare "their" capabilities (for example, the degree to which they hold control over political, economic and military resources) with those of the target they consider mobilizing against. For example, when considering whether or not to mobilize against the central state, non-core group elites compare the political and coercive capabilities of their group with those of the core group which controls the state. However, as elites only have incomplete information, the *perceived opportunity structure* matters greatly for these calculations as well (cf. Meyer & Minkoff 2004). Crucially, non-core group elites only have incomplete information regarding the capabilities of other groups. Hence, when assessing the political opportunity structure, they look for "signals", for instance of core group weakness (Walter 2006b,a, 2009).

Elite incentives are thus formed by a combined evaluation of their intra-group mobilizational potential (which is where grievances and ethnic salience come in) and the wider inter-group opportunity structure (which is where relative capabilities and perceived opportunity are key). Positive assessments of the potential to mobilize on an ethnic basis are likely where both factors

coincide. The existence of ethnically-based grievances mean a higher likelihood of mass support for ethnically-based mobilization and puts pressures on elites to act on them lest they lose mass support within their group, thus spurring them to action. A positive evaluation of the political opportunity structure means that they see the success of such a bid as more likely, most notably where their group has higher relative capabilities vis-a-vis other groups. In this vein, non-core group elites are most likely to mobilize against the core group when there is grievance-driven pressure to do so and where they believe they possess sufficient resources for succeeding.

Based on these considerations, power-sharing institutions exert "indirect", yet contradictory effects on conflict risks mediated by changes in de-facto status inequalities. First, power-sharing alleviates the grievances of included non-core groups, and in this way reduces incentives for elites to mobilize on an ethnic basis. It might do so at the very "start" of the grievance mechanism (the process of inter-group comparison), by eroding horizontal inequalities and preventing unfavorable status comparisons. Or, it might do so at one of its intermediate steps, for instance by reducing the attribution of blame, even where perceptible horizontal inequalities continue to persist in the short-term. For example, affirmative action policies might not reduce economic status differentials immediately, yet still alleviate perceptions that these are unjustly created or maintained by the state or the core group. By decreasing grievances, power-sharing practices thus reduce elite incentives to mobilize on an ethnic basis, as this decreases the pressure and mobilization potential stemming from aggrieved group members. (Cederman et al. 2013; Stewart 2008)

Second, by reducing horizontal inequalities, power-sharing conversely creates a more favorable (inter-group) political opportunity structure for non-core elites to mobilize upon. First, they decrease state, and thus core group, capabilities. Where they contain elements of central government inclusion, they increase institutional levers to create political deadlock, as non-core groups might use their newfound powers to block the decision-making process (Roeder

2005; Rothchild & Roeder 2005a; Spears 2000). Where they contain redistributive elements, they furthermore reduce the overall share of resources accruing for the core group. Second, they increase included non-core group capabilities. They do so by redistributing political and economic resources to them, which elites can use to organize and coordinate "their" masses. This is especially the case where power-sharing contains an element of territorial autonomy, which includes government tiers that can be used for such purposes (Grigoryan 2015; Roeder 2007; Treisman 1997). Third, they send a reputational signal that the core group is either unwilling or unable to withstand non-core group demands. This increases the likelihood that non-core group elites perceive a window of opportunity in which to press for further concessions (Bormann & Savun 2018; Walter 2006a, 2009).

As I shall argue, the combined effect of grievance- and opportunity-related impacts depends crucially on the underlying institutional set-up whereby power-sharing practices are enshrined. Absent any institutional "undergirding", however, I follow the literature in the grievance strand by expecting the conflict-alleviating grievance-effect to be dominant, at least for included non-core groups. If non-core groups are accommodated by virtue of ad-hoc decisions or long-standing informal norms, this alleviates grievances, thus decreasing conflict risks. Conversely, countervailing effects from increased political opportunities are minimal: Non-institutionalized power-sharing practices give their elites less leeway to effectively paralyze the state, do not send out a clearly perceptible signal of state weakness, and only constitute a weak increase in non-core group capabilities. Additionally, non-institutionalized power-sharing practices can be withdrawn flexibly by core group elites, should non-core group elites escalate their demands and mobilize violently. In this way, I expect the costs of doing so to usually outweigh its potential benefits if power-sharing practices are in place absent any institutional "undergirding".

Figure 3.2 gives a schematic overview on both mechanisms that indirectly link power-sharing practices to conflict through the alleviation of horizontal

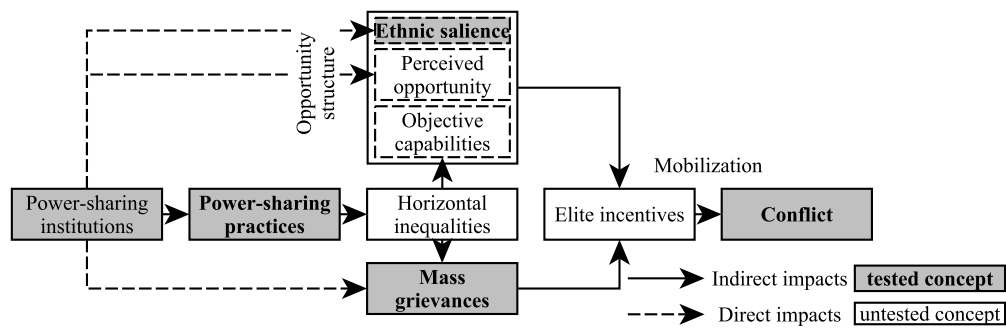


Figure 3.2: The model: from power-sharing institutions to conflict

Note: Indirect impacts are mediated by power-sharing practices and changes in horizontal inequalities. Direct impacts are all effects of power-sharing institutions that are not mediated in this way. For example, they include effects whereby power-sharing institutions create expectations about future cooperation or whereby they send symbolic signals of accommodation from the core group to non-core groups.

inequalities. It also indicates the direct, unmediated side-effects arising from its institutional basis, to which I turn in the next two sections. It additionally indicates which conceptual relationships are tested in the empirical part of this dissertation. Besides the main relationship between power-sharing institutions and conflict, this refers to three additional implications: namely, the respective relationships between power-sharing institutions and (1) power-sharing practices, (2) grievances, and (3) ethnic salience, which is one part of the political opportunity structure. Not tested concepts include the perceived opportunity³ and the objective capabilities of non-core groups, horizontal inequalities beyond actual power access, and the weighing up of incentives and mobilization upon them by each group's elites.

3.3 The trade-off along group-lines

Having set up my basic model, I now turn to my main argument as to how the institutional basis of power-sharing shapes its eventual effects. In this section, I start by discussing the first trade-off posed by the institutionalization of

³Although chapter 5 includes a model testing the effects of power-sharing concessions, which should affect the perceived opportunity by potential challenger groups.

power-sharing in either corporate or liberal form. I expect this first trade-off to run along ethnic group lines. I base my argument on the first two elements linking power-sharing to conflict identified in the last chapter: the formation of grievances and the perceived opportunity to revolt. I argue that comparably strict and visible corporate forms of power-sharing are better suited to reduce the grievances of included non-core groups than their less-easily enforceable liberal alternative. However, the strictness of these same criteria, and the accommodative signal they send on behalf of core group elites, mean that it is conversely more likely to increase grievance- and opportunity-driven backlashes from excluded non-core groups and from the formerly-dominant core group.

I start this argument by contrasting the types of citizenship regime—group-differentiated or universal—that corporate and liberal power-sharing entail. I then discuss how this modifies the indirect effects of power-sharing on included non-core groups’ grievances, which I described in the last section. Finally, I turn to their side-effects whereby they risk creating “second-order” grievances and reputational ripple-effects among excluded non-core groups and the formerly-dominant core group.

3.3.1 Group-differentiated and universal citizenship regimes

At the root of the first trade-off involved in the institutionalization of power-sharing in either corporate or liberal form is the respective type of citizenship regime they give rise to. While the ethnic criteria underlying corporate power-sharing institutionalize a rigid, group-differentiated citizenship regime, its liberal alternative leaves the question of group determination open. Formally, it treats all individuals equally, thus relying on the notion of a “universal” citizenship. These two citizenship regimes not only have ramifications for the political status differentials between different ethnic groups, but also for their visibility. This in turn shapes the magnitude of the indirect effect that power-sharing exerts on included non-core groups’ grievances, mediated by a reduction of de-facto horizontal inequalities. It also determines whether direct, “secondary”

grievances emerge among the masses belonging to excluded non-core groups and the formerly-dominant core group.

Corporate types of power-sharing are built on a hierarchic, ethnically-differentiated citizenship regime. This is created during the process of designating the groups between whom power is to be shared. While formally aiming to include "all" ethnic segments, in practice, all-inclusiveness or equal treatment are not feasible (McGarry & O'Leary 2007, 2008). In order for corporate power-sharing institutions to work, a prior selection process is required: "institutional engineers" not only need to enumerate the groups to be included, but also to determine the relative influence given to each (Lijphart 1995; McCulloch 2014). For example, they need to decide not only which groups should receive parliamentary quotas but also the number of seats that these quotas should encompass. Alternatively, they need to determine which groups should profit from political or cultural autonomy, for example by drawing territorial boundaries closely following their settlement patterns. Of course, such decisions create both winners and losers. Indeed, the decision to institutionalize the power access of specific ethnic groups inevitably entails a differentiated treatment of diverse ethnic groups, necessarily excluding some of them (Agarin et al. 2018; Juon 2020; Stojanović 2020).

The clearest examples for the group-differentiated citizenship enshrined by corporate power-sharing are those that reserve important state posts for some groups, while excluding others. Possibly the most prominent one is the rigid corporate power-sharing system of Bosnia and Herzegovina. Under its 1995 constitution, access to several key state institutions, including the presidency, is restricted to its three 'constituent peoples'—the Bosniaks, the Serbs, and the Croats (Bieber & Keil 2009). This explicitly excludes other non-core groups from office, such as Roma and Jewish citizens, thus creating a rigid, group-differentiated citizenship regime. This is characterized by formally unequal political rights, pitting constituent peoples (Bosniaks, Serbs, and Croats) against other, excluded non-core groups (McCrudden & O'Leary 2013). In other cases,

the underlying citizenship regime of corporate power-sharing is differentiated by multiple layers. For example, Kosovo's consociational system differentiates between core communities with variable rights (the Albanians and Serbs), semi-peripheral, recognized communities (the Turks and the Roma), and unrecognized, marginalized groups (the Gorani and Bosniaks) (Krasniqi 2015). In yet other cases, it is group-differentiated in subtler forms, relying less on explicit barriers, but implicitly distributing political influence unequally. This is, for example, the case in Northern Ireland's regional consociation: There, the existence of parallel majority requirements in the Assembly—requiring separate quorums of unionist and nationalist MPs—mean that the votes of deputies belonging to other groups have comparably lower weight (O'Flynn 2003).

It is this group-differentiated citizenship regime enshrined by corporate power-sharing that provides the main normative rationale for its liberal alternative. Such calls follow prominent assertions that corporate power-sharing is forced to 'explicitly discriminate among groups on grounds like religion, language, race or national origin' (Steiner, 1991: 1551) and that it conflicts "with the liberal individualist paradigm that underpins contemporary international human rights norms" (Wippmann 1998: 232). Based on such arguments, for example, Arend Lijphart holds that liberal accommodation "has a number of great advantages and ought to be given much more attention by constitutional engineers" (Lijphart 2008:66), while McGarry and O'Leary even go as far as arguing that "most sensible consociationalists . . . eschew [corporate] devices, and prefer liberal rules" instead (McGarry & O'Leary 2009:72).

By accommodating difference without explicitly specifying its recipients, liberal power-sharing indeed avoids creating a group-differentiated citizenship regime in the way that its corporate alternative does. Rather, it casts the net of inclusion more widely and leaves flexibility to accommodate shifting patterns of salient cleavages. For example, while clearly meant to engender a pact between the Afrikaner-dominated National Party, the pan-African African National Congress and the Zulu Nationalist Inkatha Freedom Party, South

Africa's power-sharing constitution relied on a flexible 5% hurdle for cabinet inclusion that did not formally exclude representatives from other non-core groups (Sisk & Stefes 2005). Similarly, Nigeria's 1999 constitution is based on elements of power-sharing between its cross-ethnic territorial units. It has been primarily implemented along religious lines by including the major ethnic groups. Yet, it does not formally exclude any group from political office and influence. Thus, it avoids formally (if potentially not de-facto) establishing, or bolstering, an ethnically-differentiated citizenship regime (Bogaards 2010; Kendhammer 2010, 2015).

3.3.2 Included non-core groups

I expect the different citizenship regimes on which corporate and liberal types of power-sharing rest to have important ramifications for the magnitude and group-wise distribution of ethnic grievances. I base these expectations on two key mechanisms—one indirect and mediated by power-sharing practices and changes in horizontal inequalities and the other comprising direct, unmediated impacts of their underlying institutions. I start by discussing the effects of power-sharing institutions on included non-core groups, before turning to its side-effects on excluded non-core groups and the formerly-dominant core group.

Power-sharing institutions should reduce the grievances of included non-core groups in two main indirect pathways. First and foremost, a central role in the grievance-formation process accrues to perceptions of procedural and distributive fairness. If power-sharing institutions give rise to the corresponding practices whereby non-core group representatives are represented in central state institutions, this increases their masses' perception of being part of the political process (Aarts & Thomassen 2008; Anderson & Guillory 1997). This in turn translates into enhanced satisfaction with state institutions more generally and should result in fewer grievances targeted against them (Hänni 2017; Mansbridge 1999; Sanchez & Morin 2011). Such perceptions may be particularly important in the post-conflict contexts where power-sharing institutions are often initially adopted, with mutual distrust running high and descrip-

tive inclusion often necessary to alleviate perceptions that non-core groups are marginalized and excluded (Criado & Herreros 2007; Hartzell & Hoddie 2015). In addition to government inclusiveness, electoral power-sharing institutions – such as proportional electoral systems or vote thresholds for guaranteed cabinet inclusion – also create a comparably more representative vote choice. In this way, they foster a stronger attachment to particular political groupings and parties and increase perceptions of efficacy, which often translate into higher regime legitimacy and fewer grievances as well (Karp & Banducci 2008).

Second, there is an additional, although somewhat more tentative, link that runs from descriptive to substantive representation, which should additionally decrease grievances. If non-core group members are represented in the political arena, the decisions taken there are more likely to reflect their preferences as well (Anderson & Guillory 1997). In power-sharing systems, included non-core groups are thus more likely to achieve policy outcomes that are congruent with their interests, which enhances their support for the political system and reduces the potential for grievances (Christensen 2015; Lijphart 1999; Kittilson & Schwindt-Bayer 2010). A similar effect should accrue for power-sharing provisions that explicitly target non-core groups' substantive interests directly, for example by recognizing their cultural practices or redistributing economic resources to them.

By relying on clearly ethnically-differentiated criteria, corporate power-sharing strengthens both indirect pathways. Its clear guarantees make it likely that de-jure power-sharing actually translates into de-facto practices, both in terms of descriptive representation in government organs and in terms of substantive policy outcomes. For example, ethnic government quotas offer comparably enforceable guarantees for included non-core groups' descriptive representation. Similarly, group-wise veto rights, ethnically-based autonomy, affirmative action policies, or cultural recognition directly provide for their substantive representation. In this way, corporate power-sharing should more effectively decrease horizontal status inequalities of included non-core groups

that are at the roots of the grievance formation process.

Beyond these indirect channels "flowing" through power-sharing practices and the reduction of horizontal inequalities, its group-differentiated criteria also exert direct, unmediated effects. Specifically, it clearly and credibly signals accommodative intent on behalf of core group elites. Through this, it also exerts a direct effect on included non-core groups' grievances that is not mediated by actual power-sharing practices and changes in horizontal inequalities. Specifically, through its accommodative signal, corporate power-sharing reduces the power of injustice frames, whereby continuing status differentials would be blamed on the core group. In this way, corporate power-sharing should clearly reduce included non-core groups' grievances through both indirect and direct pathways, which explains why their representatives frequently demand precisely such guarantees (Lijphart 1995; McCulloch 2014).

Conversely, lacking the clear group-based criteria of their corporate alternative, liberal power-sharing provisions may be comparably more difficult to enforce. Hence, they may not engender the corresponding power-sharing practices and be less apt to reduce horizontal inequalities. Therefore, they may do less to reduce non-core groups' grievances through indirect pathways: Often requiring the cooperation of multiple non-core groups to "bear fruit", they are likely to be inherently less effective in encouraging either descriptive or substantive representation of individual non-core groups (Lijphart 1995). For example, cooperation between the representatives of multiple non-core groups is often vital to implement grand coalition or mutual veto provisions that are based on super-majorities. Indeed, this difficulty of implementation means that liberal power-sharing might even result in increasingly "voluntary" power-sharing practices administered in a "homeopathic dose" (Bogaards 2019b).⁴

⁴Arguing in this vein, several contributions even allege that institutions can inherently not be difference-blind and neutral with respect to social identities (Dixon et al. 2012; Taylor 1994). Instead, appeals to universality and equality might, in reality, often mask projects to secure and advance the socio-cultural privileges of the most powerful social groups (Taylor 1994; Young 1990). In this way, liberal power-sharing might thus represent attempts to superficially accommodate non-core groups while seeking to preserve the dominance of the ethnic core group. Contrary to these arguments, I do expect liberal power-sharing to

Beyond difficulties with their implementation, liberal power-sharing provisions also lack the clear signal of accommodative intent sent by core to non-core groups under corporate forms of power-sharing. Hence, they are also less likely to reduce non-core group grievances through direct, unmediated pathways. For example, the absence of ethnic recognition under liberal power-sharing may fail to alleviate wide-spread perceptions of discriminatory treatment by the masses, even if their elite representatives do achieve a degree of political influence due to such provisions. In this way, liberal power-sharing should less strongly reduce included non-core group grievances, both indirectly, by less effectively engendering power-sharing practices and alleviating horizontal inequalities, and directly, by being less apt at reducing attributions of blame upon the core group.

3.3.3 Excluded non-core groups and formerly-dominant core groups

According to the discussion above, corporate power-sharing should more effectively reduce the grievances of included non-core groups than its liberal alternative. However, the opposite situation should apply to non-core groups who remain formally excluded from its group-differentiated protections and for the formerly-dominant core group whose power is effectively and visibly diminished by them: corporate power-sharing should strongly boost their grievances, both through indirect and direct pathways. Beyond grievances, I furthermore expect corporate power-sharing provisions to constitute a clear reputational signal, directly enabling would-be challengers to assess the political opportunity structure. For elites belonging to excluded non-core groups, they signal that core group elites are either unwilling or unable to react to challenges with force. In addition to creating mass resentment over being formally excluded from office, corporate power-sharing should thus further increase the likelihood of excluded core groups to mobilize opportunistically for the realization

constitute *some* kind of assurance, although lower than actual group-based guarantees (cf. Juon 2020).

of similar guarantees.

As regards excluded non-core groups, I expect corporate power-sharing provisions to increase mass grievances in two ways. First, finding themselves in an environment that includes other groups at the expense of excluding them, they are now not only de-facto outside of political power, but de-jure formally barred from it. I expect this to further diminish their previously marginalized de-facto political position (cf. Stojanović 2018; Juon 2020). In this way, corporate power-sharing institutions accentuate horizontal inequalities for excluded non-core groups and indirectly boost their grievances.

Second, corporate power-sharing also increases the likelihood that the more marginalized status of excluded non-core groups becomes politicized through a direct pathway, given by the activation of injustice frames: On the one hand, the ethnically-based inclusion of other groups bolsters norms of institutionalized group entitlements. This should make the exclusion of specific non-core groups all the more jarring and provide a "higher" reference point to which their low group status is compared to. On the other hand, corporate power-sharing cartels also provide a more visible target to mobilize against than less graspable forms of actual exclusion arising from de-facto power-sharing practices or from potentially weaker liberal power-sharing provisions (Goodwin 1997; Benford & Snow 2000; Desrosiers 2012; Gamson 2013; Cederman et al. 2013). Thereby, corporate power-sharing also boosts the grievances of excluded non-core groups through direct pathways that are not mediated by horizontal inequalities. In sum, excluded non-core groups should possess higher grievances where they are excluded in the presence of corporate power-sharing provisions that include other groups, compared to both contexts lacking such provisions and contexts where core groups rely on liberal forms of power-sharing.

As regards the grievances of formerly-dominant core groups, a similar situation applies. Power-sharing of any kind lowers the responsiveness of the political system to core group preferences. Where they were able to domi-

nate the political scene freely before, corporate power-sharing imposes severe restrictions on this, which are most visible when it contains group-wise veto rights. This loss of dominance, indirectly mediated by actual power-sharing practices and reductions of horizontal inequalities, should increase disaffection with the political process among core group members (Anderson et al. 2005; Bernauer & Vatter 2012; Bühlmann & Hänni 2012; Hänni 2017; Norris 2004; Wells & Kriekhaus 2006). However, corporate power-sharing is not only likely to restrict core group dominance in a more incisive, but also in a more visible way that ostensibly deviates from majoritarian rule than its liberal alternative. Similar to excluded non-core groups, this should make the activation of injustice frames more likely through a direct pathway. This politicization of power-sharing as unjust might further be strongest in the immediate aftermath of concessions leading to a status reversal, where resentment should be highest (Bulutgil 2015, 2016, 2018; Midlarsky 2005; Petersen 2002) and where institutions are still unconsolidated. In sum, this means that corporate power-sharing should be comparably likely to lead to core group backlashes: by effectively and visibly circumscribing core group rule, it should give rise to significant core group grievances.

The arguments so far have centered on the group-differentiated impacts of power-sharing institutions transmitted through the grievance mechanism. However, turning to the opportunity mechanism, I expect corporate forms of power-sharing to directly affect excluded non-core groups' perceived opportunity structure as well. This should further boost their conflict risks. Precisely because corporate power-sharing provisions constitute enforceable guarantees limiting core group dominance, they are seen as costly concessions on its behalf. I follow the arguments based on reputation theory (Walter 2006a, 2009) in expecting these concessions to have reputational effects. They directly signal that the core group is either unwilling or unable to react to subnational challenges with force to ensure continuing political dominance. In this way, excluded non-core group elites are likely to assess their prospects of mobiliz-

ing for concessions as more likely in contexts where corporate power-sharing provisions have been awarded, particularly in the immediate wake of decisions to do so (cf. Bormann & Savun 2018).

In sum, the institutionalization of power-sharing poses a difficult trade-off for institutional "engineers" along group lines. Specifically, corporate power-sharing should more effectively reduce included non-core groups' conflict risks by constituting enforceable and visible guarantees that alleviate mass grievances driving these propensities. However, I simultaneously expect them to lead to "second-order" grievances of excluded non-core groups and the formerly dominant core group, thus "pushing" their elites to mobilize against the power-sharing system that is disadvantageous to them. Additionally, as they constitute costly concessions, I expect corporate power-sharing provisions to send a perceptible signal of core group weakness, which enhances the perceived opportunity of excluded non-core group elites to revolt. Conversely, lacking easily enforceable and visible ethnic criteria, the liberal type of power-sharing should only diminish included non-core group grievances, and hence conflict risks, more weakly. However, they should exhibit fewer side-effects that lead to second-order grievances for other groups. In this way, they should be less likely to induce violent backlashes from excluded non-core groups and the core group.

3.4 The trade-off across time horizons

In this section, I turn to the second trade-off posed by the institutionalization of power-sharing, which is across different time horizons. I base this argument on the second two elements linking power-sharing with conflict identified in the last chapter: ethnic salience and the relative capabilities between core and non-core groups. Overall, I argue that corporate types of power-sharing should strongly decrease conflict risks of included non-core groups in the short-term, yet should increase them in the long-term. Conversely, liberal power-sharing should more weakly decrease conflict risks, yet do so consistently across time

horizons.⁵

I derive these expectations as follows. In the short term, corporate forms of power-sharing decrease ethnic salience by alleviating perceptions of identity threat, particularly in the wake of preceding inter-ethnic conflict. Furthermore, in the same time frame, non-core group elites' control over institutional resources provided by power-sharing institutions is still unconsolidated, thus not yet resulting in significantly increased relative capabilities. In this way, corporate power-sharing initially reduces motivational factors leading included non-core groups to conflict and does not significantly affect the political opportunity structure yet. However, in the long-term, the relative magnitude of these diverging impacts shifts: First, corporate power-sharing prevents the erosion of or even increases ethnic identity salience. In this way, it keeps ethnic divisions at a higher level compared to alternative situations where it is not in place. Second, it provides gradually accumulating organizational resources for the elites of included non-core groups. These are only fully realized once elites consolidate control over corporate power-sharing institutions. In this way, corporate power-sharing is likely to exert the opposite impacts in the long-term: not only does it "freeze" motivational factors for conflict, but it also creates a more favorable opportunity structure for included non-core group elites to exploit.

Conversely, liberal forms of power-sharing should not lead to similarly heterogeneous impacts over time. They exert comparably weaker salience-diminishing effects initially, as they do not similarly alleviate potential identity threats. In this way, they do not reduce conflict risks as strongly as their corporate alternative. Yet, where they manage to "survive", they should continue

⁵As already highlighted above, the conflict risks of excluded non-core groups and formerly-dominant core groups might also be subject to variation across time. The former might be more likely to revolt in the immediate aftermath of concessions made to other groups, due to their reputational effect. The latter might similarly be most likely to mobilize in violent backlashes immediately after concessions, which are seen as leading to an unjust status reversal. While not discounting these additional time effects, in this section I focus for clarity's sake on included non-core groups, for who I expect the strongest variation across time horizons.

to decrease them in the long term. They do so by allowing polarized ethnic divisions to fade over time. They also abstain from providing clear organizational resources which included non-core group elites can exploit to resolve their coordination problems. In this way, they should reduce motivational factors leading to conflict and abstain from tilting the political opportunity structure decisively towards included non-core group elites over time.

To clarify these arguments, I first summarily discuss ethnic identity salience and its drivers, which I do based on social psychology in the next subsection. I then connect this social psychological conception of ethnic identity salience to power-sharing institutions of both the corporate and liberal type. I argue that such a set-up enables us to reconcile the diverging arguments of the three diverging perspectives discussed in the last chapter: stable identities, which does not expect any identity-related impacts of power-sharing, depillarization, which expects power-sharing to reduce ethnic salience, and reification, which expects power-sharing to increase it. This conception also allows us to theorize how power-sharing affects ethnic salience differently at various points in time. Finally, I combine the elements of ethnic identity salience and relative capabilities to derive expectations on the impacts of corporate and liberal forms of power-sharing on included non-core group conflict risks in the short- and the long-term.

3.4.1 The salience of ethnic identifications

In the literature on ethnic conflict, the most prominent way to cast the wider debate on ethnic identity has been its representation in terms of supposedly incompatible “primordialist” and “constructivist” approaches (Chandra 2001; Hale 2004b). In spite of their apparently widely diverging conceptualizations, the gaps between these approaches may often be exaggerated. In fact, a remarkable consensus can be distilled between both sides of the theoretical divide concerning both the stability of ethnic boundaries and the malleability of their salience (Hale 2004a, 2008). For example, while many primordialists argue that boundaries between ethnic groups can be expected to remain sta-

ble, they agree that the strength of identification with ethnic categories may “differ from person to person, from society to society, and from time to time” (Geertz 1963:3; cf. Bayar 2009:1649; Geertz 1973; Van den Berghe 1987:73). Conversely, most constructivist scholars seem to acknowledge that ethnicity cannot be “constructed on a clean slate” (Varshney 2003:93), that it is constrained by the time-persistence of factors such as distinct cultural practices (Wimmer 2015:6), and that the ability to choose between different identifications may be heavily constrained (Cederman et al. 2013; Wimmer 2008).

Instead of revisiting this debate, I follow a cognitive concept of ethnicity based on the social identity approach. Such a concept is not only able to encompass both primordialist and constructivist aspects of ethnic identifications, but also allows us to more firmly theorize on their malleability through power-sharing. As regards the literature on power-sharing more specifically, it enables us to reconcile the vastly diverging expectations of different scholars as regards the identity-related effects of power-sharing.

The social identity approach has been long-dominant within social psychology (Hornsey 2008), but its implications have yet to be fully considered in research on ethnic conflict (Brubaker et al. 2004; Hale 2008). The social identity approach has identified two fundamental drivers behind social identification in general: The reduction of cognitive uncertainty on the one hand and the augmentation of self-esteem on the other. While different scholars have emphasized one or the other mechanism, they are better seen as complementary (Hornsey 2008; Jaspal & Cinnirella 2012; Vignoles et al. 2006), being concerned with the overall social categorization system on the one hand and with particular social categories on the other. In this chapter, I limit myself to presenting the intuition behind both drivers and discussing their broad implications for the impacts of power-sharing on ethnic salience. I leave a more detailed discussion of both drivers, and their implications, to chapter 7, where I empirically investigate the individual attitudinal aspects of this argument.

The first driver, cognitive uncertainty reduction, brings our attention to

the characteristics of the overall social classification system that is ethnicity. The basic intuition is this: In a complex social world, individuals are forced to rely on heuristic assessments on which to base their actions. Ideally, such heuristic assessments would be both cognitively accessible without requiring too much mental effort and simultaneously offer a reasonable fit with actual reality (Abrams & Hogg 1990; Mullin & a. Hogg 1999; Turner 1987). In other words, they should be cognitively easy to make yet still be informative. Ethnicity as a social classification system often offers both benefits: It is usually connected to highly visible or perceptible attributes, such as region of origin, religion, language, or phenotype. Hence, it is often a particularly cognitively "cheap" classification system to rely on. It is furthermore often highly correlated with a whole range of socially meaningful factors, such as cultural dispositions, settlement area, and socio-economic status. Hence, it frequently offers a social classification system that is especially likely to be adopted in a given social situation, owing both to its high cognitive accessibility and reasonably high external fit (Hale 2004b, 2008).

The second driver, self-esteem augmentation, brings our attention to the internal characteristics of a given ethnic identity. It is based on the assumption that social identities form an important part of a given individual's self-esteem: First, they enable individuals to switch focus from potentially less favorable individual to more favorable perceived group traits to inform their sense of self-worth (Tajfel & Turner 1979). Second, they offer a compromise between individuals core needs of individuation and deindividuation at an "optimal level". For instance, they enable individuals a compromise between distinctiveness from most other individuals and similarity with a smaller set of others (Brewer 1991, 1993, 1996; Marcus-Newhall et al. 1993). Finally, self-categorizing as being part of a larger social group also helps individuals alleviate deep personal anxieties, such as those over social isolation (Jaspal & Cinnirella 2012; Navarrete et al. 2004) and, through submersion into an enduring "social self", even over death terror as well (Becker 1975b,a; Hirschberger & Pyszczynski 2011).

Ethnicity frequently offers all three benefits: For less well-off individuals, it enables a focus on positively-framed group traits, such as perceived group morals (Horowitz 1985). Within the boundaries of a given state, it furthermore offers a reconciliation between individuation and deindividuation needs, compromising between identification as an isolated individual and being part of the full state population. Additionally, its perceived constancy enables particular benefits for alleviating personal anxieties, such as belonging to a larger entity—one's ethnic group—that will go on after one's death (Becker 1975a).

In sum, ethnicity offers both cognitive and self-esteem related benefits in many contexts. Hence, it should be a particularly salient identity, although the precise degree to which this is the case depends on the context. Both structural and institutional factors shape the strength of both drivers, in this way determining the salience of ethnic identifications. In chapter 7, I will describe in more detail the implications of this social psychological conceptualization of what drives ethnic identity salience in different political contexts. Here, I limit myself to focusing on the implications of these two drivers for the effects of power-sharing on ethnic identity salience.

3.4.2 Links between power-sharing institutions and ethnic salience

This conception of ethnic identity salience in social psychological terms enables us to more firmly theorize on the effects that power-sharing exerts on it. Indeed, as I shall argue, it allows us to partly reconcile the diverging expectations arising in different strands of the power-sharing literature (see chapter 2). At the most fundamental level, due to their strong correlations with external factors and due to the inherent benefits their supposed constancy offers to individuals, the boundaries of ethnic identification should be reasonably stable according to the application of this model. This is in line with the "stable identifications" argument voiced in a first of these strands in the power-sharing literature. However, both drivers of social identification do not only depend on static contextual characteristics, but are directly malleable by institutional

design. As regards power-sharing, this conception results in three types of expected effects.

A first link between power-sharing institutions and the salience of ethnic identifications is an indirect, mediated one: By diminishing actual horizontal inequalities, power-sharing reduces the degree of congruence between ethnic groups and their members' political, cultural, and economic status attainments. As a result of the decreased cognitive fit between socially meaningful horizontal inequalities and ethnic group boundaries, the role that ethnicity can play as a rule of thumb for uncertainty reduction in the political context is diminished (cf. Hale 2008). It follows, then, that power-sharing practices, engendered by both types of power-sharing institutions, should have a negative long-term impact on the salience of ethnic identities, which is mediated by changes in actual status inequalities. This reasoning closely resembles the depillarization logic (see chapter 2), which is informed by a distinctly behavioral concept of power-sharing and hence unsurprisingly results in this specific expectation.

A second link between power-sharing and the salience of ethnic identities is a direct institutional one, working through the uncertainty reduction driver. This mechanism exclusively applies for the corporate type of power-sharing: By explicitly relying on ethnic categories as a determinant of receiving crucial state resources, corporate power-sharing increases the chronic cognitive accessibility of ethnic identities. Based on these expectations, corporate power-sharing should have a countervailing, positive, and unmediated impact on the salience of ethnic identifications, incrementally increasing over the long-term as chronic accessibility of ethnic identification is enhanced. This expectation is akin to the reification logic proposed by much of the literature focusing on the effects of power-sharing on the political opportunity structure, which mostly derives its expectations based on corporate forms of power-sharing and hence finds itself focusing on this particular link.

A third link is of a similarly direct nature, but works through the self-

esteem driver of ethnic identification. By reassuring referents of ethnic categories of the continued existence of their “group”, it alleviates perceptions that their identity may be threatened in its distinctiveness or its continuity. This decreases the need to defend these elements of self-esteem in a reactive way and thus reduces ethnic salience (cf. Brewer 1991, 1993, 1996, 1997; Brewer & Gaertner 2008; Dovidio et al. 1998; Stone & Crisp 2007; Schofield 1986). Similar to reification effects, I expect this mechanism to be particularly pronounced in corporate types of power-sharing, due to the explicit affirmation of distinct group identity that they entail. Again, I expect this effect to be heterogeneous over time. In the immediate wake of conflict, particularly after large-scale violence, such reassurances are likely to be crucial. However, as time progresses, and memories of conflict fade, it is likely to lose traction, as immediate identity threats fade.

3.4.3 The short- and the long-term

The disaggregation of how power-sharing affects ethnic identity salience into three component effects allows us to theorize on the short- and long-term impacts of its corporate and liberal types. By combining these with their simultaneous effects on the distribution of relative capabilities, we can then formulate our expectations on the second trade-off involved by the institutionalization of power-sharing: Corporate power-sharing effectively reduces conflict risks in the short-term, but exerts countervailing effects in the long-term. Conversely, liberal power-sharing should lead to constant, but weaker conflict alleviating effects across time horizons.

In the short-term, corporate forms of power-sharing should strongly reduce included non-core groups conflict risks. In addition to alleviating their grievances (see last section), it decreases the salience of their ethnic identifications by alleviating perceptions of identity threat. This further impedes the grievance construction process and removes motivational drivers of conflict. In a countervailing way, it bolsters included non-core group elites’ relative capabilities vis-a-vis the core group. However, in the short-term, the institutions

that can be used for this purpose are likely to still be unconsolidated (for instance, as regards control over autonomous territorial units). Together, this means that motivational factors arising from non-core group masses decrease, while the political opportunities awarded to their elites are not yet "ripe" to mobilize for conflict.

However, in the long-term, the opportunity structure gradually shifts. First, reification effects are likely to become increasingly dominant, as conflict experiences grow distant and threat alleviation effects fade. This means that, under corporate power-sharing, reification effects become increasingly strong, thus making mobilization on an ethnic basis more feasible. Second, control over institutional resources handed over to non-core group elites by corporate power-sharing gradually takes hold, thus bolstering included their capabilities to mobilize. Together, this means that, in the long-term, conflict risks should increase.

Conversely, liberal forms of power-sharing should affect neither ethnic salience nor institutional capabilities in a time-differentiated way. First, as regards ethnic salience, they do not constitute a strong reassuring signal initially as they abstain from affirming ethnic identifications explicitly. The non-reliance on ethnic identifications also means that they should not engender reification dynamics over the long-term. Hence, they should not greatly affect the salience of ethnic identifications. Second, they do not award easily exploitable resources to non-core group elites, such as control over independent sub-national government tiers that encompass the whole non-core group. Hence, they should not greatly affect the relative capabilities of non-core groups vis-a-vis the core group. While the impacts of liberal power-sharing on identities and the political opportunity structure should thus be negligible, it should still reduce grievances of non-core groups (see last section). In sum, this means that liberal forms of power-sharing should be associated with a weaker, but constant conflict-alleviating effect for non-core groups across time periods.

3.5 Hypotheses and Conclusion

In this section, I proceed to put together the two trade-offs specified in this chapter into a unified framework that connects power-sharing institutions to conflict risks. Besides distinguishing between its corporate and liberal types, it also differentiates between different group types and time horizons (as demanded in chapter 2). I use this framework to formulate my guiding hypotheses on how power-sharing affects conflict risks as well as my expectations on the respective intermediate steps (see 3.3 for an overview on overall effects and appendix A for a detailed, step-wise overview of expectations on its group-wise intermediate effects). I discuss these overall expectations for different group types in turn, starting with (included) non-core groups, continuing with the formerly-dominant core group and finally turning to excluded non-core groups. For each group, I juxtapose the contrary expectations for corporate and liberal types of power-sharing. I further also refer to the three groups of additional testable implications of my argument (see also figure 3.2): the partial mediation of effects through (1) power-sharing practices, (2) mass grievances, and (3) ethnic salience.

For included non-core groups, I expect the trade-off along time horizons to dominate the effects of power-sharing on conflict. For corporate forms of power-sharing, I expect strongly diverging effects between the short- and the long term: Due to its enforceable and visible guarantees, corporate power-sharing helps included non-core groups translate power-sharing institutions into the corresponding practices and to augment their descriptive and substantive representation, both in central government and in autonomous areas controlled by them (testable implication 1). In this way, it strongly decreases horizontal inequalities. It furthermore also decreases the power of injustice frames by sending a clear signal of accommodative intent from core group elites to included non-core group masses. This means that it should strongly reduce grievances among their masses (testable implication 2).

Besides affecting grievances, corporate power-sharing also affects a sec-

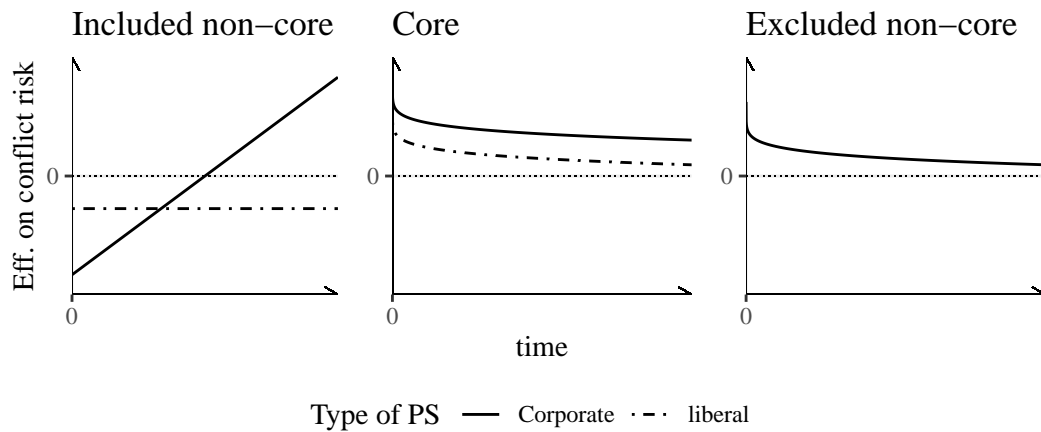


Figure 3.3: Summary of expectations: effects of corporate and liberal power-sharing on different groups' conflict risks, over different time horizons

Note: The figure gives a schematic depiction on how power-sharing institutions affect different groups' conflict risks. It visualizes the direction and relative strength of these relationships as compared with the respective situation where no power-sharing is in place (dotted line at 0), but does not indicate a specific magnitude. For example, the left panel shows that, for included non-core groups, corporate power-sharing initially reduces conflict risks more strongly as compared to its liberal alternative, but that this gradually reverses over time and in the long-term leads to increases in conflict risks as compared to situations without power-sharing in place.

ond element: ethnic salience. In the short-term, especially in the wake of widespread ethnic violence, corporate power-sharing alleviates acute identity threats, which decreases the salience of ethnic identifications (testable implication 3). This further reduces the likelihood that grievances will be constructed on a distinctly ethnic basis. Additionally, this also reduces the potential for non-core group elites to mobilize on an ethnic basis. Together, decreased grievances and lower ethnic salience means that corporate power-sharing should substantially decrease conflict risks for included non-core groups in the short term.

However, these expectations are reversed in the long-term. First, after initial reductions, corporate power-sharing keeps ethnic salience at a comparably high level. Where memories of recent conflict become distant, its initial threat alleviation effect gradually loses traction. Instead, reification tendencies become dominant, as the institutionalization of ethnic identifications means

that they increasingly become chronically accessible for the masses (testable implication 3). Second, in the long-term, included non-core group elites will gradually consolidate their control over ethnically-attributed institutions, such as autonomous territorial units. This means that the distribution of relative capabilities increasingly shifts in their favor. As a result, I expect corporate power-sharing increase conflict risks of included non-core groups in the long-term, driven by opportunistic mobilization of their increasingly empowered elites upon solidified ethnic identifications. These considerations lead me to formulate the first two hypotheses:

Hypothesis 1: *For included non-core groups, corporate power-sharing strongly decreases conflict risks in the short-term.*

Hypothesis 2: *For included non-core groups, corporate power-sharing increases conflict risks in the long-term.*

This temporal trade-off for included non-core groups is less pronounced for liberal types of power-sharing. At the most basic level, they should less effectively alleviate non-core group grievances in the short-term. This is because liberal power-sharing is more difficult to enforce, less likely to translate institutions into practice, and hence less likely to quickly reduce horizontal inequalities (testable implication 1). Additionally, by avoiding the use of ethnic categories, it also send a less perceptible signal of accommodative intent from the core group. Together, this means that horizontal inequalities are more likely to persist and that they more likely continue to be blamed upon the core group. In this way, liberal power-sharing only weakly alleviates non-core group grievances (testable implication 2) and should only lead to a weak reduction of non-core group conflict risks.

Furthermore, liberal power-sharing should not engender comparable side-effects as corporate power-sharing in the long term. It refrains from institutionalizing ethnicity and tying it to important political resources. This means that it should not result in an enhanced ethnic salience through reification

processes (testable implication 3). In turn, it should not increase incentives to mobilize on an ethnic basis. Additionally, it also refrains from providing easily exploitable institutional resources to non-core group elites. For example, the absence of ethnically-based veto rights and of government tiers they control in the name of their group means that it remains comparably difficult for them to mobilize against the core group. In sum, the weakly conflict attenuating effect of liberal power-sharing on non-core groups is likely to remain fairly constant across time horizons. This leads to a third hypothesis:

Hypothesis 3: *For non-core groups, liberal power-sharing weakly decreases conflict risks.*

Having discussed the effects of power-sharing on the non-core groups who benefit from its institutionalization, I now turn towards its side-effects for the rest of the population. I start with the formerly-dominant core group.

For core groups, I expect the group-wise trade-off to be dominant, driven by the grievance mechanism. In particular, I expect power-sharing institutions to produce a backlash among core group masses which increase the likelihood that their elites will move to instigate conflict, for instance by attempting to overthrowing the power-sharing system altogether. These backlashes should be most pronounced immediately after concessions for non-core groups that lead to a status reversal that core group members perceive as unjust. They are further likely to be exacerbated if power-sharing relies on corporate institutions for two reasons. First, corporate power-sharing effectively circumscribes the descriptive and substantive representation of core groups, for example by guaranteeing government seats to other groups and by providing them with significant influence over the adoption of policies. This means that core groups are less represented and less able to push through their preferred policies across the state territory (testable implication 1). Second, in addition to resulting in a lower status position, the visible deviation from majoritarian rule entailed by corporate power-sharing makes core group evaluations of injustice and the attribution of blame to its component institutions more likely. Hence, corpo-

rate power-sharing should boost grievances among core group masses (testable implication 2). As a result, I expect core group elites to be more likely to mobilize violently against corporate power-sharing. This reasoning informs my fourth hypothesis:

Hypothesis 4: *For core groups, corporate power-sharing strongly increases conflict risks, especially in the short-term.*

Under liberal types of power-sharing, core group backlashes are likely to be more attenuated. While it similarly entails a loss of absolute political dominance, it does so in a less pronounced way (testable implication 1) and in a less visible fashion, thus resulting in only a slight increase of mass grievances among core group members (testable implication 2). As a result, it should be associated with only slightly increased conflict risks emanating from the core group.

Hypothesis 5: *For core groups, liberal power-sharing weakly increases conflict risks, especially in the short-term.*

Under corporate power-sharing, there is a third group type: excluded non-core groups. In contrast to included groups, corporate power-sharing institutions decrease their de-facto political status further (testable implication 1) and do so in a visible way. This should boost mass evaluations of injustice and make the attribution of blame on the corporate power-sharing arrangement that formally excludes them more likely (testable implication 2). This in turn should lead to increased pressure from excluded non-core group masses on their elites to mobilize on an ethnic basis. Elites are especially likely to respond to such pressure in the short-term, as the reputational signal posed by enforceable protections awarded to other groups leads them to perceive a suitable political opportunity structure. This can be formulated in a final hypothesis:

Hypothesis 6: *For excluded non-core groups, corporate power-sharing increases conflict risks, especially in the short-term.*

As already referred to in the above presentation of my hypotheses and in the presentation of my overall model (see section 3.2), several aspects of my argument are tested in the empirical part of this dissertation. These broadly refer to the relationship between power-sharing institutions and the eventual main outcome of interest, the outbreak of violent ethnic conflict. They also refer to three testable intermediate implications that this dissertation investigates, namely the relationship between power-sharing institutions and (1) power-sharing practices, (2) mass grievances, and (3) ethnic salience. Other implications of my argument remain beyond the scope of this dissertation to investigate: most importantly, this refers to the effects of power-sharing institutions on the distribution of objective capabilities and on the perceived opportunity structure, and to the elite-driven processes of weighing up the combined incentives arising from the opportunity structure and mass grievances and their mobilization of the masses upon them.⁶

Having formulated these hypotheses, I now turn to set up their empirical investigation. The next chapter presents the new data sources used in this dissertation for this purpose, most notably a new extensive dataset that measures corporate and liberal power-sharing globally for 180 countries since the Second World War. This provides me with the variation necessary to examine these hypotheses in a large-N manner and avoid selection bias by focusing only on post-conflict contexts. The next three chapters then proceed to use these data sources for the empirical investigation of the above hypotheses. Chapter 5 starts by examining the behavioral consequences of both types of power-sharing, offering a preliminary test of whether observed conflict patterns (given by civil war outbreaks and coup attempts) correspond to the ones expected in this chapter. It also investigates the first additional testable implication of my argument, the translation of power-sharing institutions into de-facto practices. Chapters 6 and 7 then zoom in on the two attitudinal implications of the mechanisms discussed in this chapter: the grievance construction process and

⁶The latter is indirectly investigated in chapter 5's conflict models that contain a variable on power-sharing concessions.

the salience of ethnic identifications. Together, these investigations enable me to test not only the eventual consequences of power-sharing institutions predicted by this chapter's hypotheses, but also, in a limited manner, to judge the prevalence of the four elements forming their "building blocks": grievances, ethnic salience, perceived opportunity, and institutional capabilities.

Part II

Data

Chapter 4

Data on power-sharing, ethnic attitudes, and spatial units

4.1 Introduction

The disaggregated theoretical framework presented in the last chapter requires similarly disaggregated data to investigate its hypotheses comparatively. First, and most importantly, time-variant data is needed on power-sharing institutions that differentiates between their corporate and liberal types and that measures these on the ethnic group-level. This enables me to test my theoretical expectations as disaggregated by ethnic groups, institutional type of power-sharing, and time horizons. In addition, this data also needs to be extensive: to prevent selection bias (see chapter 2), it has to cover both post-conflict cases as well as cases where conflict never erupted. Furthermore, to obtain sufficient variance of often highly time-persistent institutions, it should cover extensive time periods.

Second, data is needed on the mass attitudes of individuals belonging to different ethnic groups. As argued in chapter 2, such data are of crucial importance to test the intermediate attitudinal steps linking power-sharing institutions with conflict. Building on the theoretical arguments from last chapter, such attitudinal data are needed especially to map mass grievances and ethnic salience across different groups, which are important elements in

the causal mechanisms outlined there. Beyond testing the intermediate causal steps implied by this dissertation's theoretical arguments, these attitudinal data are also important to probe potential side-effects of power-sharing that might not be captured by an exclusive focus on the most extreme behavioral outcomes, such as large-scale civil war. For example, exclusion from corporate power-sharing might conceivably lead to widespread grievances among excluded non-core groups but stop short of inducing them to take up arms and leading to violent conflict. Beyond enabling a test of this dissertation's specific theoretical expectations, these data are also important to enable a direct look at the contradictory scholarly arguments as to how power-sharing affects ethnic salience: does it increase or decrease ethnic divisions or, alternatively, leave them largely "untouched" (see chapter 2)?

Following these considerations, the rest of this chapter presents new, extensive data on both power-sharing institutions and on ethnically-attributed mass attitudes that will be used in the following empirical part of this dissertation. Additionally, it also presents a new geo-coded dataset of administrative boundaries that played an important auxiliary role in the collection of both.

The chapter proceeds as follows. A first section, to which the most space is dedicated, introduces a new institutional dataset on power-sharing: The Constitutional Power-Sharing Dataset (CPSD). Based on manually-coded constitutions, electoral laws, and autonomy statutes, the CPSD goes beyond existing datasets by not only making explicit the group-specific nature of power-sharing institutions, but also by considering their underlying institutional basis. Specifically, it codes both corporate and liberal types of power-sharing in both their horizontal (central government inclusion) and vertical (autonomous self-rule) dimensions. In the current version created for the present thesis (v.2.0), its coverage encompasses a total of 180 countries for all of the years between 1945 (or a country's year of independence) and 2018. This includes both the most prominent post-conflict power-sharing systems as well as cases where conflict never erupted and that have been less in the spotlight of the lit-

erature, thus enabling empirical applications to alleviate concerns of selection bias (cf. Bormann et al. 2019; Cederman et al. 2013 and chapter 2).¹

A second section introduces a set of newly ethnically-attributed mass surveys. These are used in chapters 6 and 7 of this dissertation to test the intermediate attitudinal steps of its arguments on mass grievances and ethnic salience. Specifically, it contains data on individual attitudes of ethnically-attributed respondents from 148 countries covered by an average of 9 unique survey waves each.

A third section rounds off this data chapter by presenting the Significant Administrative Unit Dataset (SAU). This is a geo-coded data-collection of first-order and autonomous administrative units for all 180 countries contained in the CPSD. It is time-variant and similarly to the CPSD covers 180 countries for the period between 1945 (or independence) and 2018. While providing important new data in its own right, for this dissertation it served an auxiliary purpose in both of the preceding data-collections. For the CPSD, it enabled the aggregation of territorial power-sharing institutions onto the ethnic group level. For the combination of mass survey data, it played a key role in the attribution of respondents to regionally-concentrated ethnic groups.

4.2 The Constitutional Power-Sharing Dataset

I start this chapter by discussing the new Constitutional Power-Sharing Dataset, collected specifically for this dissertation. As I rely on its institutional measures throughout the rest of this dissertation, its discussion takes the lion's share of this chapter's space. A first sub-section justifies the need for a new dataset on power-sharing, partly oriented along the arguments made for institutional and group-wise disaggregation in the last two chapters. A second sub-section moves on to discuss how the CPSD conceptualizes and measures power-sharing institutions in a cross-national and extensive coding endeavor.

¹An earlier, more limited version was used in a spin-off article of this dissertation and in a co-authored investigation into the democratic effects of power-sharing, see Juon 2020; Juon & Bochsler 2020 forthcoming.

It does so by presenting the conceptualization of power-sharing underlying the CPSD, first as regards the selection of relevant dimensions and then as concerns the institutions pertaining to each of them sequentially. It also provides an overview on the coding procedure. A final sub-section provides examples for the CPSD's aggregated group-level power-sharing indices and compares them with existing sources.

4.2.1 The data requirement

In order to test the theoretical expectations presented in last chapter, power-sharing data is required that is disaggregated along several lines. First and foremost, it needs to differentiate between corporate and liberal types of power-sharing. Second and of equal importance, it needs to provide group-level measures to account for the potentially unequal treatment of different ethnic groups, especially under its corporate type. Finally, it needs to account for the scope of power-sharing, most importantly the degree to which its underlying types and dimensions are institutionalized.

Of course, given the considerable size of the literature, a large number of datasets measuring power-sharing already exist. While supporting comparative empirical investigations in important respects, for the present purpose more disaggregated data is required. Some power-sharing datasets helpfully differentiate between several institutional clusters, such as inclusive, dispersive and constraining ones (Strøm et al. 2015). However, while providing fine-grained measures, these are not suited for this dissertation's purpose for two reasons. First, they do not relate these institutional clusters to the ethnic group-level, for example by considering which specific groups are targeted by ethnic government quotas. They also do not distinguish between corporate and liberal types of underlying institutions within each cluster. Other institutional data-collections provide a comprehensive view of post-conflict power-sharing by considering its economic, military, and cultural dimensions as found in peace treaties (Hartzell & Hoddie 2008). But, in addition to also being limited to the country-level, these exclusively focus on treaties which are often

not implemented in the first place (Jarstad 2009). And, most problematically for the given purpose, they are limited to post-conflict periods, which would exacerbate questions of selection bias. A final type of datasets measure de-facto power-sharing practices (Gurr 1993; Vogt et al. 2015) and illuminate how different ethnic groups are affected by power-sharing. However, they are agnostic as regards its underlying pathways. For example, minority government inclusion measured in the Ethnic Power Relations Dataset (EPR, Vogt et al. 2015) may be the result of corporate (ethnic quotas) or liberal power-sharing measures (including guaranteed cabinet seats for parties above certain vote shares).²

Through its broad and disaggregated data collection, the Constitutional Power-Sharing Dataset (CPSD) complements these existing datasets and helps fill these gaps. By differentiating between ethnically-, territorially-, religion-, language-, and individually-based modes of power-sharing, the CPSD also allows, for the first time, to account for the corporate-liberal distinction of power-sharing across a global selection of cases. As most of its underlying indicators are collected on the ethnic group-level or vary on it, the CPSD furthermore allows researchers to consider which groups are targeted by power-sharing—and which are institutionally excluded from government access. Finally, by coding a large number of institutions as gradual or ordinal variables, the CPSD enables a sensitive measurement of the strength of power-sharing systems. While the CPSD provides aggregate indices for each power-sharing type and dimension, the separate coding of underlying institutional indicators additionally allows researchers to consider their effects separately (for example, by differentiating between grand coalition and proportional representation clauses) or to come up with custom aggregation procedures suitable to the respective research purpose.

The next four sub-sections present the CPSD in more detail, starting with

²As maintained in previous chapters, power-sharing practices may furthermore also be the result of non-institutional factors, such as the electoral victory of an accommodationist party, or be based on long-term societal norms.

its overall conceptualization. A second sub-section gives an overview on the basic underlying data collection procedure. This is followed by a more detailed discussion of the CPSD's horizontal and vertical power-sharing dimensions, which are of primary importance in the subsequent empirical investigation.³ Two further sub-sections discuss the main measures of power-sharing taken from the CPSD which are used in this dissertation, provide examples for the aggregate index measures for both dimensions, and compare them with existing data sources.

4.2.2 The power-sharing concept underlying the CPSD

The CPSD is based on the concept of power-sharing presented in chapter 1. As outlined there, this concept comprises four dimensions of power-sharing: the horizontal, vertical, economic, and cultural ones. Each of these dimensions can be implemented through different institutional types: a corporate type on the one hand, which explicitly relies on ethnic groups, organizations purporting to represent them, or territorial units corresponding to them, and a liberal type on the other, which indirectly addresses horizontal inequalities through electoral rules and individual rights.

As an institutional dataset, the CPSD only considers de-jure power-sharing provisions that might reduce horizontal inequalities faced by non-core groups, and not their de-facto implementation. For example, it considers whether there are formalized parliamentary quota requirements but not whether minority representatives are actually able to take these mandated seats or whether they are included due to non-institutional reasons. More specifically, it considers only provisions found in or based on a state's central legal documents, including its constitution, electoral laws, and autonomy statutes. It considers such institutions regardless of the documented or inferred intention of their "crafters". For example, proportional electoral systems might not be adopted with the purpose of including non-core group representatives

³In appendix B.1.2, I provide detailed information on the coding of the cultural and economic dimensions of power-sharing and other CPSD indicators. While not being investigated in the present dissertation, cultural power-sharing is used in a robustness check.

into the legislature. Nevertheless, they might make this outcome more likely and are hence considered.

Such a legal focus has several advantages. Most importantly, it permits a separation of the institutional power-sharing concept from what are, in many applications, its related but conceptually distinct dependent variables, including (actual) minority government inclusion, democratization processes, and the outbreak or duration of ethnic conflict. It has the additional advantage of enabling a systematic and reproducible coding procedure based on formalized and publicly accessible documents.

However, this de-jure conceptual approach also entails, for some purposes, drawbacks for the face validity of the coded data. On the one hand, power-sharing practices may be absent in spite of legal provisions demanding them. Actual governmental access may vary strongly over time while institutions remain constant (for example in Socialist Yugoslavia or in the Soviet Union) or constitutional provisions may formally remain in place long after actual power-sharing practices have broken down (as in Cyprus after 1974). Similarly, the implementation of formal power-sharing may effectively be circumscribed in most authoritarian states, although this is not a black and white distinction (cf. Bochsler & Hänni 2017). On the other hand, de-facto power-sharing may conversely also be practiced without the existence of formal provisions. For example, a minority's inclusion into government may be the result of an accommodationist norm to include representatives of diverse ethnic categories inside the central government's ranks (Bormann 2014) or of ad-hoc considerations.

4.2.3 From constitutions to group-level variables

Before presenting the horizontal and vertical power-sharing dimensions in detail, it is necessary to give a brief overview on the coding process underlying the CPSD data. This starts with raw country-level information taken from legal documents and ends with finished variables on the ethnic group-level. Preventing selection bias and offering wide institutional variation, the CPSD covers all states with a population of at least 250'000 for the time period

since 1945 (or independence) to 2018. This amounts to 180 countries and 10356 country years. For all of these country years, formal power-sharing rules were coded and connected to all politically relevant ethnic groups active in this period. The CPSD's selection of politically relevant groups is given by a slightly-augmented version of the Ethnic Power Relations Dataset (EPR, cf. Vogt et al. 2015) and covers 1441 groups and 80687 group years.⁴

In a first coding step, the legal source documents were screened to collect raw, country year-level data for each indicator within the four power-sharing dimensions coded by the CPSD. In line with the de-jure conceptualization of the CPSD, this step relied on three principal legal sources: Constitutions,⁵ electoral laws,⁶ and formal autonomy statutes.⁷ Using a combination of these sources, the specifics of each power-sharing institution within the CPSD were collected on a country-year level and noted down. Additionally, the respective source and constitutional or legal article that formed the basis of each coding decision was also recorded for transparency purposes.⁸ The information was noted down on the country-level, in the form of dummy variables (for exam-

⁴In several cases, the constitution explicitly referred to groups not included in the EPR list of ethnic groups, for example the Rotumans in Fiji or the Twa in Burundi. For descriptive purposes and for the derivation of country-averages, these groups were added to the EPR list. Additionally, their equivalent group-wise information relevant to the CPSD data was manually coded, including their relative size, cultural cleavages, and geo-coded settlement patterns. Further, to account for missing groups that may not be politically relevant yet still profit from liberal power-sharing, an 'other' ethnic category was additionally coded. The group size of this 'other' category was set to the difference between 1 and the combined population shares of all specific groups recorded in a given year. The EPR dataset furthermore only covers the years from 1946 to 2017. As EPR refers to the situation at the beginning of a given year and CPSD codes legal provisions in force at the end of a year, the group existence periods of EPR were transferred back by one year and hence cover 1945 to 2016. For 2017 and 2018, the same groups were assumed to be active as in the adjusted group selection of 2016 and their periods extended accordingly.

⁵All constitutions were manually screened and coded. The selection of constitutions was based on the Comparative Constitutions Project (CCP, cf. Elkins et al. 2014), which was also used for validation purposes.

⁶Data on electoral systems are taken from the Institutions and Elections Project (IAEP, cf. Regan et al. 2009), the Database of Political Institutions (DPI, cf. Beck et al. 2001), the Democratic Electoral Systems Around the World dataset (cf. Bormann & Golder 2013), and Carey and Hix (2011) and are augmented with manually-collected data in case these sources do not offer data on a specific case.

⁷Autonomy statutes were identified for each constitutionally-referenced or explicitly autonomous territorial unit. All used autonomy statutes were manually screened and coded.

⁸See appendix B.1.3 for details on the identification of legal sources, their combination, and their documentation.

ple, ethnic quota for cabinet present or not), comments indicating details (for example, which ethnic groups are awarded how many seats of this quota), and source (for example, which constitutional article contains the provision used for coding) (see appendix B.1.3, table B.3).⁹

Following an initial data collection based on constitutions and electoral laws, the recorded institutional specifics were transferred to the ethnic group-level, which forms the basis of the CPSD data as used in this dissertation. The precise procedure of how this was done depended on the underlying mode of group determination of a given power-sharing indicator. As already alluded to above, the CPSD includes institutions targeting ethnic groups through six different modes: First, institutions explicitly targeting ethnic groups directly; second, those targeting ethnically-based political organizations; third and fourth, those based on the religions and languages practiced or spoken by ethnic groups; fifth, those targeting parties based on their electoral outcomes; and, sixth, those mandating power-sharing based on territorial administrative subunits of the state.

While the attribution procedure is relatively straightforward for the first two of these variable types, it involves more assumptions as regards the latter four. In brief, indicator data for ethnic groups were directly coded on the group-level by linking institutions to ethnic groups by name; institutions targeting organizations were linked to ethnic groups via organizational claims; institutions based on religions and languages were connected to ethnic groups practicing or speaking them, respectively (based on the EPR-ED dataset, cf. Vogt et al. 2015); data for country-level electoral variables were taken over for each ethnic group active in a country equally; and data for territorial units were aggregated additively onto the ethnic group-level by using the intersections between group settlement areas (provided by the Geo-EPR dataset, cf. Vogt et al. 2015) and geo-coded administrative units provided by the Signifi-

⁹As formal reliability measures (cf. Kimberlin & Winterstein 2008) cannot be provided due to the complex coding procedures, these variables indicating source and specific reason for the coding at least provide for transparency. Each indicator's underlying coding decision can be judged through this additional information provided along with the main dataset.

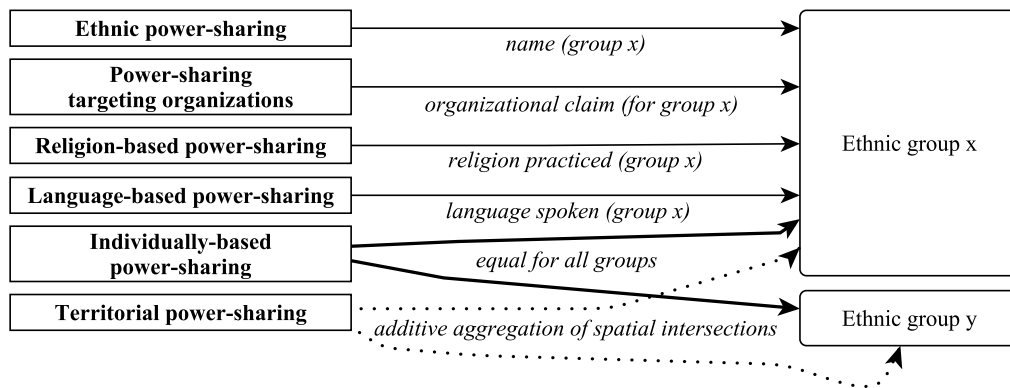


Figure 4.1: Attribution of indicators to the ethnic group level

cant Administrative Unit Dataset (SAU, cf. section 4 of this chapter). Figure 4.1 provides a graphical overview on this attribution procedure, while appendix B.1.4 provides more details.

Most of the group-level CPSD indicators are gradual, enabling a fine-grained assessment of how strongly the respective power-sharing institutions affect each ethnic group (for example, the percentage of parliamentary seats reserved for a given ethnic group or the degree of proportionality of electoral systems). Other variables are based on ordinal or dummy variables, either directly coded on the group-level (for example, the degree of policy autonomy awarded to a given group) or aggregated onto it (for example, the degree of policy autonomy awarded to territorial units). All variables are normalized to values between 0 and 1, thus enabling an intuitive interpretation and aggregation procedure. Appendix B.1.5 presents the measurement of each variable type in more detail.

While the CPSD provides all individual variables on the group-level,¹⁰ it also provides aggregated variables for each dimension. These represent attempts to come up with an overall measure for how strongly each group is accommodated within each dimension and type overall, as a function of the

¹⁰Territorial, linguistic and religion-based variables are available in even more disaggregated form on the sub-group level. For a detailed documentation and examples for the complex measurement and aggregation procedures underlying territorial variables, see appendix B.1.7.

individual power-sharing indicators which represent different possibilities of institutionalizing them. Most notably for this dissertation, this differentiates between the corporate and liberal types of power-sharing: The former encompasses pre-determined, mostly-ethnically based institutions as well as ethnically-based territorial power-sharing. The latter includes only electorally-based, group-blind, or territorial institutions that cross-cut ethnicity. Each aggregate index variable ranges from 0 (no power-sharing of the respective type and dimension in place) to 1 (full power-sharing). Again, appendix B.1.6 presents the technicalities behind these aggregation steps and the differentiation between corporate and liberal power-sharing in more detail.

4.2.4 Institutions coded in the CPSD

Each of the dimensions of power-sharing coded by the CPSD comprises a multitude of component indicators that represent different pathways of institutionalizing power-sharing within it. In what follows, I discuss these components for its horizontal and vertical dimensions.¹¹

The horizontal dimension of power-sharing

The CPSD conceptualizes the horizontal dimension of power-sharing as institutions that mandate broad-based inclusion into central government offices and that widely spread influence over its decisions. More specifically, and following Lijphart (1977), the “offices” in question encompass the most influential executive, legislative, judiciary, and military posts. These include the cabinet, the head of state, the head of government, their deputies, up to three chambers of the legislature, the speakers of these chambers, minority commissions, the highest ordinary and constitutional courts, judiciary commissions, the commander-in-chief, security commissions, the officer corps, the armed forces, and the police. The referenced government “decisions” include both constitutional amendments and general legislation. In line with its broad institutional conceptualization, the CPSD considers both institutions that di-

¹¹I provide the same discussion for the cultural and economic dimensions of power-sharing in appendix B.1.2.

rectly mandate these inclusive outcomes (for example explicit ethnic, territorial or organization-based parliamentary quotas) as well as those that indirectly encourage them (for example vote spread requirements, proportional electoral systems, and supermajority requirements).

The CPSD broadly structures the institutions coded in the horizontal dimension of power-sharing along Arend Lijphart's (1977) first three "pillars" of consociationalism.¹² Grand coalition provisions, mandating the inclusion of non-core groups into the executive; proportional representation requirements, aimed at increasing their representation in the legislature, judiciary, and military; and veto rights over policy outcomes awarded to their representatives. However, following this dissertation's conceptualization of power-sharing (see section 1.2.2), the CPSD defines political power-sharing more broadly than what is commonly understood as "consociationalism" (Binningsbø 2013). Most importantly, it subsumes some institutions often seen as belonging to the alternate, centripetal approach (Horowitz 1985, 2003) under horizontal power-sharing as well. This is justified by the fact that centripetal institutions, such as territorial vote-spread requirements for executive elections, encourage similarly inclusive outcomes (such as minority inclusion in executives) as the more direct consociational ones (Binningsbø 2013; McGarry & O'Leary 2008, see chapter 1).

Within the three components of horizontal power-sharing, the CPSD codes more than 100 indicators (see table 4.1). These indicators represent different institutional possibilities of constitutionally enshrining or encouraging the "central goal" of each of the three components:

The first component, grand coalition provisions, is about encouraging the cooperation of "political leaders of all significant segments" (Lijphart 1977: 25) in the central government. The CPSD considers a multitude of options to institutionalize this. The most direct way to go about it are different types of quotas that target non-core groups and award them a share of cabinet posts

¹²Lijphart's (1977) fourth pillar is segmental autonomy, which is coded as a separate dimension (the vertical one).

Table 4.1: Components of the horizontal dimension

Component	Corporate power-sharing	Liberal power-sharing
Grand coalition	Ethnic or specific organization appointment veto for: Cabinet, HOS, HOG, HOS deputy, HOG deputy, LH / UH / TH speaker, MCOM Ethnic or specific organization quotas for: Cabinet, HOS, HOG, HOS deputy, HOG deputy, LH / UH / TH speaker, MCOM Ethnic or specific organization rotation rules for: HOS, HOG, HOS deputy, HOG deputy, LH / UH / TH speaker Territorial appointment veto (vote spread) for: Cabinet, HOS, HOG, HOS deputy, HOG deputy, LH / UH / TH speaker, MCOM Territorial quotas for: Cabinet, HOS, HOG, HOS deputy, HOG deputy, LH / UH / TH speaker, MCOM Territorial rotation rules for: HOS, HOG, HOS deputy, HOG deputy, LH / UH / TH speaker	Appointment supermajority for: Cabinet, HOS, HOG, HOS deputy, HOG deputy, LH / UH / TH speaker, MCOM Quotas based on vote thresholds for: Cabinet, HOS, HOG, HOS deputy, HOG deputy, LH / UH / TH speaker, MCOM Rotation rules based on vote thresholds for: HOS, HOG, HOS deputy, HOG deputy, LH / UH / TH speaker
Proportional representation	Ethnic or specific organization appointment veto for: CC, HC, JC, CIC, SC Ethnic or specific organization quotas for: LH, UH, TH, CC, HC, JC, CIC, SC, OFF, MIL, POL Ethnic or specific organization rotation rules for: CIC Territorial appointment veto (vote spread) for: CC, HC, JC, CIC, SC Territorial quotas for: LH, UH, TH Territorial rotation rules for: CIC	Appointment supermajority for: CC, HC, JC, CIC, SC Electoral system proportionality for: LH, UH, TH Quotas for electoral minorities for: TH, UH, TH, CC, HC, JC, CIC, SC
Mutual veto	Ethnic or specific organization veto rights for: Constitutional amendments, general legislation (LH, UH, TH) Territorial veto rights for: Constitutional amendments, general legislation (LH, UH, TH)	Supermajority requirements for: Constitutional amendments or general legislation (LH, UH, TH)

Note: HOS = head of state; HOG = head of government; MCOM = minority commission; LH = lower house; UH = upper house; TH = third house; CC = constitutional court; HC = highest ordinary court; JC = judiciary commission; CIC = commander-in-chief; SC = security commission; OFF = military officers; MIL = military personnel; POL = police personnel

or of the central executive positions. An example is Belgium's constitution (since 1970), which divides the cabinet between French and Flemish speakers. A second, somewhat less explicit, institutional possibility are executive linkages, which mandate that different ethnic groups have to fill specified executive positions.¹³ For instance, Sudan's 2005 (transitional) constitution mandates that the head of state and his/her deputy have to stem from different geographical zones, the North and the South, respectively. A third, and related, institution are diachronic executive rules, which require that a given position rotate between different groups. For example, the Presidency of the Comoros has to alternate between the state's three main islands according to the its 2001 constitution. A fourth, even more indirect, possibility are territorial vote spread requirements for the elections of these offices. For instance, to be elected, presidential candidates in Nigeria have to obtain a minimum share of votes across a specified number of states, thus requiring a geographically and ethnically broad base of support. Finally, most flexibly, liberal possibilities include low vote thresholds for the inclusion of political parties into the executive and super-majority requirements for elections into executive elections. As examples for the former, South Africa's 1993 constitution and Burundi's 2004 and 2005 constitutions provide for the inclusion of all political parties winning more than 5% of electoral support into the cabinet, thus encouraging minority representation indirectly in a liberal, vote-based way. Forming an empirical example for the latter, Iraq's 2004 and 2005 constitutions require a super-majority for the election of the Presidential Council, which is the collective head of state for a specified transitional period, thus requiring broad majority government support.

The second component, proportional representation provisions, is about creating a "roughly proportional distribution of influence in policy problems"

¹³In the CPSD, linkages are coded in the same indicators as quotas. For quotas, the respective seat share is coded (for example, 0.3 if the quota gives 30% of cabinet seats to an ethnic group or 1 if it awards a position exclusively to an ethnic group); for linkages, the formal probability of a group occupying a given position at a given time is coded (for example 0.5 for both ethnic groups and positions if one of them has to occupy the head of state and the other the head of government position).

between the different ethnic groups (Lijphart 1977: 39). The CPSD considers two broad institutional possibilities that create incentives for such outcomes: Ethnic, organization-based, territorial, or electorally-based¹⁴ quotas for the legislature, judiciary, and military on the one hand and proportional electoral systems or super majorities required for their election or appointment on the other. Again, whereas the former explicitly mandate non-core group inclusion, the latter indirectly encourage it through institutional design.

Mutual veto rights complement the inclusive incentives of the first two components with increased non-core group influence over political outcomes, optimally resulting in a “complete guarantee of political protection” as concerns each group’s “vital interests” (Lijphart 1977: 36-7). Again, two possibilities are considered: On the one hand, explicit veto rights over constitutional amendments or over general legislation given to any of the three types of social groups coded by the CPSD (i.e., those awarded to ethnic groups, organizations or territorial subunits). And, on the other, parliamentary or territorial supermajorities required for the same decisions, which constitute more indirect and flexible incentives similarly providing for veto rights.

The vertical dimension of power-sharing

The second dimension of power-sharing, the vertical one, is conceived in the CPSD as formal provisions that disperse political decision-making authority among subnational government tiers. The shared goal of these institutions is to make possible the “rule by the [targeted] minority over itself in the area of the minority’s exclusive concern” (Lijphart 1977: 41). This goal not only requires their legal ability to make decisions concerning both the formulation of policies and the selection of representatives, but also formally-enshrined fiscal measures that make these decisions meaningful and feasible to implement.

In order to code the vertical dimension of power-sharing, the CPSD first

¹⁴“Electoral-based quotas” refer to instances where house or executive seats are distributed based on the results of (mostly lower house) legislative elections. For example, Fiji’s 1997 constitution awards a large number of upper house seats to the party obtaining the second largest number of votes in lower house elections, regardless of their absolute numbers.

identifies significant instances of formalized autonomy before coding in detail their degree and specifics. The first step, identification, is predominantly based on constitutional provisions: For territorial forms of autonomy, any cases where the constitution refers to the state structure as “federal” or “confederal” or where any administrative tier exists that is called “autonomous”, “special”, or a “dependency” were identified.¹⁵ For group-based forms of autonomy, constitutions were scanned for formal political autonomy rights referring to specific ethnic groups. In any case, only tiers where independent, subnational government structures (are mandated to) exist, were considered.¹⁶

After the identification of constitutionally-protected forms of autonomy, specific institutional variables were collected for each identified “tier”.¹⁷ This second step was based both on the constitutional provisions themselves as well as on evidence concerning relevant enabling laws (mostly, tier-specific autonomy statutes). The result of this step are seven indicators for the degree of autonomy (per tier) that are grouped along three components. The components correspond to what have commonly been argued to be the main institutional pillars of (territorial) autonomy (Bakke 2015; Hooghe et al. 2016; Rodden 2004; Treisman 2007): Policy autonomy, fiscal autonomy, and political autonomy. The tier-coding scheme itself is adapted from the self-rule dimension of the Regional Authority Index (RAI, Hooghe et al. 2016), but is strongly modified and throughout adapted to be more legalistic (and thus somewhat simplified) in nature.¹⁸ The following indicators are coded, both for the iden-

¹⁵Cases where “special” tiers only refer to the capital or to a small number of important cities were excluded from this selection as were “special” tiers that are clearly not autonomy arrangements but instances of direct rule by the central government.

¹⁶This leads to two omissions. First, it excludes central-government arrangements as in Cyprus (1960), where both the Greek and Turk side are given separate chambers of parliament, which, in addition to passing central state legislation, also have considerable autonomy over their respective groups’ affairs. Second, it also excludes the enshrinement of specific group autonomy rights without a separate government level (for example, constitutional guarantees that ethnic minorities can regulate their own cultural matters without a separate government organ tasked with legislating on this), which are coded in the cultural dimension of power-sharing instead.

¹⁷“Tier” refers here to each different type of territorial unit (for example, states, autonomous regions, and autonomous municipalities) and each different (specific) ethnic group identified in the first step.

¹⁸While the RAI is also primarily concerned with de-jure autonomy, its indicators are partly

tified territorially-based and ethnically-based government “tiers” (see table 4.2 and Hooghe et al. 2016 for a similar conceptualization):

The first component, policy autonomy, refers to the degree to which the targeted tier has the exclusive ability to formulate policies. On the one hand, this is determined by the institutional depth of its autonomy, which is the degree to which the tier’s decisions are circumscribed by (or independent of) a central government veto. In the most limited case, simple deconcentration, no independent decision making authority is granted, with the tier simply locally enacting the central government’s decisions. Institutional depth increases as policy-making competencies are awarded exclusively to the tier and reaches maximum levels if its decisions are not subject to any central government veto. On the other hand, policy autonomy is also shaped by the policy scope of the autonomy arrangement, i.e. the number and importance of issue areas over which the tier has exclusive decision-making competencies. In particular and mostly analogously to the RAI dataset, the CPSD bases its coding on the presence of provisions awarding autonomy over economic, cultural, educational, welfare, police, military, judicial, institutional (over local government and territorial structure), residual powers, community membership matters, and secession rights (each of which is additionally provided as an individual variable).¹⁹

The second component, fiscal autonomy, refers to measures that enable the tier to effectively take up its decreed formal autonomy by obtaining financial resources for related activities. In the CPSD (again, analogously to the RAI

based on actual practice. For example, autonomy practices, such as taxation or borrowing, are also coded if they are simply tolerated in spite of their de-jure illegality. Similarly, in some cases, periods of authoritarian rule or civil war which resulted in a de-facto more limited practice of autonomy decrease the RAI’s autonomy scores. In contrast, the CPSD only considers the legal documents themselves as the inclusion of power-sharing practices would contradict the formal institutional focus of the dataset. The RAI cases were recoded using the country profiles and constitutions themselves (Hooghe et al. 2016), while cases not in the RAI data were coded from scratch using the constitutions and secondary literature.

¹⁹The coding of institutional depth and policy proceeds almost identically to the RAI’s analogous components. However, in line with its legalistic basis, in the CPSD, instances of practiced, but not legally-enshrined policy autonomy are excluded.

Table 4.2: Components of the vertical dimension

Component	Corporate power-sharing	Liberal power-sharing
Policy autonomy	Institutional depth (ethnic): degree of central government veto Policy scope (ethnic): policies concerning economy, culture, education, welfare, military, police, judiciary, institutional set-up, citizenship and immigration, secession, residual powers Institutional depth (territorial): degree of central government veto Policy scope (territorial): policies concerning economy, culture, education, welfare, military, police, judiciary, institutional set-up, citizenship and immigration, secession, residual powers	
	Taxing autonomy (ethnic): autonomy over base and rate of minor and major taxes Borrowing autonomy (ethnic): ability to borrow on financial markets without central government restrictions Reserved financial resources (ethnic): guarantees for financial resources from local taxes or central government transfers Taxing autonomy (territorial): autonomy over base and rate of minor and major taxes Borrowing autonomy (territorial): ability to borrow on financial markets without central government restrictions Reserved financial resources (territorial): guarantees for financial resources from local taxes or central government transfers	
Political autonomy	Legislature (ethnic): degree to which legislature is locally (s)elected Executive (ethnic): degree to which executive is locally (s)elected Legislature (territorial): degree to which legislature is locally (s)elected Executive (territorial): degree to which executive is locally (s)elected	

dataset), this ability is conceptualized as the composite of three ex-ante legal indicators:²⁰First, the degree to which the tier is free to set its own tax base and rates is coded (taxing autonomy). Minimal values are obtained if the tier has decision making authority over any minor taxes (for example, property, registration and excise taxes), larger values if these extend to major taxes as well, most notably personal income, corporate, value added, and sales taxes. Second, the degree to which the tier is free to borrow on national and internal financial markets (borrowing autonomy) is coded. On the minimal end of this scale are situations where borrowing occurs under significant restrictions (for example where central government approval is required), while the maximum end refer to tiers that are not subject to any restrictions in their ability to borrow.²¹ Third, an alternative source of revenue to taxing and borrowing are reserved financial resources explicitly given to the given tier. This refers to policies whereby tiers are explicitly given the right to keep revenue from local resources (e.g., natural gas or oil), the right to keep local tax revenue (even where the tier has no autonomy to set taxes autonomously), and wealth sharing or transfer agreements.²²

The third component, political autonomy, comprises the ability of citizens making up the tier to select their own representatives. This refers to the degree to which they are able to independently select their own legislatures (assemblies) and executives. In more constrained cases, these institutions exist but are appointed or co-appointed by the central government, while in more expansive autonomy settings, the exclusive power belongs to the tier's population itself.

²⁰In some autonomy concepts, fiscal autonomy refers to ex-post practice, most notably the division of financial resources between the tiers (cf. Rodden 2004; Treisman 2007). Such outcomes do not form part of the CPSD's conceptualization.

²¹Both taxing and borrowing autonomy are coded almost identically to the RAI, with the exception that not formally-institutionalized practices are not included in the concept.

²²In this last possibility, the autonomy dimension partly overlaps with the economic dimension (territorial redistribution plans).

4.2.5 Aggregation into overall index measures

While the CPSD provides separate group-level measures for all indicators, it also supplies aggregate index measures for each dimension and type of power-sharing. These range from 0 (in the given year, the group does not benefit from any power-sharing of the respective type and dimension) to 1 (the group is targeted by "maximum" power-sharing in it).

In the horizontal dimension, these measures reflect the dual emphasis of Lijphart (1977) that each component (or "pillar") can be institutionalized through separate means (substitutability within components), but that each of the components is necessary for a constitutional system to be characterized by full horizontal power-sharing (non-substitutability between components). This also reflects my gradual concept of power-sharing, whereby it ranges from weaker or partial measures (for example, only ethnic quotas for the legislature) to full power-sharing systems (which encompass measures targeting the executive and providing veto rights as well). In a nutshell and following these considerations, the overall horizontal power-sharing index measures are based on an additive aggregation procedure, whereby each component is given equal weight and the resulting indices ranging from the minimum 0 to a maximum of 1. Intuitively, groups attain maximum values if they are de-jure likely to: be at least proportionally represented in at least one major executive institution²³, be at least proportionally represented across state institutions (legislature, judiciary, and military), and have veto rights over either legislation or constitutional amendments that require the approval of at least 50% voting group members or their representatives. In line with my gradual power-sharing concept (see chapter 1), values gradually decrease towards 0 as a result of the decreasing stringency of power-sharing institutions, for example if groups are awarded a proportionally lower share of executive positions or are given veto rights that do not amount to 50% (see figure 4.2 for a graphical

²³The positions of Head of State, Head of Government, and Cabinet are counted with weight 1, deputy positions are counted as "half", and speaker and minority commission positions as a "quarter" of a major executive position.

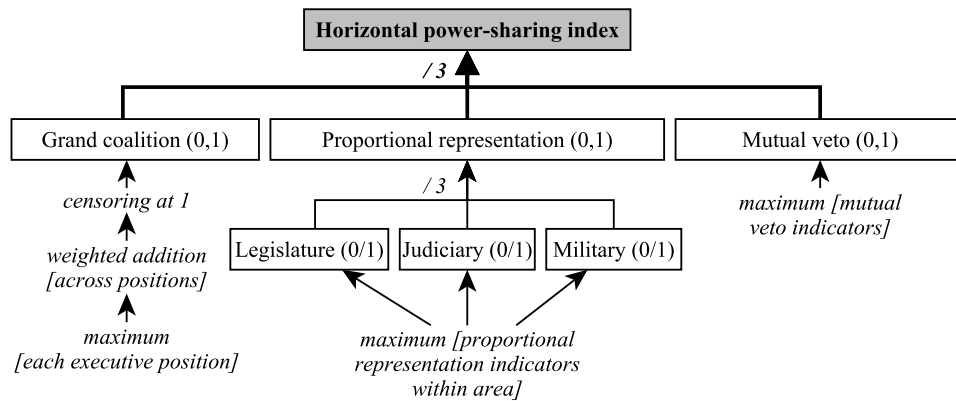


Figure 4.2: Aggregation of indicators into horizontal power-sharing index)

representation):

In the vertical dimension, the construction of aggregate index measures follows the considerations of Hooghe and colleagues (2016) that vertical power-sharing (or self-rule) requires the full ensemble of policy, fiscal, and political autonomy, but that individual measures within these sub-types constitute weaker forms thereof. Again, this also reflects my gradual measure of power-sharing, which in the vertical dimension ranges from weakly deconcentrated government tiers to fully autonomous units. In a nutshell and following these considerations, the overall vertical power-sharing index measures are again based on an additive aggregation procedure, with each component given equal weight and the resulting indices ranging from the minimum 0 to the maximum of 1. Intuitively, these measures reach maximum values if a group is de-jure likely to live under a sub-national government tier that: encompasses all group members, can independently formulate a wide range of policies, is free to raise its own financial resources, and independently chooses its own executive and legislative organs. Again in line with my gradual power-sharing concept (see chapter 1), the values decrease towards 0 as any of these conditions weaken, for example if the government tier does not encompass the full settlement area of the group, if its policy scope is diminished, if it does not have its own guaranteed financial resources, or if its choice over its political organs is circumscribed (see 4.3 for

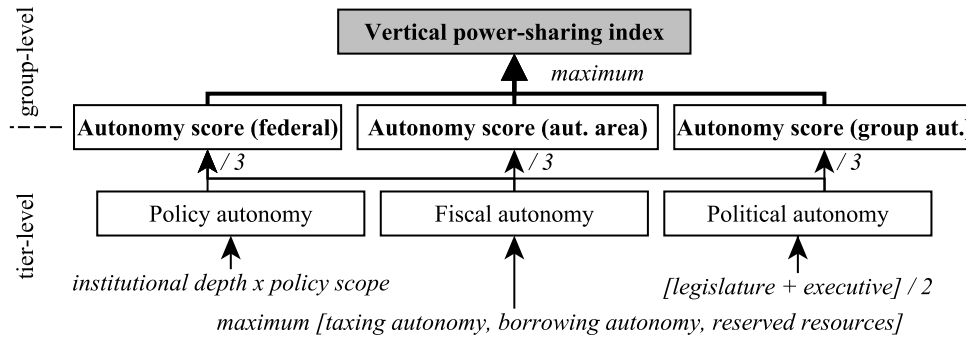


Figure 4.3: Aggregation of indicators into vertical power-sharing index)

a graphical representation):

In addition to full power-sharing indices within each dimension, the CPSD also distinguishes between underlying corporate and liberal types, which it codes as separate indices. These are constructed analogously to the full indices, while only considering the indicator measures belonging to the respective type. Analogously to the conceptualization presented in the first chapter, these encompass institutions based on ethnic criteria, specific organizations representing ethnic groups, and ethnically-defined or -demarcated territorial areas for the corporate type. In contrast, they encompass institutions based on non-ethnic criteria, including electoral ones or those relying on individual rights, for the liberal type (see appendix B.1.6 for details on general aggregation procedures of overall, corporate, and liberal indices, and B.1.7 for the special case of territorial power-sharing along with several examples).

4.2.6 Trends, examples and validation

Having presented the overall coding procedure and conceptualization of the horizontal and vertical dimensions, this section provides an overview on global trends and specific examples using the aggregate CPSD indices for these two dimensions (see appendix B.1.6 for aggregation rules). It also compares these aggregate measures to two alternative datasets of power-sharing to provide a tentative validation.

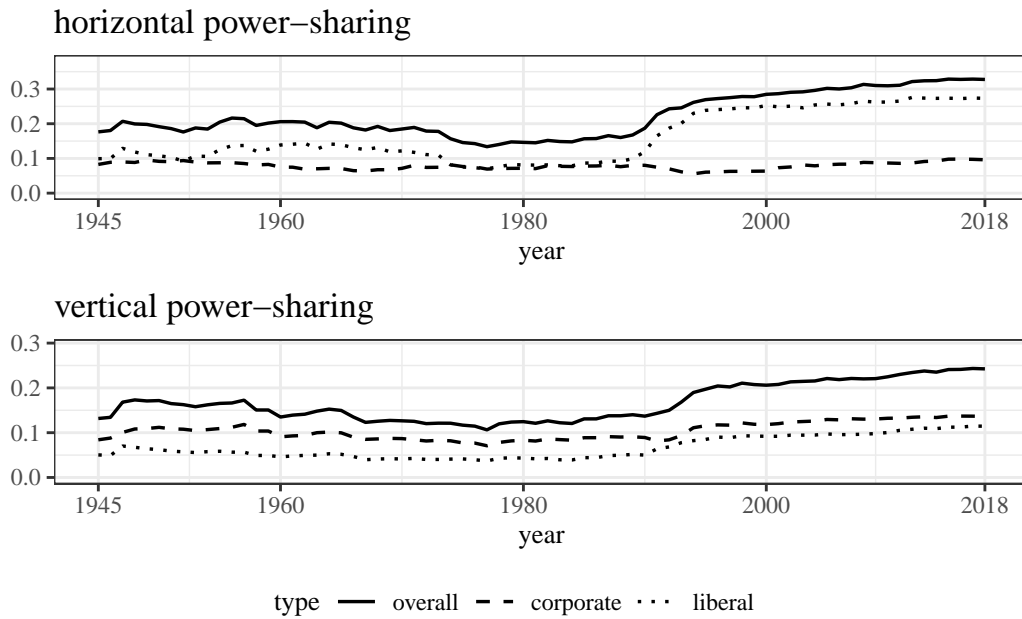


Figure 4.4: Average power-sharing across multi-ethnic countries, 1945-2018

Note: The figure is based on the following calculations: 1) size-weighted average across non-core groups in each country; 2) average across countries; only countries where non-core groups collectively make up at least 5% of the population are considered. Source: Constitutional Power-Sharing Dataset.

Global trends

The measures provided by the CPSD enable a detailed mapping of power-sharing institutions over time and across the globe. Figure 4.4 illustrates the world-wide spread of power-sharing institutions between 1945 and 2018. Particularly since the end of the Cold War, there has been a rise in power-sharing, especially of horizontal power-sharing of the liberal type and of vertical power-sharing of both types. This is in accordance with observations of the emergence of a global inclusive norm in that time period (Kymlicka 1995; Gurr 2002; Wimmer 2015, see introductory chapter).

Figure 4.5 shows the spatial distribution of power-sharing institutions per type (corporate and liberal) and dimension (horizontal and vertical) in 2018. It shows the remaining strong variation between different countries, highlighting an uneven, although increasing spread of power-sharing across the globe. It also echoes several tendencies highlighted in the literature on power-sharing,

such as the wider spread of horizontal power-sharing of the corporate type in relatively small countries, such as Switzerland, Bosnia, and Lebanon (Andeweg 2000) and the widespread use of vertical power-sharing, in the form of national federal arrangements, in Latin America (McGarry & O’Leary 2005).

Examples

Table 4.3 provides a more detailed look at the most strongly institutionalized cases in the horizontal dimension of power-sharing. It does so by showing a list of country periods with the strictest horizontal power-sharing measures, as given by the average index values across non-core groups.²⁴ The selection of countries with the highest average index values closely reflects the most-widely discussed cases of horizontal power-sharing. These include several enduring classic consociational cases, such as Belgium and Switzerland, the power-sharing cluster in the Balkans, including Bosnia and Herzegovina, Kosovo, and Macedonia (Bieber & Keil 2009), as well as their predecessor state, Yugoslavia. They additionally include the most stringent post-conflict power-sharing cases which have formally enshrined ethnic inclusiveness in their constitutions, including the Comoros (Mehler 2013), Burundi and post-Arusha Rwanda (Lemarchand 2007), post-1999 Nigeria (Kendhammer 2010, 2015), post-Apartheid South Africa (Sisk 1995), Yemen in the reunification period (Hartzell & Hoddie 2015), and post-Saddam Iraq (McGarry & O’Leary 2007).

Several other cases are less prominently discussed in most of the existing literature and underline the importance of widening the analytical focus beyond the most prominent post-conflict cases to avoid selection bias. They include Nepal, which adopted an encompassing power-sharing constitution almost ten years after its non-ethnic civil war came to an end (cf. Wise 2018). Another interesting case is Uruguay in the early 1950s, which adopted a Swiss-style system of liberal power-sharing whereby its executive, the Council of Gov-

²⁴These were calculated by taking the size-weighted average across non-core groups. Core groups were identified analogously to Bormann and colleagues (2017) by identifying the ethnic group with the highest level of de-facto government power in a given year. If multiple groups hold the same highest level, the largest group was identified as the core group. All other groups were coded as non-core groups.

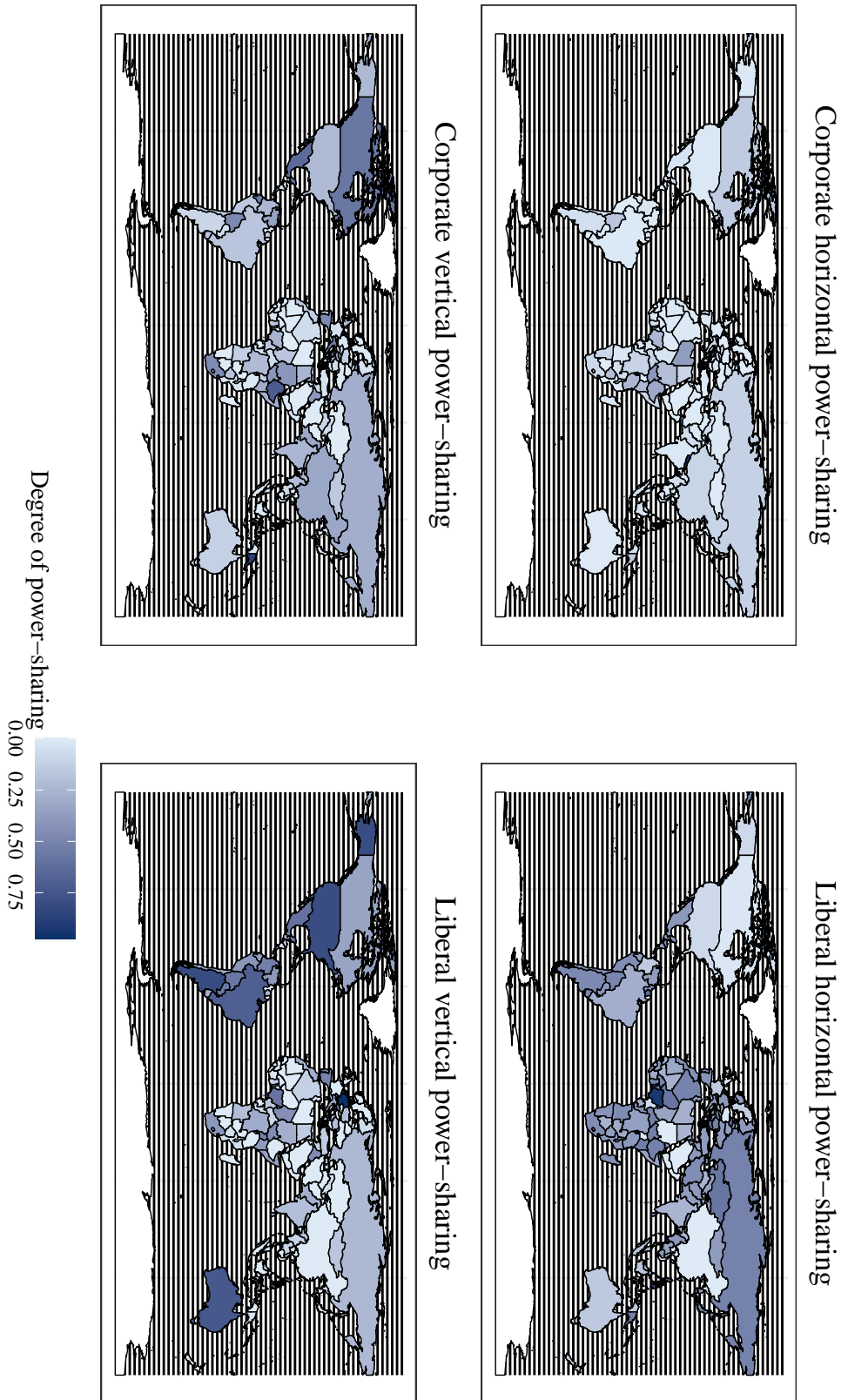


Figure 4.5: Map of average power-sharing per dimension and type, 2018

Note: The figure is created by calculating the size-weighted average power-sharing index per dimension and type across non-core groups in each country. Source: Constitutional Power-Sharing Dataset.

Table 4.3: CPSD: Horizontal power-sharing - averages across non-core groups

Country	Period	H. PS.	H. PS. (corp.)	H. PS. (lib.)
Nepal	2015-2018	0.98	0.97	0.36
Cyprus	1960-1962	0.93	0.9	0.27
Comoros	2001-2017	0.87-0.92	0.86-0.91	0.32
Bosnia and Herzegovina	1995-2018	0.9	0.88	0.29-0.3
Belgium	1999-2018	0.87	0.87	0.28-0.29
Kosovo	2008-2018	0.83-0.84	0.81-0.82	0.35
Burundi	2004-2018	0.81-0.83	0.76-0.83	0.6-0.77
Rwanda	1993	0.83	0.83	0
Serbia / Serbia and Montenegro	1974-1990	0.8	0.8	0
Cyprus	1963-2018	0.76-0.77	0.57	0.27-0.29
Nigeria	1999-2018	0.76-0.77	0.22-0.24	0.68-0.71
Belgium	1995-1998	0.76	0.76	0.28
Belgium	1970-1994	0.74	0.65	0.28
Nigeria	1978-1982	0.73	0.25	0.57
Serbia / Serbia and Montenegro	1971-1973	0.72	0.72	0
Rwanda	2010-2018	0.71	0.02	0.71
South Sudan	2011-2018	0.66-0.7	0.37-0.41	0.36-0.38
Lebanon	1990-2018	0.68-0.69	0.49-0.5	0.19
South Africa	1993	0.69	0.02	0.69
Fiji	1997-2008	0.67-0.68	0.4-0.42	0.51
Comoros	2018	0.67	0.39	0.29
South Africa	1994-1995	0.65	0.06	0.65
Yemen	1991-1992	0.65	0.38	0.28
Switzerland	1945-2018	0.6-0.64	0.25-0.39	0.47-0.5
Uruguay	1952-1955	0.64	0	0.64
Iraq	2004-2009	0.58-0.6	0.01-0.17	0.56-0.59
Czechoslovakia	1989-1992	0.59	0.45	0.5-0.51
Macedonia	2001-2018	0.58-0.59	0.48	0.29-0.3
Kenya	2010-2018	0.57	0.23	0.39
Rwanda	2003-2009	0.57	0.02	0.57
Serbia / Serbia and Montenegro	1991	0.57	0.57	0
Ghana	1969-1970	0.56	0.24-0.25	0.33
Lebanon	1945-1969	0.56	0.37	0.19
Lebanon	1970-1989	0.49-0.54	0.32-0.35	0.19
Nepal	1990-2001	0.52-0.54	0-0.01	0.52-0.54
Uganda	1963-1965	0.51-0.53	0.35-0.38	0.29
Uruguay	1956-1965	0.53	0	0.53
Ghana	1971	0.52	0.19	0.34
Laos	1953-1974	0.52	0	0.52
Ethiopia	1994-2018	0.51	0.31-0.32	0.38
Burundi	1992-1995	0.5	0.15	0.42
Central African Republic	2015-2018	0.5	0.12	0.38
Philippines	1997-2018	0.5	0.05-0.06	0.48
Tanzania	2009-2018	0.5	0.25	0.29
Indonesia	1949	0.47	0.14	0.36
Afghanistan	2002-2003	0.46	0.46	0.14-0.15
Sudan	2012-2014	0.46	0.04	0.44
Surinam	1987-2018	0.46	0	0.46
Togo	2002-2018	0.46	0.04	0.42
Bolivia	1994-2018	0.36-0.45	0.02-0.18	0.36

Note: Selection of country periods, sorted by highest average index value of horizontal power-sharing. All values average across non-core groups, weighted by group size, and rounded to two digits. H. PS. = horizontal power-sharing; corp. = corporate; lib. = liberal

ernments, was formally split between the two parties obtaining the highest vote shares (Constitution of 1952, Arts. 149-151, 158). Finally, almost completely neglected cases include Ghana between 1969 and 1971 (which institutionalized an inter-ethnic pact between the Ga and Ewe groups, cf. Chazan 23), and the short-lived, territorially-inclusive United States of Indonesia in 1949 (which, among other measures, required inter-regional consensus for appointing the Prime Minister, cf. Constitution of 1949, Art. 74).

Other cases indicate some of the drawbacks of exclusively relying on formal provisions. For example, Laos obtains high index values between 1953 and 1974, as its constitution required a two-thirds majority for the election of the President (cf. Constitution of 1947, Arts. 19-22). Similarly, Rwanda after 2010 scores highly, as its constitution requires cabinet seats to be distributed proportionally according to party representation in its parliament (Constitution of 2003, articles 116 and 62). However, in both cases these inclusive provisions mask a de-facto one or dominant party system which does not effectively amount to the degree of effective liberal power-sharing indicated by their high index values. Another problematic example is Cyprus, whose index values remain high even after power-sharing effectively broke down after 1963, as most of its provisions remain in the constitution and have not been formally rescinded even if they are not, de facto, in effect anymore.

The distinction between corporate and liberal types of power-sharing given by the aggregate index values also mostly reflects existing conceptualizations in the literature. The power-sharing systems which the CPSD codes as the most corporate are prominently discussed under this label in theoretical and case study work as well, such as Bosnia and Herzegovina, Belgium, Burundi, Cyprus, Lebanon, and post-US occupation Afghanistan (McCulloch 2014). Similarly, the cases coded as the most liberal reflect existing scholarly work, including post-Apartheid South Africa (Sisk 1995), Nigeria's non-ethnic power-sharing arrangement based on cross-cutting territorial units (Kendhammer 2010, 2015; Suberu 2007), Fiji between 1997 and 2008 (Fraenkel 2017),

Switzerland, and Iraq between 2004 and 2009 (McGarry & O’Leary 2007).

Table 4.4 provides the analogous overview for power-sharing of the vertical dimension. It similarly indicates a high face validity for most coded cases for this second dimension as well. The list is topped by several classic federal countries, which include Switzerland, the United States of America, Australia, Canada, Austria, and Italy (Elazar 1986). It also shows a mostly intuitive distinction between vertical power-sharing of the corporate and liberal types. By far the highest values for the former are reached in countries where ethnically-based areas are awarded far-ranging special autonomy arrangements, such as Canada (Québec, cf. Basta 2017), Belgium (comprising three linguistic communities), Ethiopia (with its comprehensive system of ethnic autonomous areas, cf. Fessha & der Beken 2013), and the large Socialist federations influenced by Leninist-Stalinist nationalities ideology (Czechoslovakia, Yugoslavia, and Russia immediately after the fall of the Soviet Union, cf. Roeder 1991; Hale 2008). Conversely, the highest values for the latter are attained in the mostly non-ethnic federations of Switzerland, the United States, Australia, and, partly, Nigeria, which has moved steadily towards more cross-cutting territorial units (De Zwart 2005), as is also reflected in the data.

Beyond the corporate-liberal distinction and the detailed capturing of different degrees of power-sharing, another key advantage of the CPSD is that it accounts for the potentially unequal treatment of different ethnic groups, which forms a key factor in this dissertation’s theoretical arguments as well (see chapter 3). Table 4.5 illustrates this on the example of Bosnia and Herzegovina in 2018. It clearly shows the unequal treatment of different groups under its power-sharing constitution that has been condemned as discriminatory by the European Court of Human Rights (cf. McCrudden & O’Leary 2013): First, power at the central level is exclusively shared between the three “constituent groups”, the Bosniaks, Serbs, and Croats, which all attain high index values, whereas other groups, such as the Roma, are completely excluded and attain very low index values. Second, only Bosniaks and Serbs are coded as possessing

Table 4.4: CPSD: Vertical power-sharing - averages across non-core groups

Country	Period	V. PS.	V. PS. (corp.)	V. PS. (lib.)
Switzerland	1945-2018	0.88	0.31	0.57
United States	1945-2018	0.86-0.87	0.17-0.19	0.69-0.71
Australia	1984-1994	0.78-0.79	0.11	0.67-0.68
Brazil	1988-2018	0.75	0.14-0.15	0.61-0.62
Australia	1995-2018	0.74	0.1	0.64
Canada	1945-2018	0.71-0.74	0.39-0.48	0.25-0.34
South Sudan	2011-2018	0.73-0.74	0.33-0.36	0.38-0.4
Austria	1945-2018	0.67-0.72	0.12-0.13	0.54-0.59
Nigeria	1960-1965	0.72	0.36-0.37	0.35-0.36
Nigeria	1999-2018	0.7-0.72	0.19-0.21	0.51-0.52
Italy/Sardinia	1998-2018	0.65-0.71	0.4-0.43	0.25-0.27
Spain	1990-2018	0.68-0.71	0.35-0.39	0.43-0.45
Brazil	1946-1966	0.69	0.13	0.56
South Africa	2017-2018	0.69	0.38	0.35
Australia	1945-1983	0.68	0.09	0.58-0.59
Mexico	1979-2018	0.66-0.68	0.4-0.52	0.48-0.52
Nigeria	1978-1982	0.68	0.25	0.43
Nigeria	1989-1992	0.68	0.22-0.25	0.43-0.46
Serbia / Serbia and Montenegro	1974-1987	0.68	0.64	0.05
Bolivia	2009-2018	0.67	0.38	0.49
Congo, DRC	1964-1965	0.67	0.27	0.4
Kenya	1963-1965	0.66-0.67	0.43	0.24
South Africa	1996-2007	0.67	0.35	0.35-0.36
Venezuela	1999-2008	0.66-0.67	0.3-0.48	0.18-0.36
Serbia / Serbia and Montenegro	2006-2007	0.65	0.55	0.11
South Africa	2008-2016	0.65	0.37	0.32
Pakistan	1956-1957	0.64	0.51	0.13
Serbia / Serbia and Montenegro	1963-1973	0.57-0.64	0.55-0.61	0.02-0.03
Venezuela	1945-1952	0.57-0.64	0.41-0.47	0.15-0.17
Venezuela	1989-1998	0.6-0.64	0.44-0.47	0.16-0.18
Belgium	1995-2018	0.59-0.63	0.57-0.6	0.22-0.24
Congo, DRC	1966	0.63	0.23	0.41
South Africa	1993-1995	0.61-0.63	0.31-0.33	0.33
Spain	1981-1989	0.55-0.63	0.34-0.35	0.34-0.38
Venezuela	2009-2018	0.63	0.28-0.29	0.34-0.35
Italy/Sardinia	1970-1997	0.56-0.61	0.36-0.38	0.21-0.23
Colombia	1991-2018	0.6	0.2	0.46
Comoros	1978-1981	0.6	0.59	0.01
Mexico	1974-1978	0.6	0.4	0.44
Serbia / Serbia and Montenegro	1988-1990	0.55-0.6	0.53-0.56	0.02-0.04
Comoros	2001-2008	0.59	0.58	0.01
Philippines	1991-2018	0.59	0.09-0.11	0.48-0.5
Brazil	1945	0.58	0.11	0.47
Ethiopia	1994-2018	0.57-0.58	0.57-0.58	0
Kenya	2010-2018	0.58	0.24	0.33
Russia	1993-2002	0.56-0.58	0.3-0.31	0.26-0.27
Brazil	1967-1987	0.57	0.1-0.11	0.46-0.47
Congo, DRC	2005-2010	0.57	0.25	0.32
Czechoslovakia	1990-1992	0.57	0.57	0
Equatorial Guinea	1968-1972	0.57	0.18	0.4

Note: Selection of country periods, sorted by highest average index value of horizontal power-sharing. All values average across non-core groups, weighted by group size, and rounded to two digits. V. PS. = vertical power-sharing; corp. = corporate; lib. = liberal.

Table 4.5: Group-wise power-sharing indices: Example of Bosnia (2018)

Group	Corp. PS (h)	Lib. PS (h)	Corp. PS (v)	Lib. PS (v)
Bosniaks/Muslims	0.94	0.29	0.83	0.01
Serbs	1.00	0.29	0.82	0.01
Croats	0.85	0.29	0.00	0.00
Roma	0.00	0.29	0.00	0.00
Albanians	0.00	0.29	0.00	0.00
Montenegrins	0.00	0.29	0.00	0.00
Other (non-relevant)	0.00	0.29	0.00	0.01

Note: All index values rounded to two digits. Corp. = corporate; PS = power-sharing; lib. = liberal; h = horizontal; v = vertical.

any power-sharing in the vertical dimension, as they are the only groups with access to their own first-order autonomous unit (the Confederation of Bosnia and Herzegovina and the Republika Srpska, respectively). Conversely, Croats, who lack their own entity, are coded as not enjoying any vertical power-sharing at all (cf. Basta 2016).

Beyond the group-level, the CPSD also provides select data at the subgroup level. Most importantly, this applies to their differential treatment in various territorial units.²⁵ While a detailed discussion of this is outside the scope of this chapter, figure 4.6 provides a graphical overview for the changing degree of autonomy given to Sudan's territorial units over time. Within each of these units, ethnic groups' vertical power-sharing levels diverge, depending on the degree of autonomy awarded to the unit and its ethnic composition.

Comparison with other datasets

This sub-section compares the CPSD to two alternative datasets on power-sharing and discusses some of its limitations. While not amounting to a full

²⁵Indeed, a group-wise averages are calculated indirectly on the basis of group-territory intersections, whose respective values can diverge if different territorial units are awarded diverging degrees of influence or autonomy and where their ethnic composition diverges. See appendix B.1.7 for a detailed description

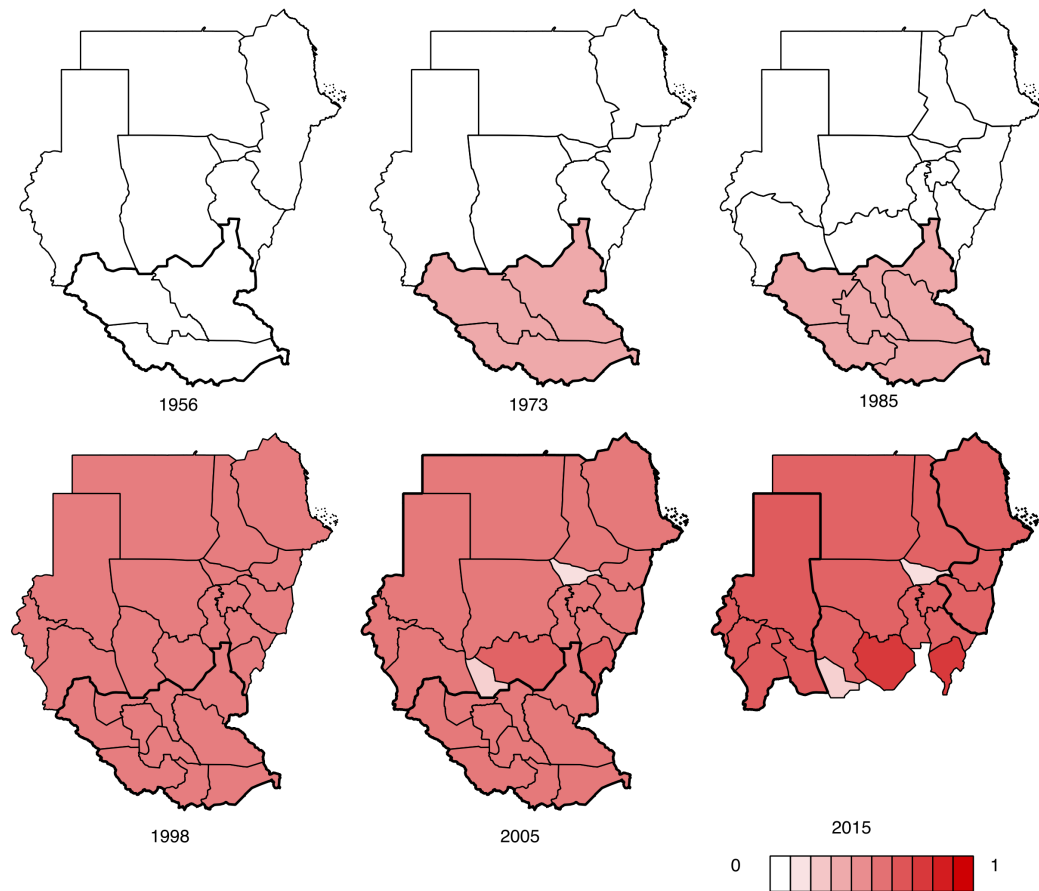


Figure 4.6: Changing territorial units and degrees of vertical power-sharing: Example of Sudan

Sources: Constitutional Power-Sharing Dataset, Significant Administrative Unit Dataset (see this chapter for both).

validity check, this at least shows the CPSD’s considerable construct validity (through the association of the CPSD’s institutional measures with existing measures for power-sharing). This is in addition to the content and face validity already probed in the sub-section above, which showed that the CPSD’s aggregate measures indeed intuitively capture the most prominently-discussed cases of corporate and liberal power-sharing in the literature well (cf. Kimberlin & Winterstein 2008).

The most closely-related dataset to the CPSD is the Inclusion, Dispersion, and Constraints Dataset (IDC, Strøm et al. 2015), which similarly codes institutionalized power-sharing for the same selection of countries. For this

dissertation's purpose, the CPSD has three key advantages: First, it offers a larger temporal extension, covering the years from 1945 (or independence) until 2018, compared to the IDC's extension of 1975 to 2010. This extended coverage is important for quantitative analyses, as power-sharing institutions are extremely rare (Bogaards et al. 2019) and often subject to very slow change, which makes their effects difficult to estimate in the presence of time-invariant confounders (cf. Plümper & Troeger 2007). Further, as argued in chapter 2, its wide coverage helps further alleviate concerns of selection bias, by providing a spatially and temporally extensive classification of both post-conflict and peaceful contexts. Second, it differentiates between corporate and liberal types of power-sharing (whereas the IDC does not), which is an increasingly crucial distinction in the literature on power-sharing institutions also beyond this dissertation (cf. McCulloch 2014). Finally, its unit of analysis is the ethnic group-level (whereas the IDC relies on country-level ordinal variables), which enables it to account for the unequal treatment of different non-core groups in many power-sharing systems, which beyond this dissertation is also a factor that has received increasing scrutiny in the wider literature on power-sharing (Agarin et al. 2018).

A further distinction between the CPSD and the IDC is the derivation of the relevant dimensions of power-sharing. The CPSD predominantly distinguishes between two, namely the horizontal and vertical ones.²⁶ In contrast, the IDC is somewhat more fine-grained as regards the variables underlying those basic two dimensions: based on a combination of theoretical insights and factor analysis, it differentiates between three. Whereas its dispersive dimension closely corresponds to the CPSD's vertical dimension (see correlations in table 4.6), its inclusive and constraining dimensions are both contained in the CPSD's horizontal dimension. Investigating differences between the inclusive and constraining elements within the horizontal dimension is beyond the scope of this dissertation. However, the CPSD enables researchers to flexibly do so,

²⁶In addition to the economic and cultural ones, which do not figure prominently in this dissertation, but which are discussed in B.1.2

for example by creating custom indices based on its underlying components (grand coalition, proportional representation, and mutual veto).

Table 4.6 shows the conceptual overlap and distinctions between the CPSD and IDC more systematically. It indicates that the CPSD's index for horizontal power-sharing of the corporate type closely corresponds to the IDC's inclusive dimension. It also shows that both the corporate and liberal indices of the CPSD's vertical dimension closely correspond with the IDC's dispersive dimension. However, it also indicates that horizontal power-sharing of the liberal type is to large degrees not covered by the IDC data, except for partial overlaps with its constraining dimension (which are related to the CPSD's liberal mutual veto component).²⁷ This likely reflects the extreme scarcity of deeply institutionalized horizontal power-sharing systems of the liberal type, which is frequently seen as being limited to cases such as Switzerland, post-Apartheid South Africa, and Fiji between 1997 and 2008 (McCulloch 2014).

A second related dataset is the Ethnic Power Relations Dataset (EPR, cf. Vogt et al. 2015). Similar to the CPSD, its units of analysis is also the ethnic group-level and also similarly it distinguishes between a horizontal and vertical dimension, in the form of its ethnic government inclusion and autonomy variables. As already alluded to numerous times, the key difference between the two datasets is the following: Whereas the CPSD exclusively considers formal institutions, the EPR dataset codes power-sharing practices. As discussed in several places in this dissertation (most notably, chapters 3 and 5), the two are closely related, but only overlap partly (cf. also Bormann et al. 2019): On the one hand, power-sharing practices may be the result of non-institutional factors (such as ad-hoc decisions by an accommodationist government). On the other, institutions may mandate inclusiveness but fail to be implemented (for example in Cyprus, where the defunct power-sharing constitution formally

²⁷Appendix B.20 additionally provides a factor analysis of the variables underlying the CPSD's two main dimensions of power-sharing. While clear factors are found for its vertical indices and the underlying modes of horizontal power-sharing of the corporate type, it fails to reveal a clear latent variable underlying horizontal power-sharing of the liberal type.

Table 4.6: Correlations: CPSD (country avg.) and IDC

	Avg. PS. h	Avg. PS. h (corp.)	Avg. PS. h (lib.)	Avg. PS v.	Avg. PS v. (corp.)	Avg. PS v. (lib.)	Incl.	Disp.	Con- str.
Avg. PS. h	1	0.63	0.84	0.29	0.36	0.15	0.43	0.22	0.36
Avg. PS. h (corp.)	0.63	1	0.16	0.24	0.44	0.04	0.66	0.19	0.07
Avg. PS. h (lib.)	0.84	0.16	1	0.21	0.16	0.19	0.08	0.18	0.4
Avg. PS v.	0.29	0.24	0.21	1	0.73	0.88	0.04	0.69	0.25
Avg. PS v. (corp.)	0.36	0.44	0.16	0.73	1	0.33	0.16	0.52	0.15
Avg. PS v. (lib.)	0.15	0.04	0.19	0.88	0.33	1	-0.05	0.61	0.24
Inclusive	0.43	0.66	0.08	0.04	0.16	-0.05	1	0.08	0.05
Dispersive	0.22	0.19	0.18	0.69	0.52	0.61	0.08	1	0.37
Constraining	0.36	0.07	0.4	0.25	0.15	0.24	0.05	0.37	1

Note: Avg. = average; PS. = power-sharing; corp. = corporate; lib. = liberal; h = horizontal; v = vertical; Incl. = Inclusion; Disp. = Dispersion; Constr. = Constraints. Sources: CPSD (for PS. measures), IDC (Strøm et al. 2015.)

remains in place).

Table 4.7 shows the correlations between the group-level measures of both datasets. Overall, these are very low, except for the one between vertical power-sharing of the corporate type and de-facto autonomy. However, as chapter 5's mediation analysis will show, there is a clear link between institutions and practice of the two datasets. Most importantly, both types of horizontal power-sharing are clear predictors of a groups' de-facto government inclusion, while vertical power-sharing of the corporate type strongly increases the probability that a group enjoys de-facto autonomy.

4.3 Ethnically-attributed mass surveys

While the first data contribution of this dissertation, the CPSD, concerns the independent variables of interest, the second one focuses on some of the key outcome variables. In order to map the intermediate impacts of power-sharing on conflict (see the second empirical requirement formulated in chapter 2 and the theoretical argument in chapter 3), time-variant and spatially extensive

Table 4.7: Correlations: CPSD (country avg.) and EPR

	PS. h	PS. h (corp.)	PS. h (lib.)	PS. v	PS. v (corp.)	PS. v (lib.)	In- cluded	Au- ton- omy
PS. h	1	0.6	0.83	0.25	0.24	0.15	0.16	0.14
PS. h (corp.)	0.6	1	0.1	0.24	0.4	-0.01	0.19	0.34
PS. h (lib.)	0.83	0.1	1	0.19	0.06	0.21	0.08	-0.04
PS. v	0.25	0.24	0.19	1	0.72	0.8	0.09	0.37
PS. v (corp.)	0.24	0.4	0.06	0.72	1	0.15	0.15	0.57
PS. v (lib.)	0.15	-0.01	0.21	0.8	0.15	1	0.01	0.03
Included	0.16	0.19	0.08	0.09	0.15	0.01	1	0.1
Autonomy	0.14	0.34	-0.04	0.37	0.57	0.03	0.1	1

Note: PS. = power-sharing; corp. = corporate; lib. = liberal; h = horizontal; v = vertical.
Sources: CPSD (for PS. measures), EPR (Vogt et al. 2015.)

data on a set of key group-wise attitudes is required. Specifically, this necessitates information on mass grievances and ethnic salience of ethnic groups living under different types of institutional systems. These should furthermore ideally include significant variation in power-sharing over time, to minimize the impact of time-invariant confounders on the group-level. Together, these considerations rule out relying either on single cross-regional waves of existing mass attitude surveys or on multiple waves of a specific regional survey, as is commonly done in the literature testing the more homogeneous attitudinal effects of consensus democratic institutions (e.g., Bühlmann & Hänni 2012; Lijphart 1999).

To map the impact of power-sharing institutions on grievances and ethnic salience, the empirical chapters to follow thus rely on a newly ethnically-attributed set of mass surveys that aims to maximize spatial and temporal coverage of these mass attitudes. The next sub-section describes the selection and combination of these mass surveys. A second sub-section then describes the attribution of survey respondents to specific ethnic groups.

4.3.1 Selection and combination of large-scale surveys

Going beyond existing comparative research as regards both spatial and temporal coverage, this dissertation relies on a broad combination mass surveys that is newly attributed to specific ethnic groups. In a first step, all conventionally-used and freely available cross-national mass surveys were considered and screened for relevant measures pertaining to grievances (for chapter 6) and ethnic identification (for chapter 7). To my knowledge, the resulting collection of attitudinal data represents the most extensive combination of mass surveys employed to analyze the attitudinal effects of power-sharing institutions so far. While the combination of such a large number of mass surveys brings with it its own issues (such as comparability between different survey instruments, see chapters 6 and 7), in light of the strong data requirements in terms of variance, the benefits arguably outweigh the drawbacks for the present purpose.

Two broad types of surveys are included in the resulting collection of attitudinal data. First, large cross-regional mass surveys measuring individual attitudes for a global sample, including the World Values Surveys (Inglehart et al. 2014), the International Social Survey Programme (ISSP) National Identity modules (ISSP Research Group 2010, 2012, 2015), augmented by its spin-off, the China Survey (Harmel & Yeh 2015²⁸), and the Comparative National Elections Project (CNEP²⁹). Second, a series of mass surveys covering specific regions, including Africa (the Afrobarometer, cf. Afrobarometer Data 1999), the Middle East and North Africa (the Arab Barometer³⁰), Asia (the Asia Barometer, cf. Inoguchi & Fujii 2008, Asian Barometer, South Asia Barometer,³¹ and Eurasia Barometer³²), Europe (the European Social Survey, cf. Norwegian Centre for Research Data, Norway 2002, the New Europe

²⁸The China Survey is a project of the College of Liberal Arts at Texas A&M University, in collaboration with the Research Center for Contemporary China (RCCC) at Peking University.

²⁹Available at: <<https://u.osu.edu/cnep/surveys/surveys-through-2012/>> (accessed on: 17.5.2020).

³⁰Available at: <<https://www.arabbarometer.org/>> (accessed on: 17.5.2020).

³¹Both available at: <<http://asianbarometer.org/>> (accessed on: 17.5.2020).

³²Through the Global Barometer Surveys Project, available at: <<https://www.globalbarometer.net/>>, cf. <<http://office.eurasiabarometer.org/>> (both accessed on: 17.5.2020).

Table 4.8: Ethnically-attributed mass surveys: Overview

Survey	Waves	Years	Countries	Respondents
Afrobarometer	1-6	1999-2015	37	206'850
Arab Barometer	1-5	2007-2018	13	63'345
Asia Barometer	1-5	2003-2007	28	45'094
Asian Barometer	1-4	2001-2015	13	60'135
China Survey	1	2008-2008	1	3'989
CNEP	1	1992-2018	21	70'456
European Social Survey	1-8	2002-2017	36	393'495
Eurasia Barometer	1	2010-2010	9	18'000
ISSP National Identity	1-3	1995-2013	44	122'358
Latinobarometro	1-21	1995-2018	19	431'148
New Baltics Barometer	1-6	1993-2004	3	21'601
New Europe Barometer	1-7	1991-2004	17	76'492
New Russia Barometer	1-18	1992-2009	1	34'071
South Asia Barometer	1-2	2005-2013	5	19'059
World Values Survey	1-6	1981-2014	106	504'390

Note: CNEP = Comparative National Elections Project; ISSP = International Social Survey Programme.

Barometer, cf. Rose 2010b, the New Russia Barometer, cf. Rose 2010c, and the new Baltics Barometer, cf. Rose 2010a), and Latin America (the *Latinobarometro*³³). Table 4.8 gives an overview on all surveys used, including the number of countries, years, and respondents contained in them.

The coverage resulting from the combination is extensive and includes 148 countries with, on average, 9 unique survey waves for each. Apart from a small number of states in Africa and in the Middle East, no large countries are systematically missing. The number of unique survey waves per country ranges from 1 for several states in Central Asia up to 33 for Russia. Figure

³³Available at: <<http://www.latinobarometro.org/latContents.jsp>> (accessed on: 17.5.2020).

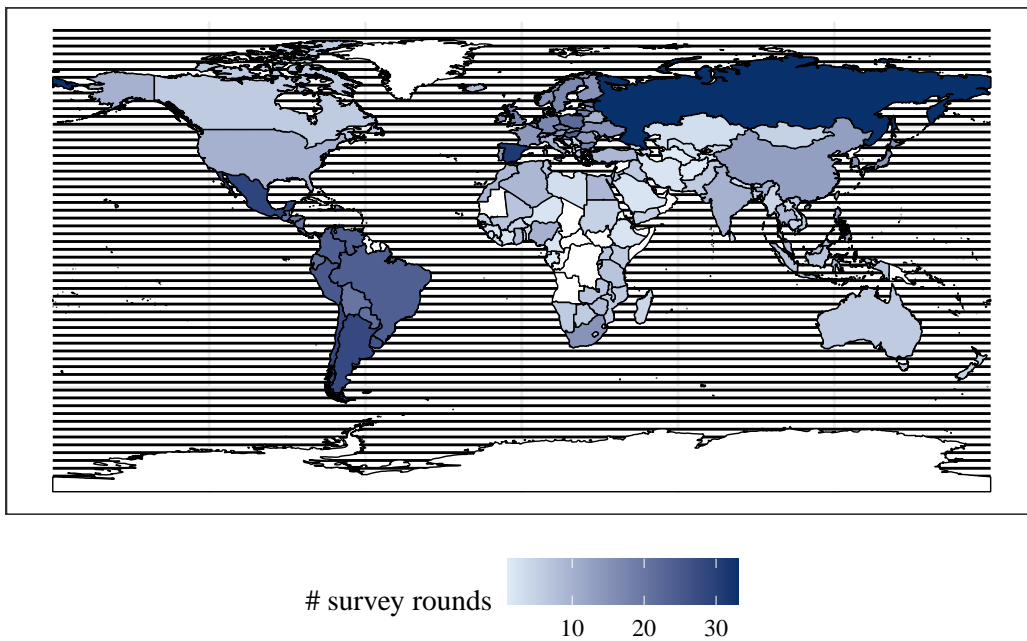


Figure 4.7: Combination of mass surveys: coverage

4.7 gives a geographic overview over the number of survey waves per country in this data collection.

4.3.2 Attribution of large-scale surveys to ethnic groups

To analyze the relationship between power-sharing institutions and citizens' attitudes based on survey data, survey respondents had to be attributed to the specific ethnic groups used in the CPSD (i.e., to the augmented group list provided by the EPR data, cf. Vogt et al. 2015). This was done by using a combination of explicit self-identification question items asked in some of the surveys (most consistently in the Afrobarometer) and information on their settlement area, religion, language, and phenotype provided by others. These were compared to the corresponding data from the EPR-Ethnic Dimensions dataset (Vogt et al. 2015) and local settlement patterns derived from the EPR dataset to match respondents and ethnic groups.³⁴

Most existing studies facing a similar challenge (e.g. Bühlmann & Hänni 2012; Elkins & Sides 2007; Hänni 2017; Robinson 2014) relied on the same

³⁴More precisely, survey respondents were attributed to the slightly extended list of ethnic groups used in the CPSD (see above).

type of survey variables which they use to manually attribute respondents to their ethnic categories. For the present purpose, the combination of 15 discrete mass survey sources means that such a manual attribution procedure might not only be unfeasible, but might, due to different information provided across survey types, also result in inconsistent classifications based on possibly nontransparent decisions.

I hence opted for a systematic attribution procedure based on the demographic information shared by the respective survey sources and the group-wise information available by the augmented version of the EPR dataset used in this dissertation (Vogt et al. 2015, see appendix above). In a first step, I used the information provided by the EPR-ED dataset (Vogt et al. 2015) to calculate the population shares of each group's sub-segments as given by their within-group cleavages. EPR-ED provides information on three such cleavages: the religious creeds practiced by group members, the languages spoken by them, and their phenotype. It codes both type (e.g., which languages do group members speak?) and relative population shares of up to the three largest sub-segments arising from each cleavage. This enabled me to calculate the population shares of each sub-group, given by their religion, language, and phenotype.³⁵

In a second step, I calculated the demographic proportion of each group settling in each territorial unit used in the different mass surveys. Overall, this is done equivalently to the procedure underlying the aggregation of territorial variables in the CPSD (see B.1.7) through the intersection of ethnic settlement patterns provided by the EPR dataset (Vogt et al. 2015) and the territorial boundaries provided by the Significant Administrative Unit (SAU) dataset (see next section below).³⁶

³⁵For groups not coded by EPR, information for these characteristics was again taken over from the addendum to the EPR dataset compiled for the CPSD dataset, see above.

³⁶The SAU dataset codes all first-order and autonomous administrative units comprised by the CPSD. It additionally codes all superordinate regions used by the various survey waves used to map ethnically-attributed attitudes, for example macro-regions or statistical regions. Where the surveys relied on geographic information below the first-order administrative level (e.g., cities), the corresponding superordinate unit was identified by

In a third step, I combined both sources of information to calculate the population shares of each group's segments (given by religion, language, and phenotype) in each territorial unit used in the surveys. This enabled me to calculate the demographic probability that a respondent is part of a given ethnic group, given their available information on the corresponding characteristics. The probability that a respondent r with a vector of characteristics R belongs to a given group x is given by the following formula:

$$P(r \in x) = \frac{\alpha_{x, \text{territory } r} * \beta_{x, \text{religion } r} * \gamma_{x, \text{language } r} * \delta_{x, \text{phenotype } r} + \epsilon_x}{\sum_{x=1}^X (\alpha_{x, \text{territory } r} * \beta_{x, \text{religion } r} * \gamma_{x, \text{language } r} * \delta_{x, \text{phenotype } r} + \epsilon_x)} \quad (4.1)$$

In other words, it is calculated by dividing the population shares of group x with characteristics corresponding to respondent r by the total population shares of all groups with the same characteristics. $\alpha_{x, \text{territory } r}$, $\beta_{x, \text{religion } r}$, $\gamma_{x, \text{language } r}$, and $\delta_{x, \text{phenotype } r}$ are the respective shares of group x with characteristic r . ϵ_x is a factor to account for the demographic shares of group x 's unidentified sub-segments (i.e., for who information on a characteristic is missing). This is relevant only in a small number of cases where the individual population shares of the three characteristics provided by EPR-ED do not add up to 1 and for "other" groups for which these characteristics are not coded. The addition of this factor to both nominator and denominator serves to account for the fact that these unidentified sub-segments might in theory possess these same characteristics R , yet remain unidentified.

Figure 4.8 provides an example for this attribution procedure. It shows the population shares of all Bosnian ethnic groups in my dataset and the proportion within each group that possesses a certain characteristic (territory, religion, language, phenotype). It indicates that some groups are easily distinguishable from others, given certain observed characteristics, while this is more difficult for others. For example, a respondent speaking the Bosnian language

a quick web-research and its demographic characteristics taken over.

		Bosniaks	Serbs	Croats	Roma	Albanians	Montenegrins	Other
		0.5	0.31	0.15	0.01	0.0008	0.0005	0.03
Territory	Federacija	0.95	0.04	0.99	0.56	0.56	0.56	0.56
	Republika	0.03	0.94	0.01	0.43	0.43	0.43	0.43
Religion	Sunni Islam	1	0	0	0.4	0.6	0	N/A
	Serb Orthodox	0	1	0	0	0	1	N/A
	Catholic	0	0	1	0.3	0.1	0	N/A
	Protestant	0	0	0	0.3	0.2	0	N/A
Language	Bosnian	1	0	0	0	0	0	N/A
	Serbian	0	1	0	0	0	1	N/A
	Croat	0	0	1	0	0	0	N/A
	Romany	0	0	0	1	0	0	N/A
	Tosk Albanian	0	0	0	0	0.62	0	N/A
	Gheg Albanian	0	0	0	0	0.38	0	N/A
Phenotype	European	1	1	1	1	1	1	N/A

Figure 4.8: Attribution of survey respondents: Example of Bosnia

Note: The top row shows the overall demographic shares of each group. All numbers in the other rows are fractions indicating the relative size of each group's subgroups, given territory, religion, language, and phenotype. For example, Bosniaks have an overall demographic share of 0.5 and 95% of them live in the Federacija.

would almost unequivocally be attributed to the Bosniak group.³⁷ Similarly, a respondent speaking Serbian would be attributed to the Serb group with high probability.³⁸ In other cases, the attribution would be less straightforward: an otherwise unidentified respondent living in the Federacija would only be attributed with a comparably small probability to the Bosniak group.³⁹

4.3.3 Validation

To validate the attribution procedure, I compared the relative population shares of the ethnic groups according to the extended EPR-data with those I obtained for each country's unique survey wave. The very high correlation of $r=0.94$ indicates a high agreement between both and is comparable to manual classifications (Bühlmann & Hänni 2012). To further minimize the potential

³⁷ $[0.5 * 1] / [0.5 * 1 + 0.03]$

³⁸ $[0.31 * 1] / [0.31 * 1 + 0.0005 * 1 + 0.03]$

³⁹ $[0.5 * 0.95] / [0.5 * 0.95 + 0.31 * 0.04 + 0.15 * 0.99 + 0.01 * 0.56 + 0.0008 * 0.56 + 0.0005 * 0.56 + 0.03 * 0.56]$

for potentially problematic automatic classifications to distort the analyses to follow in chapters 6 and 7, I excluded any respondent where ethnic attribution was only achieved with a probability of less than 80%.⁴⁰ I also excluded any group-survey-year where the relative group sizes differ between the survey and ethnic group data by more than 20%. This reduces the number of available respondents significantly, from 2'070'483 to 1'562'336.⁴¹

4.4 The Significant Administrative Unit dataset (SAU)

A final data contribution of this dissertation is a geo-coded dataset on administrative boundaries: the Significant Administrative Unit (SAU) dataset. It includes all 180 countries that form part of the CPSD and covers the same temporal extension (1945 or independence to 2018). Overall, it contains more than 9000 geo-coded polygons, each of which represents a specific territorial unit in a given time period.

Within the dissertation, the SAU dataset mainly played an auxiliary role and supported the previous two data collections. Specifically, it served two purposes: First, for the CPSD, it enables the aggregation of territorial power-sharing provisions onto the ethnic group level, through spatial intersections between territorial power-sharing units and ethnic settlement patterns. Second, for the ethnic attribution of survey respondents, it allows for a more precise attribution procedure, by allowing for a combination of information on a respondent's place of residence with said place's ethnic demography.

The SAU dataset is similar in set-up to the existing Administrative Units dataset (Deiwiks 2010; Deiwiks et al. 2012). Similarly, it contains time-variant, geo-coded administrative boundaries of first-order administrative units, as given by the FIPS PUB 10-4 standard.⁴² However, as necessitated by the

⁴⁰As given by the probability measure used to conduct the attribution, see above.

⁴¹To assess whether this strongly influences my empirical results in chapters 6 and 7, all their main models are re-run with different thresholds.

⁴²And similar to the Administrative Units dataset, it also deviates from the FIPS standard for the United Kingdom, where the first level is coded as encompassing England, Scotland,

above rationale, it additionally includes two further types of geographic units. First, it includes all lower-level autonomous regions identified in the CPSD, for which local ethnic demographics were also required in order to aggregate power-sharing from the territorial to the ethnic group level. And, second, it also includes all custom geographic units that are identified in the mass survey sources presented above, for example, statistical regions without any other administrative purpose. Beyond these differences, it is also more spatially exhaustive, as it does not only code federations, but unitary countries as well.

The coding procedure proceeded as follows. In a first step, a list of all geographic units for which geo-coded polygons are required was compiled. For first-order administrative units, this list is based on information on each country's internal boundary changes over time from Law (2010) and from the accompanying up-to-date webpage (<http://www.statoids.com>). For autonomous regions, this is based on the list of autonomous government tiers compiled as part of the CPSD coding process. Finally, for custom survey regions, it is based on all geographic regions provided by the respective mass survey waves.

Second, for each identified geographic unit, the corresponding polygons were geo-coded in the GIS software QGIS. This procedure relied on a combination of existing geographic data-sources and own manual geo-coding. Specifically, it was done by relying heavily on data from the Database of Global Administrative Areas (GADM, cf. <http://gadm.org/data.html>) from which the most recent administrative first-order administrative boundaries of all 180 CPSD countries were obtained. Using information on boundary changes over time from Law (2010) and from the accompanying webpage (<http://www.statoids.com>), a time-varying version of this geocoded dataset was then created. Previous boundaries not coded by GADM were either derived by backwards aggregating the GADM polygons (in cases where an administrative unit split into smaller ones). Alternatively, they were created by geo-referencing historical maps and coding the previous boundaries manually based on them (in cases

Northern Ireland, and Wales.

where other territorial reorganizations or border adjustments were indicated).

The result of this procedure is the time-varying Significant Administrative Units (SAU) dataset. It contains more than 8900 unique polygon-periods (see figure 4.9 for a graphical representation of this geo-dataset).

4.5 Conclusion

This chapter has presented three new data sources necessary to test this dissertation's key hypotheses (see chapter 3) while following its key theoretical and empirical requirements (see chapter 2). The first contribution is the Constitutional Power-Sharing Dataset (CPSD). This provides much-needed information on the prevalence of both corporate and liberal power-sharing on the ethnic group level and over time. By encompassing 180 countries since the Second World War or independence, it enables this dissertation to test their effects while alleviating concerns of selection-bias. A second contribution is a set of newly ethnically-attributed mass surveys. This provides information on the distribution and evolution of grievances and ethnic salience among members of different ethnic groups in a global and temporally extensive sample. Thereby, it enables this dissertation to test not only the impacts of power-sharing institutions on the eventual outcome of interest, but also the intermediate, attitudinal steps involved in the posited causal mechanisms. A third contribution is the Significant Administrative Unit (SAU) dataset. Its global collection of geo-coded administrative units played an auxiliary role in both the creation of the CPSD and the attribution of survey respondents to geo-concentrated groups. The following three chapters make use of all three data sources to investigate the impacts of corporate and liberal power-sharing on different groups' conflict risks across different time horizons and to probe the causal steps involved in this process in detail.



Figure 4.9: Significant Administrative Unit (SAU): Geocoded boundaries

Note: All polygons in SAU overlaid with transparency. The darker an area, the more overlapping polygons, i.e. the more time variance between 1945 and 2018.

Part III

Comparative empirical investigation

Chapter 5

Power-sharing institutions and conflict

5.1 Introduction

How do power-sharing institutions shape conflict risks? Are they subject to trade-offs along group-lines and across time horizons, as hypothesized in this dissertation? This chapter evaluates these questions empirically. For this purpose, it considers the propensity of non-core groups—ethnic groups that are in a politically subordinate position—to participate in governmental and territorial civil wars. To consider the conflict risks for core groups as well, who can by definition not rebel against a state which "they" dominate politically, it additionally looks at their propensities to instigate coup attempts. In doing so, it provides a first test of whether observable empirical patterns correspond to the key theoretical expectations formulated in this dissertation (see chapter 3): If these hold, we would expect corporate power-sharing to strongly reduce the civil war participation of included non-core groups, who profit from its ethnically-based power-sharing provisions, in the short-term, but conversely increase them in the long term. At the same time, we would also expect corporate power-sharing, through the backlashes it induces, to increase the civil war participation of excluded non-core groups, who remain outside of its inclusive provisions. And we would expect it to make coups from core

groups, whose former dominance is visibly and decisively circumscribed by it, more likely. In contrast, we would expect liberal power-sharing, which abstains from using ethnic criteria, to have weaker but more homogeneous effects across groups and time horizons: it should slightly reduce non-core groups' civil war participation and only weakly increase the risk of core group coups.

In evaluating these expectations, this chapter makes four main empirical contributions. First, it conducts the most extensive quantitative analysis to date on the relationship between power-sharing institutions and conflict. To do so, it relies on theoretically-derived measures provided by the Constitutional Power-Sharing Dataset (CPSD, see chapter 4). These are used to investigate the association between corporate and liberal power-sharing institutions and conflict in 146 multi-ethnic countries since the Second World War. Thereby, it avoids making inference exclusively based on contexts where conflict did in fact occur (see chapter 2). As in such cases power-sharing institutions face the most significant obstacles to pacification, this extensive sample enables it to partly side-step the risks of considerable selection bias (Anderson 2016; Bormann et al. 2019).

Second, it offers one of the first quantitative investigations into the potential side-effects of power-sharing institutions beyond included non-core groups. Following my theoretical argument, these should be substantial both for excluded non-core groups and for formerly dominant core groups. The former should be more likely to engage in civil wars to rectify their exclusion, while the latter should be more likely to instigate coups to reassert their former dominance. Existing quantitative work provides important insights on how power-sharing affects conflict risks by shaping the absolute political status position of non-core groups. This chapter complements these by considering the role of *relative* status positions, which give rise to the trade-off across group lines. For excluded non-core groups, this refers to relative status comparisons with their included counterparts. For core groups, this refers to relative status comparisons with their past political dominance.

Third, it attempts to identify whether the attained correlations between power-sharing institutions and conflict translate into causal patterns. As the first empirical requirement formulated in chapter 2 of this dissertation indicates, this is crucial, as the naive estimates provided by correlational models may be hampered by selection bias and reverse causation (cf. Heckman 2005; Przeworski 2009; Rodden 2009; Winship & Morgan 1999). Most importantly, states often adopt power-sharing during already unstable times. Further, they also predominantly award power-sharing of the corporate type to precisely those groups that are the most conflict-prone in the first place. As these are likely to be systematic tendencies, they might lead the main models in this dissertation to underestimate both its pacifying effects on included non-core groups (who are more conflict-prone in the first place) and its conflict-inducing effects on excluded non-core groups (who are less conflict-prone in the first place). For this purpose, the present chapter complements its main models with an instrumental variable approach. This innovates over existing work by not "only" instrumenting for power-sharing, but doing so for its institutional types (corporate and liberal). The instrumental variable analysis relies on European colonial legacies, which create systematic variance in power-sharing institutions that is conceivably unrelated to subsequent conflict risks through other channels. Thereby, it probes the causal properties of the main findings in this chapter and gives insights on direction and magnitude of their bias induced by endogeneity.

Finally, it contributes to an increasing effort aimed at disentangling the effects of power-sharing institutions and practices (Bormann et al. 2019). For this purpose, it combines information on de-jure power-sharing institutions with data on the corresponding de-facto practices (Vogt et al. 2015). This enables it to follow this dissertation's second empirical requirement, formulated in chapter 2, to trace the intermediate steps of the posited causal mechanisms in detail. Specifically, by conducting a formal mediation analysis, it is able to test a key implication of this dissertation's arguments: On the one hand, that

power-sharing institutions should partly affect conflict risks indirectly, mediated by the corresponding practices. For example, corporate power-sharing should strongly lower included non-core groups' civil war participation by actually awarding them seats in government. And, on the other hand, that power-sharing institutions should also affect conflict risks directly, unmediated by practices. For example, the strict and visible criteria underlying corporate power-sharing should additionally signal a core group's accommodative intent. Thereby, they should further reduce included non-core groups' tendencies of framing and blaming and their conflict propensities.

The overall results from these three procedures—correlational, instrumental variables, and mediation analyses—are mixed. First, general support is found for an indirect effect of power-sharing on non-core groups' conflict propensities, mediated by the corresponding practices. As the findings indicate, both corporate and liberal power-sharing reduce (included) non core-groups' participation in civil wars, most importantly by actually resulting in their central government inclusion. Conversely, corporate power-sharing appears to make civil war participation more likely for excluded non-core groups, as it effectively bars them from central government access. Second, corporate power-sharing is also associated with a strongly increased risk that core groups instigate coups. Both sets of findings are in line with this dissertation's theoretical expectations under the trade-off along group lines, whereby corporate power-sharing alleviates some groups' conflict risks at the expense of increasing them for others. Third, however, less support is found for direct, unmediated links between power-sharing institutions and conflict, thus casting doubt on some of the hypothesized signaling effects. Fourth, only partial support is found for the expected heterogeneous effects of power-sharing institutions over time, thus failing to confirm the second expected trade-off, which is across time horizons.

The rest of this chapter proceeds as follows: A first section recaps the main theoretical expectations of this dissertation and refines them for the empiri-

cal investigation to follow. A second section operationalizes the key variables used to capture the effects of power-sharing institutions on conflict. A third section provides a first, descriptive investigation into the main expectations. A fourth section employs quantitative modeling strategies and investigates the relationship between power-sharing institutions and conflict in a series of correlational models. A fifth section discusses the critical issue of endogeneity and employs an instrumental variable approach based on colonial legacies to probe the causal properties of the key correlational findings. A sixth section disentangles direct and indirect effects of power-sharing institutions by conducting a causal mediation analysis. A final section concludes.

5.2 Implications of the theoretical argument for conflict outcomes

In chapter 3, I have argued that the institutionalization of power-sharing entails two trade-offs. One is along group lines, whereby corporate power-sharing strongly reduces the conflict risks of included non-core groups at the cost of increasing them for excluded non-core groups and the formerly-dominant core group. A second is across time horizons, whereby corporate power-sharing initially reduces included non-core groups' conflict risks, but conversely increases them over the long-term. In both trade-offs, I expect liberal power-sharing to exert more homogeneous effects: it should lower the conflict risks of all non-core groups uniformly across time horizons, and not be associated with significant backlashes from the core group.

In this section, I revisit both trade-offs and refine them as regards the two outcomes studied in this chapter: civil wars (for non-core groups, distinguished by whether they are over government or a specific territory) and coup attempts (for core groups). I also specify how the two main dimensions of power-sharing—horizontal and vertical—relate to these outcomes. I now revisit my theoretical arguments by discussing both trade-offs in turn, along with their group-wise implications for the three conflict outcomes (see table 5.1 for an overview).

Table 5.1: Theoretical expectations for outcome measures

	Governmental civil war	Territorial civil war	Coups
Corporate power-sharing			
Core	N/A	N/A	++ [horizontal]
Included non-core	- [short-term, esp. horizontal] + [long-term]	- [short-term] ++ [long-term, esp. vertical]	N/A
Excluded non-core	++ [esp. horizontal]	+ [esp. vertical]	N/A
Liberal power-sharing			
Core	N/A	N/A	+ [horizontal]
Non-core	-	-	N/A

Note: ++ strong positive effect; + positive effect; - strong negative effect; - negative effect

I start by refining the trade-off along group lines. I have argued that corporate power-sharing strongly reduces conflict propensities of included non-core groups, at least in the short-term (hypothesis 1). It does so by providing comparably enforceable de-jure guarantees which translate into strong de-facto reductions of status inequalities. Additionally, it sends a perceptible signal of the core group's accommodative intent towards included non-core groups. Through this, it strongly decreases their grievances and reduces conflict risks emanating from them. Building on these basic considerations, the two dimensions of corporate power-sharing should be of differential importance for the two types of civil war risks studied in this chapter. By including specific groups into central government, its horizontal dimension should most strongly diminish incentives for included non-core elites to revolt against a government they are themselves part of. Hence, it should strongly reduce included non-core groups' tendencies to participate in governmental civil wars. At least in the short-term, both its horizontal and vertical dimension should also make

the participation of included non-core groups in territorial civil wars somewhat less likely. The alleviation of mass grievances through both reduces a key motivational factor for territorial conflicts as well. It also removes the rationale for included non-core elites to mount secessionist bids to keep their political leadership role within their group.

I have further argued that corporate power-sharing exhibits the opposite effects on excluded non-core groups (hypothesis 6). If there is significant horizontal power-sharing of the corporate type, this formally excludes them from central government and boosts grievances among their masses. By signaling unwillingness or inability of the core group to repress non-core group claims, it further enhances the likelihood that excluded non-core elites perceive a window of opportunity to revolt. Consequently, mounting a violent bid for government inclusion becomes a more attractive option, driven by the combined push of mass grievances, the absence of alternative ways to attain government inclusion, and the perception of opportunity. In this way, corporate power-sharing of the horizontal type should be especially likely to increase the participation of excluded non-core groups in governmental civil wars. These side-effects should be somewhat weaker for corporate power-sharing of the vertical dimension, which is limited to autonomy in a specific territory, as excluded non-core groups may still have pathways to enter central government even where other groups are given autonomy arrangements. However, it might still provide a signal to excluded non-core elites that mobilizing for autonomy themselves might be opportune (Bormann et al. 2019; Sambanis et al. 2018; Walter 2006a, 2009). Hence, I expect vertical power-sharing of the corporate type to have no effects on excluded non-core groups' propensities to participate in governmental civil wars, but to increase their participation in territorial civil wars.

At the same time, corporate power-sharing of the horizontal dimension also strictly and visibly diminishes the core group's previous dominance over central government. This should enhance grievances among its masses and concurrently pose significant costs to its elites. Not only does it reduce their

descriptive representation, but it also heavily circumscribes their substantive representation. In this way, it should increase temptations for core group elites to stage coups and reassert their former dominance over central government, at least in contexts where coups constitute a feasible strategy (cf. hypothesis 4).¹ Conversely, corporate power-sharing of the vertical dimension should not create the same kind of incentives. As this is limited to specific territories of the state, core group elites may still dominate the central government and hence have no incentive to overthrow it. Furthermore, core group masses may be largely unaffected by its autonomy provisions, at least in state territory that is outside of non-core autonomous areas.

I have furthermore argued that liberal power-sharing should attenuate these heterogeneous effects. It is less enforceable and should result in fewer corresponding practices and de-facto status changes. It furthermore only constitutes a weaker signal of accommodative intent and of weakness by core group elites. Hence, overall I expect similar, but weaker, effects of its horizontal and vertical dimensions on civil war and coup risks as for corporate power-sharing: Non-core groups should be slightly less likely to participate in either governmental or territorial civil wars, as their grievances are somewhat attenuated by liberal power-sharing in comparison to the status quo ante (cf. hypothesis 3). Conversely, core groups should be somewhat more likely to engage in coups due to liberal power-sharing of the horizontal dimension to re-establish their now diminished dominance (cf. hypothesis 5).

The second trade-off is across time horizons and applies to included non-core groups. I have argued that, over time, corporate power-sharing should enhance the salience of ethnic identifications among their masses and make mobilization on an ethnic basis more likely. I have also argued that included non-core group elites should be able to gradually consolidate control over their new institutional resources, increasing their ability to mount violent challenges against the core group should they so choose. Thereby, corporate power-

¹This refers to the "strong societies and weak states" contexts discussed by Roessler & Ohls 2018, found for example in sub-Saharan Africa after decolonization.

sharing should increase the conflict risk of included non-core groups in the long-term (cf. hypothesis 2). These processes should be especially strong where non-core groups are provided with corporate power-sharing of the vertical dimension. They should furthermore be particularly likely to result in territorial conflict. The rationale for this expectation is as follows: Depending on their specific policy scope, autonomous territorial units controlled by non-core groups may provide their elites with the strongest means to boost ethnic identification, for example if they award them control over the education sector or over local media (Cornell 2002). However, more importantly, by boosting the importance of sub-national boundaries, they also provide an "imaginative" homeland (cf. Hale 2004a, 2008). Finally, by creating sub-national government tiers controlled by specific non-core group elites, they solve coordination problems most effectively and provide the deepest institutional resources they can exploit to mobilize for civil war. Hence, corporate power-sharing of the vertical dimension should be especially likely to increase included non-core groups' participation in territorial civil wars in the long-term.

Having linked corporate and liberal power-sharing of the horizontal and vertical dimensions to the outcomes studied in this chapter (governmental civil war, territorial civil war, and coups), I now turn to operationalize the variables used to measure both main types of concepts.

5.3 Measuring power-sharing and conflict

To test these expectations, I operationalize two sets of main variables: The first are a series of measures for power-sharing. These not only capture each group's institutionalized position under power-sharing, but also its relative difference to other groups and recent observable concessions to them (to capture the trade-off along group-lines), the degree to which these power-sharing institutions are consolidated (to capture the trade-off across time horizons). The second comprises the outcome variables of interest: the outbreak of governmental or territorial civil wars and the instigation of coups. I now discuss both

sets of measures in turn.

5.3.1 Power-sharing measures

Throughout all empirical analyses to follow, both in this chapter and the next two, I rely on five main power-sharing measures. Together, they allow me to evaluate the different causal pathways through which power-sharing affects conflict risks (see chapters 2 and 3). Specifically, I employ each non-core group's power-sharing index (to capture how their absolute institutional position affects their grievances), the average power-sharing index across non-core groups (to capture how power-sharing affects core group grievances), each non-core group's negative difference from this average (to capture how their potentially adverse relative institutional position affects their grievances), each non-core group's power-sharing stocks (to capture the gradually-accumulating effects on their ethnic salience and institutional capabilities), and observed power-sharing concessions to other groups (to capture each non-core group's perceived opportunity structure). I now discuss each of these measures in turn.

The first power-sharing measure I use are each non-core group's² *current power-sharing index values (PSI)*. Following my theoretical expectations, these are double-disaggregated into horizontal and vertical dimensions on the one hand and into corporate and liberal types on the other. Together, these measures capture each group's *absolute* status position, as given by institutionalized power-sharing at the current moment in time. Their interpretation is hence similar to the widely-used measures of power-sharing practices based on the Ethnic Power Relations Dataset (ethnic government inclusion and autonomy, cf. e.g. Cederman et al. 2013). Each of these four measures ranges from 0 (no power-sharing provisions targeting a given group in the respective dimension and type) to 1 (full power-sharing provisions in it). As these measures were discussed in depth in the last chapter, I refer to that discussion and its appendix for more detail on underlying indicators and aggregation rules.

Second, to capture the effect of power-sharing institutions on core group

²Non-core groups are identified as described in chapter 4.

coups risks, it would obviously not make sense to include the core group's power-sharing indices. Rather, what matters for core group assessments and reactions is the degree to which the overall political system accommodates the non-core group population (and circumscribes their former dominance). Hence, for models investigating core group coup risks, I include a measure of the average, group-weighted, power-sharing index of all non-core groups in the current year (*average power-sharing (PSI avg.)* in respective type and dimension). Given their power-sharing indices PSI , the average power-sharing index across all non-core groups I is:

$$PSI(avg.) = \frac{\sum_{i=1}^I PSI_i * size_i}{\sum_{i=1}^I size_i} \quad (5.1)$$

As argued throughout this dissertation, mass grievances are not only shaped by a non-core group's absolute status position under power-sharing, but also how this compares to the one of other groups. The third set of measures follow these considerations and capture a non-core group's *relative* position under corporate power-sharing institutions. Specifically, I employ a variable measuring the *negative difference (PSI neg. diff.)* between a given non-core group's power-sharing index and the average corresponding power-sharing indices of all other non-core groups ($PSI\ avg.\ others$). To do so, I first calculate the average power-sharing index of all other non-core groups, seen from a given non-core group i :

$$PSI(avg.others)_i = \frac{PSI(avg.) * \sum_{i=1}^I (size_i) - PSI_i * size_i}{\sum_{i=1}^I (size_i) - size_i} \quad (5.2)$$

I then take the difference between this and each non-core group i 's own power-sharing index while setting all negative values to 0 to capture only instances of an adverse institutional position (ie., to exclude cases where a given non-core group has higher institutional status than the other groups on average), which gives:

$$PSI(neg.diff.)_i = \max [0, PSI(avg.others)_i - PSI_i] \quad (5.3)$$

This measure takes the value of 0 if a non-core group is equally or more accommodated as the average member of the other non-core groups; it increases as a group gets lower index values as compared to other groups. Its other extreme, 1, means that the given group has a power-sharing index value of 0, while other groups have a value of 1.³ As substantive differences in group-wise power-sharing indices only exist for power-sharing of the corporate type (for which the question of relative institutional differences is also of prime theoretical interest), I do not include similar measures for power-sharing of the liberal type in my main models.⁴

Table 5.2 provides an illustrative example for both the first and third variable types. For Bosnia in 2018, it shows each group's absolute value on the corporate power-sharing index of the horizontal dimension (third column) and each group's negative difference of this measure to the average of other groups (negative difference measure in fifth column, weighted average of other groups given for reference in the fourth column). The table further illustrates the substantive interpretation of both measures: The first contrasts groups with high power-sharing values (e.g. the Bosniaks, Serbs, and Croats) with all other groups that do not benefit from substantial power-sharing (all other groups in this example). The second contrasts situations where no power-sharing at all is

³There would have been two alternative ways of operationalizing relative power-sharing values: First, I could have included a measure for relative differences regardless of their direction (i.e., with the variable taking negative values as a group gets higher index values than other groups). Second, I could have included a term measuring the average power-sharing index values of all other groups. However, the interpretation of these alternatives would be less straightforward and not adequately capture my theoretical argument, which exclusively focuses on negative, exclusionary differences, rather than differences overall. Nevertheless, in my robustness checks I show that my results remain unchanged when I use these alternative measures.

⁴Liberal power-sharing index values are predominantly driven by institutional indicators on the country-level, which are equal for all groups. While there is some limited inter-group difference for territorial indicators, this is too small to be investigated with a corresponding measure and risks creating very high collinearity. Nevertheless, in my robustness checks I show that my results remain unchanged when I include these analogous measures for power-sharing of the liberal type.

Table 5.2: Example for absolute and relative power-sharing measures: Bosnia (2018)

Group	Size	PSI	PSI (avg. others)	PSI (neg. diff.)	Type
Bosniaks	0.50	0.94	0.88	0.00	Core (power-sharing)
Serbs	0.31	1.00	0.87	0.00	Included NC.
Croats	0.15	0.85	0.92	0.07	Included NC.
Roma	0.01	0.00	0.92	0.92	Excluded NC.
Albanians	0.00	0.00	0.91	0.91	Excluded NC.
Montene- grins	0.00	0.00	0.91	0.91	Excluded NC.
Other	0.03	0.00	0.93	0.93	Excluded NC.

Note: All values refer to horizontal corporate power-sharing. *PSI* = power-sharing index (group); *avg.* = others; *neg. diff.* = negative difference; *NC.* = non-core.

in place and all groups have equally low values with the specific situation where a given group is not targeted by power-sharing while others hold significant index values (e.g., the Roma, Albanians, and Montenegrins).

In addition to each non-core group's current status, I have furthermore argued that power-sharing institutions should lead to heterogeneous conflict patterns for included non-core groups over time. Specifically, as corporate power-sharing institutions persist over time, they should make conflict more likely by strengthening ethnic identifications and providing consolidated institutional resources for included non-core group elites to exploit. To capture the concept of consolidated power-sharing, I employ a fourth measure: each group's *cumulative power-sharing stocks (PSI stock)*. I construct this measure analogously to how Gerring and colleagues (2005) account for the gradually accumulating effects of democracy: For each group-year, I add up the given group's power-sharing index value of the respective dimension and type since the Second World War (in the case of colonies, since independence), with a

1% depreciation rate.⁵ Formally, for a non-core group i in a year t , this is calculated as follows:

$$PSI(stock)_{i,t} = \sum_{s=1945/independence}^t 0.99^{t-s} PSI_{i,s} \quad (5.4)$$

Figure 5.1 provides an example for this power-sharing stock measure, by showing the horizontal power-sharing stocks of the corporate type for Serbs in Yugoslavia and its successor states. It shows the gradually-accumulating power-sharing stock of Serbs in Yugoslavia, after the introduction of a federal power-sharing constitution in 1946. It also shows the variable experience of Serbs in Yugoslavia's successor states: significant accommodation in Bosnia and Kosovo and low accommodation in Montenegro and Croatia. As Serbs in the respective territories were not targeted by significant power-sharing, the starting point of the respective successor groups is close to 0.⁶

⁵A special case are groups that newly appear over time, either due to independence of their country from another independent country or due to changes in politically relevant groups' composition. For these groups, I identified their respective predecessor(s) and constructed the measure analogously. For groups settling only in a specific area of their predecessor state, I only used the power-sharing index value of their predecessor in the respective territory. This is only, but highly, relevant for power-sharing measures based on territorial units, especially for power-sharing of the vertical type. For example, while Bosniaks in Yugoslavia possessed significant autonomy in the Bosniak member republic, Bosniaks settling in the other member republics did not possess similar degrees of autonomy. Hence, the Bosniak groups in the Yugoslav successor states should only show a consolidated stock of vertical power-sharing in Bosnia and Herzegovina, but not in the other ones. This is reflected in the measure. See appendix C.1 for details.

⁶There are several alternatives to using stocks in order to account for potentially heterogeneous effects of power-sharing over time. One would be to simply test the long-term effects of current power-sharing indices by using different time lags. However, this would mix together instances where power-sharing lasted only very briefly, for example for a year or two, and those where it proved highly time-persistent. Yet, these need to be differentiated for the current purpose: for example, we would expect long-term effects from the gradually-accruing institutional resources posed by the decades-long power-sharing in Yugoslavia, but not from the equally deep but short-lived power-sharing arrangement in Rwanda (1993). A second would be to differentiate between different time periods, given by relatively constant power-sharing levels, and interact each group's power-sharing index with the time for which it has been in place. However, this would similarly risk missing the gradually accruing institutional resources provided by power-sharing, especially in cases where long periods of weak power-sharing were succeeded by shorter ones with deeper power-sharing. Coding a cut-off at the switch from one institutional regime to another risks ignoring these long stretches of time which, while characterized by low power-sharing, still should offer some resources to non-core groups. For example, power-sharing in Nigeria was repeatedly interrupted by military coups, which led to brief intermittent periods without power-sharing. Yet, it seems unlikely that during these formal "breaks", accumulated

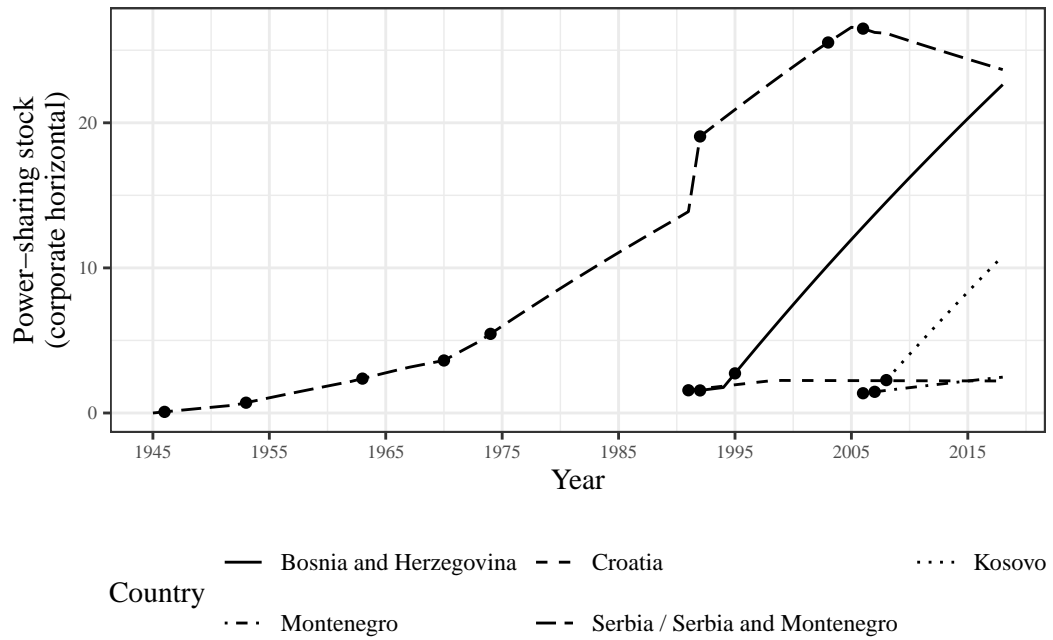


Figure 5.1: Power-sharing stocks: Corporate power-sharing (horizontal), Serbs in Yugoslavia and successor states

Note: Dots mark years of significant constitutional change (new constitutions and 1970 constitutional reform in Yugoslavia). Jump in stocks of Serbs in Yugoslavia in 1991 is due not to constitutional change but to changed subset of the Serb population, as sub-groups in territorial units without access to power-sharing split off.

Additionally, I have argued that core group backlashes might be most prevalent in the short-term and become less so as institutions consolidate. To account for this, I construct a measure capturing the average power-sharing stocks of the respective type and dimension across all non-core groups i :

$$PSI(stock, avg.) = \frac{\sum_{i=1}^I PSI(stock)_i * size_i}{\sum_{i=1}^I size_i} \quad (5.5)$$

Finally, I also need to account for potential effects arising from the provision of power-sharing in the short-term. For excluded non-core groups, this refers to the possibility of reputation effects (Bormann & Savun 2018; Sambanis et al. 2018; Walter 2006b, 2009); for core groups, this refers to heightened backlashes in the immediate aftermath after status reversals. To capture this, I

institutional resources would suddenly vanish. Nevertheless, I provide robustness checks with both types of alternative measures in this chapter's appendix.

created a *power-sharing concession* variable for each dimension and type analogously to the procedure used by Bormann and Savun for a similar purpose (2018).⁷

5.3.2 Conflict measures

Having described my variables capturing institutional power-sharing, I now turn to the measures that indicate a given ethnic group's participation in conflict. To investigate the conflict risks of non-core groups, I consider their *participation in governmental and territorial civil wars*, as given by the UCDP Armed Conflict Dataset (Gleditsch et al. 2002). I use the information provided by the ACD2EPR dataset (Vogt et al. 2015; Wucherpfennig et al. 2012) to connect all non-core groups to rebel organizations. Following convention in existing studies (e.g., Cederman et al. 2013; Sambanis et al. 2018), I code a non-core group's conflict participation in situations where rebel organizations claimed to represent it and where they concurrently recruit a significant share of its members from this group (both according to ACD2EPR, cf. Vogt et al. 2015). For both governmental and territorial civil wars, I code a new onset (= 1) in years of active fighting between a group and the government without fighting having occurred in the two preceding years. All other years were coded as 0. This procedure excludes dormant conflicts, which are ongoing but drop out of the dataset due to not meeting the respective annual casualty threshold (cf. Cederman et al. 2013).

To identify coup attempts instigated by core group elites, I rely on data coded by Roessler (2011) on coup leaders' ethnicity in Sub-Saharan Africa. This measures participation of a given ethnic group in a *coup attempt* (regardless of whether it was successful or not). It takes the value of 1 for group years where a coup attempt is made, and 0 otherwise. As this measure is limited to Sub-Saharan Africa for the period since independence and 2005, this forces

⁷This takes the value of 1 in years when a given group witnesses another group receiving a significant increase in its power-sharing index belonging to the respective dimension and type (set at a threshold of +0.1). This initial value decays in subsequent years with a three-year half-life.

me to limit my analyses of core group coup participation to this particular context. However, at the same time, the comparably low state capacity in this region (Roessler & Ohls 2018) makes it the ideal subset of cases to trace such patterns, should they exist. Similar outcomes are unlikely in more consolidated states where core group backlashes would likely take another form (such as electoral pressure to abolish minority protections). For instance, in democratically-consolidated Belgium we would not expect potential Walloon grievances over corporate power-sharing to result in coup attempts even if these were deep and widespread.

5.4 Descriptive analysis

Armed with these main variables, I now proceed to conduct an initial descriptive investigation. In a first step, I trace evidence for the expected trade-off along group-lines. For this purpose, I use the first three types of power-sharing measures presented above to construct categorical variables which approximate each group's institutional status position. Based on thresholds of absolute (*PSI*), average (*PSI avg.*) relative index values (*PSI neg. diff.*), this captures the following categories:⁸

- Core (no power-sharing)
- Core (power-sharing)
- Non-core (no power-sharing)

⁸For each dimension (horizontal and vertical) and type (corporate and liberal), I first ascertained whether any non-core group is targeted by significant power-sharing institutions. I did so by utilizing a threshold of 1/3. For horizontal power-sharing, this captures situations where it extends beyond the relatively frequent use of mere proportional representation measures for the legislature and comprises more demanding provisions, such as veto rights and grand coalition provisions. For vertical power-sharing, this captures situations where any group is awarded autonomy that extends beyond isolated measures, such as the provision of a limited autonomous policy scope or of elected legislatures alone. Second, I coded group-wise status as follows: For core groups, I simply distinguished situations where significant power-sharing given by this threshold is in place and those where it is not. For non-core groups within the liberal dimension of power-sharing I did the same. Finally, for non-core groups within the corporate dimension of power-sharing I coded as excluded any group whose negative index difference from the average of other groups (i.e., measure 2 above) is larger than half of its index value, while I coded the rest as included.

- Included non-core (for corporate power-sharing)
- Excluded non-core (for corporate power-sharing)
- Non-core (power-sharing) (for liberal power-sharing)

Is there evidence that a group's position under different types of power-sharing regimes influences conflict risks, in line with the expected trade-off along group lines? Figure 5.2 provides a first insight by looking at non-core groups' civil war participation as a function of their position under power-sharing institutions (horizontal and vertical) of the respective type (corporate and liberal), using the above categorical classification. Two main observations can be made: First, *all* (not just included) non-core groups are less likely to participate in governmental civil wars, if significant power-sharing of any type and dimension is in place. Although stronger for the corporate type, this same relationship applies to power-sharing of the liberal type as well. Second, included non-core groups are conversely more likely to participate in territorial civil wars. The same applies for liberal power-sharing in the horizontal dimension, which is similarly associated with more territorial civil war onsets for non-core groups.

Overall, these preliminary results are in line with the suspected (short-term) pacifying effect of corporate power-sharing systems on included non-core groups, at least as regards governmental civil wars. As expected in my argument, a similar relationship exists for liberal power-sharing and appears weaker. However, against my basic expectations (though possibly in line with the trade-off across time horizons), included non-core groups are more likely to participate in territorial civil wars. Additionally, the bivariate patterns offer little evidence for my argument that, under corporate power-sharing, excluded non-core groups are more likely to revolt. Two caveats apply, however: First, these correlations should not to be taken as causal in nature, as they are likely plagued by significant endogeneity: as I will discuss in more detail later, many less conflict-prone groups end up in the excluded non-core group cate-

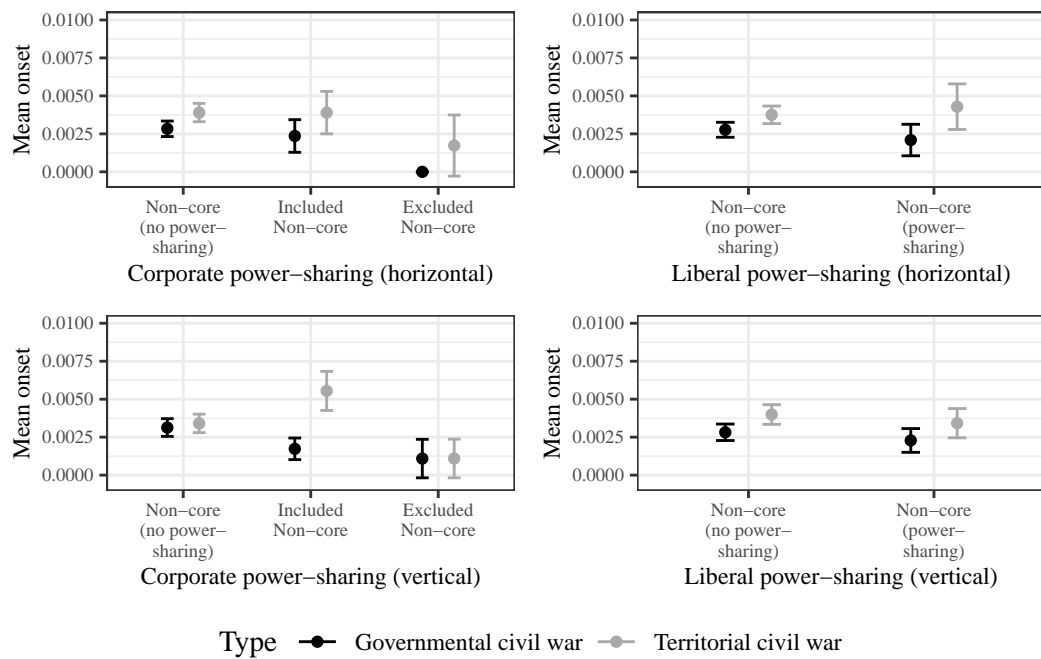


Figure 5.2: Non core groups: civil war onsets per power-sharing category and conflict type

Note: The figure highlights two main tendencies: First, non-core groups are less likely to participate in governmental civil wars where significant power-sharing of any type or dimension is in place, even where they are themselves excluded from it. Second, they are conversely more likely to participate in territorial civil wars.

gory precisely because they are unable to revolt against their institutionalized marginalization. Second, the figure does not capture time-dependence. On average, across time periods, included non-core groups might be more likely to engage in territorial civil wars. However, this might conceivably be driven by long-term dynamics, while in the short-term they might still be associated with lower civil war risks.

Continuing my descriptive investigation of the trade-off across group-lines, I now turn to the propensity of core groups to engage in coup attempts. Figure 5.3 shows the mean level of attempted coups per group year and by power-sharing category. This descriptive analysis indicates that, on average, core groups are *less*, rather than more, likely to instigate coups if there is significant power-sharing of any type or dimension in place, although the confidence bands overlap in most cases. This does not appear in line with the expectation under

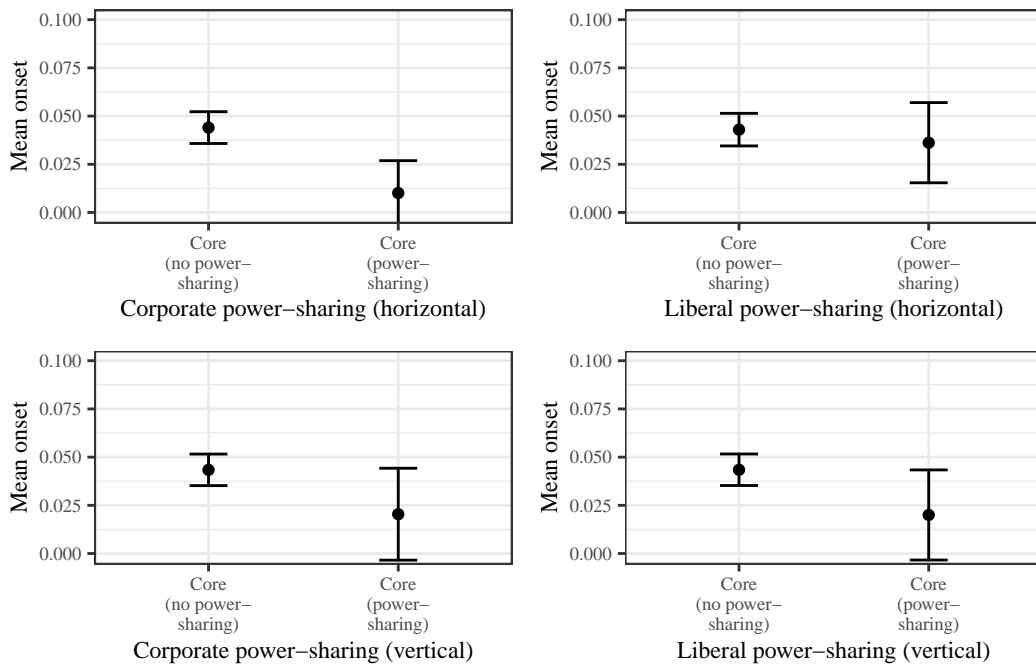


Figure 5.3: Core groups: coup onsets per power-sharing category (Sub-Saharan Africa, -2005)

Note: The figure shows the lower risk of core group coup attempts, if significant power-sharing of any type and dimension is in place.

the trade-off along group lines, whereby horizontal power-sharing should make core group conflict more likely. However, again, these bivariate patterns need to be viewed with caution, as several important confounders are likely to both influence the provision of power-sharing and the instigation of core group coups (for example, the demographic size of the core group).

Next, I turn to descriptive evidence for the trade-off across time horizons. For this purpose, I use each group's cumulative power-sharing stocks measure. Figure 5.4 shows the conditional density of included non-core groups' civil war onsets, depending on a subset of my power-sharing stocks measures (PSI stock). Specifically, I limit myself, for this descriptive analysis, to the combination of power-sharing and conflict measures where the patterns should be most pronounced, according to my refined theoretical expectations above: horizontal power-sharing and governmental civil war onset, and vertical power-

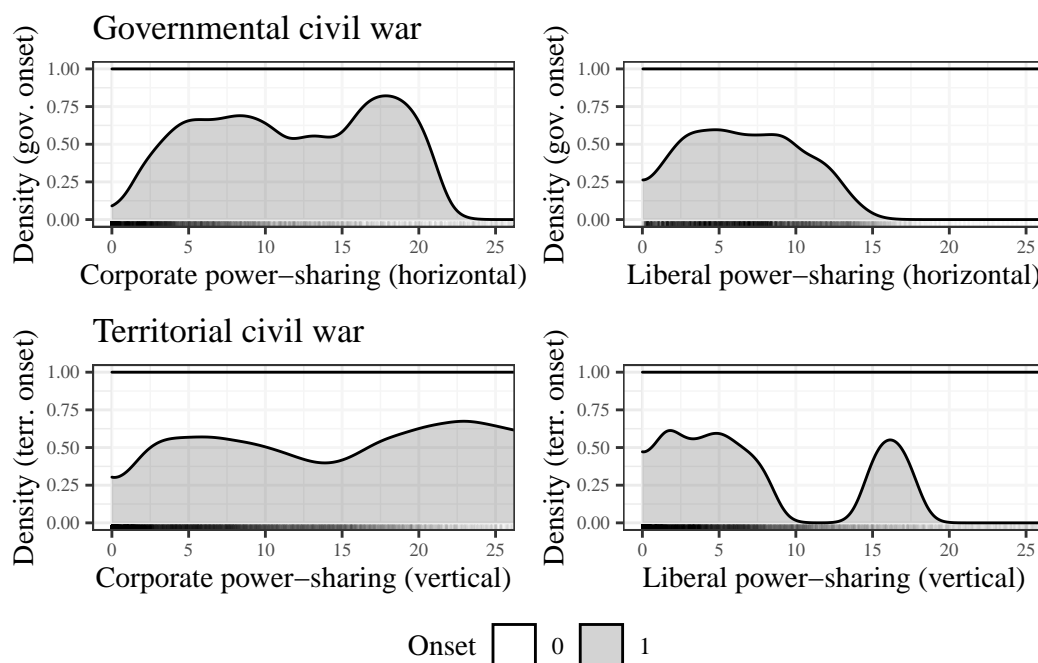


Figure 5.4: Power-sharing stocks and onset density (selection)

Note: The figure shows two main tendencies: First, the initially low but gradually increasing risk of non-core groups to participate in civil wars where corporate power-sharing is in place. Second, the initially high but quickly decreasing risk if liberal power-sharing is in place.

sharing and territorial civil war onset.⁹ Overall, the patterns appear roughly in line with the expectation that corporate power-sharing is, initially, associated with a lowered conflict risk, but that this relationship gradually reverses in the long-term. For example, for territorial civil wars this is especially the case for its vertical dimension. Conversely, as expected, liberal power-sharing is initially associated with higher onset risks compared to its corporate alternative. However, over time, these risks appear to fade, especially for its horizontal dimension.¹⁰

⁹For the full graphs that include all possible combinations of these measures, see appendix C.1.3.

¹⁰For the highest stock values of each type and dimension, the probability of an onset ostensibly tends towards 0. However, as the density of cases (shown by the line below the main figures) shows, there are very few cases in these categories. Additionally, there is an element of self-selection, as the continuing accumulation of power-sharing stocks is likely interrupted in many cases following the outbreak of civil war which overturn existing constitutions.

5.5 Quantitative analysis

The above descriptive analyses offer a useful starting point to assess whether power-sharing institutions are associated with conflict risks in the expected ways. However, as outlined above, it is highly likely that confounding factors strongly bias the attained bivariate correlations. Following this rationale, the next sub-sections run a series of logistic regression analyses with the respective conflict outcomes as dependent variables. While these results are still likely to suffer from selection bias and reverse causation, they offer a more controlled comparison which at least enables me to exclude a large number of the most significant confounders. I first present the basic model set-up, along with the included control variables. I then turn to estimate the associations between power-sharing institutions on the one hand and non-core group civil war onsets and core group coup attempts on the other.

5.5.1 Model set-up

Throughout this chapter, I use the dichotomous dependent variables described above. These indicate whether a group experienced either a governmental or territorial civil war outbreak (for non-core groups) or whether its members played a leading role in the instigation of a coup attempt, respectively (for core groups). The main independent variables are similarly described above. For non-core groups, these are their current power-sharing indices (capturing their absolute institutional status), their negative difference from average power-sharing targeting other groups (capturing their relative status for corporate power-sharing institutions), power-sharing concessions granted to other non-core groups (capturing reputation effects), and their power-sharing stocks (capturing cumulative effects over time). For core groups, these are the average power-sharing indices across non-core groups (capturing the degree to which their former dominance is circumscribed by them).

In addition to these power-sharing variables of interest, all models to follow include common control variables from the literature on ethnic conflict. On the group-level, these encompass each group's relative size as a share of

the total state population and whether or not it has a transnational ethnic kin group that controls a spatially contiguous state (both taken from or constructed using EPR data, cf. Vogt et al. 2015). The first of these variables accounts for the higher likelihood of larger groups to simultaneously engage in conflict and to attain power-sharing in the first place (Cederman et al. 2013, 2015a,b). The second controls for the higher mobilizational potential of groups with external support from kin states and their lower likelihood of being provided power-sharing concessions (Cetinyan 2002). Additionally, I include a variable counting the number of previous civil wars a group participated in, which can influence both subsequent conflict trajectories as well as the provision of power-sharing (Cederman et al. 2013). On the country-level, I control for gross domestic product per capita (logged), and the state population (logged).¹¹ Together, these variables hold constant the state capacity to deal with insurgent challengers and potential simultaneous effects of population size on the adoption of power-sharing (which is more frequent in smaller countries) and conflict risks. In order to model time dependencies, a cubic term is included (but omitted in the reported results) that counts the number of peace years since a group was last involved in a civil war of the respective type.¹² To somewhat attenuate the potential for reverse causation, all variables are lagged by one year.

5.5.2 From institutions to conflict

Using these variables, I now proceed to estimate a series of logistic regressions, reporting country-clustered standard errors. The next sub-sub-section starts by considering the overall association between power-sharing institutions and non-core group civil war participation, while the following turns to core group coup instigation.

¹¹Data for both variables stem from the Penn World Tables 7.1 (PWT, cf. Heston et al. 2012) and are updated with data from the World Bank (2020) Development Indicators and augmented with data from Gleditsch (2002).

¹²Descriptive statistics for all of these variables are reported in appendix C.1.2.

Civil war outbreak (non-core groups)

I start my quantitative examination by focusing on civil war participation of non-core groups. Tables 5.3 and 5.4 present four model types, run for each of the two outcomes, respectively: governmental and territorial civil wars. As a baseline, a first model (1) only includes each group's current power-sharing index values. The subsequent model types expand on this by adding further independent variables: A second one (2) adds the negative difference measures (to account for grievances of excluded non-core groups), a third (3) the concessions variables (to account for reputation effects), and a fourth (4) a squared term of the power-sharing stock variables (to test for temporal heterogeneity).

Overall, the results of these regressions provide only limited evidence that the degree to which a non-core group is targeted by power-sharing institutions is associated with substantial changes in civil war risks. Only the coefficients for liberal power-sharing turn out significant: there are negative associations of its horizontal dimension with governmental civil war and of its vertical dimension with territorial civil war. The other main terms are all insignificant and generally have a positive, rather than negative sign. This would mean that most power-sharing institutions targeting a given group are associated with higher participation in civil wars.

However, the mostly insignificant attained correlations need to be read against the strong possibility of reverse causation, whereby only the most conflict-prone groups are likely to be offered power-sharing in the first place (Wucherpfennig et al. 2016, see next section). While I account for several factors influencing this process in my models (such as demographic size and the presence of TEK states), many more are likely to remain. This means that the "true" effect of the power-sharing indices is likely to be significantly more negative than the "naive" associations attained in the models provided in this section. Read with these considerations in mind, the finding that liberal power-sharing institutions are associated with lower civil war risks is all the more striking and means that their true conflict-alleviating effects are likely to

Table 5.3: Correlational analysis: power-sharing institutions and governmental civil war (non-core)

	<i>Dependent variable:</i>			
	Gov.	Gov.	Gov.	Gov.
	(1)	(2)	(3)	(4)
PS corp. h	0.566 (0.739)	0.520 (0.778)	0.537 (0.737)	0.174 (0.766)
PS lib. h	-1.651* (0.873)	-1.642* (0.891)	-1.646* (0.858)	-1.722* (0.978)
PS corp. v	-1.125 (1.287)	-1.019 (1.337)	-1.121 (1.244)	0.713 (1.681)
PS lib. v	1.440 (1.111)	1.318 (1.121)	1.418 (1.117)	1.236 (1.899)
PS corp. h diff.		0.497 (1.113)		
PS corp. v diff.		0.824 (1.516)		
PS corp. h concession			-0.138 (0.776)	
PS corp. v concession			0.555 (0.543)	
PS lib. h concession			0.416 (1.213)	
PS lib. v concession			-0.271 (0.846)	
PS corp. h stock				0.067 (0.111)
PS lib. h stock				0.155 (0.160)
PS corp. v stock				-0.140 (0.175)
PS lib. v stock				0.052 (0.135)
PS corp. h stock ²				-0.002 (0.004)
PS lib. h stock ²				-0.017 (0.014)
PS corp. v stock ²				-0.005 (0.009)
PS lib. v stock ²				-0.003 (0.004)
Size	4.169*** (0.596)	4.179*** (0.594)	4.203*** (0.590)	4.211*** (0.580)
TEK state	-0.398 (0.333)	-0.404 (0.337)	-0.396 (0.323)	-0.440 (0.332)
Previous conflicts	0.438*** (0.135)	0.446*** (0.136)	0.443*** (0.137)	0.420*** (0.157)
GDP pc. (log)	-0.458*** (0.137)	-0.468*** (0.133)	-0.454*** (0.135)	-0.387*** (0.139)
Population (log)	-0.081 (0.076)	-0.091 (0.075)	-0.096 (0.075)	-0.055 (0.081)
Year	0.038*** (0.007)	0.038*** (0.007)	0.038*** (0.007)	0.038*** (0.008)
Constant	-76.992*** (14.538)	-77.299*** (14.639)	-77.130*** (14.532)	-77.958*** (16.223)
Observations	34,649	34,649	34,649	34,649
Log Likelihood	-570.519	-570.183	-570.043	-564.496
Akaike Inf. Crit.	1,169.038	1,172.367	1,176.086	1,172.993

Note:

*p<0.1; **p<0.05; ***p<0.01
Country-clustered standard errors in parentheses; cubic terms for group-wise
peace years included but not reported.

Table 5.4: Correlational analysis: power-sharing institutions and territorial civil war (non-core)

	<i>Dependent variable:</i>			
	Terr.	Terr.	Terr.	Terr.
	(1)	(2)	(3)	(4)
PS corp. h	0.793 (0.490)	0.688 (0.544)	0.775 (0.476)	0.380 (0.504)
PS lib. h	1.441 (0.991)	1.409 (1.023)	1.379 (0.973)	0.455 (1.235)
PS corp. v	0.897 (0.609)	0.877 (0.682)	0.963 (0.643)	1.132 (0.915)
PS lib. v	-3.049*** (0.904)	-3.055*** (0.909)	-3.035*** (0.893)	-1.833 (1.499)
PS corp. h diff.		-4.072 (3.666)		
PS corp. v diff.		0.267 (1.440)		
PS corp. h concession			-0.278 (0.407)	
PS corp. v concession			-0.755 (0.462)	
PS lib. h concession			1.382** (0.543)	
PS lib. v concession			-0.350 (0.807)	
PS corp. h stock				0.061 (0.079)
PS lib. h stock				0.641*** (0.224)
PS corp. v stock				-0.057 (0.075)
PS lib. v stock				-0.123 (0.108)
PS corp. h stock ²				-0.001 (0.004)
PS lib. h stock ²				-0.066*** (0.019)
PS corp. v stock ²				0.002 (0.003)
PS lib. v stock ²				0.003 (0.005)
Size	-0.864 (0.897)	-0.871 (0.918)	-0.933 (0.924)	-0.712 (0.835)
TEK state	0.219 (0.254)	0.234 (0.255)	0.208 (0.249)	0.151 (0.296)
Previous conflicts	0.431*** (0.107)	0.422*** (0.106)	0.441*** (0.110)	0.436*** (0.134)
GDP pc. (log)	-0.236 (0.184)	-0.192 (0.184)	-0.238 (0.184)	-0.092 (0.185)
Population (log)	0.259** (0.102)	0.265** (0.109)	0.294*** (0.097)	0.348*** (0.103)
Year	0.021*** (0.006)	0.019*** (0.005)	0.020*** (0.007)	0.015 (0.011)
Constant	-45.934*** (12.527)	-42.069*** (10.652)	-44.141*** (12.896)	-34.756* (21.063)
Observations	34,196	34,196	34,196	34,196
Log Likelihood	-769.934	-766.653	-765.962	-751.001
Akaike Inf. Crit.	1,567.869	1,565.305	1,567.924	1,546.002

Note:

*p<0.1; **p<0.05; ***p<0.01
Country-clustered standard errors in parentheses; cubic terms for group-wise
peace years included but not reported.

be lower. Conversely, they counsel caution when judging the largely positive and insignificant correlations of the other power-sharing measures with civil war risks.

I now turn to the power-sharing measures beyond the main terms. Most notably, there is some limited evidence in line with the trade-off across time

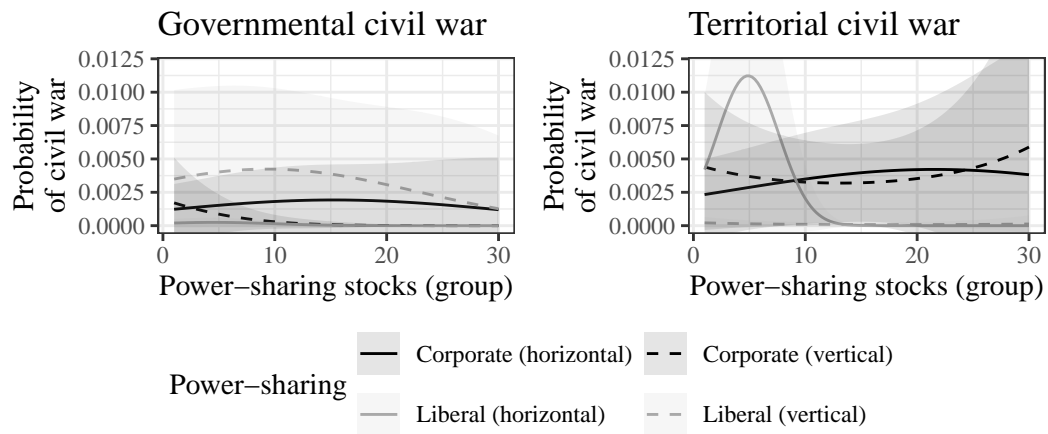


Figure 5.5: Predicted probabilities: Civil war onset (non-core), depending on power-sharing stocks

horizons: For territorial civil wars, high risks are predicted at low levels of vertical power-sharing stocks of the liberal type, but they decrease sharply as stocks increase. Conversely, the risks for both dimensions of corporate power-sharing are far more persistent over time, as indicated by the power-sharing stocks measures (models 4, see figure 5.5 for predicted probabilities).¹³ However, the patterns are less clear as regards the risks of governmental civil war, which seems to gradually decrease for all power-sharing institutions over time as they consolidate. Beyond this, there is little evidence that power-sharing institutions influence civil war risks either by excluding specific non-core groups (as given by the clearly insignificant negative difference measures in models 2), or that they do so through reputation effects (as given by the concessions measures in models 3).

Coup attempts (core groups)

I now turn to core group coup attempts (see table 5.5). To visualize the main findings, I again plotted predicted probabilities from model 1 (see figure 5.6). The results are squarely in line with the expectation that core groups are more likely to instigate coups when their former dominance in central

¹³Specifically, I have estimated these by varying the substantively interesting independent variables of interest (each group's power-sharing index values and power-sharing stocks), while setting all other covariates to either their mean (for gradual variables) or median (for categorical ones).

government is circumscribed with corporate power-sharing provisions of the horizontal type. The increase in probability of a coup attempt is furthermore quite considerable (see figure 5.6). For power-sharing measures of other types and dimensions no effect is found. This is as expected for its vertical dimension. However, it also indicates that horizontal power-sharing of the liberal type not only exerts weaker coup-inducing effects than its corporate alternative, but effectively null ones.¹⁴ Models 2 and 3 add to this basic specification two measures for the potential time dependence of backlashes: the former adds the measures for power-sharing concessions, which capture the potential for heightened backlashes in the immediate aftermath of status reversals, while the latter adds the measures for average power-sharing stocks, which capture the decreasing potential for backlashes as power-sharing institutions consolidate. Neither of these two additional models yields significant findings, thus failing to provide quantitative evidence that core group backlashes should be time dependent. A partial exception is vertical power-sharing of the liberal type, where indeed backlashes appear stronger after concessions.

Robustness checks

While these associations need to be treated with caution in any case (due to endogeneity and reverse causation), they could still be influenced by the particular choices on variables and model specifications made. Hence, in the appendix to this chapter, I provide several robustness checks that probe for these possibilities.

First, I assessed whether my specific choices on the construction of my main independent variables decisively influence the results (see appendix C.2, table C.3). Hence, I re-estimated non-core group models 2 (tables 5.3, 5.4), while adding analogous negative difference variables for power-sharing of the

¹⁴The associations of the included control variables across all models are mostly in accordance with previous findings. Larger non-core groups are more likely to revolt, although this is limited to governmental (and not territorial) civil wars. Groups with a contiguous ethnic kin state appear more likely to engage in territorial (but not governmental) civil wars, although this is mostly not significant. Civil wars and coups are less likely in places with higher GDP per capita. Finally, larger population sizes are associated with lower probabilities of governmental, but higher ones for territorial conflicts.

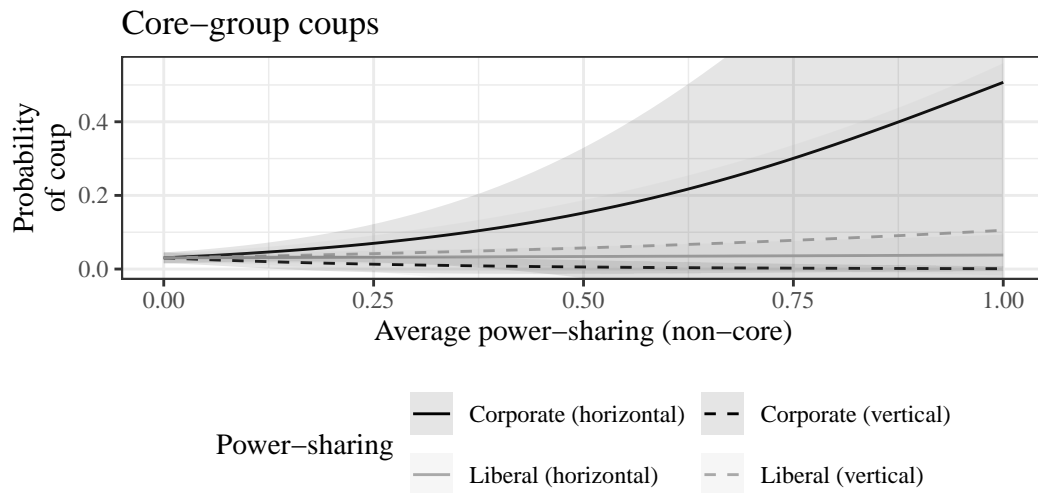


Figure 5.6: Predicted probabilities: Coup onset (core)

liberal type. I also re-estimated these models by replacing the original negative difference variable with a term measuring the average power-sharing index of all other groups (which accounts also for positive, rather than only negative differences). The results from both procedures are, overall, similar to the main specification and remain insignificant. This underlines the conclusion that excluded non-core groups are not found to be more conflict-prone, at least in correlational terms. Also in this vein, I re-estimated non-core group models 3 with a different operationalization for power-sharing concessions given to other groups. Specifically, I account for the argument that observed concessions should only lead to reputational dynamics if they are granted as a result of violent pressure, which in turn leads other groups to imitate these (Bormann et al. 2018). Hence, I recoded my concession variable but only considered concessions to a non-core group within two years of any observed civil war participation. Again, the results remain largely unchanged, with the models failing to pick up any significant influence of power-sharing concessions on civil war risks. Finally, I considered alternatives to my measure for power-sharing stocks for measuring heterogeneity across time. To do so, I first replaced it with an interaction between a non-core group's power-sharing index and the years for which this institutional regime has been in place without

Table 5.5: Correlational analysis: power-sharing institutions and coups (core)

	<i>Dependent variable:</i>		
	Coup (1)	Coup (2)	Coup (3)
PS corp. h avg.	3.490** (1.478)	3.769*** (1.414)	5.274*** (1.861)
PS lib. h avg.	0.233 (1.144)	0.330 (1.202)	0.288 (1.136)
PS corp. v avg.	-3.408 (3.132)	-3.849 (3.009)	-2.816 (3.598)
PS lib. v avg.	1.323 (2.045)	1.391 (1.787)	0.967 (4.637)
PS corp. h concession		0.409 (1.081)	
PS corp. v concession		0.516 (0.728)	
PS lib. h concession		-1.601 (1.403)	
PS lib. v concession		1.029* (0.534)	
PS corp. h stock			0.586 (0.854)
PS lib. h stock			0.291 (0.367)
PS corp. v stock			0.499 (1.076)
PS lib. v stock			-1.406 (0.947)
PS corp. h stock ²			-0.628 (0.418)
PS lib. h stock ²			-0.091 (0.060)
PS corp. v stock ²			-0.023 (0.185)
PS lib. v stock ²			0.239* (0.142)
Size	-0.523 (0.732)	-0.355 (0.732)	-0.674 (0.686)
TEK state	0.741* (0.418)	0.743** (0.346)	0.769** (0.352)
Previous conflicts	-0.788 (0.528)	-0.900 (0.553)	-0.074 (0.750)
GDP pc. (log)	-0.171 (0.270)	-0.141 (0.284)	0.069 (0.213)
Population (log)	0.113 (0.206)	0.080 (0.210)	0.282 (0.239)
Year	-0.027* (0.015)	-0.026* (0.015)	-0.027* (0.015)
Constant	52.003* (28.506)	48.630* (29.228)	49.339* (29.032)
Observations	1,606	1,606	1,593
Log Likelihood	-259.206	-257.070	-243.607
Akaike Inf. Crit.	546.412	550.140	531.213

Note:

*p<0.1; **p<0.05; ***p<0.01
Country-clustered standard errors in parentheses; cubic terms for
group-wise peace years included but not reported.

significant changes.¹⁵ In yet another specification, I removed the stocks measure and instead employed my main power-sharing measures (as in non-core group model 1) with different time lags (at 2, 5, and 10 years) (see table C.4). Again, the results remain similar and indicate, as in the main models, only slight decreases in conflict risks over time for horizontal liberal power-sharing and slight increases for its corporate alternatives.

¹⁵I considered an absolute index value change of 0.1 or above as a "break", whereafter the year count starts anew.

Second, I re-estimated all models but included more control variables than in my main specifications (see table C.5). Specifically, I controlled for a country's current level of competitive democracy,¹⁶ for the total population shares of all non-core groups, for the area of a country,¹⁷ and for a country's reliance on fuel exports.¹⁸ To probe whether I left out any significant confounders on the country-level, I further re-estimated all models in a multi-level specification with a random intercept at the country-level (see table C.6). None of these additions appear to change the findings greatly.

Third, I probed whether the results diverge strongly for different subsets of cases. One particular concern is that power-sharing might exert only meaningful effects in multi-party democracies (but see Magaloni 2008). Another is that civil wars are unlikely to erupt in highly consolidated democracies, regardless of what type of power-sharing they employ. Hence, I re-estimated all models while excluding states without elections in place¹⁹ (see table C.7) and while excluding highly-consolidated democracies²⁰ (see table C.8). To further probe the potential of spatial heterogeneity, in particular varying baseline conflict risks in different world regions, I also re-estimated all models while including region-fixed effects (see table C.9). Reassuringly, the results from all these procedures leave my main correlations attained above mostly unchanged.

5.5.3 Discussion and further procedure

Overall, the associations found in this section's models offer mixed support for the key theoretical arguments of this dissertation. Some findings are in line with the expected trade-off across group lines: they support the expectation

¹⁶Using an index based on the NELDA dataset (Hyde & Marinov 2012), constructed analogously to Juon & Bochsler (2020, forthcoming). As power-sharing institutions have a partial conceptual overlap with most major democracy indices, focusing on these measures enables me to keep the two apart in my models (cf. Juon & Bochsler 2020 forthcoming).

¹⁷Based on the CShapes dataset, cf. Weidmann et al. 2010.

¹⁸Constructed analogously to Fearon and Laitin (2003) and based on data by the World Bank Development Indicators (2020).

¹⁹As given by the NELDA-based index employed in the robustness checks above.

²⁰Specifically, I excluded any country year with a value greater than 0 and with a regime durability greater than 50 according to the widely-used Polity IV index (Marshall et al. 2019)

that liberal power-sharing should reduce the conflict risks of non-core groups (cf. hypothesis 3). They are also partly in line with the expected side-effects of corporate power-sharing on core groups: its horizontal dimension is associated with higher core group coup risks (cf. hypothesis 4). However, other findings offer less support for my arguments under this first trade-off: Specifically, the models do not reflect the expected stronger pacifying effects of corporate power-sharing on included non-core groups in the short-term, although this is likely biased by reverse causation (cf. hypothesis 1). Further, no evidence is found that excluded non-core groups are more likely to revolt, either by virtue of their persistent exclusion or spurred by the perception of opportunity in the wake of concessions to other groups (cf. hypothesis 6).

As the trade-off across time horizons, the correlational evidence is more limited. Consistent with my expectations, it appears that liberal power-sharing is associated with gradually receding civil war risks over time. However, this correlation is weak and only significant for its horizontal dimension and territorial civil war. Further, while both dimensions of corporate power-sharing are associated with gradually accumulating territorial civil war risks, these correlations are similarly only of low magnitude and insignificant.

Based on these partly inconclusive results, the remainder of this dissertation's empirical investigation is dedicated to two follow-up tracks: In the first, I probe the causal properties of my correlational findings, to assess the direction and degree to which they might be biased by endogeneity. This is a concern especially as regards the pacifying effects of power-sharing on its beneficiaries (i.e., included non-core groups) and its conflict-inducing effects on other groups (most importantly, excluded non-core groups). In the second, I take a more detailed look at the intermediate steps connecting power-sharing institutions and conflict, as implied by my theoretical argument. This is crucial both to check the step-wise implications of my arguments and to test for the possibility that some mechanisms might partly operate but not result in conflict. For example, excluded non-core groups might indeed have higher grievances (as

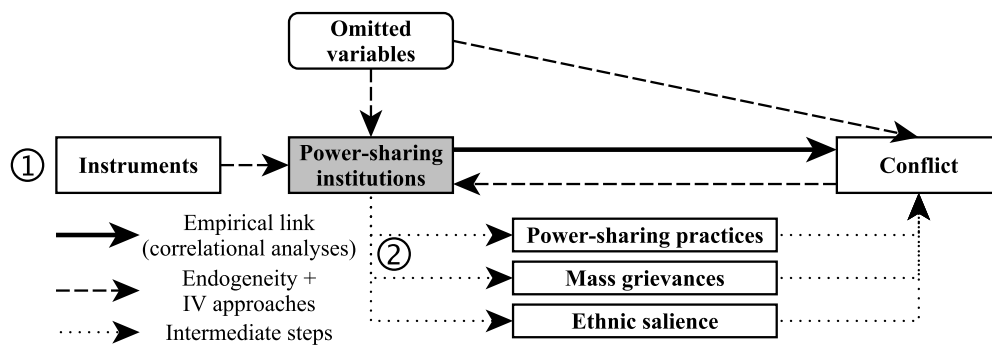


Figure 5.7: Follow-up tracks: Instrumental variables approaches (1) and intermediate implications (2)

Note: The figure graphically shows the analytical procedure used in the remainder of this dissertation. These build on the preceding correlational analyses that focused on the empirical link between power-sharing institutions and group-wise conflict risks. A first follow-up track probes the causal properties of these findings by relying on a set of instruments that influence the provision of power-sharing institutions but not conflict risks through other channels. A second tests the intermediate steps of the involved causal mechanisms by probing the effects of power-sharing institutions on the corresponding practices, on mass grievances, and on ethnic salience.

expected in my argument), but still lack capabilities to engage in civil wars (as indicated by the models above). Together, the two tracks thus enable me to check whether the empirical link attained in my correlational analyses holds up to closer scrutiny (see figure 5.7).

For the first of these follow-up tracks, I conduct a set of instrumental variables analyses in the next section of this chapter. These enable me to probe the possibility that some of my inconclusive results are biased by reverse causation. This concerns especially the non-findings on the effects of corporate power-sharing: As this is most likely to be provided to especially conflict-prone groups in the first place, the correlations attained in this section are likely to underestimate its pacifying effects. Simultaneously, as these conversely often exclude the least conflict-prone groups, they are likely to underestimate its conflict-inducing effects on excluded non-core groups as well.

For the second of these follow-up tracks, I gradually probe the intermediate steps implied by my theoretical argument (see chapter 3). I start this

endeavor in this chapter's penultimate section by conducting a causal mediation analysis. This enables me to probe my assumptions on the involved causal mechanisms by differentiating between two channels whereby power-sharing institutions should be connected with conflict risks according to my argument: one is indirect and mediated by power-sharing practices, and one is direct and unmediated (see chapter 3). Crucially, the latter consists, *inter alia*, of signaling effects induced by the institutional set-up of power-sharing. In the next two chapters, I extend this step-wise look at my argument's posited causal mechanisms further. There, I will focus on the intermediate steps by which I expect power-sharing institutions to affect individual attitudes, specifically group-wise mass grievances and ethnic salience.

5.6 Instrumental variable analysis

The last two sections have investigated the relationship between power-sharing institutions and conflict in correlational terms. The attained results are already instructive, but are likely to be significantly biased by endogeneity. Hence, in the next two sub-sections, I probe the degree to which this might be a concern, especially for power-sharing of the corporate type. The next sub-section starts by discussing the endogeneity problem in more detail, while the following sub-section relies on an instrumental variable approach based on colonial legacies to probe the depth of this problem for the present analysis.

5.6.1 Power-sharing institutions and endogeneity

Power-sharing institutions are often adopted in the most difficult contexts, to pre-empt or end violent inter-ethnic conflict. Consequently, their correlations with subsequent conflict risks are inevitably biased if these reasons for their initial adoption are left unaccounted for (Cederman et al. 2015a,b; Wucherpfennig et al. 2016). To give just one example, Bosnia's strict power-sharing arrangements are ostensibly associated with continuing risks of secessionist conflict (Bieber & Keil 2009). Yet, they have been adopted precisely as a response to these problems, thus complicating a disentanglement of cause and effect.

These endogeneity problems become evident when conceiving of power-sharing as the result of a bargaining process. This occurs between a given non-core group and its "host" state, controlled by the respective core group. In a simplified manner, it can be understood as an iterative and stage-wise game between the two actors: First, the non-core group decides whether or not to demand increased power-sharing, for instance government inclusion (Cederman et al. 2015a) or autonomy (Jenne 2004). Secondly, the core group responds, either by offering concessions or by refusing to do so (Grigoryan 2015). Finally, the non-core group decides, based on the government's response, whether or not to escalate its claims through extra-constitutional means, for example by revolting and seeking government inclusion or autonomy by force (Jenne 2004; Cederman et al. 2015a).

As both actors seek to avoid the costs of violent contestation, they should generally have strong incentives to reach compromises (cf. Wantchekon 2000; Jenne 2004; Grigoryan 2015). A non-core group's equilibrium level of power-sharing that would be reached in such a compromise then is clearly influenced by the degree to which it can credibly threaten the costs of destructive conflict (Jenne 2004; Jenne et al. 2007; Jenne 2007; Roessler & Ohls 2018). Extant research identifies a number of relevant factors influencing this equilibrium.²¹ While it is beyond this dissertation to discuss in detail what this list of factors comprises, the important take-away is that they influence both the provision of power-sharing as well as future conflict risks. For instance, non-core groups with higher relative capabilities are more likely to be able to coerce the core

²¹These include control over armed forces (Jarstad & Nilsson 2008; Sriram & Zahar 2009) and extractable resources, relative demographic size (Roessler & Ohls 2018; Wucherpfennig et al. 2016), and geographic distance to the capital (Roessler & Ohls 2018). They also include factors enabling a non-core group overcome the coordination dilemma, for example clear cultural or economic differences demarcating its members from the rest of the population (Hale 2004b, 2008; Horowitz 1985; Bormann et al. 2017) or pre-existing ethno-nationalist organizations or government tiers controlled by it (Brancati 2006). Furthermore, a group's capabilities can also be critically bolstered by external allies, most prominently by supportive ethnic kin states or regional powers (Cetinyan 2002; Jenne 2004; Mylonas 2012). In addition, more specifically for the provision of vertical power-sharing, a group's closeness to the border (van Evera 21) and the degree of homogeneity of its settlement patterns (Jenne 2004) have also been identified as reinforcing its option to credibly threaten secession.

group into provide it with power-sharing. Yet, these capabilities simultaneously enable it to take up arms and revolt at a later stage (Jenne 2004; Jenne et al. 2007; Jenne 2007; Roessler & Ohls 2018).

Applied to the main correlational findings above, there is a clear potential for bias as regards the findings related to the trade-off along group lines. First, the pacifying effects of power-sharing institutions on included non-core groups are likely to be underestimated. Both liberal and corporate types of power-sharing are especially likely to be adopted in already unstable contexts as a concession to prevent non-core groups from participating in civil war (cf. Anderson & Costa 2016; Grigoryan 2012; McGarry 2018). Furthermore, within such contexts, the group-specific guarantees of corporate power-sharing are likely aimed precisely at those groups that are already the most conflict-prone in the first place. Together, this means that the correlational estimates are likely to somewhat underestimate the pacifying effects of liberal power-sharing and to strongly underestimate them for corporate power-sharing.²² Second, the conflict-inducing effects of corporate power-sharing on excluded non-core groups are, conversely, likely to be underestimated. This expectation follows from the same logic whereby conflict-prone groups are most likely to be provided with corporate power-sharing in the first place. Hence, while their exclusion might indeed make them more likely to revolt, naive correlations may again fail to reveal this effect, as their baseline conflict-proneness was already low to begin with.²³

²²This argument assumes that non-core groups will be strategically included to prevent them from revolting against their host state. However, in principle, it is also possible that conflict-prone groups may be strategically *excluded* to prevent them from attaining even more capabilities they could use in the future to revolt (Cederman et al. 2015a; Wucherpfennig et al. 2016; Cetinyan 2002). If that were the case, the correlational estimates would overestimate the pacifying effects of both types of power-sharing. However, existing findings (Cederman et al. 2015a; Wucherpfennig et al. 2016) do not support this logic overall and point more towards a process of strategic inclusion posited and probed in this section.

²³A panel matching procedure, conducted with the framework by Imai and colleagues (2019) already indicates that endogeneity is indeed a problem as these arguments lead one to expect. Compared to the correlational estimates, the results from this category-based matching procedure indicate that the pacifying effects of horizontal power-sharing, especially its corporate type, are indeed underestimated. See appendix C.3.

To probe the degree to which these correlational results are plagued by endogeneity of this form, the rest of this chapter employs an instrumental variables approach. This focuses on determinants of power-sharing that are plausibly exogenous to a group's underlying conflict potential. Following this dissertation's theoretical argument, it aims to account not "only" for the provision of power-sharing practices, but also for the institutional specifics on which they rest. As is emphasized by previous contributions, there can be no doubt of the difficulties involved in finding instruments for power-sharing (Brancati 2006; Cederman et al. 2015a; Wucherpfennig et al. 2016; Sambanis & Milanovic 2014), let alone for its institutional sub-types.

Hence, rather than offering a comprehensive solution to the endogeneity problems discussed above, the aim of the analyses to follow is more modest. They complement the main models discussed above by probing the degree to which endogeneity might bias the attained correlations. They are further limited by the institutions they are able to instrument for and the geographic scope they cover. Most importantly, it is only able to instrument for each group's current power-sharing indices. In this way, it only captures the "main" effects of power-sharing on each group's absolute status position. It is unable to account for relative differences (given by negative index differences from other groups), the timing of power-sharing concessions, or gradually accumulating power-sharing stocks.

5.6.2 Instrumental variables approach: Colonial legacies

The instrumental variable approach employed in this sub-section exploits variation in power-sharing institutions that can be traced back to differential colonial legacies in countries of sub-Saharan Africa and Asia. In particular, it follows previous contributions which show that British colonial rulers were more likely to rely on indirect rule based on pre-existing institutions. This preserved, and in some cases reinforced, the authority of local rulers, for example the institution of the Chieftaincy in many former British colonies in Africa (Gerring

et al. 2011). In contrast, other colonial rulers, in particular the French, were more likely to either rule directly or re-purpose local authorities into mere subordinate agents. Whereas the "French colonial administration was centralized and bureaucratic, with little attention paid to local diversity", "the British constructed a differentiated and decentralized empire" (Strang 1994:280, cf. Crowder 1964; Lange 2009). As regards power-sharing, the legacies of these different administrative styles create systematic institutional variance in their successor states that can be used to construct instruments for both horizontal and vertical power-sharing.

The approach used here directly builds on two prominent studies which also exploit these colonial legacies to instrument for power-sharing practices. In a first of these contributions, Wucherpfennig and colleagues (2016) do so for the de-facto government inclusion of different ethnic groups. They show that the British reliance on "local despots" resulted in a roughly equal probability of different ethnic groups being included into the colonial administration and, later, into the central government of the respective successor state. In contrast, within the French colonial empire, groups closer to the colonial center, often equated with the coast, had a strong advantage and were more likely to be included into government. At the same time, more peripheral groups often found themselves excluded from government access (cf. also Horowitz 1985). As a result, this creates systematic variation in minorities' government inclusion that is exogenous to each group's conflict potential. By interacting each group's distance from the coast (which proxies for distance from the colonial center) with colonial heritage, the authors are then able to instrument for a group's de-facto government inclusion.

In a second, related set-up, Cederman et al. (Cederman et al. 2015a) use a similar strategy to instrument for the de-facto autonomy attained by different ethnic groups in colonial successor states. They build on the basic expectation that more populous groups are more likely to be provided with autonomy overall. However, this pattern should only exist within the British

colonial empire that relied on indirect rule and institutionalized autonomy for any of its colonial subjects. In contrast, it should not apply to the French colonial empire, which was characterized by centralized administration and the absence of autonomy for any group. Again, this creates systematic variation in autonomy arrangements between the two colonial empires that is unaffected by conflict-related considerations. By using the interaction between absolute group size and colonial heritage it then becomes possible to instrument for the group-wise provision of autonomy.

Construction of the instruments

I now discuss how I build on these existing instrumental variable approaches to construct my own instruments for power-sharing institutions of the corporate and liberal type:

Instrument for horizontal power-sharing of the corporate type: For corporate power-sharing of the horizontal type, I rely on the same instrument as already used by Wucherpfennig et al. (Wucherpfennig et al. 2016) for de-facto government inclusion: the interaction between British colonial heritage and a group's (logged) distance from the coast.²⁴ My key assumption is that the variation in the two outcomes (de-facto government inclusion and horizontal power-sharing of the corporate type) are equivalent for cases belonging to the former British colonial empire in sub-Saharan Africa and Asia. This assumption is bolstered by the fact that, within the British colonial empire, de-facto government inclusion was often accomplished by formal guarantees which took the form of constitutionally-embedded corporate power-sharing institutions. Especially as independence loomed (but in some cases decades before that), the British empire increasingly institutionalized formerly informal arrangements and enshrined them into the constitution (Lange 2009; Naseemullah & Staniland 2016). These provisions predominantly took the form of group-specific quotas and of veto rights for their representatives over specific issue

²⁴I constructed both measures equivalently as in Wucherpfennig et al. 2016, by relying on geographic data from the EPR dataset (Vogt et al. 2015) and colonial heritage data from Hensel 2018.

areas seen as relevant for different groups.²⁵ This equivalence is useful, as it enables me to borrow an existing instrument for my own purpose for corporate power-sharing: the interaction between British colonial heritage and a group's logged distance from the coast. However, it conversely also means that I am unable to construct a similar instrument for liberal power-sharing of the horizontal type based on colonial heritage for the same subset of cases.²⁶

Instrument for vertical power-sharing of the corporate and liberal type: For power-sharing of the vertical dimension, I similarly start off with the elements used in the existing approach used by Cederman and colleagues to instrument for the corresponding practices (2015a): British colonial heritage and its interaction with (logged) absolute group size. To account for institutional sub-types, I combine these elements with an additional one: the homogeneity of a group's settlement area. The reasoning for relying on the combination of these measures is visualized by the decision tree pictured in figure 5.8: First, a colonial ruler takes a decision on the overall administrative style of the colonial empire, conceived here in starkly simplified terms as one between indirect rule (mostly associated with the British) or direct rule (mostly associated with the French, cf. Crowder 1964; Lange 2009; Mamdani 1996; Young 1994). Second, if a ruler opts for an overall indirect rule style of administration, it has to decide which groups should be awarded autonomy. A strong influence on this decision is likely to be the absolute group size of a given ethnic group, with larger ones more likely to be awarded autonomy than smaller ones. Both of these first two steps are directly in line with the consid-

²⁵Appendix C.4.1 provides illustrative examples for these specific provisions, showing that these guarantees were indeed wide-spread and systematic in post-independence constitutions.

²⁶Indeed, the construction of a reliable instrument for horizontal power-sharing of the liberal type might be almost impossible in general. The key obstacle is that the number of cases where extensive provisions of this type were adopted is comparably extremely small. Further, the driving factors for individual cases of strong liberal power-sharing of the horizontal dimension were often highly idiosyncratic, for example South African mediation in Burundi (Mehler 2013). However, in appendix C.4.3, I nevertheless employ an alternative, augmented instrumental variable approach that seeks to come up with an instrument for horizontal power-sharing of the liberal type as well. For that purpose, I augment the present approach by instrumenting for time-variant regional averages in horizontal liberal power-sharing.

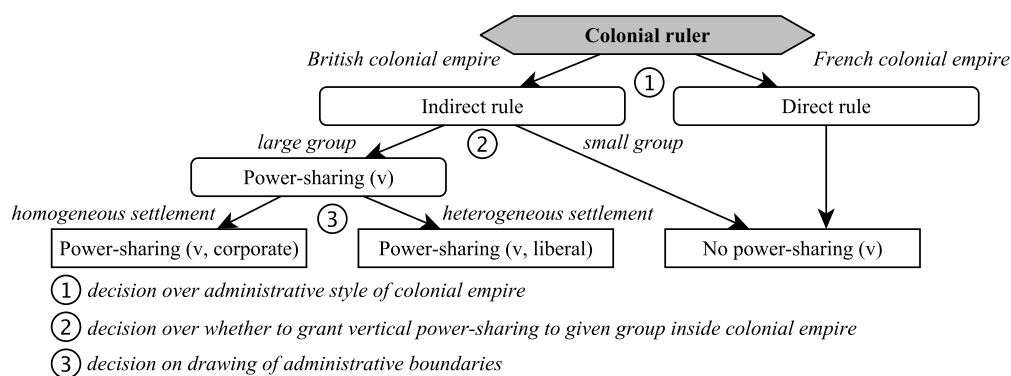


Figure 5.8: Colonial legacies: vertical power-sharing (rationale for instrument)

Note: v = vertical.

erations used by Cederman and colleagues (2015a) to instrument for de-facto autonomy.

To these basic considerations, I add a third step. Having established which groups should be awarded autonomy, the colonial ruler has to decide on the institutional type by which autonomy is to be granted, particularly the way by which sub-national (or sub-entity) boundaries should be drawn. This decision crucially depends on the settlement patterns of the group: if its settlement area is heterogeneous and shared with multiple other groups, combining the whole group into one homogeneous area is impractical. As a result, groups with heterogeneous settlement areas are likely to be split into different, heterogeneous territorial units, which in this dissertation’s notation equates to a liberal type of vertical power-sharing. Conversely, if the settlement area is more homogeneous, combining the group into one, potentially pre-existing (Gerring et al. 2011), unit dedicated to a specific group is a more feasible and practical option, resulting in a corporate type of vertical power-sharing.

Hence, in order to exploit these systematic differences in degree and type of vertical power-sharing induced by colonial rule, I construct an instrument that captures all three steps. This is given by the three-way interaction between British colonial past, the absolute demographic size of the group

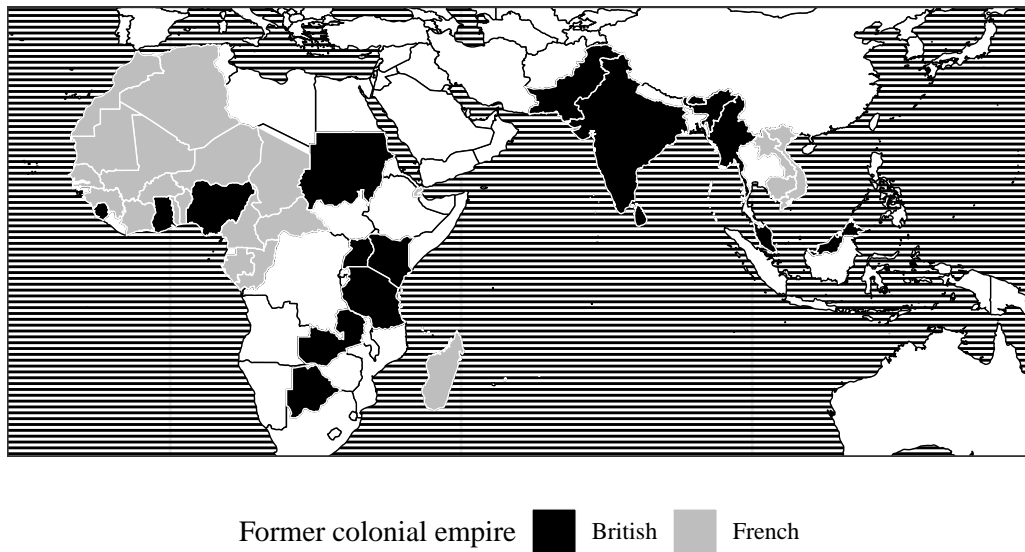


Figure 5.9: IV approach: included sample of cases

(logged), and the homogeneity of each group's settlement pattern.²⁷

Relevant sample of cases: Analogously to the previous contributions on which both types of instruments build (Cederman et al. 2015a; Wucherpfennig et al. 2016), they can be expected to apply to the subset of former colonies attaining independence directly from the British or the French colonial empire. Hence, the relevant variation is limited to non-core groups settling in Sub-Saharan Africa and Asia. Similar to Wucherpfennig et al. (2016), I exclude former settler colonies, where the arguments detailed above are unlikely to apply. This leaves me with a total of 250 non-core groups in 44 countries (see figure 5.9 for a map of the resulting subset of cases).

Evidence for the relevance of colonial legacies

Both a descriptive investigation as well as a first-stage regression validate the assumptions on the relevance of my chosen instruments outlined above. Figure

²⁷Each group's homogeneity measure ranges from 0 to 1. This was constructed based on the intersection of a given group's settlement patterns with all other groups' settlement patterns, using the polygons provided by the augmented EPR dataset (Vogt et al. 2015, see chapter 4). In a nutshell, in cases where all group members live in separate areas without any overlap with other groups' settlement patterns, the measure takes the maximum value of 1. In cases where they live in highly mixed areas, the measure gradually approaches the minimum of 0.

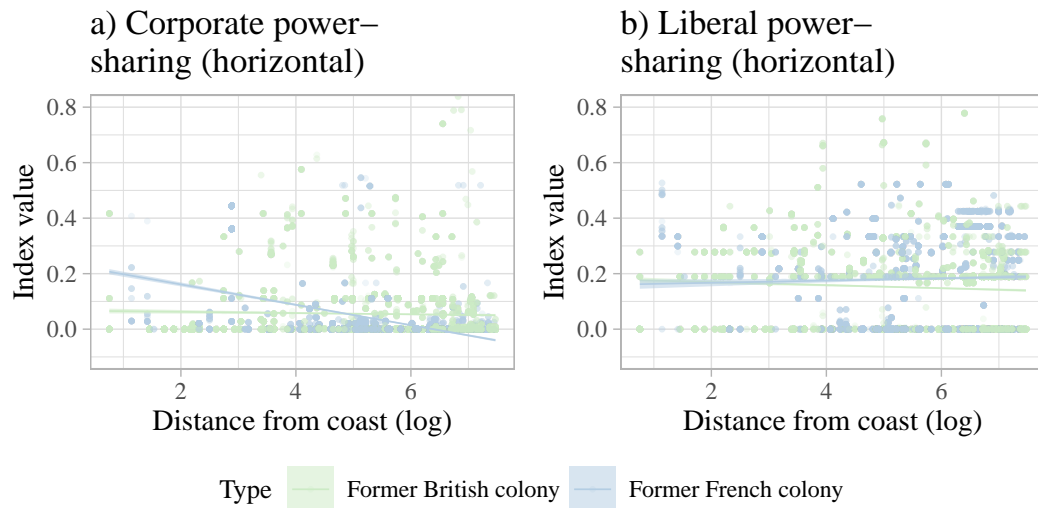


Figure 5.10: Colonial legacies: horizontal power-sharing

Note: The figure shows the attained horizontal power-sharing index values in a given group year, depending on the group's colonial heritage (British or French) and its logged distance from the coast. It highlights this conditional relationship for horizontal power-sharing of the corporate type and the absence of a similar relationship for its liberal alternative.

5.10 begins with a simplified graphical investigation into the relationship between colonial heritage, distance from the coast and non-core groups' corporate power-sharing index of the horizontal type. Analogously to Wucherpfennig et al. (2016), it shows that the expected relationship indeed exists (panel a): while distance from the coast is negatively associated with corporate power-sharing provisions within former French colonies, no similar correlation exists in former British colonies. This supports the view that the patterns in de-facto power access found by Wucherpfennig et al. (2016) are indeed predominantly based on corporate provisions found in constitutions. Panel b repeats the exercise for horizontal power-sharing of the liberal type, showing that the same relationship indeed does not extend to that type as well.

Figure 5.11 continues the graphical investigation for vertical power-sharing. First, it shows that levels of both corporate and liberal power-sharing in the vertical dimension are clearly higher in former British colonies. Second, within that subset, they are further positively correlated with absolute group size. In contrast, groups living in countries formerly colonized by France very

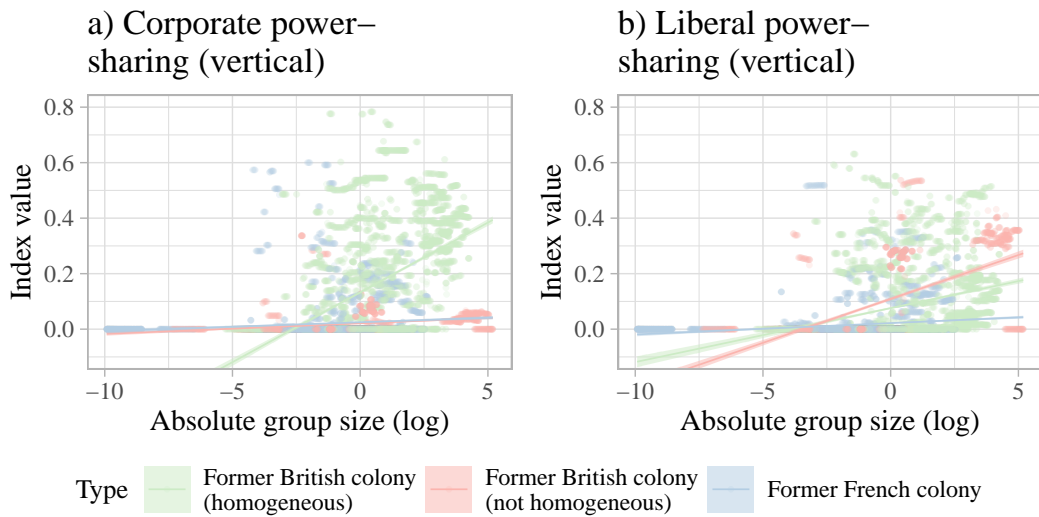


Figure 5.11: Colonial legacies: vertical power-sharing

Note: The figure shows the attained vertical power-sharing index values in a given group year, depending on the group's colonial heritage (British or French), its logged absolute size, and the homogeneity of its settlement patterns (value above 0.8 = homogeneous, below = not homogeneous). It highlights a conditional relationship in former British colonies: within them, larger groups are more likely to attain vertical power-sharing. And, if their settlement patterns are homogeneous, this is more likely to follow the corporate type, whereas if they are not, it tends more towards the liberal type. In contrast, the same conditional relationship does not apply to former French colonies.

rarely attain any autonomy whatsoever. Both observations are directly in line with the arguments by Cederman et al. (2015a) and show that this basic instrument applies not only to de-facto autonomy, but to its institutionalized form specifically. Third, there is a systematic difference in the specific institutional type that vertical power-sharing takes within former British colonies, depending on how homogeneous a group's settlement pattern is:²⁸ groups with a homogeneous settlement pattern (green dots) are comparably much more likely to be awarded vertical power-sharing on a corporate basis (panel a). In contrast, the opposite is true for groups with a non-homogeneous settlement pattern, who are more likely to be given vertical power-sharing of the liberal type (panel b).

²⁸For the descriptive purpose of this graph, homogeneity was here dichotomized, using a value of 0.8 above which groups were classified as having a homogeneous settlement pattern.

The same systematic relationships between colonial heritage and the respective demographic factors are also indicated in the first stage regressions used to construct my instrumented power-sharing values. For corporate power-sharing of the horizontal type (cf. models 1/5 in table 5.6), there is a negative relationship with a group's distance from the coast for former French colonies (indicated by the main term). In contrast, in former British colonies, the overall relationship is zero (as indicated by the combination of the main term and its significant interaction with the British colonial heritage dummy). As concerns vertical power-sharing institutions (cf. models 2/6 and 3/7 in table 5.6), the combined impacts of colonial heritage, absolute group size and homogeneous settlement patterns are harder to read. Hence, I have estimated the predicted levels of vertical power-sharing of the corporate and liberal types, depending on different scenarios (see figure 5.12). As these predictions show, the relationship overall follows my theoretical expectations: Within former British colonies, large groups with homogeneous settlement patterns are especially likely to attain vertical power-sharing of the corporate type. Conversely, within the same set of cases, its liberal alternative is most likely to be attained by large groups with a non-homogeneous settlement pattern.

The evidence presented so far supports the claim that the distribution of power-sharing institutions in the sample closely corresponds with colonial heritage and group demographic factors. Figure 5.13 indicates further that the initial distribution of institutions, driven by colonial considerations, indeed influences successor states' constitutional set-up in the medium- and long-term. Especially vertical power-sharing institutions of both types are highly time-persistent in the post-independence period. This is somewhat less the case for horizontal ones, although the correlations for the corporate type (which is instrumented here) remain positive.

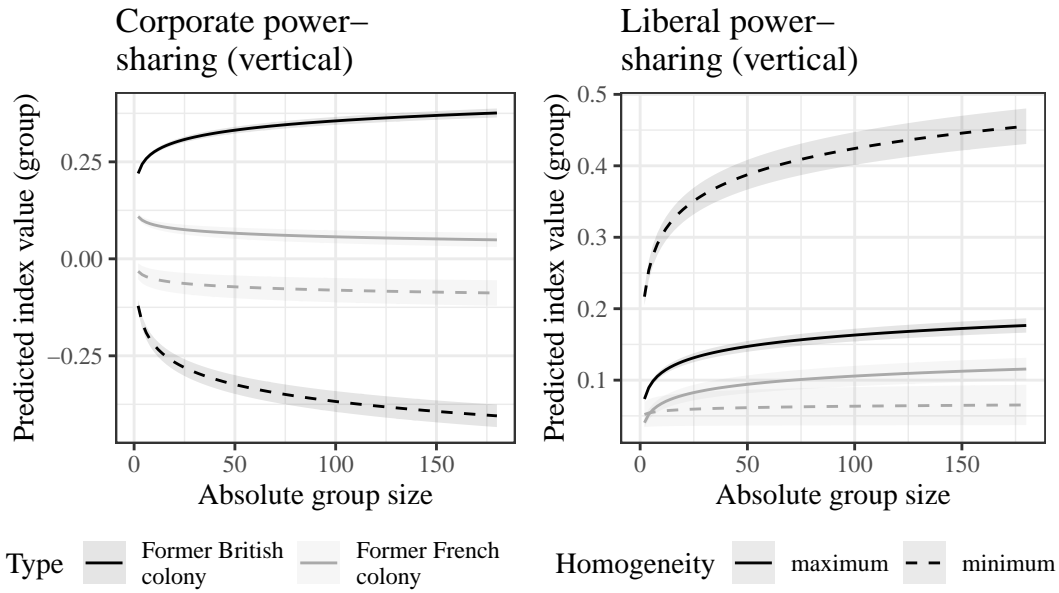


Figure 5.12: Predicted vertical power-sharing

Note: Predictions from first stage regression comprising all observations, analogously to models 2/3 and 6/7 in table 5.6.

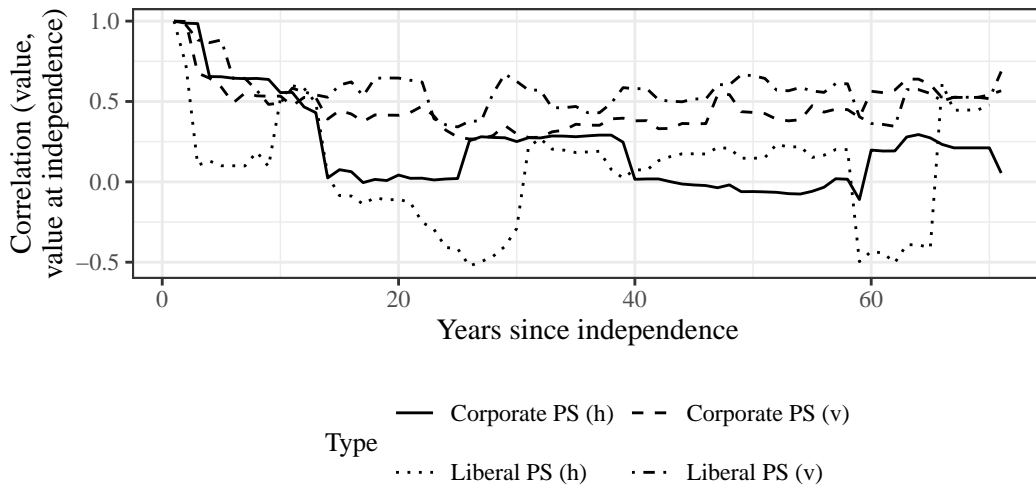


Figure 5.13: Evolution of power-sharing institutions over time

Note: The figure shows the correlation of power-sharing of the respective type and dimension with the corresponding values during the first year of independence.

Causal effects of power-sharing institutions: instrumental variables estimation with colonial legacies

In a second stage, I integrated the instrumented power-sharing measures into the main models that investigate the determinants of governmental (see model 4 in table 5.6) and territorial civil war (see model 8 in the same table).²⁹ All of these second stage models further include the same controls as the main models plus the variables for British colonial heritage, distance from the coast, absolute group size, and homogeneous settlement patterns used in the first stage (but with the exception of their interactions with group size and settlement patterns, which are the instruments and hence only included in the first stage).

The second stage results indicate that endogeneity is indeed a significant concern for the main correlational analyses and mostly goes in the expected direction: As regards the participation of non-core groups in governmental civil wars, the formerly positive correlation with horizontal power-sharing of the corporate type becomes indistinguishable from 0 when relying on the instrumented variable instead (model 4 in table 5.6). The same applies for vertical power-sharing of the liberal type, which becomes now even takes a negative sign. While vertical power-sharing of the corporate type becomes somewhat *less* negative (from -1.1 to -0.7), which indicates endogeneity into the other direction as regards governmental civil war, it still remains negative.

As regards the participation of non-core groups in territorial civil wars, a broadly similar pattern is found (model 8): The formerly positive correlation with corporate power-sharing of the horizontal type becomes clearly negative, although it remains insignificant. For vertical power-sharing of the corporate type, the positive association remains but becomes much smaller (from 0.9 to 0.1). Strikingly, however, the formerly significant negative correlation with vertical power-sharing of the liberal type disappears and becomes a null-effect.

²⁹All models were estimated with the *ivprobit* command in Stata, which corrects for standard errors.

Table 5.6: Instrumental variables estimates: Colonial legacies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	PS corp. h	PS corp. v	PS hb. v	Gov.	PS corp. h	PS corp. v	PS hb. v	Terr.
PS corp. h								
PS corp. v								
PS hb. v								
Brit. x Dist. coast (log)	0.032323*** (0.0125)	0.0109 (0.0190)	-0.0154 (0.0101)	0.0523 (3.205)	0.029999** (0.0123)	0.00703 (0.0186)	-0.0138 (0.0102)	-1.604 (4.617)
Brit. x Abs. size (log)	0.0917*** (0.0298)	-0.0603* (0.0338)	0.0647** (0.0313)	-0.696 (2.571)	0.0948*** (0.0296)	-0.0604* (0.0320)	0.0648** (0.0325)	0.108 (3.706)
Brit. x Homogeneity	-0.0413 (0.0819)	0.0911 (0.136)	-0.124 (0.0975)	-0.398 (5.332)	-0.0662 (0.0826)	0.101 (0.133)	-0.109 (0.101)	-0.00644 (8.677)
Brit. x Abs. size (log) x Homogeneity	-0.08466** (0.0366)	0.107** (0.0461)	-0.0616 (0.0381)		-0.0873*** (0.0362)	0.107*** (0.0444)	-0.0609 (0.0397)	
Brit.	-0.0919 (0.0867)	-0.0849 (0.106)	0.240*** (0.0817)	-0.0574 (0.293)	-0.0634 (0.0857)	-0.0748 (0.103)	0.219** (0.0859)	0.208 (0.475)
Dist. coast (log)	-0.0343*** (0.0118)	-0.0207 (0.0182)	0.0119 (0.00839)	0.192* (0.107)	-0.0326*** (0.0117)	-0.019 (0.0179)	0.0118 (0.00830)	-0.0606 (0.0377)
Abs. size (log)	-0.0816*** (0.0263)	-0.0336 (0.0303)	-0.00543 (0.0246)	0.451 (0.472)	-0.0827*** (0.0265)	-0.028 (0.0287)	-0.00626 (0.0255)	0.394 (0.754)
Homogeneity	0.0712 (0.0782)	0.272*** (0.126)	-0.0317 (0.0796)	-0.399 (1.658)	0.0662 (0.0832)	0.242*** (0.123)	-0.0384 (0.0802)	1.919 (2.439)
Homogeneity x abs. size (log)	0.0757** (0.0308)	0.0173 (0.0396)	0.0236 (0.0288)	-0.349 (0.432)	0.0745** (0.0302)	0.0152 (0.0382)	0.0261 (0.0296)	-0.571 (0.686)
Size	0.0833 (0.0808)	0.0449 (0.106)	-0.106 (0.0757)	0.689 (0.909)	0.105 (0.0757)	0.0212 (0.102)	-0.117 (0.0805)	0.365 (1.281)
TEK state	-0.0210*** (0.00625)	-0.00967 (0.0181)	-0.0144 (0.0124)	0.268 (0.196)	-0.0204*** (0.00581)	-0.0154 (0.0155)	-0.0145 (0.0135)	0.0609 (0.200)
Previous conflicts	0.0188*** (0.00543)	0.00226 (0.0164)	-0.0043 (0.0104)	0.12 (0.0861)	-0.000339 (0.0108)	-0.0031 (0.0165)	0.00272 (0.0180)	0.170** (0.0826)
GDP pc. (log)	-0.00391 (0.0127)	0.0113 (0.00987)	0.00792 (0.00923)	-0.108 (0.0692)	-0.00147 (0.0117)	0.0097 (0.00959)	0.00696 (0.00961)	-0.159 (0.151)
Population (log)	0.00249 (0.00461)	0.0383*** (0.00861)	-0.00147 (0.00908)	-0.157 (0.117)	0.00403 (0.00404)	0.0315*** (0.00804)	-0.00542 (0.0102)	0.173 (0.154)
Year	0.00138 (0.00110)	0.00105 (0.000923)	0.00117 (0.000885)	0.0117 (0.0109)	0.00135 (0.000901)	0.000552 (0.000726)	0.000565 (0.000788)	0.00609 (0.0110)
Constant	-2.562 (1.753)	-2.321 (1.753)	-2.389 (1.742)	-24.89 (20.61)	-2.55 (1.754)	-1.301 (1.349)	-1.129 (1.559)	-15.42 (19.66)
Observations	10340	10340	10340	10340	10122	10122	10122	10122

Country-clustered standard errors in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Cubic terms for group-wise peace years included but not reported.

This either indicates that this particular type of power-sharing has a different effect in the subset of cases studied here. Alternatively, it indicates that endogeneity might go into the opposite direction, for example that non-core groups that are less likely to start territorial civil wars are deliberately split into different, ethnically-mixed territorial units.

Overall, the evidence from this instrumental variables approach, using colonial heritage, thus underlines the endogeneity concerns voiced above. This is especially true for estimates on the effects of horizontal power-sharing of the corporate type, for which the positive coefficients attained in the correlational models shift towards zero or even become negative (see figure 5.14). This indicates that the most conflict-prone groups may be offered corporate guarantees of government inclusion in the face of looming conflict. The same relationship partly applies for vertical power-sharing of the horizontal type, which indeed appears to be offered to non-core groups to avert territorial civil war (but not governmental civil war). For vertical power-sharing of the liberal type, the findings are mixed: on the one hand, it seems to be disproportionately likely to be adopted to avert governmental civil war; on the other, however, it seems to be offered as a substitute for its corporate alternative to groups that are less prone to stage territorial civil war.

Probing assumptions

In order for the above-presented instrumental variables approach to be valid, it has to meet two criteria (Wooldridge 2010): First, the relevance criterion, whereby the instrument has to be a relevant and strong predictor of variation in the instrumented variable. Both descriptive and quantitative evidence were presented above, indicating that the chosen instruments indeed meet this criterion.³⁰

Second, the approach also has to meet the exogeneity criterion. This means (1) that there must not be any reverse causation between the instru-

³⁰As a further formal reassurance, appendix C.4.2 presents a weak identification test, which, as expected, the instruments clearly pass. This indicates that the instruments explain a large enough proportion of variation so as not to introduce major bias in the second stage.

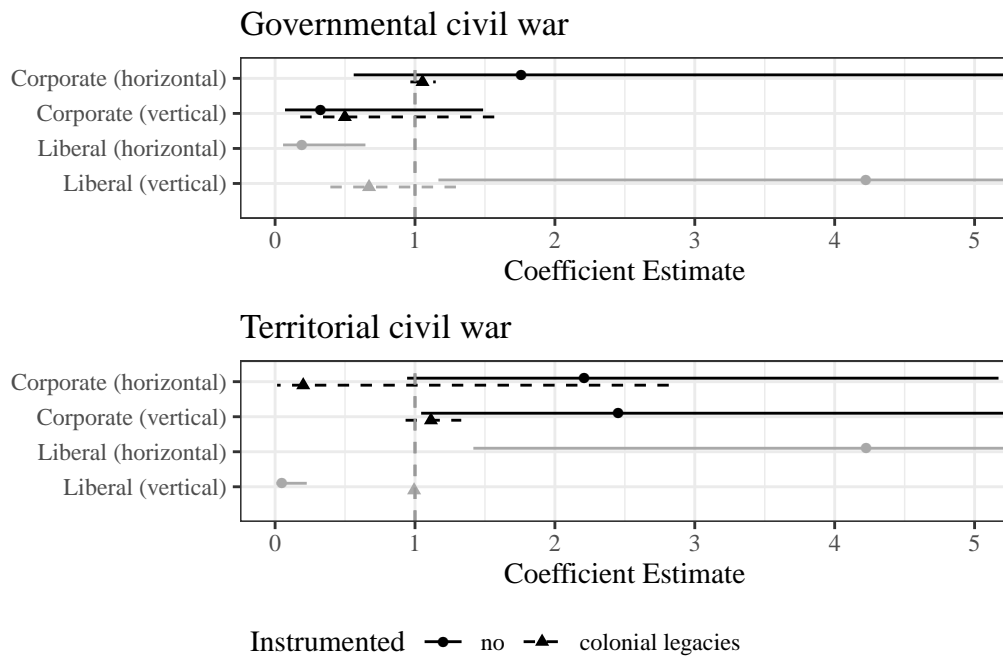


Figure 5.14: Coefficient comparison of direct power-sharing measures across specifications (change in odds ratios)

ment and subsequent conflict risks, (2) that the instrument must not correlate with an omitted determinant of conflict, and (3) that it must not affect conflict risks through an omitted variable (other than power-sharing institutions) (Wucherpfennig et al. 2016).

As to (1), similar to Wucherpfennig and colleagues (2016), reverse causation cannot be ruled out; however, it seems unlikely that either the French or British colonizers deliberately colonized conflict-prone groups, depending on their closeness to the imperial center (as given by distance from the coast) or on their ethnic demography (as given by absolute group size and homogeneity in settlement patterns).

To address (2) and (3), I again follow Wucherpfennig and colleagues (2016). First, I show in appendix C.4.4 that my results remain robust when including additional covariates that might be associated both with the instrument and subsequent conflict. This is a particular worry for unequal economic attainments of ethnic groups within French and British colonies. Hence, in five robustness checks, I control for five geographic and climatic factors that

capture this relationship: the latitude of a group's main settlement area, the share of a group's territory that was used for agriculture in 1950 (Goldewijk 2010), the share of a group's territory whose climate and soil are unsuitable for agriculture (Fischer et al. 2001), a location dummy for North Africa, and average stable nighttime emissions in each group's territory in 1992.³¹ The results do not substantively change due to the inclusion of each of these measures. Second, I show in appendix C.4.4 that, similar to Wucherpfennig and colleagues (2016), my instruments are also not substantively related to group-level economic outcomes (nighttime emissions and group size), thus boosting confidence that the instrument indeed operates through the transmission of political-institutional factors.³²

5.7 Mediation analysis

As part of the second follow-up track, I now proceed to disentangle the direct and indirect effects of power-sharing institutions on conflict. To do so, I conduct a causal mediation analysis based on the framework by Imai et al. (2011). This enables me to split the total effect of power-sharing institutions attained in the last two sub-sections into two constituent parts: First, a part that is mediated by the corresponding power-sharing practices and changes in horizontal inequalities (the average causally-mediated effect, ACME); and, second, a part that is unmediated (the average direct effect, ADE). The latter captures any left-over effect that derives from "all other possible mechanisms" (Imai et al. 2013: 7). For the present purpose, this includes, but is not limited to, signaling effects arising directly from the institutional underpinning of power-sharing practices. For example, for corporate power-sharing, this should include their visible signal of accommodative intent for included non-core groups, their formalized exclusion of other non-core groups, and their clear infringement on

³¹Version 4 DMSP-OLS Nighttime Lights Time Series; Image and data processing by NOAA's National Geophysical Data Center. DMSP data collected by US Air Force Weather Agency.

³²As a further formal reassurance, appendix C.4.2 further presents the Hansen J statistics for overidentification. For both outcome variables (governmental and territorial civil wars), the null hypothesis of valid instruments cannot be rejected.

majoritarian rule for core groups.

This disentanglement enables me to assess two implications of my theoretical argument: First, part of the effect of power-sharing institutions on conflict is indirect and mediated by changes in de-facto horizontal inequalities. Previous work already shows that such associations between de-jure and de-facto power-sharing exist (Bormann et al. 2019). However, it is unclear whether these apply to both types of power-sharing institutions, in particular to the liberal one as well. Furthermore, while it seems highly likely that corporate power-sharing indeed results in stronger de-facto status changes than its liberal alternative (as argued in this dissertation), this has also not been shown quantitatively before. Second, a substantial part of the effect of power-sharing institutions, especially of the corporate type, should be direct and not mediated by power-sharing practice. If that were not the case, then my theoretical argument whereby power-sharing institutions exert effects by sending signals to different actors would be in doubt. Finally, as the overall correlations attained in the last section offer only mixed support for my argument, this is especially important, as it also enables me to see whether this lack of evidence applies to any of the two component parts specifically.

To conduct a mediation analysis, I assess each group's institutional status under corporate and liberal forms of power-sharing alongside the corresponding power-sharing practice using the de-facto variables provided by the EPR dataset (Vogt et al. 2015). For power-sharing of the horizontal type, this is the political power status of a given group, referring to whether its elites are effectively included in a country's executive. For the vertical dimension, this refers to whether a given group effectively possesses political autonomy. While ostensibly related, power-sharing institutions and power-sharing practices are clearly distinct. Concerning horizontal power-sharing, there are many cases where de-jure provisions do not result in de-facto government inclusion (for example, as regards Kosovo's multiple non-core groups, cf. Juon 2020). Conversely, a high de-facto political status of a non-core group may also be the result of other,

non-institutional factors. The same applies for vertical power-sharing and de-facto autonomy: De-facto autonomy may be the result of non-institutional factors (for example, implicit or self-claimed autonomy arrangements, such as in Transnistria initially after Moldovan independence). Alternatively, vertical power-sharing institutions may in some cases conceivably not result in effectively implemented autonomy, especially its liberal variant that may create multiple heterogeneous units.

5.7.1 Descriptive analysis: from power-sharing institutions to practice

Before turning to a formal mediation analysis, I start with a brief descriptive investigation. Figure 5.15 does so by providing a preliminary graphical overview of the relationship between group-wise power-sharing institutions and the "average" level of corresponding practices associated with them, based on all groups in the CPSD and EPR datasets ($N = 50'772$).³³

These bivariate patterns indicate that power-sharing institutions affect practices in the ways expected in my theoretical argument. First, a given non-core group's corporate power-sharing index is indeed associated with clearly higher likelihood of a group attaining the corresponding power-sharing practices. Non-core groups targeted by its horizontal dimension have a clearly higher "average" power status than non-core groups lacking such inclusive provisions. Further, a far higher fraction of non-core groups targeted with its vertical dimension attain de-facto autonomy status. Second, corporate power-sharing of the horizontal (but not the vertical) dimension appears associated with (slight) drawbacks for excluded non-core groups, as compared to situations where no power-sharing is in place. Both observations are in line with the central implication of the expected trade-off along group lines whereby

³³For this descriptive purpose, the "power status" variable of the EPR dataset has been recoded as a numerical variable with: 1 = discriminated, 2 = powerless/irrelevant, 3 = junior partner, 4 = senior partner, 5 = dominant, 6 = monopoly. In the mediation models to follow, a dummy "included" was used, where categories 3 to 6 are comprised in value 1 and categories 1 to 2 in value 0. For autonomy, the EPR's "regional autonomy" dummy variable was used.

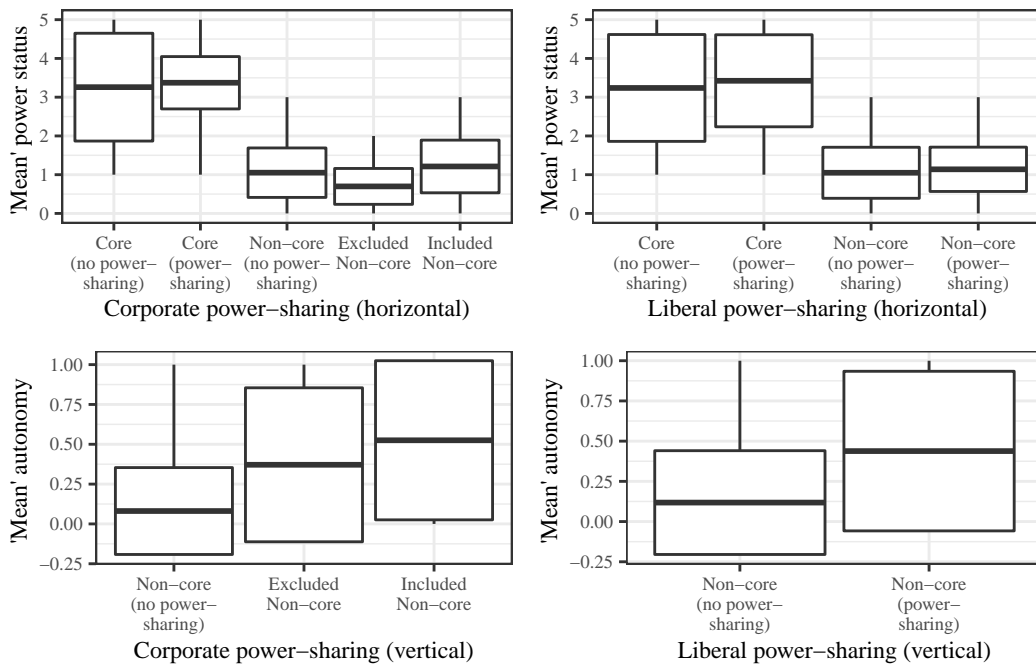


Figure 5.15: De-jure institutional status and de-facto political power

Note: The figure shows that power-sharing institutions indeed translate into the corresponding practices for non-core groups: under the horizontal dimension, they are more likely to attain de-facto government inclusion. And, under the vertical dimension, they are more likely to attain de-facto autonomy.

corporate power-sharing should empower some groups at the expense of others. Third, as also expected in my theoretical argument, the corresponding liberal power-sharing institutions are also, albeit more weakly, associated with increased power-sharing practices, both as regards government inclusion and especially as regards de-facto autonomy. Finally, however, the relationships concerning core groups are not as expected, at least in this simple descriptive comparison: power-sharing of any type does not appear to greatly shape their de-facto power-status (for example, by making it more likely that they are only senior partners rather than dominant).

5.7.2 Quantitative mediation analysis

I now quantitatively assess the direct and indirect effects of power-sharing institutions. For this purpose, I build on non-core model type 2 (see tables 5.3, 5.4), which considers the outbreak of governmental and territorial civil wars.

I also build on core group model 1, which focuses on the instigation of core group coups (see table 5.5). I chose these specific models, as they contain all institutional power-sharing variables that conceivably exert impacts mediated by actual practices: for non-core groups, these are their respective power-sharing indices plus, for its corporate type, the negative differences from other groups. For core groups, these are the average power-sharing indices of all non-core groups (correspondingly mediated by the average government inclusion / autonomy of all non-core groups).

I proceed in two steps (see table C.20 for all results): First, I re-estimate the three conflict-outbreak models but include the corresponding power-sharing practices variables: group-wise de-facto government inclusion and de-facto autonomy (models 3, 6) and the share of the non-core population enjoying de-facto government inclusion and de-facto autonomy (model 9).³⁴ Second, I estimate auxiliary regressions which model the impact of institutions on the corresponding practice (see models 1-2, 4-5, 7-8). For example, in one of these regressions, I estimate the impact of each non-core group's horizontal corporate and liberal power-sharing indices on their de-facto government inclusion.

I start by discussing the results from the auxiliary regressions, which indicate that the expected indirect effects mediated by practices indeed exist (in line with the descriptive analysis above). First, both corporate and liberal power-sharing provisions significantly increase the probability that a non-core group is included in government. Again as expected, the former's effect is stronger than the latter. Simultaneously, negative differences from horizontal power-sharing provisions targeting other groups indeed significantly reduce their power access, which is in line with a central argument of the trade-off along group lines (models 1, 4). Second, corporate power-sharing of the vertical type also increases the probability of a group attaining de-facto autonomy. However, the same does not appear to be the case for its liberal alternative,

³⁴All these variables were taken from the EPR dataset (Vogt et al. 2015) or calculated based on it.

Table 5.7: Mediation analysis: power-sharing institutions, practice, and conflict

	<i>Dependent variable:</i>								
	In- cluded	Au- ton- omy	Gov.	In- cluded	Au- ton- omy	Terr.	Avg. Incl.	Avg. Aut.	Coup
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PS corp. h	1.858** (0.785)		0.688 (0.807)	1.927** (0.765)		0.731 (0.589)			
PS lib. h	1.580* (0.932)		-1.562* (0.846)	1.554* (0.933)		1.638* (0.988)			
PS corp. v		6.359*** (0.932)	-0.625 (1.508)		6.692*** (0.999)	0.550 (0.757)			
PS lib. v		-0.854 (0.532)	1.140 (1.107)		-0.995* (0.541)	-2.643*** (0.842)			
PS corp. h avg.							3.195 (2.175)		3.610** (1.562)
PS lib. h avg.							0.564 (0.775)		0.219 (1.128)
PS corp. v avg.								8.347*** (2.406)	-3.365 (3.158)
PS lib. v avg.								-1.837 (3.108)	0.577 (1.699)
PS corp. h diff.	-3.961*** (1.513)		0.377 (1.117)	-4.005*** (1.485)		-4.216 (3.510)			
PS corp. v diff.		1.851* (1.100)	0.861 (1.516)		1.914* (1.082)	0.349 (1.474)			
Included			-0.311 (0.319)			-0.765** (0.314)			
Autonomy			-0.453 (0.621)			0.604 (0.372)			
Avg. included									-0.678 (0.482)
Avg. autonomy									1.222 (1.674)
Size	4.024*** (0.917)	-1.869* (1.119)	4.155*** (0.585)	3.725*** (0.880)	-1.920* (1.159)	-0.412 (0.830)	0.596 (0.810)	3.500 (3.308)	-0.468 (0.670)
TEK state	0.109 (0.206)	-0.181 (0.367)	-0.409 (0.339)	0.161 (0.206)	-0.128 (0.382)	0.237 (0.248)	0.141 (0.563)	0.161 (0.962)	0.781** (0.385)
Previous conflicts	0.013 (0.208)	0.282 (0.200)	0.451*** (0.130)	0.161 (0.222)	0.084 (0.185)	0.404*** (0.109)	0.621** (0.281)	-0.780 (0.801)	-0.792 (0.537)
GDP pc. (log)	-0.124 (0.130)	0.299* (0.181)	-0.465*** (0.129)	-0.147 (0.127)	0.371** (0.144)	-0.242 (0.183)	0.484*** (0.171)	-0.095 (0.331)	-0.135 (0.290)
Population (log)	-0.083 (0.183)	0.357*** (0.090)	-0.088 (0.077)	-0.097 (0.182)	0.390*** (0.089)	0.209* (0.121)	-0.126 (0.153)	1.645*** (0.504)	0.064 (0.209)
Year			0.039*** (0.008)			0.021*** (0.006)			-0.021 (0.014)
Constant	-0.828 (1.071)	-5.881*** (1.620)	-78.047*** (14.893)	-0.858 (1.041)	-6.430*** (1.389)	-46.233*** (11.014)	-4.549*** (1.309)	-8.565** (3.826)	40.053 (28.014)
Observations	34,649	34,649	34,649	34,196	34,196	34,196	1,606	1,606	1,606
Log Likelihood	-16,710.500	-12,202.180	-568.651	-16,560.410	-11,358.420	-759.460	-941.178	-80.947	-257.387
Akaike Inf. Crit.	33,445.000	24,428.370	1,173.303	33,144.810	22,740.850	1,554.920	1,904.356	183.895	546.773

Note:

*p<0.1; **p<0.05; ***p<0.01
Country-clustered standard errors in parentheses; cubic terms for group-wise peace years included but not reported.

which is even negatively associated with actual autonomy. Furthermore negative differences are associated with higher autonomy, which is in line with the observations from the above descriptive analysis that non-core groups that are coded as "excluded" similarly profit from increased de-facto autonomy (models 2, 5). The corresponding conclusions from the auxiliary core group models that employ the averaged equivalents of these variables (models 7, 8) are similar. They have reduced significance, which, however, could be expected, as the averages obscure variation and as the sample size is greatly reduced due

to the limited availability of coup data.

Formal mediation analysis

By combining these auxiliary regressions with the augmented conflict models (that now include the de-facto terms as well), I am able to conduct a formal causal mediation analysis, following Imai and colleagues (2011).³⁵ I start with the results for non-core groups' participation in civil wars, for which figure 5.16 plots the results (see table C.20). These show the total effect of the respective power-sharing institutions, which is decomposed into a direct, unmediated part, and an indirect part, mediated by corresponding power-sharing practice.

I start with the participation of non-core groups in governmental and territorial civil wars, for which three main conclusions emerge (see figure 5.16). First, both horizontal corporate and liberal power-sharing lead to de-facto government inclusion of non-core groups and in this way indirectly reduce civil war risks. This result is in line with the expectation that corporate power-sharing should provide stronger reassurances for de-facto power-sharing and in this way reduce conflict risks of included non-core groups more strongly. However, the direct institutional effects of the two types are not as expected (see models 3, 6): a corporate institutionalization of power-sharing appears to offset its benefits resulting from increased inclusive practices and, in sum, results in higher conflict risks. Liberal power-sharing of the horizontal type has similar same offsetting (conflict-inducing) direct effects for territorial civil wars. These results underline the possibility that reverse causation might be an issue as regards the direct effects of horizontal power-sharing institutions. As they represent more drastic measures than inclusion based on ad-hoc practices, they are disproportionately more likely to be adopted in already unstable contexts (see next section).

Second, corporate power-sharing indeed increases the de-facto autonomy of non-core groups. Thereby, it somewhat reduces risks of governmental civil war, yet increases the one of territorial civil war. Through a direct channel, it

³⁵All analyses were conducted with their R-package "mediation".

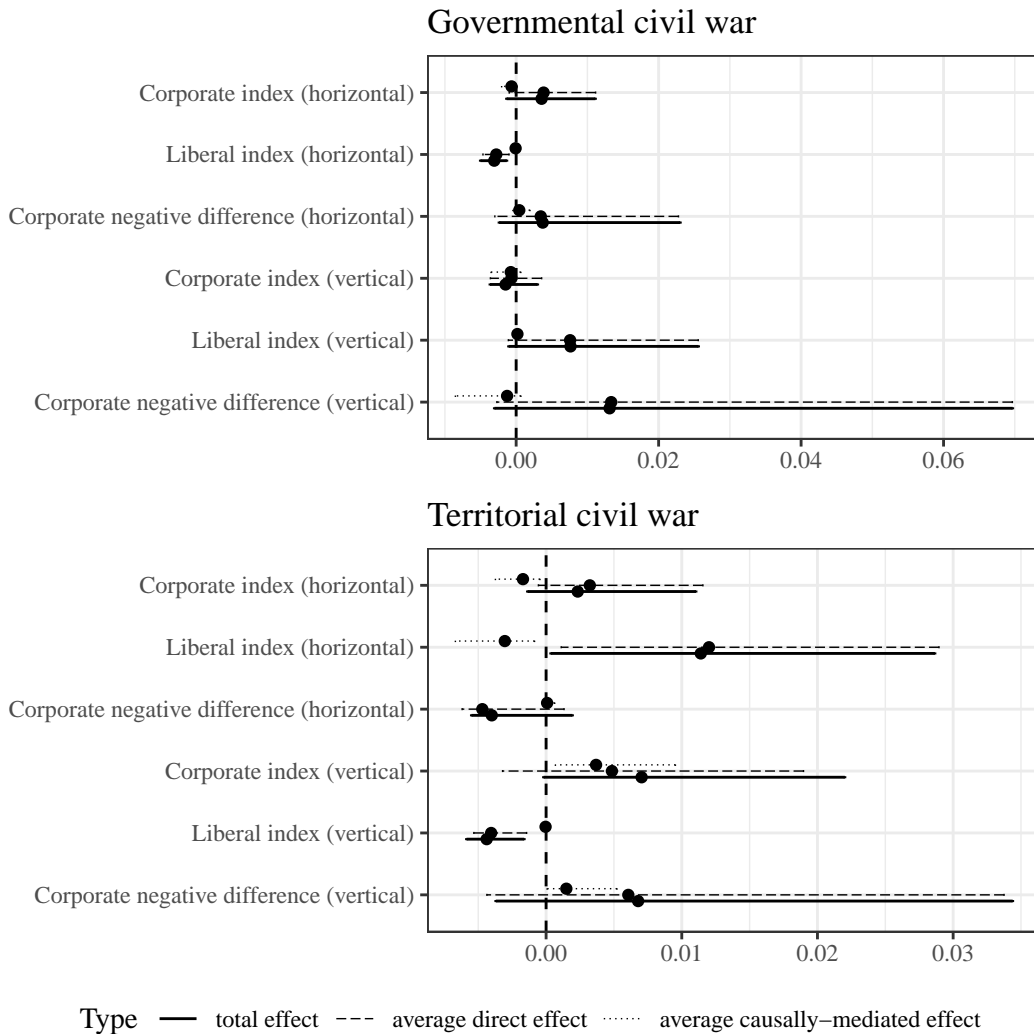


Figure 5.16: Mediation

further enhances the risk of territorial conflict, which is against the expectation under the trade-off across group lines that it should constitute a further reassurance by signaling accommodative intent of the core group. Conversely, vertical power-sharing of the liberal type *reduces* de-facto autonomy, which is squarely against my expected causal mechanism. Through a direct channel, this pacifying effect of vertical power-sharing of the liberal type appears even further augmented. These patterns point to even more significant endogeneity at play as regards vertical power-sharing institutions. It seems likely that only groups that are conflict prone or have higher relative capabilities are offered vertical power-sharing of the corporate type in the first place (or autonomy in

general, see Cederman et al. 2015a). The results on the negative association between vertical power-sharing of the liberal type and de-facto autonomy further underline the possibility that it might be offered as a token substitute for real autonomy to groups that are not conflict prone or unable to resist (see last section).

Third, the exclusion from horizontal power-sharing institutions of the corporate type (judged by the negative difference measures) has strong ramifications for excluded non-core groups. This makes it more likely that they are further marginalized politically and excluded from government office. As expected, this indirectly leads to higher probabilities that they will participate in governmental civil wars. Through direct causal pathways, their unequal treatment appears to further enhance the risks that they participate in civil wars of both types,³⁶ although the confidence intervals overlap with 0. Overall, the signs of these patterns are in line with my expectations under the trade-off across group lines for excluded non-core groups, although they are mostly insignificant.

I now turn to causal mediation for the core group coup models (see figure 5.17). Concerning government inclusion, the results indicate that the more non-core groups are included, the less likely is a core group coup. However, this beneficial effect is more than offset where ethnic inclusiveness is mandated by underlying corporate power-sharing provisions of the horizontal type. If so, overall coup risks increase strongly. This is squarely in line with the expectation under the trade-off along group lines that corporate power-sharing should lead to core group backlashes not only by changing their relative status position, but doing so in an especially visible way. Conversely, liberal power-sharing has no such coup-inducing effect. As expected, there is furthermore no significant effect of non-core autonomy on coup risks. However, these seem to be somewhat higher on average in states where non-core groups enjoy vertical

³⁶An exception to this being the relationship between exclusion from horizontal power-sharing of the corporate type, whose direct effect on territorial civil war risks appears negative.

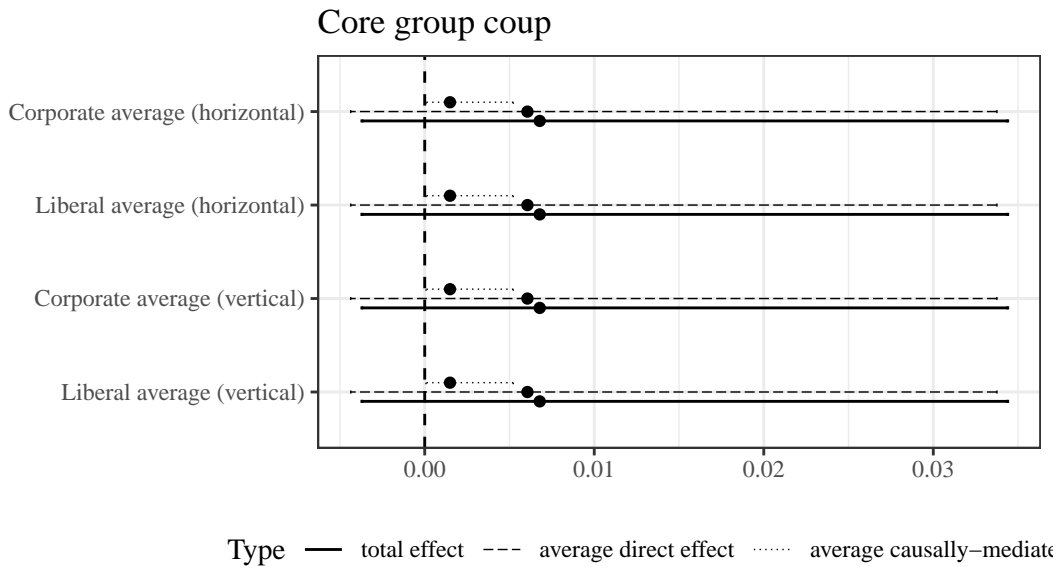


Figure 5.17: Mediation: Core group coups

power-sharing of the liberal type.

Overall, the causal mediation analysis offers strong support for my argument that power-sharing institutions should affect conflict risks indirectly by affecting the corresponding practices. Crucially for my expectations under the trade-off across group lines, they show a stronger translation of de-jure into de-facto power-sharing for the corporate type. Furthermore, they show that corporate power-sharing of the horizontal type further politically marginalizes non-core groups excluded from it, as compared to situations without any power-sharing in place. An exception from the attained overlap between institutions and practice is the relationship between vertical power-sharing of the liberal type and de-facto autonomy, which seem to be negatively associated. Together with the direct effect whereby it further reduces territorial conflict risks, this points to potential endogeneity whereby groups with low conflict risks or low capabilities are strategically divided into heterogeneous territorial units.

Probing underlying assumptions

The results from the above mediation analysis make intuitive sense, at least as regards the indirect pathway linking power-sharing institutions with conflict. However, similar to previous work (Bormann et al. 2019), they depend on two assumptions: First, conditional independence, which is likely violated by the endogeneity of both power-sharing institutions and practices, as is indicated by the instrumental variables analysis provided above and previous research (Cederman et al. 2015a; Wucherpfennig et al. 2016). Following these existing arguments and findings, it is likely that both power-sharing institutions and practices are endogenous to previous conflict and hence positively correlated with one another. Yet, if this is indeed the case, the sensitivity analyses provided in appendix C.5.1 indicate that the average causally mediated effect would be stronger, rather than weaker, for almost all institutional variables employed above.³⁷ Thereby, the likely direction of endogeneity would further strengthen the findings as regards the indirect causal pathway, rather than weaken them. To further probe the potential for endogenous findings, appendix C.5.2 re-runs the main mediation analyses conducted above, but lags the institutional variables by 2, 5, and 10 (instead of 1) years. The findings again remain comparable and hence seem robust.

A second assumption is that the correct causal order is specified, in the present case running from institutions to practices to conflict. Beyond reverse causation, it could be, however, that actors already relying on inclusive practices decide to enshrine them constitutionally later in the process. In that case, the effects of power-sharing practices would be mediated by what I have argued to be their underlying institutions, rather than the other way around. To probe the potential of such an alternative pathway, I re-do the mediation analysis but reverse institutions and practices in the main models (see ap-

³⁷Again, all analyses were conducted with the R-package "mediation" (Imai et al. 2011). As the package is unable to conduct sensitivity checks for set-ups where both component regressions are logistic, for this purpose I re-ran all models in a linear probability specification. The results remain broadly similar to the logistic results presented in this chapter (see C.5.1).

pendix C.5.3). Echoing the findings of Bormann and colleagues (2019), this set-up consistently yields null effects for causally mediated effects running from practices through institutions. This bolsters the assumption that the correct causal order indeed runs from institutions to power-sharing practices, and not the other way around.

5.8 Conclusion

This chapter represents a first step in this dissertation's empirical investigation into the effects of power-sharing institutions on ethnic conflict. Innovating over previous work, it differentiates between corporate and liberal types of power-sharing and investigates their relationships with the risks of violent ethnic conflict in 146 multi-ethnic countries. Beyond considering a group's absolute status attainments under different types of power-sharing institutions, it furthermore analyses relative differences (which should be especially relevant for excluded non-core groups) and power-sharing stocks (which capture heterogeneous effects over time).

The main findings are three-fold. First, they tentatively support the idea that institutional engineers can indeed bring about inclusive practices through power-sharing institutions, which in turn, decrease conflict risks. Under corporate power-sharing, included non-core groups have significantly higher chances of effective government inclusion and autonomy. This translates into substantially lowered risks for civil war participation, especially of the governmental type (which is directly in line with hypothesis 1). Similarly, under horizontal power-sharing of the liberal type, included non-core groups are more likely to attain government inclusion. As expected, this translation from de-facto into de-jure is indeed weaker for the liberal type compared to its corporate alternative. Through this, horizontal power-sharing of the liberal type indeed weakly decreases conflict risks (which is in line with hypothesis 3).

Second, the findings highlight some of the dangers involved in attempts to institutionally engineer peace through the constitutional enshrinement of

power-sharing. Thereby, they echo some of the key theoretical arguments made in this dissertation on the side-effects of power-sharing institutions. Most importantly, under horizontal power-sharing of the corporate type, excluded non-core groups are indeed more marginalized politically than in contexts lacking any power-sharing provisions whatsoever. This in turn increases their risk of participating in civil wars (which is in line with hypothesis 6). Further, if horizontal power-sharing provisions of the corporate type are in place, this strongly increases the probability that core groups will instigate coup attempts to overthrow the political system (which is in accordance with hypothesis 4). While liberal power-sharing of the horizontal type is similarly associated with higher coup risks, this is much smaller but insignificant (which is partly in line with hypothesis 5). Together, these findings reinforce warnings that corporate power-sharing may trigger destabilizing backlashes from ethnic groups that fail to profit from its inclusive provisions.

Third, the findings conversely attenuate other warnings on institutionalizing power-sharing made in this dissertation's theoretical section. Most importantly, they do little to substantiate the expectations under the trade-off across time horizons, whereby corporate power-sharing should over time increase the conflict risks posed by included non-core groups. The attained patterns indeed reflect the basic expectation whereby liberal types of power-sharing are initially associated with higher conflict risks and whereby this risk conversely rises over time for their corporate alternative (hypothesis 2). However, the relationship is extremely weak and appears limited, if there at all, to territorial civil wars.

Overall then, this chapter provides some evidence for the trade-off along group lines, whereby corporate power-sharing decisively reduces the conflict risks of included non-core groups while increasing it for excluded non-core groups and core groups and whereby liberal power-sharing alleviates conflict risks more weakly, but more uniformly. Conversely, it fails to provide consistent evidence in line with the trade-off across time horizons, whereby it should

gradually increase the conflict risks of included non-core groups over time.

While offering key evidence on some of this dissertation's key arguments, the findings also counsel caution in several respects. First, they underline concerns of reverse causation. On the one hand, they indicate that power-sharing, especially of the corporate type, is primarily offered to those groups that are most conflict prone in the first place. This makes estimating its subsequent effects on conflict risks extremely difficult with the attained correlations likely underestimating their pacifying role for included non-core groups. On the other, they point to a pattern whereby vertical power-sharing of the liberal type is predominantly offered to non-core groups that are unlikely to mount an armed challenge over a given territory. This similarly poses estimation difficulties and indicates that any conflict-alleviating effects attained for this particular type of power-sharing might be overestimated. Second, while there is substantial evidence for the existence of indirect causal pathways linking power-sharing to conflict via the corresponding inclusive practices and horizontal inequalities, there is little support for direct institutional effects going beyond this. This sheds some doubt on parts of this dissertation's theoretical argument that emphasized the direct effects of power-sharing institutions, for example by signaling accommodative intent from the core group.

Hence, the observed patterns only partly reflect the theoretical expectations formulated in this dissertation and face several empirical difficulties. However, there are two key limitations to this chapter's empirical analysis. First, even if the posited mechanisms do not play out to their conclusion (i.e., conflict outbreak), they might still partly operate. For example, the unequal treatment of excluded non-core groups might still boost their grievances, although they might lack the capabilities to mobilize upon them and mount a violent challenge against the core group. Similarly, corporate power-sharing might still solidify ethnic identifications of included non-core groups over the long-term, but again this might not result in civil war participation for one reason or the other.

Secondly, all analyses were conducted on the group level. However, several of the posited mechanisms at least partly operate on the sub-group level. For instance, vertical power-sharing of the corporate type might boost the grievances of excluded non-core groups, but it might not affect all of their group members uniformly. Rather, it appears likely that it is especially the subset of excluded non-core group members living inside the territory dedicated to another non-core group is negatively affected by this, while no similar effect exists for those settling outside these autonomous areas.

The next two chapters follow these considerations by turning to the attitudinal implications of the theoretical arguments, studying them for sub-group populations at the individual level.

Chapter 6

Power-sharing institutions and grievances

6.1 Introduction

Having mapped the impact of power-sharing on conflict, I now investigate the individual steps involved in the hypothesized causal mechanisms, as demanded in chapter 2. In the last chapter, I started this endeavor by distinguishing between two pathways linking power-sharing institutions and conflict: one indirect and mediated by power-sharing practices and horizontal inequalities, and the other direct and unmediated. In the remaining empirical analyses, I aim to go a step further. Specifically, I proceed to probe the attitudinal implications of my theoretical argument on the individual level. The present chapter starts this endeavor by focusing on ethnic grievances, which play a key role in the hypothesized trade-off along group-lines. The next chapter then turns to the salience of ethnic identifications, which is a crucial factor in the trade-off across time horizons.

The previous chapter has mostly lent support for the eventual patterns of conflict expected under the trade-off along group-lines. Some evidence was found that non-core groups' conflict risks are indeed affected through an indirect mechanism, whereby power-sharing institutions lead to the corresponding practices: included non-core groups become less likely to revolt due to their

actual government inclusion, which is strongly boosted by corporate power-sharing and somewhat less so by its liberal alternative. Further, excluded non-core groups become more likely to revolt so due to their increased (de-facto) political marginalization, which results from corporate power-sharing targeting other groups at their expense. Finally, a clear pattern was found whereby core groups are more likely to engage in coup attempts if there is significant horizontal power-sharing of the corporate type. If the causal mechanism posited by my argument is behind these empirically supported relationships, they should at least partly stem from corresponding changes in mass grievances.

Conversely, almost no evidence was found for the hypothesized *direct* pathways connecting power-sharing institutions to conflict for non-core groups. Notably, I expected corporate power-sharing to be especially apt at reducing blaming and framing processes for included non-core groups and to conversely boost them for excluded non-core groups through signaling accommodative intent and a restriction on majoritarian rule. However, last chapter's mediation analysis did not lend support to this expectation of a direct link between power-sharing institutions and conflict. While the apparent null results regarding such pathways indicate that the posited direct mechanism is unlikely to play out fully, it might still do so partially. For example, corporate power-sharing might disproportionately increase the grievances of excluded non-core groups stemming from their visible and formalized government exclusion. However, they might lack the resources to turn these grievances into violent mobilization.

The present chapter seeks to investigate both of these open points: First, are the indirect links between power-sharing institutions and conflict, for which support was found, indeed due to changes in grievances, as my theoretical argument suggests? Second, could the direct links between them, for which no support was found, stop short of resulting in conflict itself, but still affect group-wise grievances as expected? I investigate these questions by relying on the combination of newly ethnically-attributed global mass surveys pre-

sented in chapter 4. In particular, I investigate the impact of power-sharing institutions on two individual-level measures for grievances: First, the perception of belonging to a discriminated group. This is particularly well-suited to investigate mass grievances among non-core groups. Second, overall dissatisfaction with the democratic political system. This is better suited to investigate grievances of core groups, for whose members power-sharing might not lead them to consider themselves as discriminated, but nevertheless induce widespread dissatisfaction with the political system.

The findings from several multi-level analyses overall lend support that power-sharing institutions indeed affect group-wise grievances as expected. First, they show that corporate power-sharing, especially of the horizontal type, is associated with considerably lower grievances among included non-core group members. Second, excluded non-core group members are conversely indeed more aggrieved under corporate power-sharing, although this relationship appears limited to fairly large excluded groups. Third, for core group members, a similar relationship is found whereby corporate power-sharing increases their grievances, but only for its horizontal dimension: this appears associated with higher probabilities that a subset of core group members think of themselves as discriminated and are dissatisfied with the democratic system. Fourth, however, as regards liberal power-sharing, no robust association is found: neither a grievance alleviating effect on non-core groups nor a grievance-inducing one on core groups is attained.

The next section starts this individual-level investigation by making explicit the attitudinal implications of the hypothesized trade-off along group-lines, whereby power-sharing institutions may decrease some groups' grievances at the cost of increasing them among others. It further refines my theoretical argument as regards three moderating factors. These include an individuals' territorial unit of residence (for vertical power-sharing), their relative group size (for the activation of injustice norms), and their value dispositions (for the magnitude of backlashes against other group's institutional

privileges). The subsequent section presents the survey measures used to map ethnic groups' mass grievances. Based on these, a first empirical section descriptively investigates the relationships between power-sharing institutions and grievances on the ethnic group level. A second empirical section employs a multi-level approach to investigate these relationships quantitatively on the individual level. A final section concludes and relates the attained findings to the overall argument of this thesis.

6.2 Implications of the theoretical argument for ethnic grievances

As argued in chapter 3, I expect power-sharing institutions to alleviate the grievances of some groups at the expense of increasing them for others. This is what I called the trade-off along group lines: Corporate power-sharing should strongly alleviate the grievances of included non-core groups, by providing enforceable guarantees for their empowerment and by signaling accommodative intent from the core group. Conversely, it should increase grievances for excluded non-core groups, who are now formally and visibly barred from government access, and for core groups, whose former dominance is now visibly circumscribed. In contrast, liberal power-sharing should alleviate non-core group grievances in a weaker way, as it provides only less enforceable guarantees and does not come with explicitly ethnic recognition. Conversely, it should not boost core group grievances as strongly as its corporate alternative, as its restrictions on majority rule come in less strict and less visible form.

In this section, I argue that the degree to which power-sharing institutions affect group-wise grievances in this way should crucially depend on three moderating factors: First, individuals' place of residence, which should moderate the effect of vertical power-sharing, and the autonomous areas it is based on. Second, the relative size of a non-core or core group, which should shape the degree to which the institutionally unequal treatment under corporate power-sharing activates injustice norms. And, third, an individual's value

Table 6.1: Power-sharing and grievances: expectations

Group type	Corporate power-sharing		Liberal power-sharing	
	Horizontal	Vertical	Horizontal	Vertical
core	++ [esp. large, esp. AVD]	++ [in territory, esp. large, esp. AVD]	+	0
included non-core	-	- [in territory]	-	- [in territory]
excluded non-core	++ [esp. large, esp. AVD]	++ [in territory, esp. large, esp. AVD]	N/A	N/A

Note: AVD = authoritarian value disposition; moderating factors in square brackets; ++ strong positive effect; + positive effect; - strong negative effect; - negative effect; 0 null effect.

disposition, which should shape the degree to which they feel threatened by the institutional empowerment of specific ethnic out-groups through corporate power-sharing.

My discussion of these three factors lead to differentiated expectations on how power-sharing institutions affect the mass grievances of members belonging to different ethnic groups. In what follows, I restate the expected trade-off across group-lines (chapter 3) and refine it with regards to these three factors. Table 6.1 summarizes the direction and magnitude of my resulting expectations. I now show how I derive these by discussing each of these three factors in turn.

6.2.1 Place of residence

In chapter 3, I formulated my central theoretical expectations on how power-sharing institutions affect grievances on the group-level. This is likely to be more appropriate for power-sharing of the horizontal dimension: Group-wise representation in central government should affect the attitudes of a given

group's members roughly equally, wherever inside the state they reside. For example, whether a Bosnian Serb lives inside the Republika Srpska, the Federation of Bosnia and Herzegovina, or in the district of Brcko, they have the same level of representation in central government organs and face similar nationwide policy outcomes, as shaped by horizontal power-sharing. As a result, the effects of horizontal power-sharing on grievances should be roughly uniform across group members, no matter where inside the country they reside.

However, the same uniformity across different spatial contexts should not hold for power-sharing of the vertical dimension. Rather, my theoretical argument implies that its effects on grievances should exhibit strong spatial patterns, depending on the administrative unit in which an individual group members settles. First, if vertical power-sharing indeed reduces included non-core groups' grievances by shaping their descriptive and substantive representation, such an effect should critically depend on whether or not an individual resides inside the autonomous territorial units which are the basis for vertical power-sharing. For example, the grievance-alleviating effects of vertical power-sharing should be much stronger for Serbs that actually reside inside their designated autonomous unit, the Republika Srpska, than for Serbs living outside of it. It is only inside said autonomous unit that the causal mechanism linking power-sharing institutions with grievances holds: only there do Bosnian Serbs benefit from descriptive representation in local government organs. And only there do they profit from policies in line with their interests, for example as regards education curricula and language use. Hence, I expect vertical power-sharing to reduce included non-core group members' grievances only inside the respective autonomous territorial units.

Second, for analogous reasons, a strong spatial pattern should also apply for backlashes against vertical power-sharing from excluded non-core group and formerly dominant core group members. For example, in Bosnia and Herzegovina, ethnic Bosniaks should react with increased grievances to Serb autonomy only inside the Republika Srpska, but not in the Confederation, where

they continue to dominate both demographically and politically.¹ Only in the Republika is their descriptive representation heavily circumscribed and only there do they live under policy outcomes that may be substantively against their preferences. Hence, I expect vertical power-sharing of the corporate type to increase the grievances of excluded non-core group and core group members. However, I only expect it to do so in territorial units dominated by other (included) non-core groups.

6.2.2 Group size

In my theoretical argument in chapter 3, I have discussed in broad terms how corporate power-sharing should boost the grievances of excluded non-core groups and of the formerly dominant core group by activating injustice frames. This is, to a large degree, because corporate power-sharing visibly treats these groups unequally, by formally excluding the former and by ostensibly violating norms of majoritarian rule for the latter. However, as already alluded in chapter 3, in both cases, the degree to which injustice norms become activated is likely to depend on the relative size of the group. This applies for both horizontal and vertical power-sharing:

First, the activation of injustice norms among excluded non-core and core group masses through power-sharing in the horizontal dimension should be strongly moderated by relative group size at the country level. For core groups, their relative size should critically shape the degree to which they perceive corporate power-sharing as an infringement on majoritarian rule. Where core groups constitute clear demographic majorities, for example as regards ethnic Macedonians in North Macedonia (Brunnbauer 2002), perceptions that power-sharing infringes on the rightful rule of the majority are more likely to arise. Conversely, where core groups are comparably small, as is the case for the Tutsis in Burundi or the Alawites in Syria, incisive power-sharing provisions are

¹More precisely, inside the Confederation, a pattern along cantonal lines would be expected, as these are themselves split between ethnic Bosniaks and Croats. In my theoretical argument I simplify and focus on the first-order administrative level. Similarly, in my empirical investigation, I am only able to consider lower-order administrative units if they are explicitly designated as autonomous (see chapter 4).

unlikely to be perceived as violating these norms, even if core group members might still resent losing their former dominance. This in turn increases the likelihood that power-sharing is framed as unjust and that it in turn results in disproportionately high core group grievances.

A similar moderating effect of horizontal power-sharing of the corporate type should apply to excluded non-core groups. These should be especially likely to perceive a violation of their "just" share of power, if they hold large population shares. In this case, their grievances should similarly be disproportionately boosted in turn. This expectation is similar to existing findings that large groups who are excluded from power are more likely to frame this state of affairs as unjust and revolt against government (Cederman et al. 2013). However, injustice frames should be even more likely to be activated where large groups are excluded based on visible, constitutionally entrenched rules, rather than based on ad-hoc decisions.

A similar relationship whereby relative size moderates its effect on grievances should apply to vertical power-sharing of the corporate type as well. However, it should be moderated by relative size *within the respective administrative unit* in which a given group member resides. The reason for this is that vertical power-sharing shapes descriptive and substantive representation only at the sub-national level (see last sub-section). If core or excluded non-core group members make up a significant share of a territorial unit's population, but that territorial unit is formally designated to a specific other non-core group, this should be especially likely to activate injustice frames over their unequal treatment. They should also be more likely to perceive the adoption of policies against their preferences as especially unjust if they make up a large share of said unit. Conversely, if they make up only a small share of a local unit's population, this seems unlikely to lead to a similar backlash, as they are more likely to accept the rationale of said unit constituting a "homeland" for another group.

6.2.3 Individual value orientations

A third moderating factor are individual value orientations. These should play a crucial role in determining how individuals react to their group-wise institutional status under power-sharing. Specifically, I expect backlashes of core and excluded non-core group members against corporate power-sharing to be especially prevalent among individuals that have high authoritarian value orientations. Authoritarian value orientations are a social attitude characterized by a high individual preference for conformity and security. They are strongly associated with higher adherence to the in-group and a higher propensity to react forcefully to perceived threats against it (Kessler & Cohrs 2008). In experimental psychological studies, they have consistently been found to moderate an individual's degree of prejudice and resentment against out-groups that are perceived as a threat to group attainments and values (Asbrock et al. 2009; Cohrs & Asbrock 2009).

I derive my expectation that authoritarian value orientations should exert a decisive influence in the grievance-construction process based on previous work that investigates majority citizens' backlashes against multiculturalism. Several such studies investigate the effects of multiculturalism on citizens' attitudes towards migrants and culturally dissimilar others. They show that multicultural policies that visibly accommodate such out-groups are likely to provoke a backlash, but only among citizens who feel their national identity is threatened by these policies. These perceptions of national identity threat in turn are far more likely to form among individuals with authoritarian value orientations, due to their higher propensity to perceive in-group threats (Kauff et al. 2013).

Based on the same considerations, I expect grievances induced by corporate power-sharing among excluded non-core groups and the core group to be moderated by the prevalence of authoritarian value orientations. Specifically, individuals with high authoritarian value dispositions should be most likely to react especially strongly to corporate forms of power-sharing. It is these indi-

viduals who are disproportionately likely to feel threatened by the imposition of corporate power-sharing awarded to other groups. For these individuals, the signaled loss of political dominance or of their further political marginalization should be particularly likely to result in threat perceptions and in higher grievance levels.

6.3 Measuring grievances as attitudes

To investigate empirically the effects of power-sharing institutions on mass grievances, I now turn to derive a widely-available attitudinal measure for the latter. To do so, I rely on the set of newly ethnically-attributed mass surveys which I presented in chapter 4. Specifically, I rely on the subset of survey waves for which corresponding measures were available, namely the Afrobarometer (Afrobarometer Data 1999), Arab Barometer,² Asia Barometer (Inoguchi & Fujii 2008), Asian Barometer,³ Comparative National Elections Project (CNEP),⁴ European Social Survey (Norwegian Centre for Research Data, Norway 2002), Eurasia Barometer,⁵ International Social Survey Programme (ISSP) National Identity modules (ISSP Research Group 2010, 2012, 2015), the Latinobarometro,⁶ the New Baltics Barometer (Rose 2010a), New Europe Barometer (Rose 2010b), South Asia Barometer,⁷ and the World Values Surveys (Inglehart et al. 2014). Using these surveys, I identify two broad types of measures which appear suited for such an analysis. First, I consider a series of question items that tap into respondents' perception of belonging to a discriminated group (see table 6.2). These measures are very close to common definitions of ethnic grievances as the perception of being the victim of a group-targeted injustice that is blamed on active discrimination by the

²Available at: <<https://www.arabbarometer.org/>> (accessed on: 17.5.2020).

³Available at: <<http://asianbarometer.org/>> (accessed on: 17.5.2020).

⁴Available at: <<https://u.osu.edu/cnep/surveys/surveys-through-2012/>> (accessed on: 17.5.2020).

⁵Through the Global Barometer Surveys Project, available at: <<https://www.globalbarometer.net/>>, cf. <<http://office.eurasiabarometer.org/>> (both accessed on: 17.5.2020).

⁶Available at: <<http://www.latinobarometro.org/latContents.jsp>> (accessed on: 17.5.2020).

⁷Available at: <<http://asianbarometer.org/>> (accessed on: 17.5.2020).

state or the core group controlling it. Similar measures have also been used before as independent variables for group grievances (see Dowd 2015; Kirwin & Cho 2009), but to my knowledge have not been applied as dependent variables before. To combine the measures across different surveys, I re-coded the answer categories provided in the different sources into a binary variable: *Feeling discriminated*, which takes the value of 1 where respondents indicated that their ethnic group is (often) discriminated against or who asserted that their country at least sometimes doesn't treat all groups equally.⁸ It takes the value 0 otherwise.

Second, I considered individuals' assessments of democratic institutions as a robustness check (see table see table 6.3). While the perception of belonging to a discriminated group should capture the relevant variation in grievances for non-core groups quite well, it likely fails to do so for core groups: Even if core group members feel aggrieved over the restrictions on majoritarian rule induced by power-sharing (as hypothesized in this dissertation), they might still not conceive of themselves as being discriminated against, as they might still be the politically most powerful group. However, they are likely to exhibit boosted levels of discontent with the democratic political system. Hence, for core groups, variation in institutional assessments may be the better proxy for grievances. To save space, my empirical analysis in the main part of this chapter focuses on perceptions of belonging to a discriminated group (measure 1). However, I report all results for this second, democratic satisfaction measure in appendix D.2 and refer to the main core group-related findings derived from them later in the empirical section.

Again, to obtain extensive coverage, I combine a multitude of survey measures into an overall dichotomous variable, democratic dissatisfaction. This takes the value of 1 where respondents indicate that they are rather or very dissatisfied with the state of democracy in their country and 0 otherwise. Sim-

⁸These group-unspecific statements were only used for non-core groups, for who a strong correlation between their answer to this question item and to a direct question about their specific group treatment seems likely.

Table 6.2: Measure 1: Unequal group treatment

Survey	Waves	Question	Categories
Afro-barometer	1-6	How often, if ever, are [respondent's ethnic group] treated unfairly by the government?	Never / Sometimes / Often / Always
Asian Barometer	3-4	All citizens from different ethnic communities in [country] are treated equally by the government.*	Strongly agree / Somewhat agree / Somewhat disagree / Strongly disagree
Euro-pean Social Survey	1-8	Would you describe yourself as being a member of a group that is discriminated against in this country?	Yes / No
ISSP-N	1-3	How proud are you of [country's] fair and equal treatment of all groups in society?*	Not proud at all / Not very proud / Somewhat proud / Very proud
Latino-barometro	14, 15, 16, 18	Would you describe yourself as being a member of a group that is discriminated against in this country?	Yes / No
New Baltics Barometer	1, 5	Non-citizens and minority nationalities are being badly treated here.*	Strongly agree / Agree / Disagree / Strongly Agree

Note: * Only used for non-core groups; ISSP-N = International Social Survey Programme National Identities module.

ilar measures have been used before in a large number of studies, sometimes in combined form (for example, Aarts & Thomassen 2008; Anderson & Guillory 1997; Christensen 2015; Kittilson & Schwindt-Bayer 2010; Lijphart 2004), although existing investigations have not considered the impact of power-sharing institutions on them (as defined by this dissertation) and not generally differentiated between group-specific effects (see chapter 2).

Table 6.3: Measure 2: Satisfaction with democratic political system

Survey	Waves	Question	Categories
Afro-barometer	1-6	Overall, how satisfied are you with the way democracy works in [country]?	Not at all satisfied / Not very satisfied / Fairly Satisfied / Very Satisfied
Arab Barometer	2	If you were to evaluate the state of democracy and human rights in your country today, would you say that they are ...?	Very bad / Bad / Neither good nor bad / Good / Very good
Asia Barometer	1-5	Please tell me how satisfied or dissatisfied you are with the following aspects of your life: the democratic system.	Very satisfied / Somewhat satisfied / Neither satisfied nor dissatisfied / Somewhat dissatisfied / Very dissatisfied
Asian Barometer	1-4	On the whole, how satisfied are you with the way democracy works in [country]?	Not at all satisfied / Not very satisfied / Fairly Satisfied / Very Satisfied
CNEP	1	In general, are you Very satisfied, Somewhat satisfied, Not very satisfied or Not at all satisfied with the way democracy is working in [country]?	Not at all satisfied or not a democracy / Not very satisfied / Somewhat satisfied / Very satisfied
European Social Survey	1-8	And on the whole, how satisfied are you with the way democracy works in [country]?	0 (extremely dissatisfied)...10 (extremely satisfied)
Eurasia Barometer	1	How satisfied are you with the following? The way democracy is developing in our country	Not at all satisfied or not a democracy / Not very satisfied / Somewhat satisfied / Very satisfied
ISSP N	1-3	How proud are you of [country] in each of the following? The way democracy works	Not proud at all / Not very proud / Somewhat proud / Very proud
Latino Barometro	1-21	In general, would you say you are very satisfied, quite satisfied, not very satisfied or not at all satisfied with the working of the democracy in [country]?	Not at all satisfied / Not very satisfied / Quite satisfied / Very satisfied
New Baltics Barometer	5-6	On the whole, are you very satisfied, fairly satisfied, not very satisfied, or not a all satisfied with the way democracy works in our country?	Not at all satisfied / Not very satisfied / Fairly satisfied / Very satisfied
New Europe Barometer	2, 5, 6, 7	On the whole, are you very satisfied, fairly satisfied, not very satisfied, or not a all satisfied with the way democracy works in our country?	Not at all satisfied / Not very satisfied / Fairly satisfied / Very satisfied
South Asia Barometer	1-2	Where on this scale (0...100) would you put our present system of governing with free elections and many parties?	0...100
World Values Surveys	3-5	How satisfied are you with the way democracy develops in [country]?	Not at all satisfied / Not very satisfied / Rather satisfied / Very satisfied

Note: CNEP = Comparative National Elections Project; ISSP-N = International Social Survey Programme National Identities module.

Figure 6.1 gives a geographic overview on the countries covered by the *feeling discriminated* measure used in the following empirical analysis. The

top panel shows each country's percentage of non-core group members across survey waves feeling they belong to a discriminated group, while the bottom panel does the same for core group members.⁹ Most of the indicated patterns are according to expectation, such as the lower perception of non-core group discrimination across much of Western Europe, higher ones in sub-Saharan Africa, and the high regional extreme in Myanmar. Additionally, as is also evident and intuitive, the percentage of core group members feeling discriminated is lower than the corresponding percentage of non-core group members in almost all countries.¹⁰

6.4 Descriptive analysis

I start my empirical investigation of the expected relationships between power-sharing institutions and mass grievances with a descriptive analysis on the group-level. For that purpose, I rely on the same categorical classification of ethnic groups in the Constitutional Power-Sharing Dataset (CPSD) that I already used in the preceding chapter: core groups (no power-sharing of the respective type and dimension), core (power-sharing), non-core (no power-sharing), included non-core (for corporate power-sharing), excluded non-core (for corporate power-sharing), and non-core (for liberal power-sharing).

Using this classification, I map the bivariate association between group-wise institutional status with each group's grievances, as given by the yearly share of each group that identifies as belonging to a discriminated group (measure 1, based on a sample of 3316 groups). The result (see figure 6.2) underlines the expected grievance-alleviating effects of horizontal power-sharing of the corporate type for included non-core groups: the proportion of included non-core group members who perceive of themselves as discriminated against in contexts where they are targeted by horizontal power-sharing of the corporate type is clearly lower. However, the group-wise averages do not indi-

⁹As some measures were only used for non-core groups (see table 6.2 above), the number of included countries is ostensibly smaller for core groups.

¹⁰See appendix D.2 for analogous maps for measure 2, democratic dissatisfaction.

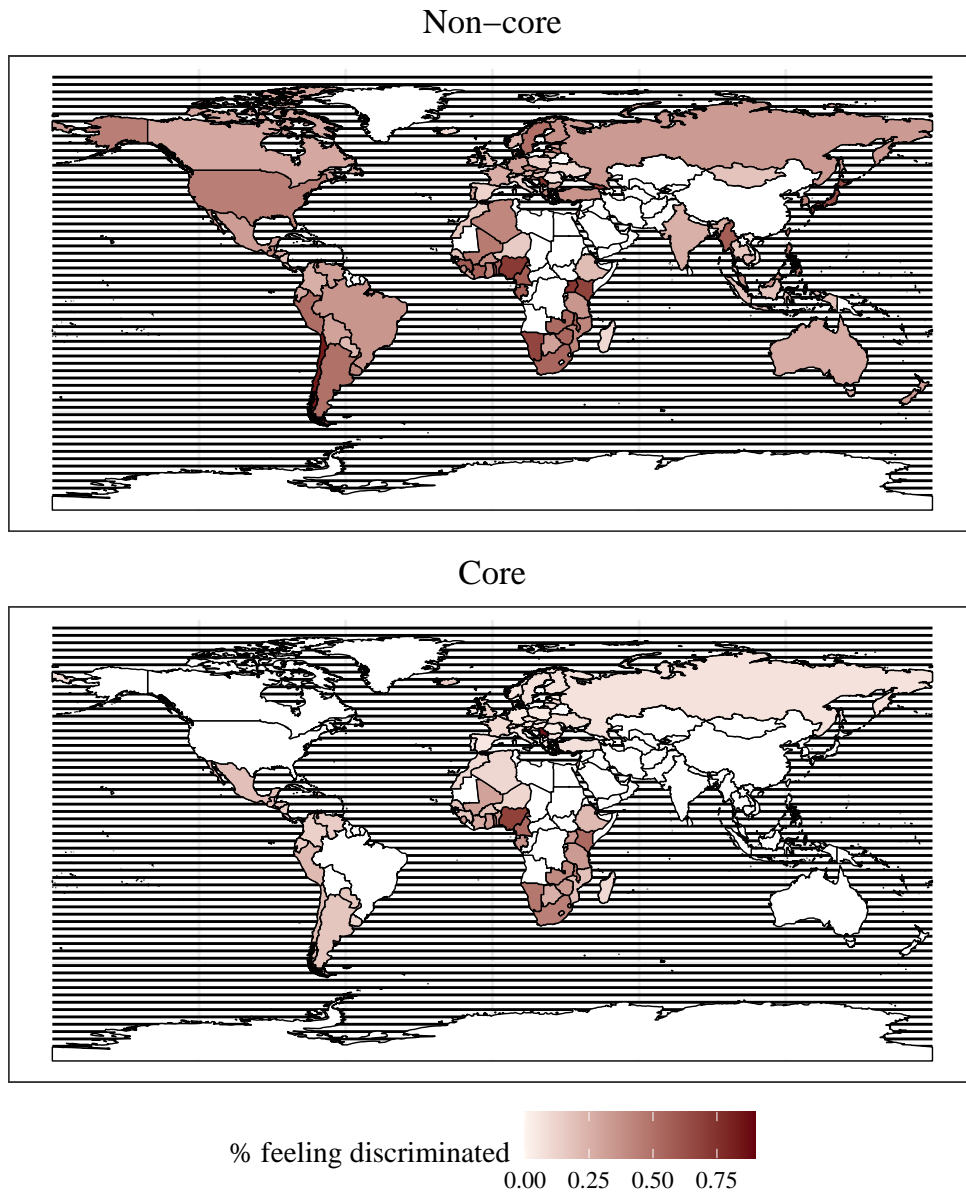


Figure 6.1: Feeling discriminated: grand averages

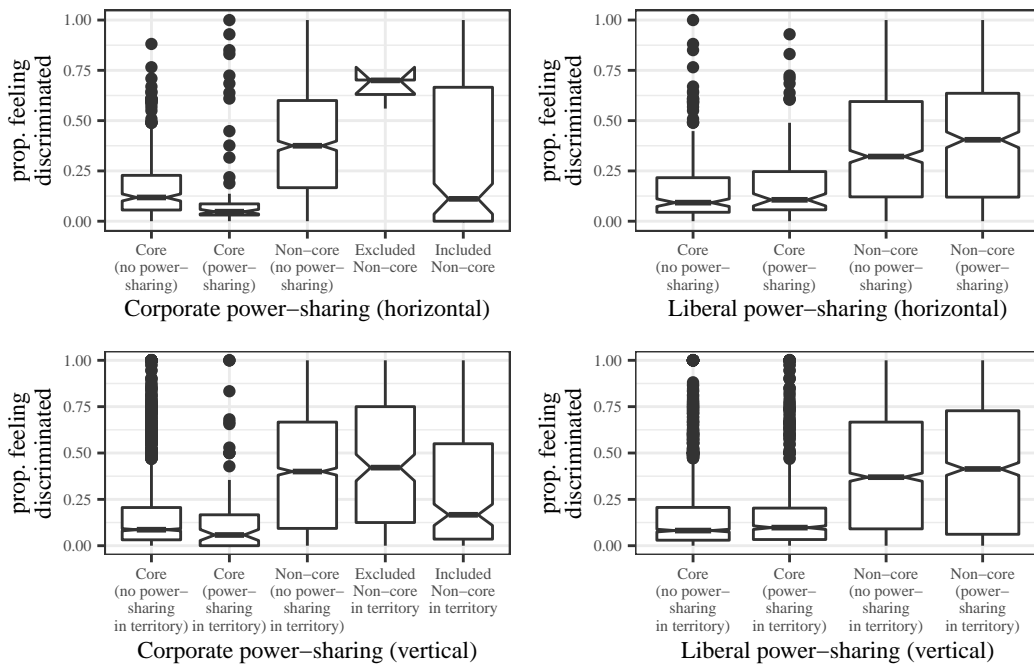


Figure 6.2: De-jure institutional status and feeling of belonging to discriminated group

Note: The figure shows the proportion of group members perceiving their group as discriminated against, depending on their institutional status under different types and dimensions of power-sharing. It shows two main tendencies: First, the much lower percentage of aggrieved respondents if there is substantial corporate power-sharing in place from which their group profits (included non-core groups). Second, the higher percentage of aggrieved respondents if they are excluded from corporate power-sharing targeting other groups (excluded non-core groups).

cate a similar grievance-alleviating effect for other power-sharing measures: No clear relationship emerges for horizontal power-sharing of the liberal type. Furthermore, vertical power-sharing even seems associated with slightly higher probabilities that group members think of themselves as discriminated against.

As regards the expected grievance-inducing side-effects of corporate power-sharing on excluded non-core and core groups, the descriptive findings are mixed. Excluded non-core group members are more likely to feel discriminated if they live in corporate power-sharing systems, especially of the horizontal type and somewhat less so of the vertical type. This is in line with the expected trade-off across group lines. However, in what seems like good news for advocates of corporate power-sharing, there is no evidence for core group

backlashes against power-sharing institutions of any type. Rather, and especially striking, the percentages of core group members that feel discriminated appear *lower* in power-sharing systems, especially in corporate ones.¹¹

These results are illustrative, but need to be taken with a grain of salt. First, the hard category boundaries used to derive these averages may not appropriately capture important distinctions for the comparably small subset of cases where attitudinal data are available. For example, the sharp distinction between included and excluded non-core groups is strongly driven by the chosen threshold and may be gradual, rather than categorical (see last chapter). Second, while considering territorial unit of residence for vertical power-sharing, the group-wise averages used in the descriptive analysis obscure the other two key moderating factors highlighted in my refined argument above: On the one hand, a group's relative size should matter greatly for how its members assess power-sharing institutions, especially as regards core groups and excluded non-core groups. On the other hand, if authoritarian value orientations matter, the group-wise averages may similarly mask important variation at the individual level. For example, while there no positive relationship between power-sharing institutions and core group grievances is attained on the group-level, it may still apply to a subset of core group members, such as those with high authoritarian value orientations. Third, absent controls for group characteristics (such as size or past conflict exposure), important factors driving both the adoption of power-sharing and group-wise grievances may be missing (such as relative group size, past conflicts, or transnational ethnic kin groups).

¹¹In appendix D.2, I conduct the same descriptive analysis for measure 2, democratic dissatisfaction. Contrary to expectations, a descriptive investigation using this arguably more fitting measure also does not reveal any side-effects of power-sharing institutions on core group grievances either. They only appear slightly more dissatisfied with democracy under horizontal power-sharing of the liberal type, while they appear *less* dissatisfied under any other type or dimension.

6.5 Multi-level models

Following these considerations, I now proceed to investigate my expectations in a quantitative manner. I do so in this section by conducting a series of multi-level analyses on the individual level. Jointly, these enable me to consider my expected moderating factors systematically and to control for the most important confounding variables. The next sub-section starts this endeavor by presenting the multi-level modeling strategy in more detail. The subsequent sub-sections estimate the respective models for non-core and core groups, using the perception of belonging to a discriminated group as the dependent variable (measure 1). A final sub-section presents a series of robustness checks for the findings and includes a brief discussion of the core group-related results of my second measure, democratic dissatisfaction.

6.5.1 Modeling strategy

To test my expectations in a quantitative manner, I rely on a logistic multilevel analysis. For the present purpose, multilevel analysis is suitable, as individual observations are clustered into specific subgroups and therefore similar to a degree (Kedar & Shively 2005; Steenbergen & Jones 2002). For example, and most evidently, these subgroups include each individual's ethnic group and country of residence. Clearly, the individual observations within each of these groups are not statistically independent from one another and the degree to which respondents perceive themselves as discriminated will be influenced by their common context. Beyond enabling the inclusion of predictors at these higher levels and the estimation of realistic standard errors for them, multilevel analysis also provides me with the option to calculate cross-level interactions. For the present purpose, this most notably includes interactions between an individual's value orientation and their groups' institutional position under power-sharing. The following equation specifies the full model for a non-core group individual i in territory t , year y , group g , and country c :

$$\begin{aligned}
\text{logit}(\pi_{\text{itygc}}) = & \beta_0 \\
& + \beta_1 \text{Corp. (h)}_{\text{ygc}} + \beta_2 \text{Lib. (h)}_{\text{ygc}} + \beta_3 \text{Corp. (v)}_{\text{tygc}} + \beta_4 \text{Lib. (v)}_{\text{tygc}} \\
& + \beta_5 \text{Corp. neg. diff. (h)}_{\text{ygc}} + \beta_6 \text{Corp. neg. diff. (v)}_{\text{tygc}} \\
& + \beta_7 \text{Corp. neg. diff. (h)}_{\text{ygc}} \times \text{size}_{\text{ygc}} + \beta_8 \text{Corp. neg. diff. (v)}_{\text{tygc}} \times \text{size (terr.)}_{\text{tygc}} \\
& + \beta_9 \text{Corp. neg. diff. (h)}_{\text{ygc}} \times \text{edu.itygc} + \beta_{10} \text{Corp. neg. diff. (v)}_{\text{tygc}} \times \text{edu.itygc} \\
& + \beta_{11} \text{Corp. neg. diff. (h)}_{\text{ygc}} \times \text{size}_{\text{ygc}} \times \text{edu.itygc} \\
& + \beta_{12} \text{Corp. neg. diff. (v)}_{\text{tygc}} \times \text{size (terr.)}_{\text{tygc}} \times \text{edu.itygc} \\
& + \alpha U_{\text{tygc}} + \gamma V_{\text{ygc}} + \delta W_{\text{yc}} + \epsilon Z_{\text{itygc}} \\
& + t_{0000c} + u_{000gc} + v_{00ygc} + d_{0tygc} + e_{itygc}
\end{aligned}$$

My dependent variables y_{itygc} ($\sim \text{Binomial}(\pi_{\text{itygc}}, 1)$) are the individual-level binary measures presented above. They either indicate whether respondents perceive themselves as belonging to a discriminated group (in the main analysis) or are dissatisfied with the way democracy works (in the robustness checks). My main independent variables include each group's power-sharing indices (*Corp. (h)*_{ygc}, *Lib. (h)*_{ygc}, *Corp. (v)*_{tygc}, and *Lib. (v)*_{tygc}). They also include their negative difference measures, as derived in the last chapter (*Corp. neg. diff. (h)*_{ygc}, *Corp. neg. diff. (v)*_{tygc}). These capture each group's absolute and relative position under institutional power-sharing. Together, they enable me to test whether the relationship between power-sharing institutions and mass grievances is subject to a trade-off across group lines, as hypothesized above. For horizontal power-sharing, these indices are, as before, calculated on the group-level. For vertical power-sharing, they are analogously calculated at the level of the group-territory intersection. This accounts for my refined argument above whereby an individual's grievances should be affected by vertical power-sharing specifically in the territorial unit of residence.¹²

I account for the three factors I expect to moderate the effect of the negative difference measures (see above) as follows: First, in some of my models,

¹²This makes sure, for example, that Bosnian Serb respondents are only counted as enjoying vertical power-sharing within their autonomous territorial unit, the Republika Srpska, and not outside it.

I interact them with each group's relative size at the national (for horizontal power-sharing: *Corp. neg. diff. (h)_{tygc} × size_{tygc}*) or sub-national level, respectively (for vertical power-sharing: *Corp. neg. diff. (v)_{tygc} × size (terr.)_{tygc}*).¹³ Second, in some of the models, I interact the respective indices with an individual's level of education (*edu_{itygc}*).¹⁴ Education has been shown before to be a consistent predictor and suitable proxy for authoritarian value orientations (Stubager 2008, 2009). Absent better measures for authoritarian value orientations (for example based on question items measuring individuals willingness to authoritarian submission and aggression, cf. Kauff et al. 2013), I hence rely on this admittedly sub-optimal proxy. Finally, in some models I create a cross-level interaction of the respective power-sharing indices with size *and* education, enabling me to account for both moderating factors concurrently.

In all my models, I further employ the same or analogous control variables as used in the last chapter: At the territory-level (U_{tygc}), the relative size of a group within the administrative unit, at the group-level (V_{tygc}), the relative size of a given group within the country, ethnic kin states, and the number of previous conflicts a group was involved in, and at the country-level (W_{yc}), the gross domestic product per capita (logged), a country's current population (logged), and the present year. Additionally, I further control for a number of important individual-level covariates that were consistently available across survey waves (Z_{itygc}): a respondent's age, their gender, and their education level (see above).¹⁵

To account for the hierarchical clustering of respondents, I follow recommendations in the methodological literature on multi-level modeling approaches (Barr et al. 2013; Schmidt-Catran & Fairbrother 2016) by including

¹³Local population shares for the territorial unit in which a group member resides were taken from the Significant Administrative United Dataset, presented in chapter 4.

¹⁴Normalized across survey types as follows: 0 = no formal education or below primary; 1 = complete primary education; 2 = complete secondary education; 3 = complete tertiary education.

¹⁵Ideally, I would like to control for individuals' income levels as well. However, the combination of such a large number of survey waves forces me to exclude this potential confounder, as consistent comparable measures were unavailable across them.

an (almost) maximal number of random effect terms. These account for heterogeneous contexts (such as the variation in baseline grievances between different ethnic groups) and adjust the standard errors to account for group-wise clustering. Specifically, I include random intercepts at four nested levels: countries (t_{0000c}), ethnic groups (u_{000gc}), ethnic group years (v_{00ygc}), and (within them) territorial units (d_{0tygc}). e_{itygc} denotes the individual-level error term.¹⁶ Additionally, I weighted all individual responses by the assigned probability that I correctly identified their respective ethnic group (see chapter 4). All models are estimated using iterated generalized least squares optimization (IGLS) with the statistical software MLwiN (Rasbach et al. 2012), in its R implementation R2MLwiN (Zhang et al. 2016).

For core groups, the model structure is analogous, with two exceptions: First, analogously to chapter 5, the power-sharing terms are replaced by the average power-sharing indices of all non-core groups that are currently in place. These capture the expected grievance-inducing effects of overall power-sharing institutions in place circumscribing core group dominance. To account for the moderating role of an individual's place of residence, the horizontal indices are measured at the country-level (*Corp. avg. (h)_{yc}*, *Lib. avg. (h)_{yc}*) whereas the vertical indices are measured at the territory-level (*Corp. avg. (h)_{yc}*, *Corp. avg. (v)_{tyc}*). Second, as there is only one core group in a given country-year, there is no group-level random component in the model specification. The following equation specifies the model for a core group individual i in territory t , year y , and country c :

¹⁶Due to convergence issues, I am unable to account for clustering at the year and country-year level, which forces me to assume that over-time variation is mostly limited to the group-year level.

$$\begin{aligned}
\text{logit}(\pi_{\text{ityc}}) = & \beta_0 \\
& + \beta_1 \text{Corp. avg. (h)}_{\text{yc}} + \beta_2 \text{Lib. avg. (h)}_{\text{yc}} + \beta_3 \text{Corp. avg. (v)}_{\text{tyc}} + \beta_4 \text{Lib. avg. (v)}_{\text{tyc}} \\
& + \beta_5 \text{Corp. avg. (h)}_{\text{yc}} \times \text{size}_{\text{yc}} + \beta_6 \text{Corp. avg. (v)}_{\text{tyc}} \times \text{size (terr.)}_{\text{tyc}} \\
& + \beta_7 \text{Corp. avg. (h)}_{\text{yc}} \times \text{edu.ityc} + \beta_8 \text{Corp. avg. (v)}_{\text{tyc}} \times \text{edu.ityc} \\
& + \beta_9 \text{Corp. avg. (h)}_{\text{gc}} \times \text{size}_{\text{yc}} \times \text{edu.ityc} \\
& + \beta_{10} \text{Corp. avg. (v)}_{\text{tyc}} \times \text{size (terr.)}_{\text{tyc}} \times \text{edu.ityc} \\
& + \alpha U_{\text{tyc}} + \delta W_{\text{yc}} + \epsilon Z_{\text{itygc}} \\
& + t_{000c} + v_{00yc} + d_{0\text{tyc}} + e_{\text{ityc}}
\end{aligned}$$

6.5.2 Statistical analysis: non-core groups

I start my quantitative analysis by modeling the group-wise impact of power-sharing institutions on grievances of non-core groups. Table 6.4 presents five models. Model 1 [terr.] estimates the effect of each group's absolute status position under power-sharing institutions on grievances, by including power-sharing indices of the respective type and dimension. Model 2 [terr.] adds the negative difference measures for corporate power-sharing, which account for the relative status position of excluded non-core groups. Finally, models 3-5 [terr.] sequentially add interaction terms between the negative difference measures and size (3), education (4), and both in a cross-level interaction (5). These jointly account for my expectation that backlashes against corporate power-sharing should be moderated by relative size and authoritarian value orientations. I discuss the main results of these models with reference to predicted probabilities, which graphically show the magnitude of estimated effects.¹⁷

A first set of results (cf. also figure 6.3) offers some evidence that is in line with the expectation that corporate power-sharing reduces the grievances of included non-core groups. Both its horizontal and vertical dimensions are

¹⁷To calculate these, I varied the power-sharing measures of interest, while holding all other variables at their mean or median, respectively. All of these estimates are based on the full model that includes the cross-level interaction between the negative difference measures, size, and education.

Table 6.4: Main results (Non-core groups)

	1 [terr.]	2 [terr.]	3 [terr.]	4 [terr.]	5 [terr.]
Constant	86.544*** (12.736)	87.025*** (12.944)	86.769*** (13.018)	87.038*** (12.951)	86.830*** (13.070)
Corp. (h)	-0.601* (0.341)	-0.551 (0.509)	-0.555 (0.514)	-0.555 (0.512)	-0.555 (0.518)
Corp. (v, terr.)	-0.199 (0.160)	-0.296 (0.183)	-0.291 (0.186)	-0.295 (0.182)	-0.303* (0.184)
Lib. (h)	0.836 (0.523)	0.823 (0.537)	0.836 (0.538)	0.821 (0.537)	0.832 (0.538)
Lib. (v, terr.)	-0.273*** (0.099)	-0.301*** (0.112)	-0.293** (0.122)	-0.300*** (0.113)	-0.293** (0.121)
Corp. others (h)		0.077 (0.490)	-0.102 (0.509)	0.199 (0.447)	0.014 (0.483)
Corp. others (h) × size			4.654 (4.678)		3.032 (5.144)
Corp. others (h) × edu.				-0.070 (0.080)	-0.060 (0.069)
Corp. others (h) × size × edu.					0.910 (0.954)
Corp. others (v, terr.)		-0.189 (0.144)	-0.207 (0.160)	-0.194 (0.196)	-0.167 (0.198)
Corp. others (v, terr.) × size (terr.)			2.242 (5.367)		- 13.988** (6.142)
Corp. others (v, terr.) × edu.				0.003 (0.078)	-0.021 (0.090)
Corp. others (v, terr.) × size (terr.) × edu.					7.781*** (1.659)
Included					
Autonomy					
Size × education					0.041 (0.093)
Size	0.196 (0.448)	0.206 (0.461)	0.148 (0.452)	0.208 (0.461)	0.103 (0.449)
Size (territory)	0.014 (0.638)	0.001 (0.619)	0.006 (0.605)	0.001 (0.619)	-0.183 (0.650)
Size (terr.) × education					0.172 (0.174)
TEK state	-0.299*** (0.087)	-0.302*** (0.088)	-0.305*** (0.089)	-0.301*** (0.088)	-0.306*** (0.089)
Previous conflicts	0.074* (0.045)	0.074* (0.045)	0.075* (0.045)	0.075* (0.045)	0.074 (0.045)
GDP p.c. (log)	-0.160** (0.068)	-0.153** (0.067)	-0.156** (0.067)	-0.153** (0.067)	-0.153** (0.068)
Population (log)	-0.030 (0.072)	-0.021 (0.072)	-0.022 (0.071)	-0.021 (0.072)	-0.021 (0.071)
Year	-0.043*** (0.006)	-0.043*** (0.006)	-0.043*** (0.006)	-0.043*** (0.006)	-0.043*** (0.007)
Age	-0.002*** (0.001)	-0.002*** (0.001)	-0.002*** (0.001)	-0.002*** (0.001)	-0.003*** (0.001)
Female	-0.049*** (0.014)	-0.049*** (0.014)	-0.049*** (0.014)	-0.049*** (0.014)	-0.049*** (0.015)
Education (edu.)	0.054*** (0.016)	0.054*** (0.016)	0.054*** (0.016)	0.055*** (0.016)	0.036 (0.026)
Var(country)	0.086*** (0.031)	0.086*** (0.030)	0.087*** (0.031)	0.086*** (0.031)	0.086*** (0.030)
Var(group)	0.224*** (0.075)	0.225*** (0.075)	0.225*** (0.075)	0.224*** (0.075)	0.226*** (0.075)
Var(group year)	0.203*** (0.039)	0.205*** (0.040)	0.206*** (0.040)	0.205*** (0.040)	0.206*** (0.040)
Var(terr.)	0.425*** (0.081)	0.423*** (0.081)	0.418*** (0.080)	0.423*** (0.081)	0.419*** (0.080)
N	75899	75899	75899	75899	75899

Significance: * $\equiv p < 0.1$; ** $\equiv p < 0.05$; *** $\equiv p < 0.01$

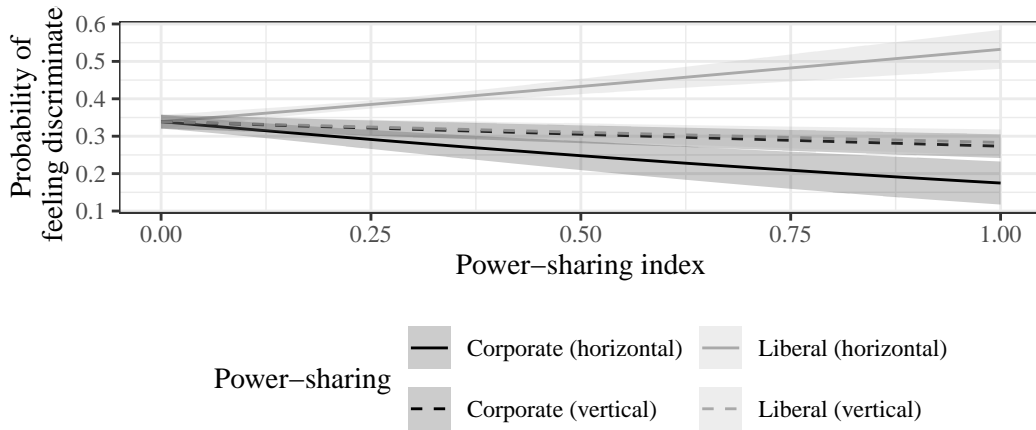


Figure 6.3: Predicted non-core grievances, depending on power-sharing (direct)

associated with lower probabilities that respondents feel they belong to a discriminated social group, although these effects are insignificant in most models. This underlines the key importance of its institutional impacts on grievances by visibly signaling a higher degree of reassurance through institutional enshrinement as opposed to mere ad-hoc or norm-based inclusion.

As regards liberal power-sharing, the results are more mixed. Its vertical dimension is negatively associated with grievances and appears significantly so across all models, which is in line with my theoretical expectations. However, against them, the horizontal dimension of liberal power-sharing is associated not with lower, but *higher* probabilities of respondents feeling they belong to a discriminated group, although this relationship remains insignificant in most models.

The results also show correlations that are in line with the expectation that exclusion from corporate power-sharing should increase grievances (see figure 6.4). The negative difference measure for horizontal power-sharing of the corporate type is positively associated with probabilities of feeling discriminated against, a relationship that seems strongest for large groups and, within them, for *more* rather than less educated individuals. The equivalent measure for its vertical dimension also appears associated with higher grievances. However, unexpectedly, this is only the case for highly educated individuals,

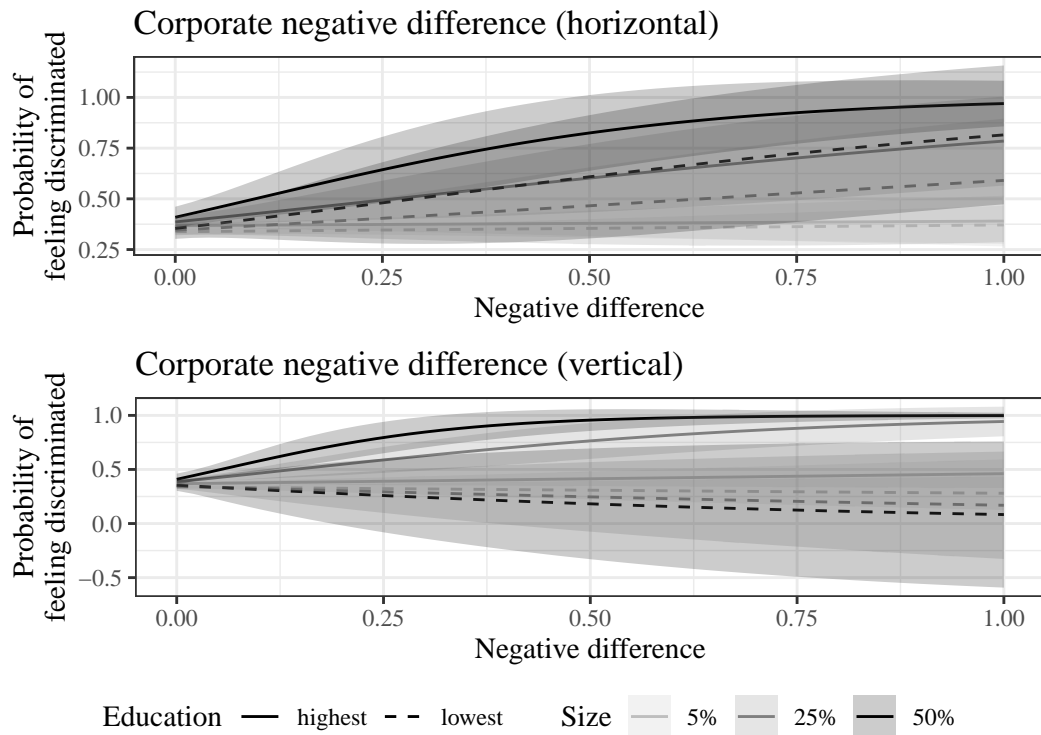


Figure 6.4: Predicted non-core grievances, depending on power-sharing (indirect)

especially those belonging to large groups. Hence, while the overall association with higher grievances and its moderation by group size are as expected, the moderation of the effects through education levels points in the opposite direction than expected.

In the same models, most control variables behave as expected. Perceptions of belonging to a discriminated group are higher if a respondent's ethnic group has been involved in a higher number of previous civil wars. Conversely, they are lower in economically affluent states and appear to decrease over time (potentially as informal norms of accommodation increase globally, cf. Wimmer 2015). They are also lower for older individuals, women and less educated people. Somewhat surprisingly, they are also lower for members of groups that have a contiguous ethnic kin state; potentially, this might act as a deterrent against excessive repression by the core group (Cetinyan 2002).

6.5.3 Statistical analysis: core groups

I continue my analysis by turning to the impact of power-sharing institutions on core group grievances. Table 6.5 shows five models. Model 1 [terr.] only includes the average power-sharing indices of all non-core groups, analogously created as the ones used in last chapter.¹⁸ Building on this, models 2 to 4 [terr.] gradually add the interaction terms between the corporate power-sharing indices, size (2), education (3), and both (4), which lets me probe the role of the expected moderating factors. As for the non-core group results, I discuss my results with predicted probabilities.¹⁹

Using the feeling discriminated measure, my results offer partial support for the expectation that corporate power-sharing should boost core group grievances (see figure 6.5). Horizontal power-sharing of the corporate type is, overall, associated with higher probabilities that core group members think of themselves as discriminated. However, this relationship appears insignificant throughout the models and, against my expectations, stronger for smaller core groups and for more educated individuals. Further, its vertical dimension appears to be associated with higher core group grievances, although this relationship is limited to those individuals with the lowest educational attainments (which is in line with my expectations, see above). In contrast, for liberal power-sharing of both dimensions, a null effect that is clearly insignificant, is indicated. Hence, in contrast to the descriptive analysis above, the multi-level results somewhat substantiate the expectation that power-sharing should increase core group grievances and that this relationship should be stronger for its corporate type.

In appendix D.2, I re-run all analyses with my measure for democratic dissatisfaction, which I have argued should be a better proxy for core group

¹⁸For vertical power-sharing, the average non-core group power-sharing indices within the respective territorial unit were calculated.

¹⁹Again, I varied the power-sharing measures of interest, while holding all other variables at their mean or median, respectively. All of these estimates are based on the full model that includes the cross-level interaction between the negative difference measures, size, and education.

Table 6.5: Main results (Core groups)

	1 [terr.]	2 [terr.]	3 [terr.]	4 [terr.]
Constant	129.449*** (38.473)	127.745*** (39.114)	129.803*** (38.532)	126.978*** (39.696)
Corp. others (h)	-0.994** (0.386)	9.443 (15.522)	-2.026** (0.888)	6.609 (15.861)
Corp. others (h) × size		-11.918 (17.547)		-9.403 (17.811)
Corp. others (h) × edu.			0.660 (0.459)	1.335 (4.420)
Corp. others (h) × size × edu.				-1.021 (4.996)
Lib. others (h)	0.359 (1.087)	0.390 (1.093)	0.368 (1.085)	0.412 (1.070)
Corp. others (v, terr.)	0.117 (0.336)	0.431 (0.474)	-0.370 (0.491)	-0.290 (0.615)
Corp. others (v, terr.) × size (terr.)		-3.811 (5.285)		2.256 (8.792)
Corp. others (v, terr.) × edu.			0.298* (0.158)	0.474** (0.194)
Corp. others (v, terr.) × size (terr.) × edu.				-3.979 (2.889)
Lib. others (v, terr.)	-0.134 (0.226)	0.054 (0.267)	-0.125 (0.217)	0.096 (0.261)
Included (others)				
Autonomy (others)				
Size × edu.				-0.217** (0.098)
Size (terr.) × edu.				0.316** (0.140)
Size	-1.772*** (0.435)	-1.745*** (0.432)	-1.779*** (0.434)	-1.502*** (0.440)
Size (territory)		0.459* (0.255)		-0.035 (0.367)
TEK state	-0.308 (0.223)	-0.337 (0.222)	-0.311 (0.224)	-0.360* (0.218)
Previous conflicts	0.493*** (0.152)	0.481*** (0.132)	0.501*** (0.152)	0.484*** (0.132)
GDP p.c. (log)	-0.203** (0.093)	-0.233** (0.096)	-0.201** (0.094)	-0.230** (0.095)
Population (log)	0.045 (0.100)	0.019 (0.097)	0.044 (0.099)	0.015 (0.095)
Year	-0.064*** (0.019)	-0.063*** (0.019)	-0.064*** (0.019)	-0.062*** (0.020)
Age	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)
Female	-0.042** (0.021)	-0.042** (0.021)	-0.042** (0.021)	-0.041* (0.022)
Education (edu.)	-0.035 (0.030)	-0.035 (0.029)	-0.044 (0.028)	0.062 (0.070)
Var(country)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Var(group)	0.371** (0.173)	0.383** (0.178)	0.372** (0.173)	0.391** (0.183)
Var(group year)	0.224*** (0.055)	0.233*** (0.056)	0.224*** (0.055)	0.235*** (0.056)
Var(terr.)	0.308*** (0.095)	0.288*** (0.094)	0.307*** (0.095)	0.270*** (0.093)
N	191088	191088	191088	191088

Significance: * ≡ $p < 0.1$; ** ≡ $p < 0.05$; *** ≡ $p < 0.01$

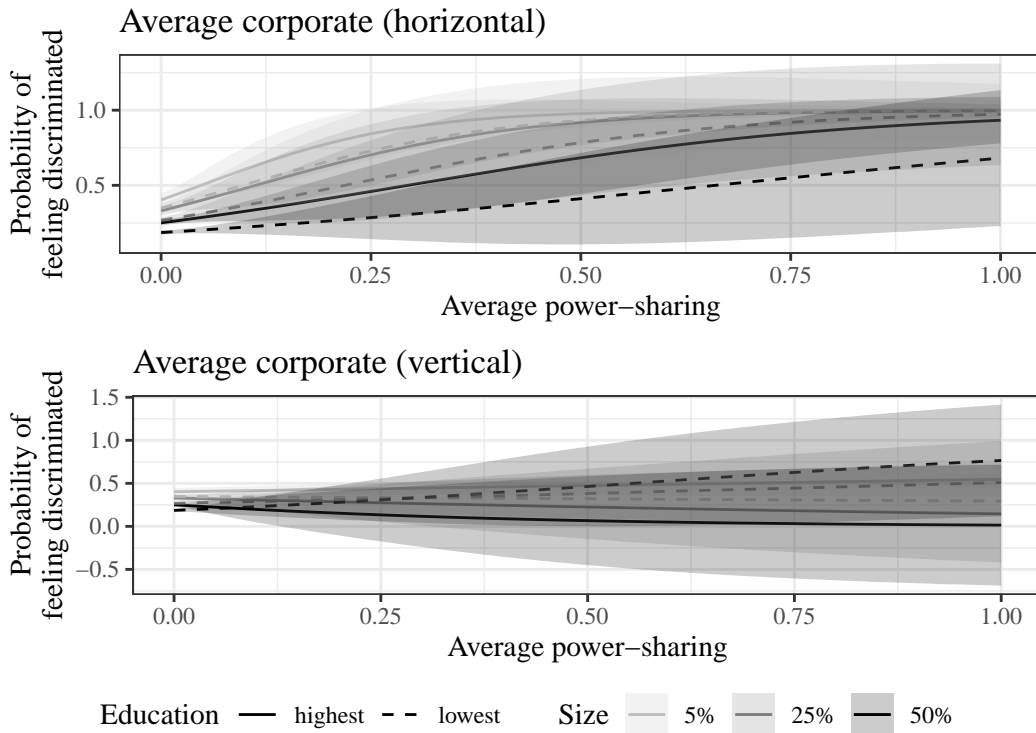


Figure 6.5: Predicted core grievances, depending on power-sharing (indirect)

grievances. While the results from this alternative specification offer further support for my expectation that corporate power-sharing should boost core group grievances, they indicate an extremely differentiated pattern that, judging by the almost perfect separation of the results, is likely to be driven by a small set of particular cases in my sample. Specifically, horizontal power-sharing of the corporate type appears to strongly increase core group grievances for individuals with a lower educational background (which is in line with my theoretical expectations), but to conversely *decrease* them for higher educational backgrounds (which is unexpected). Vertical power-sharing of the corporate type is also consistently associated with higher probabilities that a core group member will feel dissatisfied. The results for this are more in line with my argument: as expected, this relationship is stronger for core groups with larger size and for less educated members.

6.5.4 Robustness checks

To make sure these findings are not driven by my particular modeling assumptions, I ran several additional checks probe several of these assumptions in turn (see appendix D.1). First, and most basically, it might be that I have failed to include the appropriate control variables in my main models. I hence re-estimated the full specifications (5 for non-core, 4 for core), while including additional controls. Specifically, on the country-level, I added a variable for electoral democracy (analogous to the index used in last chapter), the combined size of all non-core groups, and a country's current corruption perception index (International 2020). On the group-level, I added a variables for cultural power-sharing of both the corporate and liberal type (see appendix for chapter 4) and a dummy indicating whether a group is de-facto discriminated.²⁰ Finally, for the non-core group models, I also estimated a specification where I replaced my random intercept at the country-level with a fixed country-level intercept, which accounts for all time-invariant heterogeneity at the country-level. None of these additions substantively change my findings.

Second, I probe whether my decision to exclude some respondents based on the probability of having correctly identified their ethnic group crucially shapes my findings. I do so by setting different probability thresholds above which I discard a respondent (0 / 0.2 / 0.4 / 0.6 / 1) and by estimating a separate model where I excluded no group on the size difference criterion. Again, my main results remain mostly comparable.

Finally, I check whether my combination of different survey instruments into an overall dependent variable affects my results. I do so by including an additional random intercept term at the survey-level. This accounts for potential clustering and commonalities of respondents within the different surveys used in the analysis (for example those in the Afrobarometer as opposed to those in the European Social Survey). Again, the results do not substantially change.

²⁰Based on Vogt et al. 2015.

6.6 Conclusion

This chapter has investigated how power-sharing institutions shape the grievances of different ethnic groups. Thereby, it represents an additional test of the trade-off along group lines, as hypothesized in chapter 3, and follows this dissertation's second empirical requirement to trace the intermediate steps of the hypothesized causal mechanisms (see chapter 2). Beyond serving a key role in the overall empirical strategy of this dissertation, it also contributes to a large literature that investigates how institutions affect individual attitudes. Crucially, it adds to a range of studies that provide important insights on isolated power-sharing components and consensus democratic institutions, but that have so far mostly abstained from mapping the group-wise attitudinal impacts of the most rigid power-sharing institutions.

The results lend additional support to the expectation that power-sharing institutions affect non-core group conflict risks through a grievance mechanism. They are also broadly in line with the expectations under the trade-off across group lines, whereby power-sharing institutions might alleviate some groups' grievances at the expense of boosting them for others. First, corporate power-sharing of both dimensions and liberal power-sharing of the vertical dimension indeed appear to lower the perceptions of (included) non-core group members that they belong to a discriminated group. However, while largely consistent in sign and magnitude, these correlations are only significant in some of the models. This lends cautious support to the interpretation that the indirect conflict-alleviating effects attained in last chapter, especially of corporate power-sharing, indeed partly run through their alleviation of mass grievances of non-core group members that profit from its inclusive provisions.

Second, situations where corporate power-sharing excludes some non-core groups are indeed associated with higher probabilities that their members perceive themselves to be discriminated against. As expected, this relationship appears strongest for relatively large excluded non-core groups, for whom the activation of injustice frames should be particularly likely. Contrary to expect-

tation, these impacts are furthermore strongest for highly educated non-core group members and not for uneducated ones who are most likely to show authoritarian value dispositions. However, together with last chapter's findings, this is overall in line with the causal chain whereby corporate power-sharing reduces the actual political status of excluded non-core group members and in turn boosts their grievances, while stopping short of substantially increasing their conflict risks, possibly due to their lack of capabilities.

Third, corporate power-sharing is also associated with increased core group grievances, although this relationship does not appear as robust. Its horizontal dimension indeed seems to raise their members' perceptions of being discriminated against. However, this appears especially so for small groups, which contradicts the posited causal mechanism running through injustice frames. It also appears to increase their dissatisfaction with democratic institutions, although this effect only applies to uneducated group members. While this moderated impact is as expected, its extremeness suggests it might be driven by particular cases rather than be systematic. A similar, but weaker, grievance-boosting relationship is also indicated for corporate power-sharing of the vertical type, both for core group members' perceptions of discrimination and dissatisfaction with democracy.

In sum, this chapter's investigations partly underline the expected trade-off along group lines. Corporate power-sharing indeed reduces the grievances of included non-core groups (cf. hypothesis 1), and conversely increases them for excluded non-core groups (hypothesis 6). It also is associated with higher grievances of core groups, though this relationship is less robust across different specifications and does not fully correspond to the expected implications (hypothesis 4). However, no consistent effects are attained for liberal power-sharing, neither for the expectation that it should reduce the grievances of non-core groups (3), nor that it should weakly increase them for core groups (5).

Chapter 7

Power-sharing institutions and ethnic salience

7.1 Introduction

The last chapter has probed the attitudinal implications of this dissertation's hypothesized trade-off along group-lines. This chapter now does the same for the second trade-off, which is across time horizons. In my theoretical argument, I have argued that this trade-off partly runs through changes in ethnic salience. Specifically, I have argued that corporate power-sharing strongly decreases the conflict risks of included non-core groups in the short-term. In this time period, the explicit affirmation of their ethnic identifications alleviates perceived identity threats of their masses. Through this, it reduces the salience of ethnic identifications, and make it less likely that grievances form along specifically ethnic lines. In turn, included non-core group conflict risks should recede.

However, I have also argued that this initially beneficial relationship between corporate power-sharing and conflict risks reverses in the long-term: First, as identity threats fade, reification effects become increasingly dominant. By relying on ethnic criteria, corporate power-sharing gradually enhances the chronic accessibility of ethnic identifications and boosts their salience among the masses of included non-core groups. Second, corporate power-sharing ad-

ditionally provides slowly accumulating institutional resources to their elites. This means that, in the long-term, both motivational factors and relative capabilities increasingly point towards higher conflict risks emanating from included non-core groups.

Conversely, I have argued that liberal power-sharing should not be associated with similarly heterogeneous effects over time for non-core groups. Partly, this is because it should not greatly affect ethnic salience either in the short- or in the long-term: As it abstains from formally institutionalizing ethnic categories, it should give rise neither to significant short-term threat alleviation nor to long-term reification dynamics among non-core group masses. Partly, this is also because it refrains from providing easily exploitable institutional resources to non-core group elites. Hence, it should be associated with somewhat lower conflict risks throughout different time periods. Thus, while its conflict-alleviating effect is initially weaker than the one of its corporate alternative, over time this difference gradually reverses as corporate power-sharing increasingly enhances conflict risks.

In chapter 5, I found only very limited and statistically weak evidence for this hypothesized trade-off across time horizons, as given by non-core group participation in civil wars. The attained patterns indeed reflected the expectation that included non-core groups' conflict risks should remain constant or even slightly increase over time for corporate power-sharing institutions. Furthermore, they also indicate that liberal power-sharing is initially associated with higher conflict risks compared to its corporate alternative and that this relationship reverses as time passes. However, both of these correlations were weak, mostly insignificant, and appeared limited to territorial civil wars. Yet, in spite of this limited evidence for the eventual behavioral outcome of predicted by the trade-off across time horizons, it might still operate partly. For example, corporate power-sharing might gradually increase the salience of ethnic identifications of included non-core group masses, although this might not result in higher probabilities that they participate in civil wars (for ex-

ample, because it does not coincide with the expected increasing institutional resources over time).

This chapter tests for this possibility by directly investigating the impact of power-sharing institutions on ethnic salience. Thereby, it provides crucial evidence needed to comprehensively test this dissertation's overall argument. In addition, it also contributes to the still ongoing debate on the impacts of power-sharing on ethnic identities more generally. As outlined in chapter 2, this debate is still split between scholars advocating stable identifications, depillarization, and reification perspectives, all of which make highly diverging predictions as to whether and how power-sharing shapes ethnic identifications. Yet, direct attitudinal tests of this relationship are lacking so far. As argued in chapter 3, conceiving of ethnic identifications in social psychological terms can reconcile the diverging arguments of these views. This chapter addresses both these open points: Theoretically, it further specifies how the involved social psychological mechanisms operate on the individual level. Empirically, it represents a first direct test of how power-sharing institutions on the ethnic group level affect ethnic salience.

The next section starts this endeavor by recapping and refining the main theoretical expectations. It discusses in detail the two drivers of social identities, already considered in broad strokes in chapter 3: uncertainty reduction and self-esteem augmentation. Using these refined mechanisms, I underline and define my expectations on what should be the testable short- and long-term implications of my argument as regards ethnic salience. The subsequent section operationalizes the key attitudinal and institutional measures whereby these expectations are investigated comparatively. A first empirical section then conducts a brief descriptive investigation on the ethnic group level. A second one relies on a series of multilevel models to systematically investigate the impacts of power-sharing institutions on ethnic salience on an individual level. A final section concludes and relates the findings to the overall argument of the dissertation.

7.2 Implications of the theoretical argument for ethnic salience

In this section, I recap and refine my theoretical expectations on how power-sharing institutions affect ethnic salience in different time horizons. I do so based on the social identity approach in social psychology, which I already introduced in chapter 3. In the first two subsections to follow, I build on this approach and discuss in more detail the two drivers of social identification: uncertainty reduction and self-esteem augmentation. Building on both drivers, a third section derives specific expectations for the specific social identity that is ethnicity. Specifically, to set up this chapter's empirical analysis, it discusses what should be the main testable, individual-level implications of my arguments.

Uncertainty reduction

The first driver, uncertainty reduction, is primarily concerned with the cognitive benefits derived from the overall social categorization scheme and its boundaries. It starts from the notion that individuals face cognitive limitations and need to rely on social identifications to make sense of an otherwise overwhelmingly complex social world. The use of social categories to structure cognition enables them to decrease uncertainty about both the structure of perceived reality as well as about appropriate social action within it (Abrams & Hogg 1990; Mullin & a. Hogg 1999; Turner 1987).

According to scholars discussing this driver, the choice of a particular social identification is influenced by how strongly it can reduce cognitive uncertainty in a specific context. This is, in turn, usually traced back to two key factors. The first factor, accessibility, refers to the "relative 'readiness' of a given categorization to become activated" as compared to other possibilities (Oakes et al. 1991:127-8): A high accessibility of a categorization scheme can lead to its activation regardless of the fact that there might be others that offer a potentially higher explanatory power for observed behavior. On the

one hand, a category is said to be *chronically accessible* if it is available in memory, for example as a result of frequent activation. And on the other, it is said to be *situationally accessible* if a given situation encourages its use, for example through a given social purpose or context-specific cues (Bruner 1957; Hale 2004b; Hogg & Williams 2000).

When seeking to reduce cognitive uncertainty about the outside world, individuals are, however, seen as not only seeking to minimize cognitive effort, but also to select categories that actually help them make sense of their perception (Turner 1987:54). This is where the fit of a category comes in: On the one hand, there is the element of *comparative fit*, which captures how well the categorization helps to account for observed similarities and differences between sets of people (Haslam et al. 1992: 4; Hogg & Williams 2000:89). On the other hand, there is its *normative fit*, which refers to how well a categorization scheme's implied stereotyped behaviors fit the perceived behavior of the classified subjects (ibid.).

Seen in this light, ethnic identifications constitute a particularly valuable tool for reducing uncertainty about the social world due to their exceptionally strong correlation with other external factors: On the one hand, their frequent association with easily perceptible features, including audible (e.g., language) or visible ones (e.g., phenotype), make them particularly easy to access, enabling a rapid and cognitively "cheap" categorization of oneself and other individuals. On the other hand, their frequent empirical association with other socially meaningful features, for example territorial settlement patterns, cultural characteristics, and economic status make them a particularly valuable heuristic device as well, offering a high cognitive fit with observed reality. These correlations with stable external factors make ethnicity a valuable "rule of thumb" for reducing cognitive uncertainty (Hale 2004a, 2008). However, the strength of these associations remains variable at different levels: For example, ethnic identifications may be less meaningful in the presence of deep cross-cutting cleavages (such as shared religion or language), or their cognitive

fit may be reduced when redistribution lowers their association with status inequalities. In addition, individuals with lower cognitive skills are more likely to rely on easily accessible ethnic categorizations and abstain from potentially more fitting ones associated with a greater cognitive effort (Tajfel & Turner 1979).

Self-esteem augmentation

In contrast to the cognitive benefits derived from the overall social categorization scheme, the second driver, *self-esteem augmentation*, is primarily concerned with the normative content associated with the social category an individual adopts. It is based on the notion that social identifications can have several beneficial impacts on self-esteem: On the one hand, they satisfy core psychological needs conducive to a positive self-image, for example by offering a compromise between individuation and deindividuation at an “optimal level” (Brewer 1991, 1993, 1996; Marcus-Newhall et al. 1993). In addition, they may be associated with positive normative characteristics (Billig & Tajfel 1973), especially as there is often considerable leeway for selectively emphasizing particular attributes (Jaspal & Cinnirella 2012; Tajfel & Turner 1979). On the other hand, they also enable the alleviation of deep anxieties, such as those over social isolation (Jaspal & Cinnirella 2012; Navarrete et al. 2004) and, through submersion into an enduring “social self”, even over death terror as well (Becker 1975b,a; Hirschberger & Pyszczynski 2011).

The choice of a specific social category in a particular context can then be seen as driven by two external factors: First, by how strongly these needs and anxieties can be met by a category when normative comparison occurs in a given social environment, for example how well it can balance individuation and deindividuation needs (Brewer 1993; Hornsey & Hogg 2000). Second, by the presence or absence of external cues that emphasize or reinforce a particular need or anxiety. For example, when cues suggest that a social identification’s distinctiveness is threatened by external factors, this may reinforce the perceived value of these benefits and increase salience in a reactive cognitive

attempt to preserve category boundaries (Hornsey & Hogg 2000; Stone & Crisp 2007). Similarly, when existential concerns are raised through external cues, this may increase the need for self-categorization into categories perceived as durable and as extending beyond one's lifetime (Hirschberger & Pyszczynski 2011; Kira et al. 2012).

Seen from this driver, ethnicity offers a range of specific psychological benefits for attaining a positive self-image. First, it offers comparably stable, "optimally distinct" self-categorizations (Brewer 1993, 1996). Second, it may provide satisfaction of belonging to a (purportedly) constant entity that endures beyond one's lifetime (Becker 1975b,a:170; Hirschberger & Pyszczynski 2011; Kira et al. 2012; Yalom 1980). This not only heightens its benefits for self-esteem (Jaspal & Cinnirella 2012), but arguably makes its boundaries more stable as well. The fact that concrete psychological benefits are tied to the perceived constancy of the identities itself makes boundary changes less likely as their occurrence would, in most circumstances, ostensibly violate this particular quality of ethnic identifications. In spite of these considerations, self-esteem augmentation again leaves significant room for changes in ethnic salience: This may be due to changes in external factors' correlations with ethnicity that impact its potential for satisfying distinctiveness needs, but also due to context shaping the relative weight attached to the benefits offered by it. For example, times of violent conflict may not only raise the need for fast, cognitively cheap categorizations (Hale 2008), but also raise the benefits derived from ethnicity's perceived continuity and its potential to alleviate death anxiety (Hirschberger & Pyszczynski 2011). In addition, these benefits may also vary between individuals, and are likely to be higher for those with fewer alternative sources of validation (Tajfel & Turner 1979).

Individual-level implications

In sum, social identity theory suggests that the salience of social identifications – i.e., the likelihood that individuals adopt them in a given context – depends on two drivers: On the one hand, the ability of the overall catego-

rization system (in which an identification is embedded) to reduce cognitive uncertainty by imposing cognitively “cheap” and relatively fitting categories on one’s perceived reality. And, on the other, the promise of a specific social category to satisfy psychological core needs, such as deindividuation, and to alleviate deep anxieties, such as death terror. Due to ethnicity’s strong correlation with external, observable factors and due to the benefits its supposed constancy offers to individuals, the boundaries of ethnic identification should be reasonably stable according to the application of this model.

However, both drivers of social identification do not only depend on static contextual characteristics, but are directly malleable by institutional design. Institutions may affect ethnicity’s degree of correlation with external factors. Or, by providing social cues, they may shape the relative weight of ethnicity’s for self-esteem. Through both, they may decisively influence its salience. Building on this rationale and distinguishing between both drivers enables us to derive specific expectations as to how corporate and liberal power-sharing should affect ethnic identity salience. Specifically, it leads us to expect three different links between power-sharing institutions and ethnic salience: status equalization, reification, and threat alleviation. I now discuss these links in turn. Thereafter, I bring them together to formulate the testable implications for the empirical investigation to follow.

First, power-sharing institutions of both types should lead to changes in non-core groups’ de-facto political attainments. For example, horizontal power-sharing should equalize the de-facto political status of formerly marginalized non-core groups with the core group.¹ This process of *status equalization* reduces the congruence between ethnic group boundaries and their members’ political status attainments. It hence leads to a lower cognitive *fit* between ethnic categories and observable outside reality (cf. Hale 2008). In this way, power-sharing institutions should reduce the salience of ethnic identi-

¹Indeed, the mediation analysis in chapter 4 indicates that power-sharing institutions are indeed reflected by the corresponding practices, ethnic government inclusion and de-facto autonomy.

fications by leading to power-sharing practices. Hence, wherever power-sharing institutions currently in place are reflected by corresponding practices, they should exert a negative effect on ethnic salience. This means that, by increasing power-sharing practice, current power-sharing institutions should indirectly reduce an individual's propensity to predominantly identify in ethnic terms.

Second, however, if power-sharing is based on corporate institutions, it should also affect the second component of the uncertainty reduction driver: the cognitive *accessibility* of the overall ethnic categorization system. By tying ethnic categories to socially meaningful resources, such as representation in government or policy outcomes, corporate power-sharing enhances the chronic accessibility of ethnic identifications. Hence, as individuals spend increasing time living under such arrangements a process of *ethnic reification* happens. In turn, they should become more likely to internalize ethnic categories and to rely on these to self-categorize in a cognitively cheap way. This means that, over time, corporate power-sharing institutions should directly increase an individual's propensity to predominantly identify in ethnic terms.

Third, power-sharing should additionally also affect ethnic salience through the *self-esteem augmentation* driver. By reassuring referents of ethnic categories of the continued existence of their "group", it alleviates perceptions that their identity may be threatened in its distinctiveness or its continuity. This decreases the need to defend these elements of self-esteem in a reactive way and thus reduces ethnic salience (cf. Brewer 1991, 1993, 1996, 1997; Brewer & Gaertner 2008; Dovidio et al. 1998; Stone & Crisp 2007; Schofield 1986). Similar to reification effects, this *threat alleviation* mechanism should be particularly pronounced in corporate forms of power-sharing. Only this type of power-sharing entails an explicit affirmation of distinct group identity. Again, this effect should be heterogeneous over time: In the short-term, particularly in the immediate wake of conflict, such reassurances against identity threat are likely to be crucial. However, as time progresses, and memories of conflict fade, it is likely to lose traction. Hence, corporate power-sharing

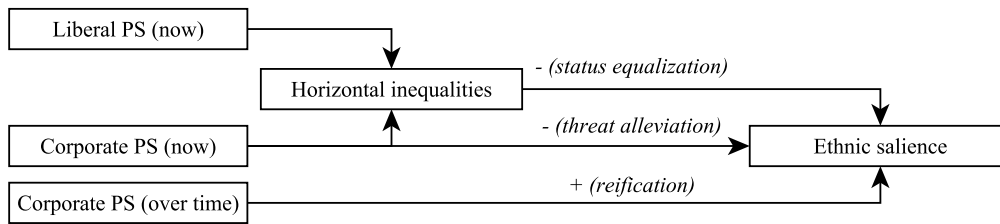


Figure 7.1: Power-sharing institutions and ethnic salience: Expectations

Note: PS = power-sharing; - negative effect on ethnic salience; + positive effect on ethnic salience.

should directly decrease an individual's propensity to predominantly identify in ethnic terms in the short run.

While being strong for corporate power-sharing, the second and third links should not apply to its liberal alternative. As it abstains from relying on ethnic criteria, it should not, over time, reify ethnic identifications. As its individual or electoral criteria cannot reassure non-core group members equally well of the continued existence of their identity group, it should also not strongly reduce ethnic salience through threat alleviation in the short-term. Hence, liberal power-sharing should only indirectly reduce the salience of ethnic identifications through the status equalization link and do so equally across time horizons.

Figure 7.1 graphically shows these expectations and the social psychological mechanisms underpinning them. Taken together they give rise to the following, testable implications:

- (1): Corporate power-sharing should strongly decrease ethnic salience in the short-term (by strongly equalizing the political status of included non-core groups and by alleviating their identity threats).
- (2): Corporate power-sharing should increase ethnic salience in the long-term (while status equalization effects still work to decrease salience among included non-core group masses, threat alleviation effects fade and the continuing use of ethnic categories gradually enhances their chronic

accessibility through reification).

- (3): Liberal power-sharing should weakly decrease ethnic salience across time horizons (by somewhat reducing horizontal inequalities, it weakly equalizes the status of different ethnic groups and slightly reduces the fit between ethnic identifications and observable reality).

7.3 Measuring ethnic salience and power-sharing over time

To test these expectations, I need both variables on the outcome, ethnic salience, and key independent variables, which should cover the time-varying impact of power-sharing institutions over time. In the next two sub-sections I provide my operationalization for both.

7.3.1 Ethnic salience

To test these expectations, I rely on individual-level evidence from the set of ethnically-attributed mass surveys presented in chapter 4 and already used in last chapter to map group-wise grievances. Specifically, I rely on the subset of survey waves for which corresponding measures were available, namely the Afrobarometer (Afrobarometer Data 1999), Asian Barometer,² China Survey (Harmel & Yeh 2015³), Comparative National Elections Project (CNEP),⁴ International Social Survey Programme (ISSP) National Identity modules (ISSP Research Group 2010, 2012, 2015), the New Baltics Barometer (Rose 2010a), New Europe Barometer (Rose 2010b), New Russia Barometer (Rose 2010c), and the World Values Surveys (Inglehart et al. 2014). To map ethnic salience, I again combine several comparable survey items which ask respondents to prioritize their ethnic and national identifications. Several of these measures

²Available at: <<http://asianbarometer.org/>> (accessed on: 17.5.2020).

³The China Survey is a project of the College of Liberal Arts at Texas A&M University, in collaboration with the Research Center for Contemporary China (RCCC) at Peking University.

⁴Available at: <<https://u.osu.edu/cnep/surveys/surveys-through-2012/>> (accessed on: 17.5.2020).

have been used before as dependent variables for similar purposes, for example with several scholars using the Afrobarometer, the World Values Surveys, or both in combination (e.g., Ali et al. 2015; Bossuroy 2011; Eifert et al. 2010; Elkins & Sides 2007; Gibler et al. 2012; Lewis 2007).

In combining question items across different survey waves, I seek to reconcile two partly conflicting aims: First, to investigate my institution- and time-differentiated expectations and to minimize selection bias, I seek to maximize spatial and temporal coverage across survey waves in order to attain sufficient variance and include both post-conflict and peaceful contexts. Second, I simultaneously seek to limit myself to measures that are indeed broadly comparable across different survey waves. Rather than seeking to maximize both aims at once, I construct three different measures that represent different compromises between them (see table 7.1 for an overview on the question items used for each of these three measures):

- *Measure 1:* To construct a first measure, I only rely on question items that explicitly ask respondents to choose between their ethnic and national identifications (in an "either-or" format or in a "more-less" format). I code the value 1 where respondents choose their ethnic over their national identification and 0 otherwise.
- *Measure 2:* To construct a second measure, I augment the data points from measure 1 with information from additional question items that amount to respondents making an implicit comparison between their ethnic and national identifications. For example, the ISSP survey asks respondents to indicate, in separate questions, their closeness to both their ethnic group and country. I combined these separate question items by coding a 1 in case respondents indicated a higher degree of identification with their ethnic group than they indicated for their country and 0 otherwise.
- *Measure 3:* To construct a third measure, I further augment the data

Table 7.1: Measures: Ethnic identification

Survey	Waves	Question	Categories	Measure
Afro-barometer	2-3	Let us suppose that you had to choose between being a [national identity] and being a [respondent's identity group]. Which of these two groups do you feel most strongly attached to?	National identity / Group identity	1,2,3
Afro-barometer	4-6	Let us suppose that you had to choose between being a [national identity] and being a [ethnicity]. Which of the following best expresses your feelings?	Only ethnic / More ethnic / Both equally / More national / only national	1,2,3
Asian Barometer	2	Let us suppose that you had to choose between being a [citizen] and being a [ethnicity/region], which of these do you feel most strongly attached to?	Citizenship / Ethnic or regional group / Another identity	1,2,3
China Survey	1	Emotionally, do you think of yourself first as a Chinese or as a [Province]?	Chinese / Province	3
CNEP	1	We have spoken to many [Nationals] and they have described themselves in different ways. Which specific group do you feel you belong to first and foremost?*	National identity / Ethnic group / Religious group / Regional distinction / Linguistic group / Tribal group / None	1,2,3
ISSP_N	1-2	How close do you feel to your ethnic group? / How close do you feel to your country?	Very close / Close / Not very close / Not close at all	2,3
New Baltics Barometer	1, 2, 3, 5, 6	Which of these terms best describes how you usually think of yourself?***	City / Region / National Identity / Minority	(1),(2),3
New Europe Barometer	1, 4, 5, 6, 7	Which of these terms best describes how you usually think of yourself?***	City / Region / National Identity / Minority	(1),(2),3
New Russia Barometer	1, 4, 5, 6, 7	Which of these terms best describes how you usually think of yourself?***	City / Region / National Identity / Minority	(1),(2),3
World Values Surveys	1-4	Which geographical group do you belong to first?	Locality / Region / Country	3
World Values Surveys	3-4	Which of the following best describes you?	Only ethnic / More ethnic / Both equally / More national / only national	1,2,3

Note: * Only used where country-specific group aligns with ethnic category. ** Only used for minority nationalities.

points from measure 2 with information from further question items that do not ask for ethnic identifications explicitly, but rely on geographic answer categories. These can, in some cases, proxy for in-group identification (for example, identification with one's region as opposed to one's country). I only add new respondents based on such question items if they belong to regionally-concentrated groups (for whom regional identity might conceivably proxy for ethnic identity). This measure takes the value of 1 where respondents indicated a higher degree of identification with their region than with their country and 0 otherwise.^{5 6}

In my main analyses in this chapter, I will use measure 2, which offers a "mid-way" compromise between maximizing data availability and measurement validity. However, in my robustness checks, I repeat all descriptive and main quantitative analyses with measures 1 (which is more homogeneous but covers significantly fewer country years) and 3 (which reaches maximal extension but combines more heterogeneous measurements).

Figure 7.2 provides a graphical overview on the countries included in the main analyses. It also shows the average proportion of non-core group respondents in each country that predominantly identifies with their ethnic, rather than national identity (as given by measure 2). It shows four clear geographical clusters of countries where ethnic identifications appear particularly salient: North America, the Balkans, the Baltics, and the Middle East.⁷

7.3.2 Power-sharing over time

To map the heterogeneous impacts of power-sharing institutions on ethnic salience across different time periods, I rely on two measures. First, I use the *power-sharing stocks* measures already presented and used in chapter 4.

⁵For all measures, "Don't know" or "same degree of identification" answer categories are excluded throughout.

⁶Some question items are added to the three measures in stages. This is because, within some survey waves, answer categories diverge between certain countries. For example, for the New Baltics Barometer question item, I add country survey waves that rely on explicitly ethnic answer categories for measure 1. However, I only add country survey waves that rely on geographic answer categories for measure 3.

⁷In appendix E.1, the analogous maps for measures 1 and 3 are shown.

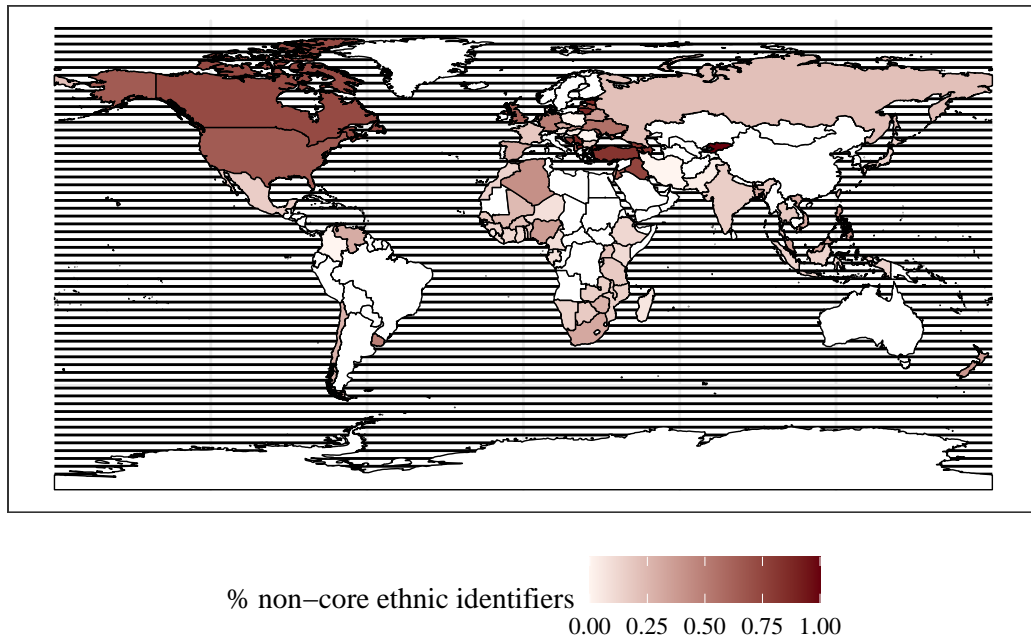


Figure 7.2: Ethnic identifiers: grand averages (non-core, measure 2)

As in previous analyses, these capture the degree to which power-sharing has become consolidated on the group-level. Hence, they are identical for each respondent attributed to the same ethnic group in a given year. They thus capture the group-level aspects of the theorized reification mechanism, whereby accumulated experience with power-sharing shapes ethnic identification levels across group members, for instance through ethnicized discourses.⁸

Second, I use a measure based on each respondent's average *lifetime power-sharing* values. This captures, on the individual level, the degree to

⁸As outlined in chapter 5, there are several alternatives to using stocks in order to account for potentially heterogeneous effects of power-sharing over time. One would be to simply test the long-term effects of current power-sharing indices by using different time lags. However, this would mix together instances where power-sharing lasted only very briefly, for example for a year or two, and those where it proved highly time-persistent. A second would be to differentiate between different time periods, given by relatively constant power-sharing levels, and interact each group's power-sharing index with the time for which it has been in place. However, this would similarly risk missing the gradually accruing reification effects induced by power-sharing, especially in cases where long periods of weak power-sharing were succeeded by shorter ones with deeper power-sharing. To capture the theorized reification mechanism, both of these alternatives are clearly unsatisfactory: the degree to which this mechanism operates and enhances the chronic accessibility of ethnic identifications depends crucially not only on the time passed since the initial imposition of a power-sharing arrangement, but on the degree to which it has been continually in force for long time periods.

which a respondent has been exposed to the institutional criteria underlying power-sharing. Hence, they diverge on the individual level, depending on a respondent's year of birth, the year of observation, and their groups' power-sharing index values in between. This second measure thus captures the individual-level aspects of the theorized reification mechanism, whereby an individual's experience with power-sharing institutions gradually shapes the degree to which ethnic identifications become cognitively accessible to them. I constructed this measure by summing up the power-sharing index of the respective type and dimension of a respondent's group for each year of his or her life and divided by the number of years. I excluded years during which a respondent was still unlikely to be socialized politically and only considered years from the age of 12.⁹ Formally, for an individual i of age a belonging to non-core group g in a year y , this is calculated as follows:

$$Power - sharing(life)_{igy} = \frac{\sum_{y_0=y-a+12}^y Power - sharing_{igy_0}}{a - 12} \quad (7.1)$$

7.4 Descriptive analysis

Before turning to a quantitative examination, I use self-identification measure 2 and my two measures for power-sharing over time (stocks and lifetime) to investigate my expectations descriptively on the ethnic group-level. Specifically, I graphically investigate the bivariate correlations between the two power-sharing measures and my attitudinal measure for ethnic salience. Figure 7.3 shows the percentages of each non-core group's respondents that primarily identify with their ethnic, rather than national identity (based on measure 2). It shows the correlation of this percentage with the first power-sharing measure, each group's stocks of the respective type and dimension. Figure 7.4 shows the distribution of respondents that identify primarily with their ethnic (1) or national (0) identity. It shows the correlation of this with the second

⁹For respondents belonging to groups that are active only intermittently or after seceding from a predecessor state, I relied on the corresponding values of their predecessor groups (see chapter 6).

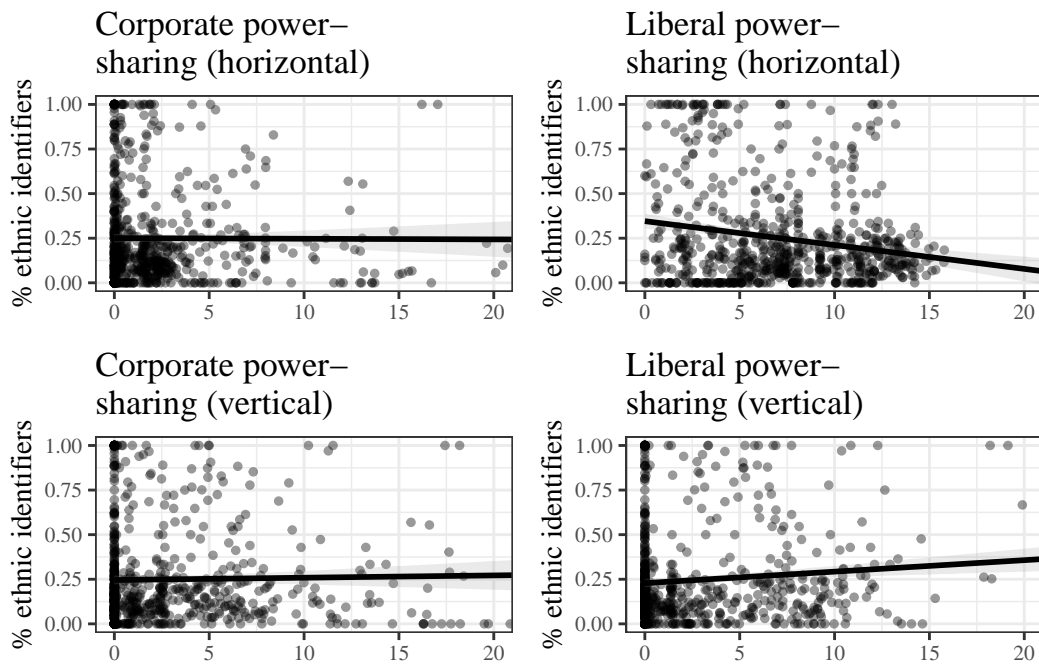


Figure 7.3: Proportion of ethnic identifiers, non-core (power-sharing stocks)

Note: ethnic identifiers are those individuals who indicate that they predominantly identify with their ethnic, rather than national identity (as given by measure 2).

power-sharing variable, each individual's average lifetime power-sharing value of the respective type and dimension.

The indicated bivariate patterns are generally in line with my expectations: over time, corporate power-sharing of both dimensions is positively associated with the probability that individuals will predominantly identify with their ethnic, rather than their national, identity. However, the relationship is rather weak. In contrast, this relationship is negative for liberal power-sharing of the horizontal type, indicating that, over time, it gradually reduces ethnic salience. Both relationships are stronger for the individual lifetime variables than for the group-wise stocks. Against my expectation, however, vertical power-sharing of the liberal type also appears positively associated with ethnic salience over time, indicating that it, too, over time might lead to increases in ethnic salience.

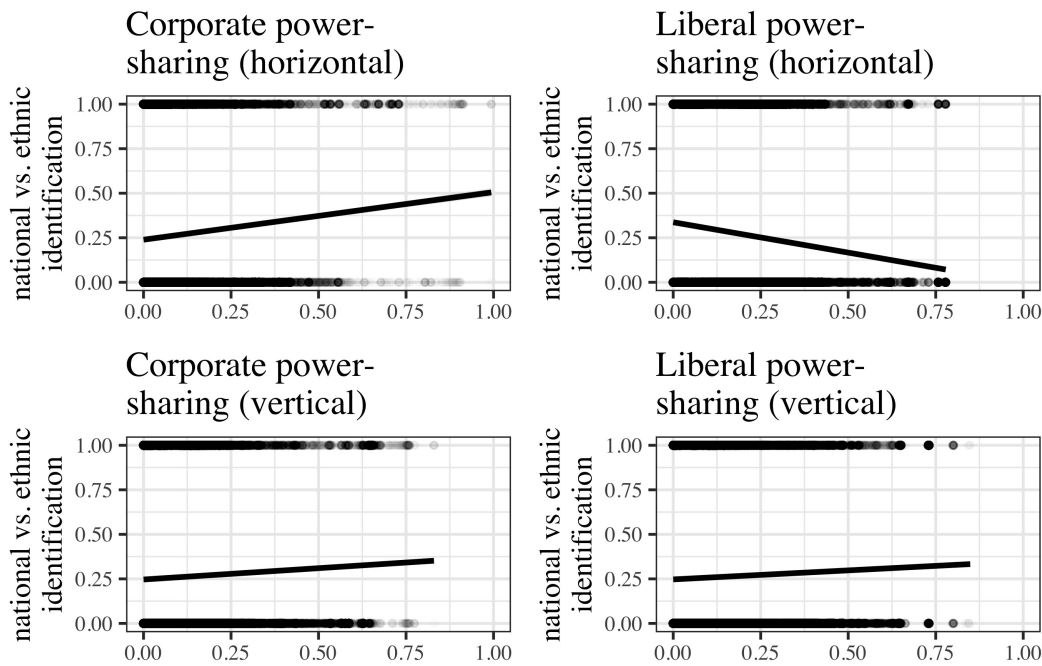


Figure 7.4: Proportion of ethnic identifiers, non-core (power-sharing lifetime)

Note: ethnic identifiers are those individuals who indicate that they predominantly identify with their ethnic, rather than national identity (as given by measure 2).

7.5 Quantitative analysis

As in previous chapters, these bivariate correlations are instructive, but likely biased by omitted confounders. For example, it might be that previous conflicts influence both the provision of power-sharing institutions to a given group as well as increase the salience of ethnic identifications among its members. Hence, the positive correlations between corporate power-sharing and ethnic salience might be due to this rather than reflect a causal relationship between the two. To partly account for such confounders, I now estimate a series of multi-level models.

7.5.1 Model set-up

My model set-up is analogous to last chapter's. Again, I rely on a multi-level set-up (Kedar & Shively 2005; Steenbergen & Jones 2002), with analyses conducted using the statistical software MLwiN (Rasbach et al. 2012), in its R implementation R2MLwiN (Zhang et al. 2016). And again, I include almost

maximal (Barr et al. 2013; Schmidt-Catran & Fairbrother 2016) random intercepts at four nested levels: in countries c , ethnic groups g , and ethnic group years y . This enables me to account for the expectation that respondents are broadly similar within the different clusters, for example within a given group year. The sample comprises all non-core group respondents for which I have data on the respective outcome measure. The equation used is as follows:

$$\begin{aligned}
 \text{logit}(\pi_{iygc}) = & \beta_0 \\
 & + \beta_1 \text{Corp.}(h)_{ygc} + \beta_2 \text{Lib.}(h)_{ygc} + \beta_3 \text{Corp.}(v)_{ygc} + \beta_4 \text{Lib.}(v)_{ygc} \\
 & + \beta_5 \text{Included}_{ygc} + \beta_6 \text{Autonomy}_{ygc} \\
 & + \beta_7 \text{Corp.}(h, \text{stock})_{ygc} + \beta_8 \text{Lib.}(h, \text{stock})_{ygc} + \beta_9 \text{Corp.}(v, \text{stock})_{ygc} + \beta_{10} \text{Lib.}(v, \text{stock})_{ygc} \\
 & + \beta_{11} \text{Corp.}(h, \text{lif}e)_{iygc} + \beta_{12} \text{Lib.}(h, \text{lif}e)_{iygc} + \beta_{13} \text{Corp.}(v, \text{lif}e)_{iygc} + \beta_{14} \text{Lib.}(v, \text{lif}e)_{iygc} \\
 & + \mathcal{W}_{ygc} + \delta W_{yc} + \epsilon Z_{iygc} \\
 & + t_{000c} + u_{00gc} + v_{0ygc} + e_{iygc}
 \end{aligned}$$

The dependent variables y_{iygc} ($\sim \text{Binomial}(\pi_{iygc}, 1)$) are the dichotomous measures indicating whether an individual predominantly identifies with their ethnic group or country. My primary independent variables are each group's current power-sharing indices (to capture short-term effects: *Corp. (h)*_{ygc}, *Lib. (h)*_{ygc}, *Corp. (v)*_{ygc}, *Lib. (v)*_{ygc}), their practiced equivalents (included and autonomy, based on the EPR dataset (Vogt et al. 2015), to distinguish indirect and direct pathways: *Included*_{ygc}, *Autonomy*_{ygc}), and, variably, their current power-sharing stocks (*Corp. (h, stock)*_{ygc}, *Lib. (h, stock)*_{ygc}, *Corp. (v, stock)*_{ygc}, *Lib. (v, stock)*_{ygc}) and/or each respondent's lifetime power-sharing (*Corp. (h, lif*e)_{iygc}, *Lib. (h, lif*e)_{iygc}, *Corp. (v, lif*e)_{iygc}, *Lib. (v, lif*e)_{iygc}; both as presented above, to capture their gradually accumulating long-term effects). Throughout my models, I include the same basic control variables as in the preceding two empirical chapters: At the group-year-level, these include (V_{ygc}), a group's relative size, a dummy accounting for contiguous ethnic kin states, and a group's number of previous conflicts. Additionally, I also control for inter-group cultural cleavages, which may in-

fluence both baseline levels of ethnic salience (Hale 2004a, 2008) as well as the initial provision of power-sharing.¹⁰ At the country-level (W_{yc}), they include a country's (logged) gross domestic product per capita, its (logged) population, and the current year. Finally, at the individual level (Z_{itygc}), they include a respondent's age, gender, and education. In models where I include terms for a respondent's lifetime exposure to power-sharing I also control for their lifetime exposure to conflicts.¹¹ To control for inter-group heterogeneity and adjust for clustering, I include random intercepts at the group, group year, and country levels (t_{000c} , u_{00gc} , v_{0ygc}). e_{iygc} denotes the error term on the individual-level.

7.5.2 Results

Table 7.2 shows five main models. Model 1.1 only includes each group's current power-sharing indices, to capture their overall short-term effect, while ignoring potential long-term deviations from this. Model 1.2 adds to this the corresponding power-sharing practice dummies. This enables me to partly differentiate between direct pathways (i.e., threat alleviation effects) and indirect ones (i.e., status equalization effects, mediated by power-sharing practices and horizontal inequalities). The former is captured by the already previously-included institutional power-sharing indices, while the latter is captured in the coefficient of the power-sharing practices dummies. The subsequent models further add the institutional power-sharing measures which capture their long-term reification dynamics: power-sharing stocks (1.3), lifetime power-sharing (1.4) and both (1.5).

As regards the expected negative short-term effects of power-sharing on

¹⁰This is based on the EPR-ED dataset, cf. Vogt et al. 2015. The measure is constructed analogously to Bormann et al. 2017, although not by comparison to a reference group, but by comparisons to all other ethnic groups. These comparisons are then averaged, as weighted by the size of the respective other groups and by taking the average across the language and religion dimension. It takes values between 1 (no segment shares religion or language with any other group) and 0 (all segments are shared with another group).

¹¹This was constructed analogously to the lifetime power-sharing measures by adding up the lifetime years during which a respondent's group or predecessor group was involved in a civil war and dividing by the number of years.

Table 7.2: Main results (Non-core groups, measure 2)

	M1.1	M1.2	M1.3	M1.4	M1.5
Constant	197.870*** (25.655)	195.883*** (26.712)	162.691*** (25.854)	194.839*** (27.582)	161.741*** (25.901)
Corp. (h)	-0.981 (0.680)	-0.877 (0.703)	-0.950 (0.610)	-0.831 (0.738)	-0.911 (0.627)
Corp. (v)	0.008 (0.514)	0.030 (0.452)	0.948** (0.413)	-0.042 (0.438)	0.829** (0.400)
Lib. (h)	0.312 (0.923)	0.332 (0.902)	0.713 (0.778)	0.316 (0.921)	0.651 (0.789)
Lib. (v)	0.192 (0.386)	0.213 (0.386)	-0.015 (0.479)	0.288 (0.448)	0.145 (0.486)
Included		-0.114 (0.137)	-0.120 (0.115)	-0.119 (0.134)	-0.120 (0.112)
Autonomy		-0.059 (0.283)	-0.011 (0.245)	-0.057 (0.282)	-0.002 (0.243)
Corp. (h, stock)			0.016* (0.009)		0.019** (0.010)
Corp. (v, stock)			-0.060*** (0.022)		-0.068*** (0.023)
Lib. (h, stock)			-0.075** (0.038)		-0.075* (0.040)
Lib. (v, stock)			0.009 (0.024)		0.008 (0.027)
Corp. (h, life)				-0.062 (0.158)	-0.126 (0.172)
Corp. (v, life)				0.128 (0.220)	0.399 (0.253)
Lib. (h, life)				-0.023 (0.193)	0.041 (0.199)
Lib. (v, life)				-0.124 (0.240)	-0.227 (0.264)
Size	1.209 (0.851)	1.389 (0.888)	1.710** (0.736)	1.366 (0.876)	1.677** (0.722)
TEK state	-0.175* (0.098)	-0.188* (0.103)	-0.158* (0.086)	-0.192* (0.102)	-0.158* (0.086)
Previous conflicts	0.106 (0.094)	0.102 (0.094)	0.129 (0.085)	0.095 (0.091)	0.122 (0.082)
Cleavages	0.281 (0.488)	0.261 (0.512)	0.000 (0.471)	0.246 (0.508)	-0.050 (0.472)
GDP p.c. (log)	0.245** (0.124)	0.240* (0.128)	0.272** (0.122)	0.254** (0.127)	0.290** (0.122)
Population (log)	-0.105 (0.093)	-0.102 (0.094)	-0.060 (0.096)	-0.104 (0.095)	-0.059 (0.097)
Year	-0.100*** (0.013)	-0.099*** (0.013)	-0.082*** (0.013)	-0.099*** (0.014)	-0.082*** (0.013)
Conflict (life)				0.028 (0.125)	0.051 (0.120)
Age	-0.004*** (0.001)	-0.004*** (0.001)	-0.004*** (0.001)	-0.004*** (0.001)	-0.003*** (0.001)
Female	0.037** (0.017)	0.037** (0.017)	0.037** (0.018)	0.042** (0.018)	0.043** (0.018)
Education	-0.195*** (0.022)	-0.195*** (0.023)	-0.199*** (0.023)	-0.199*** (0.023)	-0.203*** (0.022)
Var(group)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Var(group year)	0.682*** (0.104)	0.701*** (0.112)	0.727*** (0.120)	0.686*** (0.109)	0.711*** (0.118)
Var(country)	1.092*** (0.263)	1.096*** (0.274)	0.900*** (0.216)	1.092*** (0.265)	0.896*** (0.211)
Individual	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)
N	86863	86863	86863	84454	84454

Significance: * $\equiv p < 0.1$; ** $\equiv p < 0.05$; *** $\equiv p < 0.01$

ethnic salience, the models offer only little support for my arguments. Both a group's current power-sharing indices and the corresponding practices mostly turn out as insignificant predictors of an individual's propensity to identify predominantly in ethnic terms. While horizontal power-sharing of the corporate type indeed has a negative sign, which is in line with the expected threat alleviation effects captured by this term, it is still far away from significance. Furthermore, for its vertical dimension, a significant short-term positive effect is indicated in the models that add its corresponding power-sharing stock value. This indicates that, rather than alleviating identity threats and reducing ethnic salience, vertical power-sharing of the corporate type boosts ethnic salience in the short-term. Finally, while both power-sharing practice dummy variables have negative signs throughout, which would be in line with status equalization dynamics, they are clearly insignificant as well.

Turning to the long-term effects of power-sharing institutions on ethnic salience, the attained coefficients for horizontal power-sharing offer limited support for my expectations. Horizontal power-sharing of the corporate type indeed seems to gradually increase the salience of ethnic identifications, while its liberal type appears associated with lower ethnic salience over time. While both relationships are only indicated when using the stocks, but not the lifetime measures, they seem reasonably close to the theoretical argument of this dissertation. However, for vertical power-sharing the attained patterns clearly do not match the theoretical expectations. Rather than increasing ethnic salience over time through reification, vertical power-sharing of the corporate type appears to gradually lose its salience-enhancing short-term effect over time, at least if going by the coefficients of its stock measure. And, for its liberal alternative, no long-term effect at all is indicated by either measure.

Taken together, these results do not support the existence of strong status equalization or threat alleviation effects, whereby power-sharing institutions should reduce ethnic salience among non-core group masses, especially in the short-term. They further only partly support the existence of a countervailing

reification effect, which appears limited to horizontal power-sharing of the corporate type.

The control variables are generally as could be expected: respondents of groups that are larger, the have been involved in previous conflicts, and that have stronger cleavages demarcating them appear more likely to predominantly identify in ethnic terms, although the correlations generally remain insignificant. Somewhat surprisingly, the presence of a contiguous ethnic kin state is associated with lower such probabilities. Furthermore, ethnic salience appears higher in states with a more developed economy and there appears to be a general negative trend over time. At the individual level, people who are older, male, and more educated are significantly less likely to identify in ethnic terms.

7.5.3 Predicted probabilities

To visualize the substantive effects of interest indicated by these models, I estimated predicted probabilities, based on the full model that includes current power-sharing indices, stocks and lifetime measures (model 1.5). The aim of this is to visualize both the short- and long-term effects of power-sharing over time. To do so, I estimated predicted probabilities of whether an individual predominantly identifies with his or her ethnic group under different scenarios. Specifically, I estimated these separately for each power-sharing type and dimension. I proceeded as follows: First, I set the respective type and dimension's current value to the maximum (i.e., 1). Second, I varied the time to which I assume it has been in place under the respective scenario (from 1 year to 30 years). Third, I calculated the power-sharing stock and lifetime values based on the respectively assumed time.¹² For example, in a scenario where I assume horizontal power-sharing of the corporate type to have been in place for 20 years, I set its current index value to 1, its stocks value to 20, and its

¹²For power-sharing stocks, I simply multiplied the current index value by the number of years it has been in place, while neglecting depreciation for simplicity's sake. For lifetime power-sharing, I assumed a 50 year-old respondent and divided the number of years by 38 (50 - 12, as the first 12 years are not considered in the construction of this measure, see above).

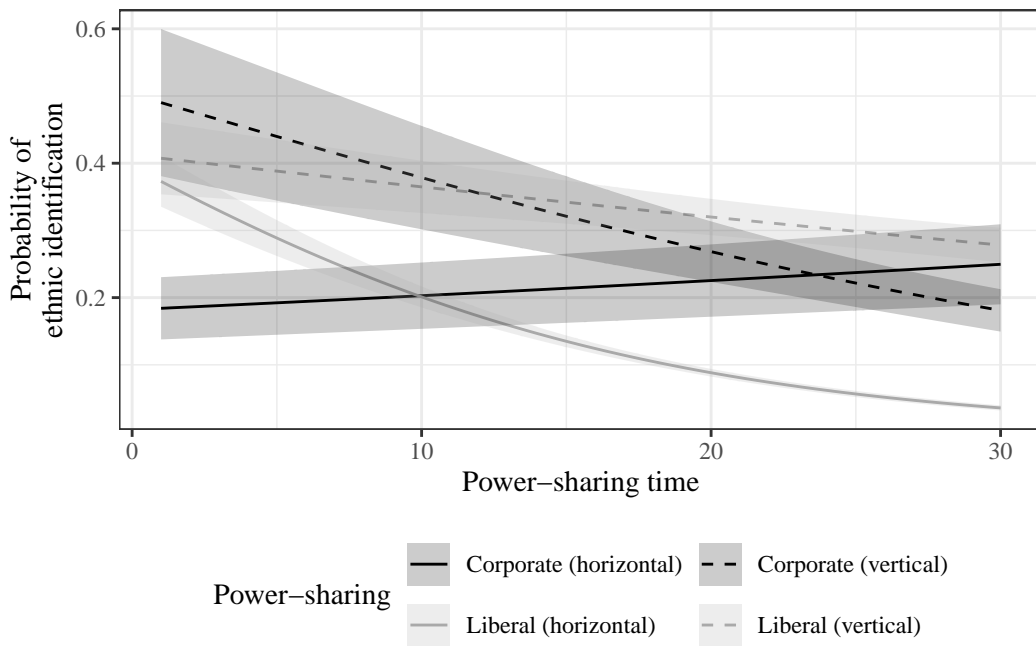


Figure 7.5: Power-sharing and ethnic identification: predictions (measure 2)

lifetime value to 0.52 (20/38). All other variables I set to their sample mean or median, respectively.

Figure 7.5 graphically shows the resulting predicted probabilities. They reflect the four main findings: First, they show the short-term negative effect of horizontal power-sharing of the corporate type (as given by its initially low predicted probability) and its gradually-increasing long-term positive effect (as given by the upwards-facing slope). Second, they show the gradually-accumulating negative effect of horizontal power-sharing of the liberal type on ethnic salience (as given by the steep downwards-facing slope). Third, they show the unexpected positive short-term effect of vertical power-sharing of the corporate type (as shown by its initially high value), which gradually becomes weaker over time (as given by the downwards movement from the 1-year to the 10-year slope). Finally, they reflect the null- (or slightly negative) effect for vertical power-sharing of the liberal type.¹³

¹³In this chapter's appendix E.1, I show analogously-constructed predicted probabilities for outcome measure 3, which enables me to consider wider contexts. The findings are almost unchanged.

7.5.4 Robustness checks

Similar to last chapter, I conducted a number of robustness checks to make sure my attained results are not overly influenced by particular modeling decisions I made (see appendix E.2 for all results). First, I re-estimated all my models but relied on my alternative dependent variables (measures 1 and 3, see section 3 of this chapter). The first of these enables me to check whether a more coherent measure of ethnic salience that exclusively relies on explicit comparisons made by respondents themselves would yield different results. The second allows me to check whether my findings hold when I strongly widen the number of group years and respondents included in the analysis by using a slightly less coherent measure that partly uses information on geographic self-identification as well. Reassuringly, under both tests the results remain reasonably similar and even appear to exhibit boosted significance levels for my main measures.

Second, it could be that I have omitted important confounders in my model specification. Hence, I re-estimated my full model (1.5), while adding more controls. Similar to last chapter, these include group peacyears (logged), cultural power-sharing, de-facto discrimination (at the group level), the electoral democracy index, the combined size of all non-core groups, and a country's corruption perception index (at the country level). Additionally, I re-estimated all my main models, but replaced the random country-level intercept with a country fixed-effect that captures all time-invariant heterogeneity at the country level. Reassuringly, the results under both procedures stay broadly similar, although the positive coefficient of the corporate power-sharing stocks measure is insignificant in the presence of the country-fixed effects.

Third, similar to last chapter, it might be that the way whereby I excluded respondents from the analysis about whose ethnic group I was not sufficiently sure might be systematically correlated with ethnic salience. For example, it might be that groups without strong objective cleavages to demarcate them from the rest of a country's population drop out of my analysis due to the identification thresholds, but that these groups might at the same time show

lower salience levels. Hence, I re-estimated my full model (1.5), but varied the thresholds by which I excluded respondents for who I lacked reasonable confidence to have correctly identified their ethnic group. Again the results are similar, although the corporate power-sharing of the horizontal type stocks measure loses significance in models with low thresholds.

Finally, again as in last chapter, I check whether my combination of different survey instruments into an overall dependent variable affects my results. I again do so by including an additional random intercept term at the survey-level. This accounts for potential clustering and commonalities of respondents within the different surveys used in the analysis (for example those in the Afrobarometer as opposed to those in the European Social Survey). Again, the results do not substantially change.

7.6 Conclusion

This chapter has revisited the contradictory arguments on the relationship between power-sharing and the salience of ethnic identifications. Based on social psychological theory, it has argued that this relationship can be disentangled into three different effects, whose relative importance is mediated by societal context: First, there is a status equalization effect, whereby power-sharing decreases horizontal inequalities, lowers the cognitive fit of ethnic categories with perceived outside reality, and thus decreases the salience of ethnic identifications. Second, there is a reification effect, whereby corporate power-sharing increases the chronic mental accessibility of ethnic identifications, enhances the likelihood of adopting cognitively “cheap” ethnic category categories, and thus increases the salience of ethnic identifications. And third, there is a threat alleviation effect, whereby power-sharing, especially of the corporate type, lowers perceived identity threats among non-core group masses, reduces their defensive reactions to protect this part of their self-esteem, and thus decreases ethnic salience.

This chapter has investigated these purported relationships between

power-sharing and ethnic salience in a large-N comparative fashion. It has made use of the new Constitutional Power-Sharing Dataset and of extensive new data on ethnic salience (see chapter 4), which together enabled it to conduct one of the first individual-level investigations on their interrelationships.

The preliminary results offer partial support for the three expected links between power-sharing institutions and ethnic salience. First, power-sharing practices are indeed negatively correlated with the probability of a respondent to predominantly identify with their ethnic rather than their national identity. While this is in line with the expected status equalization effect, the relationship clearly is not significant. Second, each group's current power-sharing indices are generally not significant predictors of its masses to identify with their ethnic identity. This goes against the expectations that would arise should a strong threat alleviation effect exist. Finally, the coefficients attained for group-wise power-sharing stocks partly support the expectation that corporate power-sharing should over time increase ethnic identifications, although this is limited to the horizontal dimension. This is partly in line with the expectation of a long-term reification effect. Yet, and surprisingly, the opposite relationship was attained for its vertical dimension, which is clearly outside the scope of this dissertation's theory to explain.

Part IV

Conclusion

Chapter 8

Institutionally engineering peace through power-sharing: General conclusions

This dissertation has addressed a fundamental challenge facing multi-ethnic states that struggle with persistent horizontal inequalities: Can divided places constitutionally enshrine power-sharing practices and thereby institutionally engineer lasting peace? The stakes are considerable. Ethnic conflict, often driven by political inequalities, remains one of the biggest sources of political violence in the contemporary world. The devastating dissolution of Yugoslavia along ethnic lines, genocide in Rwanda, and wide-spread sectarian violence in Iraq after the toppling of Saddam Hussein are only the most drastic examples of its crippling costs. They are symptoms of a wider "disease", however, with the proportion of civil wars that explicitly have an ethnic dimension jumping from 15 percent in 1953 to almost 60 percent in the early 2000s (cf. Stewart 2008). Mounting evidence supports the view that power-sharing practices—the government inclusion of and autonomy for non-core groups—can reduce the devastating costs of violent ethnic conflict (Buhaug et al. 2014; Cederman et al. 2010, 2013; Gurr 1993, 1994, 2000; Østby 2008; Stewart 2008; Wimmer et al. 2009).

Given the apparent benefits and clear normative desirability of power-

sharing practices, it is no wonder that many states have tried to enforce them through their formal institutionalization. This dissertation has discussed and empirically investigated the merits of the two most popular options available to institutional engineers for this endeavor: First, corporate power-sharing, which mandates ethnic government inclusion and autonomy by relying on explicitly ethnic criteria or ethnically-defined territorial units. At the surface, these comparably enforceable provisions appear to offer the most direct way to rectify the unequal status position of non-core groups and, in turn, their risk of violent conflict. Second, liberal power-sharing, which seeks to indirectly encourage inclusive outcomes through electoral criteria and extensive individual rights. While constituting weaker reassurances, these promise to engender more widely-encompassing power-sharing practices and to avoid several problematic side-effects of the corporate type.

In contrast to such hopes, the foregoing chapters have highlighted that neither of these two institutional alternatives constitutes an easy, transferable "fix" that can be used to engineer peace (Basedau 2011; Kurtenbach & Mehler 2013; Qvortrup 2018). Neither can comprehensively or sustainably remedy the risks of inter-ethnic violence in divided places. In my theoretical argument, I have highlighted in particular two trade-offs facing divided places when evaluating the merits of these two options: First, I have argued that there is a trade-off along group lines: while corporate power-sharing should strongly reduce the conflict risks of included non-core groups in the short-term, it does so at the expense of boosting them for excluded non-core groups and the formerly dominant core group. In this way, it may substitute some conflict risks for others, lead to "secondary grievances", and engender violent backlashes. In contrast, liberal power-sharing should only weakly decrease conflict risks, although uniformly for all non-core groups and without causing severe core group backlashes. Second, I have also argued that there is a trade-off across time horizons: in the long-term, the initially beneficial effects of corporate power-sharing on included non-core groups reverse and induce them to revolt.

I expected it to do so by increasing ethnic salience and by providing gradually accumulating institutional resources which their elites can exploit. Conversely, I expected the effects of liberal power-sharing to remain weak, but consistent across time horizons.

Overall, the empirical findings of this dissertation for these arguments are mixed. They reinforce some of the warnings about attempts to institutionalizing power-sharing, while attenuating others. On the one hand, they are in mostly in line with the trade-off along group lines. They indicate that corporate power-sharing indeed alleviates the conflict risks of included non-core groups at the cost of increasing them for excluded non-core groups and the formerly-dominant core group. They also support the expectation that liberal power-sharing represents a far weaker institutional measure that may only shape conflict risks in a minor way. Conversely, only limited evidence was found for the long-term destabilizing impacts of corporate power-sharing, expected under the trade-off across time horizons. In what follows, I discuss these key findings in more detail and situate them in the larger scholarly debate. In the next section, I do so by revisiting my main hypotheses and by sequentially reviewing the evidence for and against them. I then discuss the limitations of my findings and outline avenues for further research. In the process, I return to the wider question this dissertation has addressed: can divided places engineer peace by institutionalizing power-sharing?

8.1 Review of evidence

I now restate each of the six main hypotheses derived in chapter 3 of this dissertation and sequentially discuss the empirical evidence found for or against them in its subsequent empirical chapters. I illustrate my findings by referring to six typical cases, which represent the main causal relationships I have hypothesized about and in which these are comparably well-reflected in my data (as given by overall power-sharing indices taken from the CPSD and measures for conflict occurrence as used in chapter 5): Bosnia, Burundi, Georgia, Iraq,

Rwanda, and South Africa. Figure 8.1, which I will reference at several points in my discussion below, provides an overview on the temporal evolution of these cases.

Hypothesis 1: *For included non-core groups, corporate power-sharing strongly decreases conflict risks in the short-term.*

For corporate power-sharing, I expected a strong conflict-alleviating effect for included non-core groups who are targeted by its ethnically-based provisions. Not only should corporate power-sharing constitute a comparably enforceable guarantee that its corresponding practices, such as government inclusion and autonomy, are actually implemented. Beyond this, it should also send a perceptible signal of accommodative intent on behalf of the core group and in this way reduce processes of blaming and framing. The evidence found throughout this dissertation's empirical chapters is partly in accordance with these expectations. In chapter 5's correlational analyses, I attained a positive association between a given non-core group's corporate power-sharing levels and its probability of participating in civil wars. However, its complementary instrumental variable analyses revealed that this is partly due to strong endogeneity, whereby the inclusive protections of corporate power-sharing are predominantly offered to precisely those groups that are the most conflict-prone in the first place. This is in line with observations from several of the most deeply-entrenched corporate power-sharing systems, many of which were adopted as a response to previous rounds of conflict (Anderson & Costa 2016; Grigoryan 2012; McCulloch 2014). For example, while continuing instability plagues both Bosnia's (Bieber & Keil 2009; Manning 2004) and Lebanon's (Bogaards 2019a; Ghosn & Khoury 2011; Rosiny 2015) corporate power-sharing systems, this cannot be attributed to a causal effect of these institutions, which were adopted to end previous civil wars in the first place. Hence, it appears likely that the "true" effect of corporate power-sharing is to reduce included non-core groups' propensities of civil war participation.

Several additional analyses traced the intermediate steps of the causal

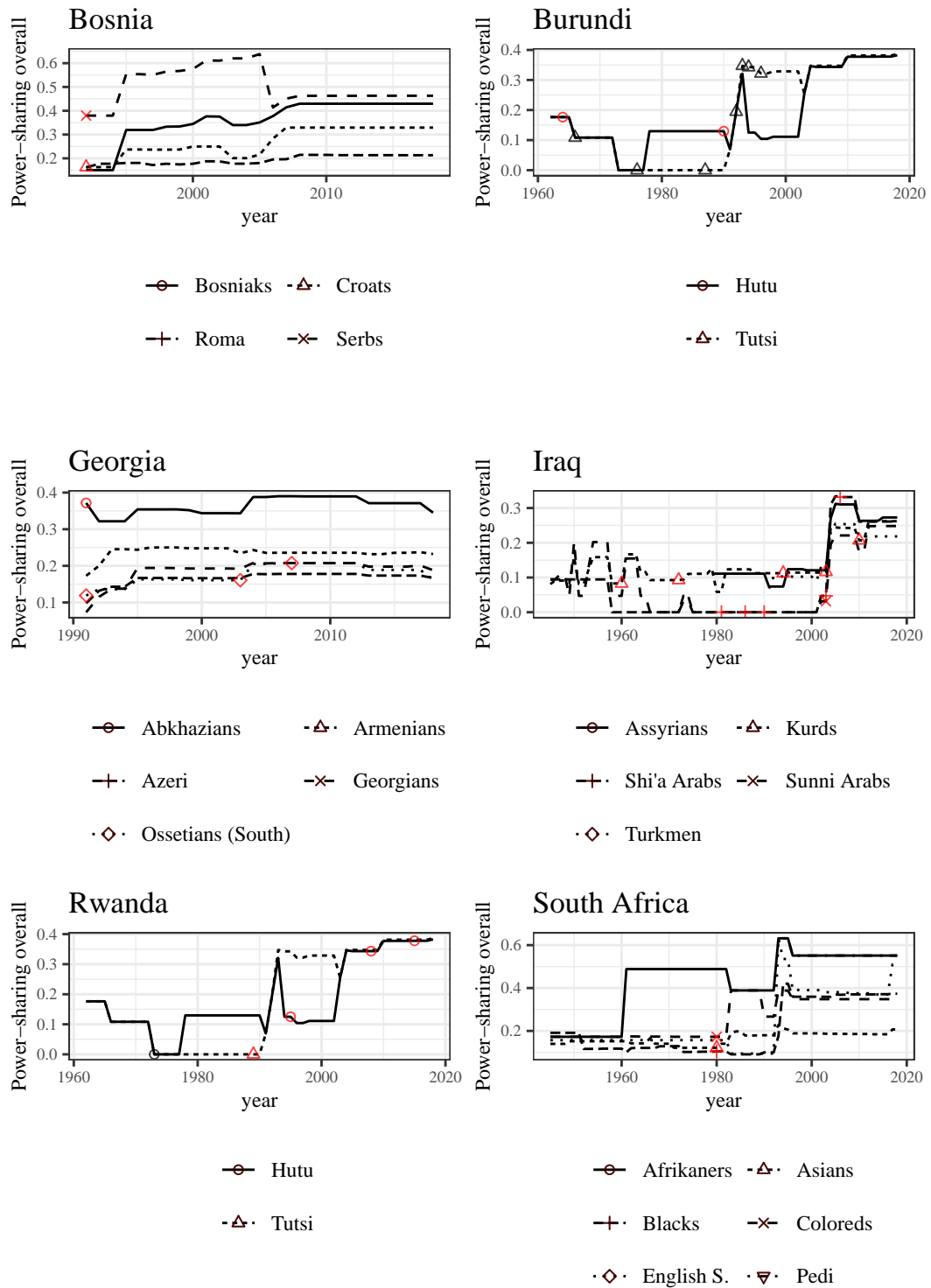


Figure 8.1: Illustrative cases

Notes: Overall power-sharing calculated as the average of a group's horizontal and vertical power-sharing indices (see chapters 4 and 5). Conflict occurrences as in chapter 5: Civil wars (in red) taken from the UCDP Armed Conflict Dataset (Gleditsch et al. 2002) and connected to ethnic groups via the ACD2EPR dataset (Vogt et al. 2015; Wucherpfennig et al. 2012). Coup data taken from Roessler (2011). For South Africa, the various indigenous black groups, coded individually since 1993, were re-aggregated into their umbrella category "Blacks", to increase legibility.

mechanism underlying this argument. These also supported the view that corporate power-sharing should reduce conflict risks for included non-core groups: First, the mediation analyses reported in chapter 5 showed that corporate power-sharing institutions are indeed strong predictors of the corresponding practices, by providing for included non-core groups' de-facto government inclusion and autonomy. In this way, they indirectly decrease their risks of participating in civil wars, especially governmental ones. The intermediate attitudinal evidence found in chapter 6 furthermore indicates that this pacifying impact of corporate power-sharing partly stems from its beneficial effects on included non-core groups' grievances. Respondents belonging to non-core groups were significantly less likely to perceive themselves as discriminated against if they were targeted by corporate power-sharing. A similar relationship, albeit not significant, was also found for the vertical power-sharing of the corporate type.

These key findings are reflected by observations in several corporate power-sharing systems. For example, Bosnia already had some limited power-sharing provisions in its constitution that was in effect immediately after its independence in 1992: a "Council for the Equality of the Peoples", where Muslims, Serbs and Croats were equally represented (art. 215), the principle of proportional representation of these three "peoples" in the command of the military (art. 162), and a two-thirds super-majority requirement in both legislative chambers for the adoption of group-related legislation (arts. 5, 18, 48, 209-215, 255, 268). Yet, in the context of the dissolution of Yugoslavia, these proved to be insufficient reassurances to stem the tide of inter-ethnic conflict, especially for the Serb minority. In 1995, following the end of the civil war and due to international pressure, these "soft" power-sharing provisions were greatly expanded and became more corporate in nature (Gordy 2015). Most notably, there is now a three-headed Presidency, whereby each of the three "constituent groups" is awarded one seat (art. 5) and a House of the Peoples with veto rights over vital legislation where each of them obtains 5 seats (arts.

4, 6). Additionally, the previous division of the state into deconcentrated municipalities without major competencies was replaced by an ethnofederal state structure, in which the Serbs receive their own territorial unit, the Republika Srpska. This has enormous rights of self-government, among others an extensive policy scope that encompasses economic, cultural, welfare, military, police, judiciary and community matters and its own executive and legislative organs (arts. 3, 6, 8). While tensions persist, the combination of these policies indeed reduced the most severe mass grievances among the ethnic Serb population and alleviated at least the immediate risks of violent conflict (Basta 2016; Rothchild & Roeder 2005a, see figure 8.1).

A similar picture of gradually increasing corporate power-sharing to placate the non-core group population is offered by Burundi. There, a first power-sharing constitution in 1992 contained only limited power-sharing provisions, such as the requirement that the government be "composed in a way that reflects the diverse components of the Burundian population" (arts. 72, 86-89, 134, 139) and the requirement that each electoral list for the legislature similarly had to be ethnically representative (arts. 96, 103, 104, 35). Following a decade of ethnically-based mass violence, coups by Tutsi officers, and a protracted uprising by armed factions purporting to represent the excluded Hutu majority (Lemarchand 2007; McCulloch & Vandeginste 2019), a new constitution was adopted in 2000 and came into effect in 2001. This again made use of clauses requiring a diverse representation of the Burundian ethnic groups in the council of ministers (arts. 69 and 87) and awarded seats in a transitional legislature to all major parties (arts. 58, 95-99). Yet, what seemed like a more lasting peace was only secured in the 2004/2005 constitution, which greatly extended the guarantees for the Hutu population and for the first time made use of significant corporate power-sharing elements. It contains ethnic quotas for the cabinet (arts. 108, 129, 203), requires that the two Vice Presidents belong to two different ethnic groups (i.e., the Hutu and Tutsi, cf. arts. 122-124), and establishes proportional representation in the National Assembly (arts. 104,

118, 147, 164, 168, 169), in the Senate (arts. 147, 180), in the Supreme Court (arts. 187, 208, 221-224), in the Constitutional Court (arts. 187, 225, 226), and in the military forces (arts. 247, 255). It also indirectly, through the quotas and super-majorities required, provides veto rights to both Hutu and Tutsi representatives over general legislation and constitutional amendments (arts. 198-200, 297-300). While also characterized by ongoing tensions (McCulloch & Vandeginste 2019), this corporate power-sharing arrangement has at least intermittently secured the ethnic peace (see figure 8.1).

Hence, while falling short of a complete endorsement of this first hypothesis, the overall picture offered by this dissertation's empirical analyses nevertheless supports its basic logic, illustrated by Bosnia and Burundi: Corporate power-sharing offers enforceable and visible guarantees of practiced government inclusion and autonomy, thereby alleviates included non-core groups' grievances, and in turn appears to decrease their conflict risks in the short-term.

Hypothesis 2: *For included non-core groups, corporate power-sharing increases conflict risks in the long-term.*

Under the trade-off across time horizons, I expected these initially beneficial impacts of corporate power-sharing to reverse in the long-term. I argued that corporate power-sharing should incrementally solidify ethnic divisions and provide gradually accumulating institutional resources that included non-core group elites can exploit in subsequent rounds of conflict. The correlational analyses in chapter 5 failed to offer solid support for this expectation, however. While the patterns of included non-core groups' civil war participation, depending on their accumulated power-sharing stocks, indeed reflected the expected overall relationship in sign, they clearly turned out to be statistically insignificant.

Building on this initial non-finding, chapter 7 investigated the attitudinal implications of this hypothesis' underlying causal mechanism. Specifically, it probed the expectation that corporate power-sharing should increase ethnic

salience among included non-core group members in the long-term, which I expected to contribute to conflict risks. Indeed, such a relationship was found for its horizontal dimension, which appears weakly associated with higher levels of ethnic salience the more consolidated it becomes. However, no similar finding was attained for its vertical dimension. Additionally, the results strongly depended on how the time persistence of corporate power-sharing was operationalized. Most notably, a null finding was attained where this was done by using measures for an individual's lifetime power-sharing. Hence, while a positive effect of corporate power-sharing on ethnic salience cannot be refuted with this result, the available evidence does not do much to substantiate it either. Hence, overall these findings seem to reflect the "stable identifications" perspective that doubts whether power-sharing significantly affects ethnic identifications in time horizons commonly analyzed (Cederman et al. 2013), rather than arguments whereby it should either decrease them through a depillarization process (Lijphart 1977) or, alternatively, gradually increase them through a reification process (Brubaker 2002; Hale 2008).

Hence, the available comparative evidence does not reflect allegations that corporate power-sharing ends conflict at the cost of enabling violence later on, as has been argued to be a wider systematic tendency by reference to prominent examples, such as Yugoslavia and the Soviet Union (Rothchild & Roeder 2005a; McGarry 2018). Beyond these widely-discussed prominent cases, there are only few observations in the data used that are in line with these arguments. One is Georgia, where the Abkhaz and South Ossetian non-core groups inherited far-ranging power-sharing provisions from the Soviet Union. Both possessed their own ethnically-designated Autonomous Republics, with far ranging policy scopes (arts. 72-81, 114, 131, 164) and political autonomy (arts. 85, 108, 131, 133). Additionally, the chairmen of these two autonomous republics' executives were guaranteed representation in the national Council of Ministers, thus securing a horizontal power-sharing component as well (arts. 122-124). It has been argued that these rights, already in effect during Soviet times,

strengthened the internal cohesion of the Abkhaz and South Ossetian groups and provided them with the capacity to mobilize for increased autonomy or independence (Cornell 2002, cf. Francis 2011; O'Brochta 2018). Indeed, it was exactly these two groups who immediately were involved in a civil war against the central state (see figure 8.1), whereas no conflict erupted among comparably disadvantaged ones, such as the Azeri or Armenian minorities. However, similar developments do not appear to generalize beyond the region containing the former Socialist States. Rather, it appears, that the short-term grievance-alleviating effects of corporate power-sharing also persist in the long-term.

In sum, the results of both correlational analyses focusing on the civil war participation of included non-core groups and of multilevel analyses looking at their members' ethnic salience fail to provide consistent evidence for the view that corporate power-sharing should increase the conflict risks of included non-core groups in the long-term.

Hypothesis 3: *For non-core groups, liberal power-sharing weakly decreases conflict risks.*

For liberal power-sharing I expected a similar, but weaker conflict-alleviating effect as I did for its corporate alternative in the short-term. The correlational analyses in chapter 6 offered some support for this expectation: They suggested that its horizontal dimension makes the participation of non-core groups in governmental civil wars less likely, while its vertical dimension does the same for their participation in territorial civil wars. This echoes hopes based on South Africa's liberal, post-apartheid power-sharing constitution that its more flexible provisions might prove exportable to other contexts, effectively result in the inclusion of diverse ethnic groups in government, alleviate mass grievances, and reduce conflict risks (Lijphart 1995; McCulloch 2014; Sisk & Stefes 2005, see figure 8.1).

However, its instrumental variables and mediation analyses counseled caution for the its vertical dimension: Judging by the instrumental variables esti-

mates, vertical power-sharing of the liberal type appears to be a partial substitute for its corporate alternative, predominantly offered to groups that are already less conflict-prone in the first place. Further, they are associated with *less*, rather than more de-facto autonomy of a given non-core group. This hardens the suspicion that vertical power-sharing of the liberal type might mostly reflect a token measure offered to non-core groups with low bargaining power rather than an actual institutional reassurance. Hence, these results echo allegations that splitting up ethnic groups between multiple heterogeneous territorial units does not provide them with real autonomy and frequently aims to further suppress ethnic minority movements, as has been argued to be the case in some areas of the Soviet Union and Yugoslavia (Jenne 2004; McGarry & O'Leary 2005; McGarry 2018).

Chapter 6 additionally probed the intermediate steps of this causal mechanism, whereby liberal power-sharing should exert negative effects on non-core group grievances. The findings for this expectation were mixed: While it was found that its vertical dimension strongly reduces grievances, its horizontal dimension appears associated with *higher*, rather than lower grievances. This underlines the expectation voiced in much of the literature that liberal power-sharing that lacks elements of explicit ethnic recognition could fail to appease aggrieved groups, who demand the more explicit reassurances under its corporate alternative (Bogaards 2019b; Lijphart 1995; McCulloch 2014).

One example for clear example for these key findings is post-Saddam Iraq. Long periods without significant power-sharing since independence were characterized by series of uprisings by Kurdish and Shia non-core groups. In 2004, following the US invasion, a new, transitional power-sharing constitution was promulgated, with several of the most stringent provisions later taken over on a temporary basis into the 2005 permanent constitution. This power-sharing constitution foresees a three-member Presidency council which is elected by two thirds majority by the Assembly (as a temporary measure lasting five years, see arts. 61, 67, 72, 138). It also permanently establishes a Council

of Representatives that is elected on the basis of proportional representation (arts. 48, 49, 56) and requires the security forces to be representative of the diverse components of the Iraqi population (art. 9.1). Additionally, it requires a two-thirds majority to promulgate constitutional amendments and key legislation related to the federal structure (arts. 59-65, 80-93, 126, 136-138). In the vertical dimension, it further establishes extensive power-sharing of the liberal type, by mostly relying on autonomous, non-ethnic governorates, with the exception of the ethnically-defined Kurdistan region. And, it provides, in a liberal manner, for the possibility of non-Kurdish governorates merging together to form similar, higher-level regions as well (arts. 1, 110-126). While this liberal power-sharing constitution has indeed initially resulted in the political inclusion of the Kurd and Sunni minorities, this has gradually faltered and proved unable to prevent additional uprisings and conflicts (Bogaards 2019b; McCulloch 2014, see figure 8.1).

A second example for the mixed success of liberal power-sharing provisions, and for the dangers that these might not result in any non-core group empowerment at all, is Rwanda since 2003. At the surface, it provides for extensive liberal power-sharing: The President and the Speaker of the Chamber of Deputies have to stem from different political parties (arts. 58, 65) and there are exceptionally high super-majorities in the legislature: 75% of representatives in both houses need to agree for constitutional amendments to be promulgated (arts. 108, 193). These provisions were even further extended in 2008, with the added requirement that cabinet seats have to be distributed in accordance with the seat share that each party holds in the Chamber of Deputies (arts. 116, 130). However, in practice, these formally liberal power-sharing institutions were complemented with integrationist policies that make the articulation of political claims in ethnic terms illegal and were implemented in an authoritarian manner that cemented the dominant party system (Lemarchand 2007; Moss & Vollhardt 2015). Even while formally inclusive, these provisions have hence not resulted in effective representation of the Hutu non-core group

and have been unable to prevent further ethnically-based violence encompassing this large, de-facto excluded group (see figure 8.1).

Hence, the overall support for this third hypothesis is low. While horizontal power-sharing of the liberal type indeed appears associated with somewhat lower risks of non-core group participation in governmental civil wars, this link does not appear to run through grievances. Conversely, although it is associated with lower grievances, its vertical dimension mostly appears to represent a token measure provided by to less conflict-prone non-core groups. Neither of these results is in line with the expected mechanism running from liberal power-sharing via reduced grievances to lowered conflict risks.

Hypothesis 4: *For core groups, corporate power-sharing strongly increases conflict risks.*

For core groups, I expected corporate power-sharing to increase their conflict risks. I did so, as it may create "secondary grievances" among core group members against the rigid and visible circumscription of their group's former dominance. Indeed, the correlational analyses of chapter 5 support the view that such a side-effect exists: In the sample of sub-Saharan countries for which data were available, its horizontal dimension was found to be a strong predictor of core group coup attempts. While no similar relationship was found for its vertical dimension, this was to be expected based on this particular outcome variable used.

Chapter 6 additionally probed whether corporate power-sharing indeed brings about this observable relationship by boosting core group grievances. Indeed, such a relationship was found for its horizontal dimension, which is associated with higher probabilities that core group members perceive themselves as discriminated and that they are unsatisfied with the democratic system. However, against my expectations, this effect was limited to relatively small core groups, who should, according to my argument, be *less* likely to react forcefully to violations of the norm of majority rule than larger ones. In the same analyses, the vertical dimension of corporate power-sharing was

also found to contribute to core group grievances. However, again, this was limited to a subset of individuals, namely to less educated individuals, who are more likely to feel threatened by its explicit group-wise guarantees for non-core groups. Hence, overall, these findings reflect the experiences of several prominent cases of power-sharing, where corporate power-sharing sparked backlashes by core group masses (Horowitz 2014; Wippman 1996), for example post-Ohrid Macedonia (Brunnbauer 2002) or post-Dayton Bosnia (Basta 2016).

Clear examples for such core group backlashes against corporate power-sharing are offered by both Burundi and Rwanda (see figure 8.1). In the former case, Burundi, the constitution of 1992 introduced significant corporate power-sharing elements (arts. 72, 86-89, 96, 103, 104, 134, 139, see description above) and was immediately met with stiff opposition from disgruntled Tutsi officers. This opposition materialized in a series of coups between 1992 and 1996 that re-established Tutsi dominance and in turn set off a renewed civil war in which several organizations purported to fight for the political inclusion of the Hutu majority (Lemarchand 2007; McCulloch & Vandeginste 2019). An even more drastic example is Rwanda's short-lived 1993 Arusha agreement that was explicitly incorporated into its constitution. Under its inclusive provisions, the Presidency was reserved for the MRND (the former dominant Hutu party), the Prime Ministerial post awarded to the MDR (also a Hutu party), and the Deputy Prime Ministerial post given to the RPF, which was the armed Tutsi movement (arts. 15, 38, 55, peace agreement of 1993). Additionally, the constitutionally-backed peace agreement reserved seats in the National Assembly for all of these ethnically-designated parties (arts 58-85, peace agreement of 1993), created integrated military forces divided between the former Hutu-dominated government and the Tutsi-led RPF (peace agreement of 1993), and established a 75% supermajority for the promulgation of constitutional amendments (art. 96). Yet, the constitution was immediately dismantled by the extremist, majority-centric "Hutu Power" movement, which mobilized against its

inclusive provisions and sparked the 1994 genocide, partly to avoid having to share power with the former Tutsi insurgents and more moderate Hutu groups (Lemarchand 2007; Straus 2006).

In sum, both the behavioral outcomes, given by the instigation of coups, and the intermediate attitudinal outcomes, given by the perception of discrimination and dissatisfaction with democracy, appear mostly in line with the expectation voiced in hypothesis 4, whereby corporate power-sharing should boost core group grievances and make conflict escalation on their part more likely.

Hypothesis 5: *For core groups, liberal power-sharing weakly increases conflict risks.*

Under the trade-off along group lines, a similar, but weaker relationship was expected for liberal power-sharing: as it also circumscribes core group dominance, it too should lead to higher grievances among core group members, although less so than under the highly visible restrictions of its corporate alternative. However, no evidence for such a relationship was found. Liberal power-sharing is neither a predictor for the instigation of core group coups (chapter 5) nor of core group grievances (chapter 6). This reflects the experience of South Africa, where a transitional liberal power-sharing constitution proved acceptable to the core group and, in spite of some tensions, brought about a sustainable transition to peace while avoiding major backlashes (Sisk & Stefes 2005). Hence, the combined evidence of both chapters does not support hypothesis 5 and supports an even more optimistic appraisal of liberal power-sharing, at least as regards its potential side-effects on core groups.

Hypothesis 6: *For excluded non-core groups, corporate power-sharing increases conflict risks, especially in the short-term.*

For excluded non-core groups, I expected that corporate power-sharing would engender "secondary grievances" among their members. These should be driven by their institutionalized and visible exclusion from power while other

groups are, in contrast, included by the same provisions. This should lead to increasingly unfavorable status comparisons and hence raise their conflict risks. Additionally, these risks should loom especially large in the intermediate aftermath of power-sharing concessions to other groups, which increase excluded non-core groups elites' perception of a favorable opportunity structure.

The correlational analyses in chapter 5 lent only partial support to these expectations, however: Indeed, exclusion from corporate power-sharing provisions that target other groups further marginalizes excluded non-core groups, as given by their de-facto government inclusion and as compared to contexts where no power-sharing provisions are in place. For its horizontal dimension, this is, in turn, associated with higher risks of civil war participation. While this relationship remained insignificant throughout the models, its true effect is likely to be stronger, as indicated by the instrumental variables analyses. However, at least as given by observed participation in civil wars, such violent outcomes appeared excessively rare and far from the norm even among the most marginalized excluded non-core groups. Further, no support was found for the expectation that these risks should be driven by reputational effects in the immediate aftermath of concessions to other groups.

Chapter 6 additionally probed the attitudinal implications of the hypothesized mechanism whereby corporate power-sharing entices excluded non-core groups to revolt. In particular, it might be that corporate power-sharing increases the grievances of excluded non-core groups, but that they might lack the resources to translate them into civil war participation. Indeed, this additional analysis supported the view that excluded non-core groups' grievances are higher under corporate power-sharing, both for its horizontal and its vertical dimension. Further, as expected, the former relationship is stronger when groups excluded from government are relatively large, which should be more likely to lead to the activation of injustice norms. However, against the expectation, both relationships were found to be strongest for the most educated individuals, who should in principle be less likely to feel threatened by the

absence of inclusive provisions. Hence, these combined findings reflect the experiences of excluded non-core groups in many power-sharing systems, whose masses may be aggrieved at their formal exclusion from power, but who lack the capabilities to mount a violent challenge to rectify this situation.

A typical and prominent case for these mixed findings as regards excluded non-core groups is Bosnia. Having adopted a comprehensive power-sharing constitution in 1995 (see description above), it excluded its Roma non-core group from the comprehensive rights exclusively reserved for its "constituent peoples", the Bosniaks, Serbs, and Croats. While this created widespread discontent with these discriminatory provisions, which culminated in the condemnation of this arrangement by the European Court of Human Rights (Agarin et al. 2018; Juon 2020; McCrudden & O'Leary 2013; Milanovic 2010; Stojanović 2018), these grievances are unlikely to ever result in an armed insurrection due to the small size, dispersed settlement pattern, and general lack of resources of the Roma minority (Agarin & Brosig 2009). It is hence unsurprising that, in spite of their clearly disadvantaged position in the power-sharing arrangement, the Roma have not been involved in any conflict since 1995 (see figure 8.1).

Overall, these combined findings support the expectation that corporate power-sharing exacerbates excluded non-core groups' grievances. They further indicate that this might additionally result in civil war participation, although excluded non-core groups might, similar to the Roma in Bosnia, frequently lack the capabilities to effectively mobilize upon their grievances in many cases.

Taken together, the evidence for these six hypotheses mostly supports the expected trade-off along group lines: Corporate power-sharing indeed appears to reduce the conflict risks of included non-core groups. It does so by effectively providing for their government inclusion and autonomy and by alleviating the grievances among their masses. However, this comes at the price of boosting the mass grievances of excluded non-core groups, who are now even more likely to be excluded from government. It similarly results in increased grievances among members of the core group, whose former dominance is now effectively

circumscribed. While the former appear mostly unable to mobilize upon these increased grievances in overt violence, the latter become more likely to instigate coups to reassert their former dominance in central government. Conversely, liberal power-sharing is not found to have any strong effects. Although it slightly increases the chance that non-core groups attain government inclusion, it does not substantially shape either the grievances among their masses and only partly affects their resulting conflict risks.

These findings thus provide systematic evidence in line with prominent arguments whereby comparably rigid corporate types of power-sharing constitute stronger reassurances and are hence preferable for non-core groups to their liberal alternatives in many contexts (McCulloch 2014; Bogaards 2019b). However, they simultaneously underline the increasingly urgent calls to pay more attention towards the problematic side-effects inherent in such an institutional choice. Particularly, they confirm concerns that corporate power-sharing might adversely impact those sections of society that do not directly profit or lose out from its inclusive provisions and practices, with destabilizing implications (Agarin 2019; Stojanović 2018).

In contrast, the evidence gathered throughout this dissertation does little to substantiate warnings that corporate power-sharing might give rise to centrifugal forces in the long-term (Jarstad 2008; Pildes 2008; Rothchild & Roeder 2005a; Sisk 2010). Only very limited evidence was found for the expectation that corporate power-sharing should, over time, reify ethnic identifications. Similarly, although civil war risks indeed remain fairly high and time-persistent under corporate power-sharing, their frequency does not seem to increase, as would be expected if they indeed solidified ethnic divisions and provided exploitable resources to ethnic entrepreneurs.

In sum, these results highlight the potential benefits of corporate power-sharing for institutional engineers, especially if its criteria are applied widely to encompass as many non-core groups as possible. However, they also counsel caution, as it may conversely engender secondary grievances among any

non-core group that remains left out from its protective umbrella and among the formerly dominant core group. They further indicate that liberal power-sharing might exert some beneficial effects, for example by providing for the government inclusion of non-core groups. However, its effects on grievances and conflict risks appear small and contradictory.

8.2 Limitations and avenues for further research

What do these findings mean for the larger question this dissertation has addressed: Can divided places institutionally engineer peace by constitutionally enshrining desirable practices? This question has pre-occupied scholars and policymakers for a long time (cf. Qvortrup 2018) and the present dissertation inevitably only adds a small piece of evidence to this much larger endeavor. In one way, the answer indicated by its findings appears affirmative: they support the general idea that institutions can indeed give rise to the desired practices. Both corporate and liberal power-sharing institutions are strong predictors of non-core groups' actual government inclusion and, within limits, of their de-facto autonomy as well. These practices in turn indeed appear to reduce their risk of participating in civil wars. However, in other ways, the findings also counsel utmost caution: For one, no strong evidence was found that the direct signaling effects of power-sharing institutions are equally beneficial as their indirect ones which are mediated by the corresponding practices. Further, their side-effects on different types of ethnic groups outline a precarious slope that institutional engineers need to walk when attempting to bring about peace by institutionalizing power-sharing: providing credible and enforceable guarantees for non-core groups, while avoiding discrimination, second-order grievances, and violent backlashes from excluded non-core groups and from the formerly-dominant core group. In this way, they echo the sobering conclusion of Kurtenbach and Mehler (2013: 1, see Wimmer 2013) that "examples of successful institutional engineering are rare while failures abound". For example,

given its indicated side-effects, it remains unclear whether corporate power-sharing passes the "minimum test" for institutional engineering by Reynolds (Reynolds 2002) of doing "no harm".

Beyond this main qualification, the findings attained in this dissertation offer plenty of scope for future research to build on. A first major limitation of research on institutional engineering in general is the difficulty of transferring findings from one context to another (Basedau 2011; Kurtenbach & Mehler 2013). This dissertation's findings are no exception. In an effort to reduce problems of selection bias, whereby findings would only be based on the most prominent and conflict-prone cases, it has considered a global sample, with evidence ranging back to the Second World War. However, there are important reasons to suspect that several key causal mechanisms advanced in this dissertation's theoretical argument might be more important for some contexts than for others. Most importantly, it might be fruitful for future research to consider differences in a country's underlying ethnic structure in more detail than this dissertation has been able to. First and foremost, this refers to whether a country is a hierarchically integrated system of ranked ethnic groups, as is the case in many Latin American countries or former Settler colonies, or whether it is an unranked society consisting of several unintegrated segments, as in other decolonized states (Horowitz 1985). It might well be, for instance, that corporate power-sharing engenders destabilizing long-term side-effects and violence in the latter, while potentially contributing to emancipatory movements and peaceful negotiations in the former (see Vogt 2019).

In addition, future research should also consider the interaction of power-sharing institutions with other, more time-variant contextual factors. In other words, rather than asking whether power-sharing institutions work, they might focus more on where and when they are likely to bear the desired results (see Bakke 2015). For example, as Schneider and Wieshomeier (Schneider & Wieshomeier 2008, see also Selway & Templeman 2012) show, the effects of power-sharing are likely to diverge depending on a country's underlying ethnic

divisions and on the degree to which these were already salient at the point in time of its institutionalization (see Pospieszna & Schneider 2013). Similarly, the effects of power-sharing institutions are likely to interact with the type of elites that held political power when they are first put in place. For example, they are inevitably shaped by whether major ethno-nationalist forces have already mobilized (Brancati 2006), whether previous violence involving them has occurred (Cederman et al. 2015a), and whether this has led to enduring splits in the party system (Bakke 2015) that map onto different ethnic groups.

Beyond the question of how contextual factors condition the effects of power-sharing institutions in different settings, future research would also do well to consider in more depth how they influence the potential for their initial adoption. For example, even if further studies lend more substance to this dissertation's theoretical claim that liberal power-sharing should exert fewer undesirable side-effects than its corporate alternative (Agarin 2019; Juon 2020; Juon & Bochsler 2020 forthcoming; McCulloch 2014; Stojanović 2018, 2020), this institutional alternative might still not represent a feasible option in many cases. Indeed, as this dissertation has also illustrated, they offer only weaker reassurances to non-core groups and hence frequently prove unpopular with them (Lijphart 1995; McCulloch 2014). Previous work has raised similar issues for related attempts at institutional engineering, highlighting, for example, that the viability of territorial accommodation is circumscribed by the degree to which it addresses the demands and concerns of empowered conflict actors (Wolff 2011) and that institutional innovation is constrained by time persistent institutional templates (Pospieszna & Schneider 2013), the wider societal structure (Hartmann 2013), and recent war outcomes (Pospieszna & Schneider 2013).

A second major limitation in work on institutional engineering in general is the difficulty in accounting for the manifold interactions of the investigated institution with other institutional features (Basedau 2011; Kurtenbach & Mehler 2013; Selway & Templeman 2012). This dissertation's findings are

again no exception. By investigating the overall strength of two institutional "bundles" (corporate and liberal power-sharing), it has avoided looking exclusively at isolated components of power-sharing, such as proportional electoral systems (Lijphart 2004). It has also partly followed calls to consider potentially diverging effects between power-sharing institutions, by distinguishing between their horizontal and vertical dimensions (Cederman et al. 2015a; Graham et al. 2017; Linder & Bächtiger 2005). However, at the same time its broad aggregate perspective may mask contradictory effects of its underlying components, most importantly between the horizontal dimension's proportional representation, mutual veto, and grand coalition components. Existing work indicates that these might differ in how they shape democratic survival (Graham et al. 2017), democratic satisfaction (Christensen 2015), and also civil war recurrence (Pospieszna & Schneider 2013). Future research should, beyond considering the overall distinction into corporate and liberal types, probe these distinctions further. For example, going by this dissertation's theoretical arguments, the inclusive outcomes engendered by proportional representation or grand coalitions might well reduce mass grievances, while the constraints imposed by mutual veto rights may well empower radical opportunistic elites, while this might not be true vice versa.

Relatedly, it would be promising to test the effects of power-sharing institutions not in isolation, but alongside rival institutional frameworks advanced as candidates to engineer peace. Most importantly, this relates to the rival integrationist approach to ethnic conflict management, which seeks to suppress or overcome ethnic divisions, rather than accommodate them (Bogaards 2010; McGarry & O'Leary 2008; Wolff 2011). For example, this would entail more attention to the impact of institutional measures such as the alternative vote, territorial vote spread arrangements, or ethnic party bans (Horowitz 1985, 2003; Reilly 2001). Again, to avoid selection bias and to provide evidence for these rare institutional measures (Lijphart 2004), this would necessitate a further global data collection effort.

Beyond the independent institutional variables probed, future research should also consider the effects of power-sharing institutions on alternative outcomes that are part of ethnic conflict broadly understood. While this dissertation has widened the focus beyond civil war participation to the instigation of coup attempts and to mass grievances and ethnic salience, much work remains to be done. For non-core groups, it would seem fruitful to look at further intermediate steps between mass grievances and the eruption of civil war, such as ethnic mobilization in the form of self-determination movements (Cunningham 2014; Sambanis et al. 2018). A similar investigation into mass movements organized in the name of core groups might also be useful to shed light on potential backlashes against power-sharing that are not captured by coup attempts (and hence provide much needed evidence on contexts where such backlashes are unlikely to take the form of coups, such as consolidated democracies). Finally, beyond ethnic violence at the national level, it would also be important to account for the increasing tendencies for conflict to erupt at local levels, for example in the form of communal violence (Pettersson et al. 2019). Following the evidence provided in chapter 6, it might be, for example, that non-core group members living in other groups' territorial "homelands" are not only more aggrieved, but disproportionately more likely to become involved in communal violence as well.

In sum, the findings of this dissertation offer some hope for institutional engineers. They indicate that they might reap some of the benefits of power-sharing practices by formally enshrining them in state constitutions. However, they also outline difficult trade-offs faced by divided places. For one, they counsel caution on the side effects of the corporate type of power-sharing, which might lead to backlashes from groups that do not profit from its inclusive provisions. They also highlight that its main alternative, liberal power-sharing, while exerting some beneficial effects, might ultimately be too weak a measure to decisively reduce ethnic conflict risks. However, these preliminary findings need to be subjected to further tests, including their relevance for

different contexts, their relation to institutional alternatives, and their transferability to alternative conflict outcomes. For now, this dissertation concludes by acknowledging the potential role that power-sharing institutions can play in institutional engineers' efforts to bring about peace, while highlighting the considerable risks involved in such endeavors.

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Part V

Appendices

Appendix A

Appendix for Chapter 3

A.1 Detailed expectations and implications

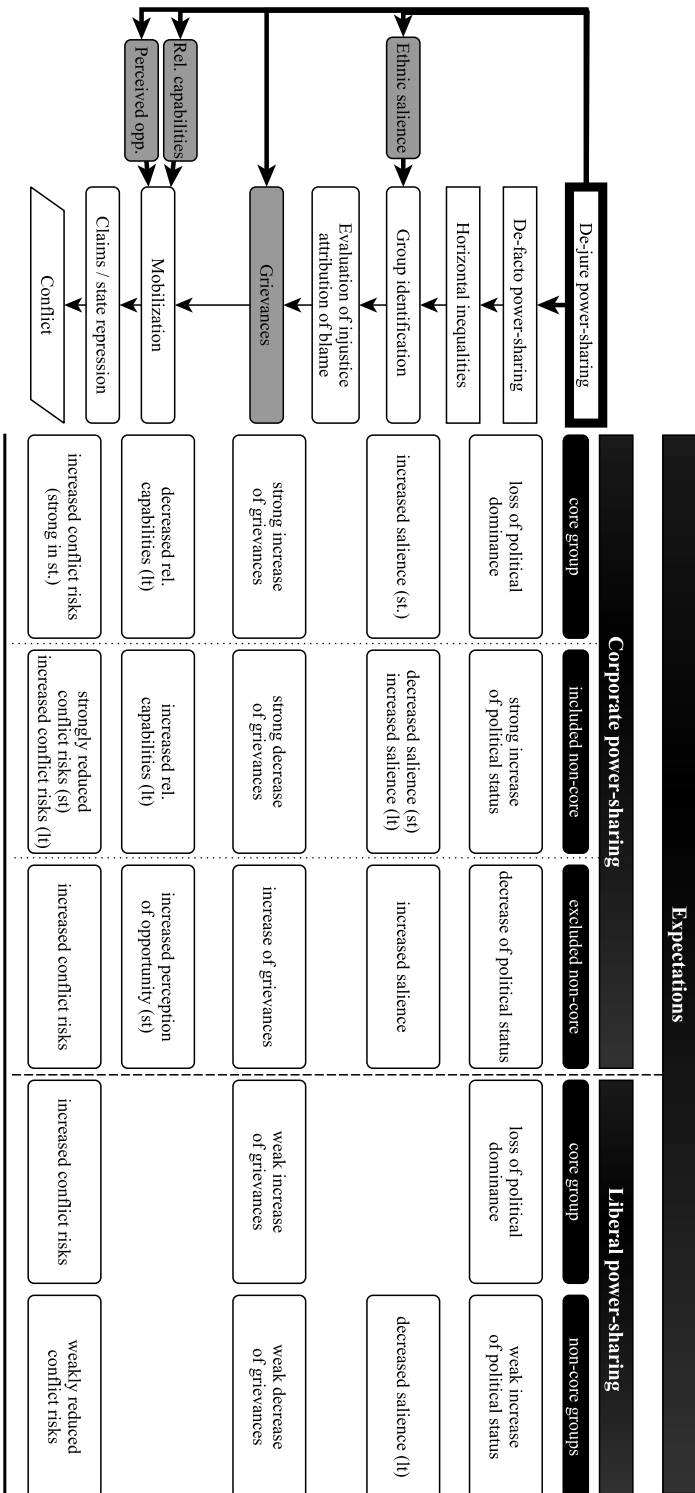


Figure A.1: Detailed expectations and step-wise mechanisms.

Appendix B

Appendix for Chapter 4

B.1 The Constitutional Power-Sharing Dataset (CPSD)

B.1.1 Data collection process: overview

The following sub-sections provide additional details on the coding procedure of the Constitutional Power-Sharing Dataset (CPSD). Specifically, they provide information on seven discrete steps involved in this process:

1. **Conceptualization of power-sharing:** In a first step, a concept of power-sharing institutions was derived, disaggregated into the corporate and liberal types and into four distinct dimensions. In the main part of this chapter, the conceptualization of the CPSD's key dimensions, which are the focus of this dissertation, was presented: the horizontal and vertical dimensions of power-sharing. Appendix B.1.2 gives similar details on the CPSD's remaining two dimensions, the economic and the cultural ones.
2. **Identification of legal sources and extraction of country-level information:** In a second step, the appropriate legal sources (constitutions, autonomy statutes, and electoral laws) were identified and screened for information relevant to the coding process. The product of this step was detailed information, mostly at the level of country years, on cor-

porate and liberal power-sharing institutions, along with documentation covering both the respective sources used and legal articles within them. Appendix B.1.3 provides more details and an example on this step.

3. **Identification of relevant ethnic groups:** In a third step, the relevant ethnic groups that would form the coding basis for the CPSD data had to be identified. This relied on a combination of the politically relevant groups provided by the Ethnic Power Relations (EPR, Vogt et al. 2015) dataset with additional groups that were constitutionally referenced but are not part of any existing EPR group (for example, Rotumans in Fiji).
4. **Coding of indicators at relevant level:** In a fourth step, the country year-level information noted down in step 2 was transferred into numeric, ordinal, or dichotomous variables at the respective level (country, group, territorial unit, religion, or language). Appendix B.1.5 provides detailed information on the measurement of all CPSD indicator types, while appendix B.1.8 provides an overview of all the resulting CPSD indicators.
5. **Attribution of data onto the ethnic group level:** In a fifth step, the information coded in the last step was transferred to the selection of ethnic groups derived in step 3. Most importantly, country-, territory-, religion-, and language-level data had to be transferred onto the group level. Appendix B.1.4 provides an overview on these aggregation procedures. Appendix B.1.7 gives more details and examples for the special case of territorial indicators.
6. **Aggregation into overall group indices:** In a sixth step, the group-level indicators resulting from the last step were aggregated into overall, corporate, and liberal power-sharing indices of the respective dimension (horizontal, vertical, economic, and cultural). Appendix B.1.6 gives details on the considerations underlying these procedures and aggregation formulas used.

7. **Validation:** In a final step, the resulting indices were validated. In the main part of this chapter, this was already partly done through a comparison with two related datasets: the Inclusion, Dispersion and Constraints dataset's (IDC, Strøm et al. 2015) country-level and the EPR's (Vogt et al. 2015) group-level variables. Chapter 5 additionally conducts a series of regression analyses showing that the power-sharing institutions coded by the CPSD indeed are strong predictors of the corresponding practices coded by EPR. Appendix B.20 further provides a factor analysis to probe whether the indicators in the CPSD indeed cluster into distinct dimensions, as expected.

B.1.2 Discussion of additional CPSD variables

In addition to providing information on the horizontal and vertical dimensions of power-sharing (presented in the main part of the chapter), the CPSD also contains several additional variables. First and foremost, it also codes institutional power-sharing in the economic and cultural dimensions. Second, it contains several indicators that measure constitutional provisions that are closely related to power-sharing institutions, such as constitutionally-embedded ethnic party bans. The next three sub-sections elaborate on each of these.

The economic dimension of power-sharing

In the CPSD, the third dimension of power-sharing, the economic one, encompasses measures aimed at reducing horizontal economic inequalities. Similar to previous conceptualizations of economic power-sharing (Stewart et al. 2008) and drawing on conceptual work on affirmative action policies (McCrudden 2012; Weiner 1973) and on economic inequality and redistribution (Piketty 2014), measures targeting four central arenas of economic inequality are included in the concept: Labor supply, labor demand, income, and capital. Within each, both measures that target specific social groups explicitly (for example, ethnically-based affirmative action policies, tax breaks, and redistributive schemes) and more liberal measures based on individual char-

Table B.1: Components of the economic dimension

Component	Corporate power-sharing	Liberal power-sharing
Labor supply	Affirmative action for education (ethnic)	Affirmative action for education (class)
		Anti-discrimination legislation for education (individual, ethnic, religion, language, race)
	Affirmative action for education (territorial)	
Labor demand	Affirmative action for employment (ethnic)	Affirmative action for employment (class)
		Anti-discrimination legislation for employment (individual, ethnic, religion, language, race)
	Affirmative action for employment (territorial)	
Income	Reserved income from resources or taxes (ethnic)	Income tax credit / exemptions (class)
	Income tax credit / exemptions (ethnic)	Minimum wages
	Redistribution plans (ethnic)	Anti-discrimination legislation for income (individual, ethnic, religion, language, race)
	Reserved income from resources or taxes (territorial)	
	Income tax credit / exemptions (territorial)	
	Regional redistribution plans (territorial)	
Capital	Capital tax credit / exemptions (ethnic)	Capital tax credit / exemptions (class)
	Wealth redistribution (ethnic)	Inheritance tax
	Development plans (ethnic)	
	Capital tax credit / exemptions (territorial)	
	Wealth redistribution (territorial)	
	Development plans (territorial)	

acteristics (e.g., class-based affirmative action, progressive taxation, minimum wages, and inheritance taxes) are coded, amounting to a total of 26 indicators (see table B.1).

The first component encompasses all measures aiming to alleviate economic inequalities by targeting the supply-side of the labor market and equal-

izing access to employment indirectly. The most prominent institutional option in this component are affirmative action programs targeting various levels of education. In line with the overall conceptualization of the CPSD, affirmative action policies are differentiated by how their target is identified and include those targeting specific ethnic groups, territorial subunits, and individuals with economic disadvantages. An example for the first are Malaysia's preferential university and scholarship admission policies for Malays and for natives of Sabah and Sarawak. An example for the second is Sudan's reservation of 15% of university places for students from Darfur (since 2015). Finally, an exemplary case for the third measure, is Serbia's (2006) constitutional requirement of "providing free tertiary education to talented students of low property status". In addition to these strict inclusive policies, the CPSD also codes three types of indirect, individually-based and comparably weaker measures: anti-discrimination provisions mandating equal educational access, the number of constitutionally-guaranteed years of free mandatory schooling, as well as constitutionally-enshrined labor market integration programs for job-seekers. All three have an equalizing effect on the labor market access of individual job-seekers by augmenting their human capital in an equal way.

The second component encompasses institutions which more directly seek to correct economic inequalities by intervening on the demand-side of the labor market and imposing restrictions on employers. Similar to the supply-side, affirmative action policies form the core of the labor demand component as well, and include those mandating preferential access to posts in the state administration, in public, and in private enterprises. Again, these measures are differentiated by whether they target ethnic groups or territorial subunits or are mandated on a class-basis. For example, China mandates preferential employment of party cadres from the ethnic minority population (in its 1978 and 1982 constitutions), Nigeria (various constitutions) mandates a proportional representation of all regions in government agencies, and India and Pakistan mandate the provision of state job opportunities for persons of lower

social strata. As a somewhat weaker, minimal basis for demand-side policies, the CPSD also codes anti-discrimination policies prohibiting ethnically based discrimination in employment practices. These policies, while far less strict than affirmative action, similarly seek to boost equal access to employment opportunities, although in an indirect and universal way.

The third component is an even more rigid policy option, not seeking to intervene on the labor market, but attempting to correct its inequalities by redistributing income ex-post. A first possibility to go about this are institutions that explicitly reserve income from natural resources or taxes to societal subgroups. An ethnically-based example for such requirements are Bolivia's (2009) provisions giving its indigenous groups the right to income derived from their land; territorial examples are Nigeria's provisions giving its states the right to keep a defined percentage from locally-derived oil revenue and Tajikistan's provisions giving Gorno-Badakhshan the right to keep any proceeds from local income taxes. A second possibility is the design of the tax system in a way that corrects severe income inequalities ex-post. In particular, tax breaks for ethnic groups and territorial subunits form the direct, more rigid option to go about this, while tax breaks for low-income individuals along with high marginal income tax rates (progressive taxation) constitute the indirect, more liberal (and far more widely-used) option. Finally, rather than targeting revenue collection, the third option are institutions that directly steer the distribution of state resources in a way that equalizes income, in particular income redistribution and equalization schemes. Again differentiating by the targeted group, the CPSD codes institutions that mandate income redistribution to marginalized ethnic groups and to territorial subunits, while also considering the most prominent indirect and more liberal option in the form of minimal wages that equalize income on an individual basis. In addition to these strict institutions and similar to the other three components, anti-discrimination provisions prohibiting differential payment to employees are also coded.

The fourth component of the economic dimension also seeks to correct

economic outcomes ex-post, but targets accumulated rather than ongoing income, i.e., capital itself. A first institutional option to redistribute wealth considered by the CPSD are redistribution plans, which transfer wealth from one group to another (on an ethnic or territorial basis). Examples for this institution are Zimbabwe's (2013) entitlement of redistributing land towards "natives" and Spain's (1978) requirement that the state secure an equitable distribution of wealth between its regions. Similar to the income-side, the concentration of wealth can also be fought with fiscal incentives, in particular progressive capital taxation with high marginal rates, tax breaks for ethnic minorities or less well-off regions, or through an inheritance tax that prevents an extreme accumulation of wealth in particular families. Finally, ethnic or regional development plans offer a further alternative to redistribute wealth, most prominently used on a territorial basis, but also in some cases targeting ethnic groups themselves. For example, in Ethiopia (since 1994), all nations and nationalities are entitled to special assistance in economic and social development, as are China's autonomous regions (since 1982).

The cultural dimension of power-sharing

The cultural dimension of the CPSD includes institutions aiming to alleviate cultural status inequalities, including the public recognition, treatment and status of different groups' cultural norms, practices, symbols and customs (cf. Langer & Brown 2008). Most prominently, this includes policies that target the language or religion of specific ethnic groups or explicitly these groups themselves. Furthermore, as regards universal, liberal provisions, it also codes provisions aiming to establish cultural, religious, and linguistic freedom and plurality based on individual rights.

Within the cultural dimension, the CPSD codes indicators within three components (see table B.2).

The most fundamental component is the formal recognition of cultural diversity. In a corporate variant, these are policies that explicitly recognize ethnic groups, languages, or religions as forming a part of the country. Ex-

Table B.2: Components of the cultural dimension

Component	Corporate power-sharing	Liberal power-sharing
Recognition	Recognition of specific ethnic group Recognition of specific language / national language Recognition of specific religion	Statement of ethnic diversity / multiculturalism Statement of linguistic diversity / multilingualism Statement of neutrality towards languages Statement of religious diversity Statement of religious freedom
Preferred status	Constituent ethnic group Official state language Official state religion	Equality clauses (ethnic) Equality clauses (language) Equality clauses (religion) Explicit separation of religion and state / prohibition of (preferred) national religion
Practices	Non-governmental authorities (ethnic / religion) Customs (ethnic / religion) Education (ethnic / language / religion) Media (ethnic / language) Judicial system (ethnic / religion) Usage in court (ethnic-language, language) Usage in government (ethnic-language / religion / language) Symbols (ethnic / religion)	Recognition of diverse cultural authorities Recognition of diverse customs Recognition of diverse educational systems Recognition of multilingual or multicultural media Recognition of diverse judicial systems Usage of native language in court Usage of native language or native religion in native government Recognition of diverse symbols
	Cultural autonomy (territory) Educational autonomy (territory) Judicial autonomy (territory)	

amples are Ecuador's constitutional recognition that its indigenous and Afro-Bolivian population forms an essential part of the state (since 1998), Canada's recognition of both the English and French language (since 1867), and Iraq's recognition of both Sunni and Shia Islam (since 2005). In a liberal variant, these include constitutional statements that explicitly recognize the multicultural, multi-linguistic and religious-pluralist foundation of the state and explicit individual cultural freedoms.

Building on recognition are stricter instruments expressing explicit preferences (within a corporate type of accommodation) or the explicit lack thereof (as regards the liberal type of accommodation) for specific ethnic groups, religions, and languages. A drastic example is Bosnia and Herzegovina's recognition in its 1995 constitution of three constituent groups, the Bosniaks, the Serbs, and the Croats (to the exclusion of all other ethnic groups). In contrast to these expressions of particular preferences are explicit statements of equality, which explicitly affirm that all ethnic groups, languages and religious groups are to hold equal institutional status (i.e., an emphasized lack of preference).

In the third component, the CPSD collects the formal recognition of cultural diversity in several subfields. These include the recognition of specific (within corporate forms of power-sharing) or of plural (within liberal forms of power-sharing) types of non-governmental authorities, customs, educational systems, media, judicial systems, court and government practices, and symbols. An illustrative example is Cyprus' particularly extensive (if not operational) institutionalization of Greek and Turkish culture (at least as the constitutional engineers saw it): Not only are both groups explicitly recognized and entitled to special rights in contrast to other segments, but the constitution also enshrines their distinct customs (including separate marriage laws and holidays), symbols (both Greek and Turkish flags are explicitly allowed), separate communal schools, the right to audiovisual broadcasting programs for both groups, and the entitlement to separate municipalities for Turkish inhabitants of large towns. The liberal way to go about this is, in contrast, a

statement of diversity in all these realms, for example, the possibility to use one's own native language in court (whichever that is) or the explicit affirmation that ethnically, linguistically or religiously separate schooling systems are respected (for whichever group that may be).

Other CPSD variables

In addition to indicators pertaining to the main power-sharing dimensions, the CPSD also contains a number of dichotomous variables measuring related constitutional provisions.

A first set of such variables are constitutional powers awarded to the government positions included in the CPSD's horizontal dimension of power-sharing. These include:

- **Authority over foreign policy** of HOS, HOG, CAB
- **Authority to propose declaration of war** of HOS, HOG, CAB, LH, UH, TH
- **Authority to approve declaration of war** of HOS, HOG, CAB, LH, UH, TH
- **Authority to propose state of emergency** of HOS, HOG, CAB, LH, UH, TH
- **Authority to approve state of emergency** of HOS, HOG, CAB, LH, UH, TH, CC
- **Authority to propose international treaties** of HOS, HOG, CAB, LH, UH, TH
- **Authority to approve international treaties** of HOS, HOG, CAB, LH, UH, TH, CC
- **Identity of commander-in-chief:** HOS, HOG, CAB
- **Power of pardon:** HOS, HOG, CAB

- **Decree power** of HOS, HOG, CAB

A second set of these variables concern explicitly integrationist policies aimed at the suppression of ethnic speech or party formation. These include:

- **Prohibition of speech** based on opposition political views in general, specific political views, race, ethnicity, territory, religion, language
- **Prohibition of parties:** all parties, specific parties, race-based parties, ethnic parties, territory-based parties, religious parties, linguistic parties

B.1.3 Identification of underlying legal documents

In order to collect global, time-variant information on power-sharing institutions as given by the conceptualization derived in the main part of this chapter and the last section, the CPSD identified and consulted three types of sources:

- **State constitutions:** The starting point to identify and code institutionalized power-sharing was the current constitution in place in a given country year. This was, for each country year in the CPSD, identified with reference to the comprehensive list of constitutional systems and events coded by the Comparative Constitution Project (Elkins et al. 2014). For each unique constitutional system¹ and major constitutional event, electronic copies of the constitutional text were obtained, most importantly by relying on the World Constitutions Illustrated Database provided by Hein Online.² In addition, secondary sources were consulted to identify major changes relevant for the CPSD variables within

¹In the CPSD's selection of country years, there were 628 unique constitutional systems.

²Available at: <https://heinonline.org/HOL/Index?collection=cow>. In a handful of cases, the consultation of these sources resulted in a re-coding of constitutional systems. For example, the Comparative Constitutions Project codes Saudi Arabia's constitution as being in place effective from 1926, which refers to the constitution of Hejaz, which was never formally in place for the whole territory of Saudi Arabia. It was only after 1932 that Saudi Arabia had legal documents that, absent a formal constitution, formed the basis of its legal regime. Hence, the CPSD relies on these documents from 1932 and on its modifications in 1958 and 1963 until the adoption of Saudi Arabia's first formal constitution in 1992 in place of the ineffective Hejazi constitution of 1926 coded by the Comparative Constitutions Project. In all these cases, the CPSD provides recoded constitutional system and event ID variables to reflect these changes.

a constitutional system. Again, electronic constitutional source documents were obtained to cover both constitutional periods before and after such changes. These constitutional source documents were then screened and the specifics of power-sharing institutions coded manually and noted down alongside detailed documentation, indicating both the sources used and the constitutional article forming the basis of each coding.³

- **Autonomy statutes:** A second source document are autonomy statutes for formally autonomous regions, identified as discussed in the main part of this chapter. Electronic copies of these were similarly obtained via a web research and the specifics noted down.⁴
- **Electoral laws:** A final source document are electoral laws. In contrast to the previous two sources, these were not generally hand-coded, due to extensive availability of existing data for the required variables (which generally pertain to electoral system proportionality). Rather, the coding relied on a combination of existing data from the Institutions and Elections Project (IAEP, cf. Regan et al. 2009), the Database of Political Institutions (DPI, cf. Beck et al. 2001), the Democratic Electoral Systems Around the World dataset (cf. Bormann & Golder 2013), and Carey and Hix (2011). The variables derived in this way were then extrapolated within a given constitutional system. Any remaining missings were covered by consulting additional secondary sources, which were again noted down in the sources sections of the respective variables.

The combination of these three sources and their screening results in an extensive and well-documented set of country- and territory-level⁵ overview

³In a small number of cases, no electronic version of the constitution was available. In these cases, secondary sources were consulted, alongside targeted extrapolation from previous similar constitutions or from previous constitutional events within the same constitutional system. All these cases are flagged in the CPSD's comments sections.

⁴In cases where formal autonomy statutes exist but could not be located, secondary sources were again consulted and the discrepancy noted down.

⁵Indicators coding in detail the specifics of vertical power-sharing were directly noted down

variables. These contain a dummy variable, indicating whether there were power-sharing provisions in place belonging to the respective indicator, and separate variables indicating the legal source and article plus any further secondary sources used for its coding. Table B.3 provides an example for how the resulting country-level notes look like in Bosnia and Herzegovina (2018).

Table B.3: Country / *Territory-level variables: example for documentation (Bosnia and Herzegovina 2018)

variable	article	sources	comments
Head of State	5.1;5.2		Bosnia has a Presidency consisting of three members. The term limit is four years. It is to take decisions by consensus, if possible, and by the votes of two of its members otherwise. A member of the Presidency can declare a decision to be against the vital interests of his or her Constituent People, in which case it can be blocked if the relevant parliamentary assembly of the people agrees.
Head of State	5.1		Each member of the Presidency is directly elected in the entity, with each voter voting for one of the seats.
selection: public			
Head of State quota:	5.1		Each seat in the Presidency belongs to one of the Constituent Peoples (Bosniaks, Serbs, Croats).
ethnic			
Head of State quota:	5		Two members of the Presidency are elected in the Federation, one in the Republika Srpska.
territorial			
Cabinet quota:	5.4		Maximally two thirds of the Council of Ministers can be from the Bosnia-Herzegovina entity; at least one third has to be from the Republika Srpska. The deputy ministers have to be from a different constituent people than the ministers.
territorial			
Lower House	4.2		The House of Representatives has 42 members, two-thirds elected from the Federation, one-third from the Republika Srpska.
Upper House	4.1		The House of Peoples comprises 15 delegates, two-thirds from the Federation (including 5 Croats and 5 Bosniaks) and one-third from the Republika Srpska (5 Serbs). According to electoral law, the term length is four years.
Upper House	4.1		The Croat and Bosniak delegates to the House of Peoples are selected by the Croat and Bosniak delegates, respectively, of the Federation's House of Peoples, while the delegates from the Republika Srpska are selected by its National Assembly.
selection: territorial			
units			
Constitutional	1; 9; 10.1		Amendments to the Constitution require a two-thirds majority in the House of Representatives. Provisions concerning Human Rights and Fundamental Freedoms (Article 2) cannot be changed.
amendments: lower			
house			
Legislation: lower	4.3		All legislation requires majority approval from the House of Representatives; at least one third of the votes of members from the territory of each entity is required. A legislation can be declared to be destructive of a vital interest of the Bosnia, Croat, or Serb people by the majority of each delegation. In that case, separate majorities of each group are required.
house			
Legislation: upper	4.1;4.3		The quorum for House of Peoples sessions has an ethnic requirement: At least 3 members from each group have to be in attendance. All legislation requires majority approval from the House of Peoples; at least one third of the votes of members from the territory of each entity is required. A legislation can be declared to be destructive of a vital interest of the Bosnia, Croat, or Serb people by the majority of each delegation. In that case, separate majorities of each group are required.
house			

on the level of the respective autonomous government tier.

Country / *Territory-level variables: example for documentation (Bosnia and Herzegovina 2018, continued)

variable	article	sources	comments
Lower House Speaker diachronic: ethnic	4.3		One of the positions of Chair of the House of Representatives and of the two deputy Chairs has to be awarded to a Bosniak, Croat, and Serb, each. The position of chair has to rotate between them.
Upper House quota: ethnic	4.1		5/15 members of the House of Peoples must be Bosniaks, Serbs, and Croats each.
Upper House quota: territory	4.1		Members are elected in their own entity. 10 from the Federation, 5 from the Republika Srpska.
Upper House Speaker diachronic: ethnic	4.3		One of the positions of Chair of the House of Peoples and of the two deputy Chairs has to be awarded to a Bosniak, Croat, and Serb, each. The position of chair has to rotate between them.
Constitutional Court appointment: territorial units	6.1		Four members of the Constitutional Court are selected by the House of Representatives of the Federation, two of the Assembly of the Republika Srpska. The other three are selected by the President of the European Court of Human Rights.
Constitutional Court quota: territory	6.1		Four members are from the Federation, two from the Republika Srpska.
Federal State Structure	1.1; 1.2		There is a formally federal state structure. Bosnia consists of two entities, the Federation of Bosnia and Herzegovina and the Republika Srpska.
Autonomous Regions	6.4; Dayton Peace Agreement, 1995; Brcko Arbitration, 1999		Brcko is a specially-administered district.
Recognition: ethnic	Preamble		Bosniaks, Serbs, and Croats are recognized as Constituent People. National minorities and Others are also mentioned, but not explicitly recognized specifically.
Preferred status: ethnic	Preamble		Bosniaks, Serbs, and Croats are recognized as Constituent People.
Recognition: diversity	Preamble		Bosnia is officially a pluralist society.
Institutional depth*	6.3a; Dayton Peace Agreement, 1995, Art. 5; Brcko Arbitration, 1999, Arts. 9, 10, 11, 34, 36; Brcko Statute, 2008, Art. 1	RAI	Entities: While there is significant external intervention by the OHR in practice, the constitution gives extensive legal powers to the entities. In case of conflict between entity and federal law, a constitutional court decides. The constitution also codes no provisions requiring entity law to be accepted by federal organs, so it appears there is no formal veto right over entity laws. Brcko: The Dayton peace agreement defers the issue to a further binding arbitration procedure, which shall determine the inter-entity boundary line across Brcko. The arbitration procedure, as seconded by the autonomy statute, however, establishes a new institution, a multi-ethnic democratic government known as the Brcko District of Bosnia and Herzegovina, which is outside of any entity. Brcko has similar powers as the entities and there appears to be no veto right given to outside influences in the statute.

Country / *Territory-level variables: example for documentation (Bosnia and Herzegovina 2018, continued)

variable	article	sources	comments
Policy scope*	Brcko Arbitration, 1999, Arts. 9, 10, Annex 1;Brcko Statute, 2008, Arts. 8, 12, 62, 66		The Federacija / the Republika Srpska has its own military forces, independent budget, police, environmental policy, social policy, agriculture, refugees policy, reconstruction, justice, taxation, customs policies. Citizenship is also primarily an entity competence. In practice, many competences are delegated to subordinate levels, the cantons. Brcko is awarded all the powers of governance that were previously delegated to the entities and municipalities in its territory. Absent the reserved policy areas for the central government, it enjoys residual powers, which are, thus, similar to the ones of the entities. There is no district citizenship, however, and citizens either have to have Federation and Republican citizenship. The statute further reinforces and specifies these powers: Autonomy over the economy, finances, property, infrastructure, culture, education, health care, environment, social welfare, judiciary, the police, urban development and other competences.
Fiscal autonomy*	8; Brcko Arbitration, 1999, Art. 9;Brcko Statute, 2008, Art. 13 3; Brcko	RAI	Tax power lies entirely with the entities. The Federacija / the Republika is thus legally entitled to set base and rate of major taxes, although in practice some powers are delegated to the cantons. It appears that Brcko has full fiscal autonomy, even though its initial tax system appears to have been mandated to be designed by the international supervisor.
Borrowing autonomy*	Statute, 2008, Art. 22 Brcko	RAI	The entities can borrow without federal approval. It appears that Brcko has similar borrowing autonomy like the entities.
Legislature*	Brcko Arbitration, 1999, Arts. 34, 36, Annex 2;Brcko Statute, 2008, Arts. 19, 22, 23, 33 Brcko	RAI	The parliament of the Federacija / the Republika Srpska is directly elected by the local population.
Executive*	Arbitration, 1999, Arts. 34, 36, Annex 3;Brcko Statute, 2008, Arts. 19, 22, 46, 47	RAI	The executive of the Federacija / the Republika Srpska is elected by its parliament. In practice, the OHR regularly intervened in this process.

B.1.4 Attribution of power-sharing variables to the ethnic group-level

As discussed in the main part of this chapter, the CPSD then used these country- and territory notes to code down and transfer all specifics of the coded power-sharing institutions onto the ethnic group-level. For this purpose, there are several attribution steps involved, depending on the original level of

measurement (group, specific organizations, religions, languages, individuals, and territorial subunits). Before discussing their measurement in more detail (next subsection), I now present the respective attribution procedures in more detail.

Power-sharing institutions targeting specific ethnic groups

A first variable type in the CPSD are institutions that are explicitly ethnically-based, including parliamentary or executive quotas targeting specific ethnic minorities, executive positions that rotate between ethnic groups, and veto rights given to minority representatives in parliament. Prominent cases that predominantly follow this mode and enshrine ethnically-based accommodation policies are, among others, Lebanon since 1943, Belgium since 1970, Bosnia since 1995, Burundi since 2004, and Kosovo since 2008.

Data for such variables were directly recorded on the ethnic-group level, with the ethnic group selection based on the augmented Ethnic Power Relations Dataset presented above (EPR, cf. Vogt et al. 2015). For each ethnically-based institution, the targeted groups were identified by name and attributed to the ethnic groups in the augmented EPR data. The institutional specifics were then coded for each variable and group separately. For example, for quotas for the lower house of parliament, the degree of representation awarded to each ethnic group was recorded, which then formed the basis of the respective variable.

Power-sharing institutions targeting ethnically-based organizations

A second CPSD variable type encompasses institutions that target organizations purporting to represent a given ethnic group. Institutions within this type take a similar form as the explicitly ethnically-based ones and include executive or parliamentary quotas for such organizations, executive positions that rotate between them, as well as veto rights awarded to them. It is noteworthy that, at least as concerns the central legal documents covered by the CPSD, there

are much fewer empirical referents of this type of group-determination than for the other three and that their institutionalization is often of a transitional nature.⁶ In the current version of the data, prominent cases that institutionally enshrine such forms of accommodation are the Democratic Republic of Congo (2003-2004), Sudan (2005-2008), and Nepal (2006-2007).

In the CPSD, these organization-based institutions were coded equivalently to the ethnically-based ones discussed above, with one more intermediate step: the attribution of the targeted organizations to specific ethnic groups. This was done by relying on organizational claims, which were identified using the ACD2EPR dataset for rebel organizations and the EPR dataset for governments that are monopolized or dominated by a specific ethnic group (for both datasets, cf. Vogt et al. 2015). For organizations not attributable through either of these two datasets, secondary literature was consulted and/or the organization's name screened for evidence of an ethnic claim. The indicator specifics were then, again, directly collected on the ethnic group-level.⁷

For example, Sudan's 2005 constitution states that, prior to elections held in the interim period, there is to be a government of national unity. While the National Congress party is awarded 52 percent of the seats, the Sudan People's Liberation Movement (SPLM) receives 28 percent, other Northern political forces 14 percent, and other Southern political forces 6 percent. According to EPR, the government of Sudan prior to the agreement (i.e., the National Congress party) was dominated by the "Shaygiyya, Ja'aliyyin and Danagla (Arab)" EPR group, for which the 52 percent cabinet representation awarded to the National Congress Party was thus coded. According to ACD2EPR, the SPLM purports to represent the Beja, Dinka, Nuba, Nuer,

⁶This would be different if peace treaties were considered, for example, which often encompass provisions that explicitly target specific warring factions. Due to its institutionalization criterion, however, the CPSD only considers peace treaties that are formally referenced as sources of law in the constitution, which is rare and mostly pertains to transitional constitutions.

⁷In cases where an organization purports to represent multiple ethnic groups, its indicator values were split between these groups proportionally to their population size (for example, constitutional quotas given to a rebel organization were proportionally split between the ethnic groups it purports to represent).

Shilluk, and “Other Southern Groups” EPR groups, between whom the 28 percent mandated representation for the SPLM were thus split proportionally according to their relative population shares.

Power-sharing institutions targeting religions and languages

A fourth and fifth type are power-sharing institutions, especially of the cultural dimension, that are based on specific religions and languages. Examples are their explicit constitutional recognition, the acknowledgement of cultural practices connected to them, and the selection of official or state languages and religions.

In the CPSD, religions and languages were connected to the ethnic groups practicing and speaking them, respectively. To enable that connection, these variables were coded in a disaggregated way on the religion- and language-level and connected to specific ethnic groups by relying on data from the Ethnic Dimensions dataset (EPR-ED). The EPR-ED data codes, for each EPR group, up to three religion and language segments and their size. This not only enabled connecting the variables, but also assessing the degree to which they encompass a whole given group.

Power-sharing institutions targeting individuals

A fifth variable type in the CPSD are power-sharing institutions that target individuals, be it by explicitly enshrining rights for all citizens or by targeting political parties based on their electoral outcomes. For these institutions, accommodation does not operate through predetermined discrete groups or entities, but is left more flexible, open, and dependent on whichever identifications become salient politically or socially (McCulloch 2014). Exemplary institutions in the vertical dimension include low electoral thresholds for cabinet inclusion, supermajority requirements for the election into executive office, proportional electoral systems for parliament, and supermajorities for the promulgation of constitutional amendments or general legislation. In further power-sharing dimensions, they also include the recognition of cultural, linguistic and religious diversity and anti-discrimination legislation, as well as

economic measures based on individuals' social class. Many states have institutionalized at least some of these institutions, although few have done so across dimensions and components. Within the CPSD, the strongest cases of individually-based accommodation include Fiji (1997-2008), South Africa (1993-1995), Burundi (2004-2013), Iraq (2005-2009), and Switzerland (since 1874).

As these variables do not formally differentiate between ethnic groups, they were collected on the country-level and then equally attributed to each ethnic group active in a given country year. For example, the degree of proportionality calculated for a country's electoral system was taken over as the related variable for each EPR-group within a given year. While this simple attribution procedure has some disadvantages, it appeared to be the most justifiable one: On the one hand, copying the variable values for all ethnic groups may underestimate the differential impact formally "color blind" institutions exert on different societal subgroups (cf., for example, Taylor 1994). Furthermore, as these impacts may be conditioned by institutional specifics not covered by the CPSD (for example, the way electoral districts map onto ethnic groups' settlement patterns), this procedure may further risk resulting in somewhat naïve values for specific subgroups, depending on the context. Nevertheless, considering both the aspiration of liberal power-sharing to be flexible to non-ethnic identifications as well as the nature of the data collected, this seemed to represent the best of several available pragmatic options.⁸

⁸In alternative approaches, it would have been possible to account for group specifics of several of the electorally-based variables. For example, group size might have been taken into account when calculating the degree of proportionality based on the legal and effective threshold of proportional electoral systems (with groups whose population size is below the maximum threshold being awarded a value of 0). However, this would be problematic both in conceptual terms (by reducing the merits of liberal power-sharing to group-based inclusive outcomes and by ignoring benefits for non-ethnic or transethnic groups) and in pragmatic terms (by making the recorded value of formal institutions dependent on the de-facto distribution of minority group sizes within a given country year). As a result, rather than introducing possibly problematic and artificial variation, it was decided to opt for the conceptually less problematic, if possibly somewhat naïve, equal attribution of the electoral variable values to all ethnic groups in a given country year.

Power-sharing institutions targeting territorial subunits

A sixth variable type are territorial power-sharing institutions, where the target of accommodation are territorial entities making up the state structure.

⁹ Examples are rules requiring territorially-balanced representation in the executive through quotas, linkages or rotating positions, territorial quotas for parliament, territorial vote spread requirements for the election of executive offices, and veto rights over constitutional amendments given to territorial subunits. While many states institutionalize a minimum of these institutions (for example, territorially-based upper houses), the most prominent cases in the CPSD that designate extensive accommodation on a territorial basis are Switzerland, Yugoslavia (1953-1991), Nigeria (1989-1992 and again from 1999), and, with some reservations, Indonesia (since 1999) and Kenya (since 2010).

While these territorially inclusive institutions are not explicitly based on ethnic groups, they nevertheless clearly affect a country's various ethnic minorities differently. For example, Serbia and Montenegro's (2003) constitution splits the cabinet positions between its two constituent states, requiring that 2 ministers have to be from the same state (Serbia or Montenegro) as the President, while the other three ministers have to stem from the other state, respectively. Based on this institutional set-up (see figure B.1 for a graphical representation), it is to be expected that the two respective majority groups, the Serbs and the Montenegrins, will split these positions between themselves. In contrast, the Albanians and Hungarian groups who predominantly settle in the formally autonomous regions of Kosovo and Vojvodina, and the geographically dispersed or smaller minorities of Croats and Roma are unlikely to

⁹The CPSD only codes territorial accommodation based on the following three types of territorial units: (1) first order administrative units, for example the Yugoslav member states or the autonomous islands in the Comoros; (2) special territorial units that are "superordinate" to these, for example the French and Flemish regions in Belgium or Iraqi Kurdistan; (3) formally "autonomous" or "special" regions, for example Kosovo and Vojvodina in Yugoslavia or the USSR's and China's (post-1954) multitude of ethnically-designated autonomous areas on various levels of their state structure. The CPSD thus does not consider, for example, territorially-based elections in small constituencies below the first level as power-sharing and also excludes any other arrangements targeting lower levels, for example as regards second-tier counties or municipalities.

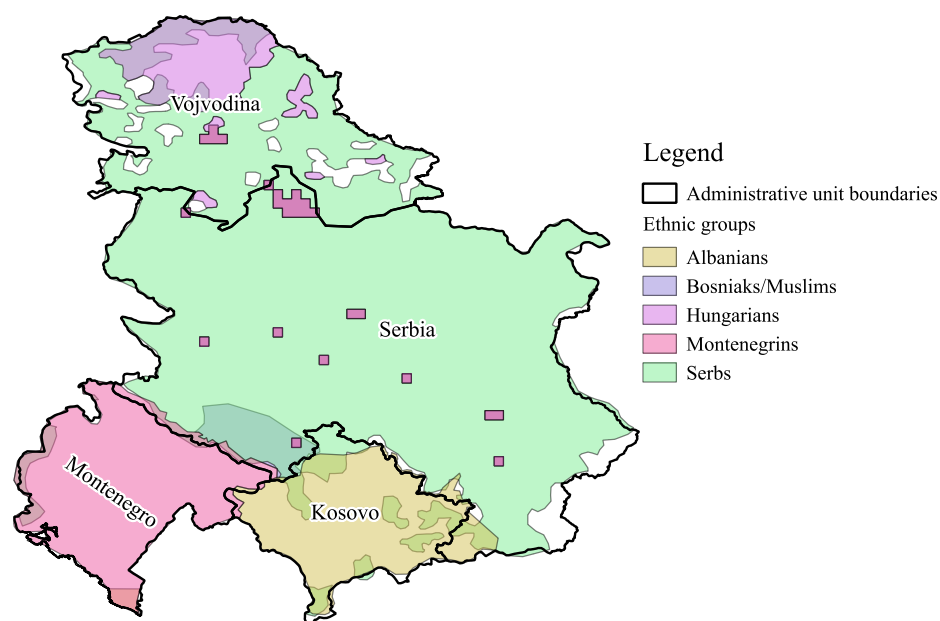


Figure B.1: Territorial power-sharing units and ethnic settlement patterns in Serbia and Montenegro (2003)

Note: Settlement patterns of Croats (statewide) and Roma (dispersed) omitted; they would cover the full map area.

benefit from this territorial power-sharing arrangement.

In order to capture the group-specific nature of these territorial power-sharing institutions, extensive geographic data was needed: on the boundaries of the territorial subunits on the one hand and on ethnic settlement patterns on the other. The interplay of these two factors then determines how territorial power-sharing maps onto ethnic groups (for example, how the number of cabinet seats awarded to each administrative unit affects the expected number of cabinet seats for each ethnic group). Data for the former were taken from the Significant Administrative Unit Dataset (SAU, see section 4 in the main part of this chapter), while data on the latter were taken from the Geo-EPR dataset (Vogt et al. 2015), which was slightly augmented for the newly added groups.

In order to obtain group-level variables from institutions targeting terri-

torial subunits, the following steps were followed:

1. Coding of power-sharing variables on the level of the targeted territorial subunits: The mandated seat shares (for quotas), required territorial majorities (for veto rights) or influence shares (for vote spread arrangements) were recorded separately for each specific subunit. For example, as Switzerland's 1999 constitution grants most Cantons (some only count as "half" for historical reasons) 2 seats in the Swiss upper house (out of a total of 46), each ("full") Canton has a recorded seat share in the upper house of $2/46 = 4.3$
2. Creation of spatial intersections between each territorial unit and ethnic group: Each group's settlement pattern and each administrative unit's boundaries were then spatially intersected, enabling to calculate their degree of overlap. For example, for Montenegro the result reflects the situation depicted in figure 4, with one spatial intersection polygon created for each territorial unit and ethnic group settling within it.
3. Calculation of local ethnic demography: Based on these spatial intersections and by combining them with data on population densities, it was then possible to calculate each territorial unit's ethnic demography (i.e. the population shares of each group within each territorial unit). For example, the Swiss French were calculated to be in the majority in six Swiss Cantons: Neuchâtel, Vaud, Fribourg, Jura, Valais and Genève.
4. Distribution of each unit's seat shares or degree of influence among ethnic groups settling in the unit: Based on the local ethnic demography calculated in the last step and depending on the type of the territorial variable, each territory's power-sharing values were then split between the ethnic groups settling within it. For example, in the Cantons with a Swiss French majority, these seat shares were predominantly awarded to them.

5. Summing up each ethnic group's local seat shares / influence. Finally, these expected local power-sharing outcomes calculated for each ethnic group in each territorial unit were aggregated onto the ethnic group level by summing them up for each ethnic group individually. For example, the expected seat share of the Swiss French in Switzerland's upper house is the sum of Cantonal seat shares likely to be captured by the Swiss French (i.e., the majority of seat shares in the Cantons where they form the majority).

The result of these aggregation steps are group-level variables in an equivalent form to the ones directly coded on the ethnic group-level. Instead of representing directly mandated seat shares awarded to each group, the unit of measurement for territorial quotas are the expected seat shares accruing to each ethnic group as the result of the (institutionally expected) interplay between territorial power-sharing and local ethnic demographics in each subunit. For vote spread requirements, the resulting aggregated variable captures, for each group, the degree to which it can influence a political appointment. Finally, for territorial veto rights, instead of directly mandated ethnic majorities, the resulting variable reflects the expected proportion of each group that needs to agree to pass amendments or legislation. Appendix B.1.7 gives more details on all of these steps and includes several examples.

B.1.5 Measurement details behind the CPSD indicators

The CPSD contains more than 100 indicators on the group-level, each ranging from 0 (minimum value, no power-sharing) to 1 (maximum, full power-sharing). However, partly owing to the diverse nature of institutions covered, partly owing to different data collection procedures, the indicators fall into 15 different variable types. Each type is based on different aggregation procedures and, while the range is always the same, the interpretation of the minima and maxima differs between them. In what follows, all basic indicator types in the CPSD are discussed in detail, starting with basic considerations applied to all (transformed) ordinal and dummy variables, then turning to the gradual

variable types used in the horizontal, judicial, and coercive dimensions.

Transformed ordinal and dummy CPSD indicators across dimensions

All power-sharing dimensions in the CPSD include indicators that are originally based on dichotomous or ordinal coding schemes. As the original data underlying these indicators is collected on different levels (for example, on the level of territorial subunits or religious segments) and then aggregated onto the ethnic group-level (see appendix B.1.6), the resulting transformed indicators on the group-level often take on gradual values, however. These not only reflect the strength of the measure (for example, how strongly is a religious group accommodated?), but also how strongly this covers each ethnic group (how much of an ethnic group's religions are targeted?). Depending on which level an indicator's original data is collected, each transformed ordinal and dummy variable falls into one of the four following categories:

- Ethnic and organization-based dummy/ordinal variables [type 1] are directly collected on the ethnic group-level and thus remain categorical. Dummy variables take the values 0 and 1, while ordinal variables are coded in a way so that they range from 0 to 1, taking discrete, equally-space steps in-between. As a dichotomous example, if a group is explicitly constitutionally recognized, the corresponding indicator takes a value of 1 and a 0 otherwise. As an ordinal example, the ethnic employment affirmative action indicator takes the values 0 (group not targeted by employment affirmative action), 0.33 (group targeted, but vaguely and with restricted scope), 0.66 (group targeted, but either vaguely or with restricted scope), and 1 (group targeted with explicit provisions and across economic sectors).
- Language- and religion-based dummy/ordinal variables [type 2] are collected on the level of the targeted language and religions, with coding rules restricting their range of 0 to 1. They are then aggregated to the

ethnic group level, with each resulting group-level indicator not only reflecting the strength of the original dummy or ordinal variable (for example, whether a particular religion is constitutionally recognized or not), but also the proportion of the group this covers (for example, the percentage of group members practicing recognized religions). They are thus based on the formulas:

$$Indicator_{\text{group } x} = \sum_{i=1}^I Indicator_{\text{religion } i} * \%_{\text{group } x \text{ practising religion } i} \quad (\text{B.1})$$

$$Indicator_{\text{group } x} = \sum_{i=1}^I Indicator_{\text{language } i} * \%_{\text{group } x \text{ speaking language } i} \quad (\text{B.2})$$

- Individually-based ordinal dummy/ordinal variables [type 3] are collected on the country-level and attributed to each group equally. They thus remain in the original scale, with corresponding dummy or ordinal values between 0 and 1. For example, anti-discrimination rules concerning income take the value 1 for all groups if the constitution contains any such provisions and 0 otherwise.
- Territorially-based ordinal dummy/ordinal variables [type 4] are collected on the territorial subunit-level and then aggregated onto the ethnic group-level, with each resulting group-level indicator not only reflecting the strength of the original dummy or ordinal variable (for example, the degree of autonomy offered to a particular autonomous region), but also the proportion of the group this covers (for example, the percentage of group members living in such autonomous areas). They are thus based on the formulas:

$$Indicator_{\text{group } x} = \sum_{i=1}^I Indicator_{\text{territorial unit } i} * \%_{\text{group } x \text{ living in territorial unit } i} \quad (\text{B.3})$$

Original levels of ordinal CPSD indicators

Table B.4: Original levels and interpretation

Variable	Values	Calculation
Institutional depth	0; 0.33; 0.66; 1	0: no autonomous decision-making; 0.33: subject to central government approval; 0.66: subject to central government veto; 1: not subject to any veto
Policy scope	0; 0.1; 0.2; 0.3; 0.4; 0.5; 0.6; 0.7; 0.8; 0.9; 1	Sum of individual policy autonomy (each 0/1) of: economy, culture, welfare, military, police, judiciary, institutions, residual, community, secession and division by 10.
Fiscal autonomy	0; 0.25; 0.5; 0.75; 1	0: no fiscal autonomy; 0.25: ability to set rate of minor taxes; 0.5: ability to set base and rate of minor taxes; 0.75: ability to set rate of major taxes; 1: ability to set base and rate of major taxes. Note: major taxes include personal income, corporate, value added, and sales taxes.
Borrowing autonomy	0; 0.33; 0.66; 1	0: no borrowing autonomy; 0.33: borrowing possible under ex ante authorization by the central government and additional restrictions; 0.66: borrowing possible without ex ante authorization but with restrictions; 1: borrowing possible without restrictions.
Representation (legislature)	0; 0.5; 1	0: no legislature; 0.5: legislature partly self-selected or elected, partly appointed by the central government; 1: legislature fully self-selected or elected
Representation (executive)	0; 0.5; 1	0: no executive; 0.5: executive partly self-selected or elected, partly appointed by the central government; 1: executive fully self-selected or elected
Affirmative action for education (ethnic / territorial / class)	0; 0.167; 0.333; 0.667; 0.833; 1	Addition of two factors: - Targeting: 1: vague; 2: explicit but vague criterion; 3: explicit targeting and clear criterion - Scope: sum (primary school + middle school + higher education) and division by 6.
Affirmative action for employment (ethnic / territorial / class)	0; 0.167; 0.333; 0.667; 0.833; 1	Addition of two factors: - Targeting: 1: vague; 2: explicit but vague criterion; 3: explicit targeting and clear criterion - Scope: 0: sum(state administration + public companies + private companies) and division by 6.

Original levels and interpretation, continued

Variable	Values	Calculation
Reserved income from resources or taxes (ethnic / territorial)	0; 0.25; 0.5; 0.75; 1	Sum of two factors: - Targeting: 1: vague; 2: explicit - Type: 0: potential; 1: minor; 2: major and division by 4
Redistribution plans of income (ethnic / territorial)	0; 0.25; 0.5; 0.75; 1	Sum of two factors: - Targeting: 1: vague; 2: explicit - Type: 0: potential; 1: vague; 2: explicit and division by 4
Redistribution plans of wealth (ethnic / territorial)	0; 0.25; 0.5; 0.75; 1	Sum of two factors: - Targeting: 1: vague; 2: explicit - Type: 0: potential; 1: vague; 2: explicit and division by 4
Development plans (ethnic / territorial)	0; 0.25; 0.5; 0.75; 1	Sum of two factors: - Targeting: 1: vague; 2: explicit - Type: 0: potential; 1: vague; 2: explicit goals and division by 4
Income tax credit / exemptions (ethnic / class / territory / religion)	0; 0.25; 0.5; 0.75; 1	Sum of two factors: - Targeting: 1: vague; 2: explicit - Type: 0: potential; 1: partial; 2: full and division by 4
Capital tax credit / exemptions (ethnic / class / territory / religion)	0; 0.25; 0.5; 0.75; 1	Sum of two factors: - Targeting: 1: vague; 2: explicit - Type: 0: potential; 1: partial; 2: full and division by 4
Minimum wages	0; 0.33; 0.66; 1	0 = no minimum wage at level; 0.33 = minimum wage at level, but vague and with restricted scope; 0.66 minimum wage at level, but either vague or with restricted scope; 1 minimum wage at level, explicit and with scope across economic sectors

Gradual CPSD indicators in the horizontal power-sharing dimension

In addition to these basic dummy and ordinal variable types widely used in the CPSD, there are a large number of gradual variables for which different, specific schemes apply. They fall into the following 11 categories:

- *Ethnic and organization-based veto rights over executive appointments*

indicators [type 5] reflect the percentage of each group required for a candidate to be confirmed in a given position as well as the probability that said percentage is required (which is below 1 in cases where the approval of only a share of all ethnic majorities is required, for example if only two-thirds of ethnic minority groups need to give their assent). The higher the percentage of approval required of a group's citizens or legislators, the greater the value of these variables: If the approval of 50% or more of a group's legislators or citizens are required, the variables take the maximum value of 1; if less than 50% are required, the variables take values between 0 and 1. For example, if a provision mandates that out of each ethnic group's representatives in parliament 25% have to agree to confirm the appointment of the head of state, for each group a value of 0.5 is recorded. If it mandates that 50% have to agree from each group, it takes a value of 1. If it mandates separate absolute majorities of only two-thirds of ethnic minorities, the value decreases accordingly and becomes $0.67 * 0.5 * 2 = 0.67$.

- *Ethnic and organization-based quota / linkage and rotation rules indicators* [type 6] measure each group's mandated degree of representation in a given position as compared to its relative population size. As the proportion of reserved seat shares as compared to a group's size grows, so does the indicator value: Proportional representation and above is coded as 1, less-than-proportional representation takes a value between 0 and 1. For example, if a quota awards 15% of parliamentary seats to an ethnic minority whose population share is 30%, a value of 0.5 is recorded.
- *Ethnic and organization-based veto rights over constitutional amendments and legislation indicators* [type 7] reflect the percentage of each group required for a decision to pass as well as the probability that said percentage is required (which is below 1 in cases where the approval of only a share of all ethnic majorities is required, for example if only

two-thirds of minority groups need to give their assent). The higher the percentage of approval required of a group's citizens or legislators, the greater the value of these variables: If the approval of 50% or more of a group's legislators or citizens is required, the variables take the maximum value of 1; if less than 50% are required, the variables take values between 0 and 1. For example, if a provision mandates that out of each ethnic group's representatives in parliament 25% have to agree to pass constitutional amendments, for each group a value of 0.5 is recorded. If it mandates that 50% have to agree from each group, it takes a value of 1. If it mandates separate absolute majorities of only two-thirds of ethnic minorities, the value decreases accordingly and becomes $0.67 * 0.5 * 2 = 0.67$.

- *Electoral vote thresholds for inclusion into a given executive or legislative (upper house) position indicators* [type 8] reflect the severity of the electoral hurdle. The higher the hurdle a party is required to pass for inclusion (e.g., 5% or 10%), the lower the score on these variables: Maximum values of 1 are reached in the (theoretical) case where there is no hurdle (i.e., all parties are represented in the position); the variable decreases towards 0 as the hurdle approaches a 50% (majoritarian) threshold. For example, a mandated inclusion for all parties surpassing a 5% hurdle results in a value of 0.9 being recorded.
- *Supermajorities for the election of executive offices indicators* [type 9] reflect the degree of supermajority required for a candidate to be elected into the respective office. The higher the supermajority (e.g. 60%, 65%), the higher the score on the variable. Maximum values are obtained for supermajorities of 80% or higher and the variable then decreases proportionally as the required majority approaches an absolute one of 50%. For example, a required majority of 50% equals indicator values of 0; a supermajority of 65% yields a value of $[0.65 - 0.5] / 0.3 = 0.5$.

- *Electoral system proportionality indicators* [type 10] take into account the degree of proportionality of legislative elections as given by the maximum of legal and effective thresholds.¹⁰ For proportional or mixed electoral systems, the degree of proportionality was calculated as follows: $2 * [0.5 - \text{maximum threshold}]$, where the maximum threshold ranges between 0 (no legal threshold and infinitely large electoral districts) and 0.5 (majority of overall votes required to obtain any seat in parliament). For majoritarian electoral systems, the degree of proportionality was set to 0. The overall variable ranges from 0 to 1 and corresponds to the degree of proportionality of the electoral system. The lower the maximum of legal and effective thresholds (i.e., the lower the hurdle to enter parliament), the greater the resulting indicator's proportionality values become. For example, in a country with a proportional electoral system without formal threshold and an effective threshold of 2%, the resulting value becomes $2 * [0.5 - 0.02] = 0.96$.
- *Electoral quotas indicators* [type 11] are based on the percentage of seats awarded to the electoral minority. As the percentage approaches 50%, so does the indicator value approach 1. For example, if the electoral minority from lower house elections is awarded 25% of seats in the upper house, the respective variable results in a value of 0.5.
- *Supermajorities to pass constitutional amendments or legislation* indicators [type 12] are coded analogously to supermajorities for executive appointments and reflect the degree of supermajority required for parliament or voters to pass constitutional amendments or general legislation. The higher the required supermajority (e.g. 60%, 65%), the higher the score on the variable. Maximum values are obtained for supermajorities of 80% or higher and the variable then decreases proportionally as the

¹⁰For legislative elections, the effective threshold is given by the Lijphart formula: $50 / [\text{mean district magnitude} + 1] + 50 / [2 * \text{mean district magnitude}]$ (cf. Lijphart 1994). The maximum of the legal threshold and the effective threshold is then taken to obtain the minimum expected vote share needed for a party to enter parliament.

majority approaches an absolute one of 50%. For example, a required supermajority of 65% yields a value of $[0.65 - 0.5] / 0.3 = 0.5$.

- *Territorial vote spread requirements indicators* [type 13] reflect the expected degree of influence a group has over political appointments, depending both on the strictness of the vote spread requirement (what is the majority in each territorial subunit that is required and in how many subunits is that percentage required?) and the group's settlement distribution among the subunits. If a group is awarded disproportionate influence over a decision (for example, if a group is split into many homogeneous territorial units, which are small, but all part of the vote spread requirement), the value for the given group increases; if the influence is less than proportionate the value of the variable decreases. Appendix B.1.7 explains this in more detail and describes the empirical example of Nigeria (1999).
- *Territorial quotas / linkage and rotation rules indicators* [type 14] were treated equivalently to the ethnic quota / linkage and rotation variables and reflect the expected (instead of the directly mandated) seat share of a given position awarded to a specific group based on territorial quotas as compared to that group's population size. Analogously to ethnic quotas, expected proportional representation and above is coded as 1, less-than-proportional expected representation takes a value between 0 and 1. For example, if a group with a size of 30% of the state population can, based on territorial cabinet quotas and the ethnic demography of the targeted territorial units, expect to attain 15% of cabinet seats, a value of 0.5 results for the respective indicator.¹¹
- Finally, and similarly to the explicit veto rights variables, *territorial veto rights over constitutional amendments and legislation indicators* [type 15]

¹¹For the present version of the data, to prevent substitution between the three components, the quota variables were (similarly to the ethnic quotas) censored at 1 (i.e., at exactly expected proportional representation).

reflect the expected proportion of each group required for a decision to pass. This is based on the degree of veto rights given to territorial sub-units (what is the percentage required in each), the ethnic demography within each unit, and the probability that the approval of a territorial unit is required (which is below 1 in cases where the approval of only a part of all territorial units is required). The higher this expected required percentage of approval from a group's citizens or legislators, the greater the value of these variables: If the (expected) approval of 50% or more of a group are required, the variables take the maximum value of 1; if less than 50% are required, the variables take values between 0 and 1. Appendix B.1.7 explains this in more detail and describes the empirical example of Switzerland (1999).¹²

The result of the operationalization above are the mostly gradual group-level indicators in the CPSD (v.2.0), each with a range from 0 to 1. As also described above, to enable an aggregation to a higher level according to the aggregation concept presented in appendix B.1.6, some variables were censored to take the minimum of 0 and the maximum of 1. Table B.5 gives another overview on the calculation of these gradual variable types and what they reflect.

¹²This reflects both the vote percentage of each group that is required (e.g., a separate majority of the group's MPs = 50%) as well as the likelihood that these votes are required (e.g., separate majorities are required of two thirds of the ethnic minority groups = $2/3 * 0.5$).

Table B.5: Group-level indicator variable types in the CPSD: Calculation and meaning of variation

Variable type	Range	Interpretation	Calculation	Meaning of min.	Meaning of max.
[1] Ethnic and organization-based dummy/ordinal variables [group x]	0,1	Strength of power-sharing measure targeting group x	- [variable levels are directly coded on the ethnic group-level]	0 (no measure targeting group x)	1 (full measure targeting group x)
[2] Language- and religion-based dummy/ordinal variables	0,1	Strength of power-sharing measure targeting linguistic and religious segments of group x and size of these segments as a proportion of total group size	Coding of variable on the segment i level (range: 0 to 1) Summing up onto the group x level: Sum[segment i * share of segment i as percentage of group x]	0 (no measure targeting linguistic or religious segments of group x)	1 (full measure targeting each of the linguistic or religious segments of x)
[3] Individually-based ordinal dummy/ordinal variables	0,1	Strength of power-sharing measure targeting all citizens	- [variable levels are directly coded on the country-level and directly taken over for each group]	0 (no power-sharing measure)	1 (full power-sharing measure)

Group-level indicator variable types in the CPSD: Calculation and meaning of variation, continued

Variable type	Range	Interpretation	Calculation	Meaning of min.	Meaning of max.
[4] Territorially-based ordinal dummy/ordinal variables	0,1	Strength of power-sharing measure targeting territorially-defined segments of group x and size of these segments as a proportion of total group size	Coding of variable on the segment i level (range: 0 to 1) Summing up onto the group x level: Sum[segment i * share of segment i as percentage of group x] If different territorial levels are concurrently involved (e.g. superordinate, level one, subordinate, special regions), maximum across territorial levels is taken	0 (no measure targeting territorial segments of group x)	1 (full measure targeting each of the territorial segments of x)
[5] Ethnic + organization veto rights over appointment of position y [group x]	0,1	Strength of veto right over appointment to position y given to group x	Registration of percentage of ethnic group x or ethnic group x's legislators required ¹ for the appointment of candidates to position y and of the probability that its approval is required (which is lower than 1 in case the approval is required of a specific percentage of groups only) Multiplying: [Percentage required for group x to agree] * [Probability that group x's approval is required] Normalizing so that 50% of group x required equals 1, by multiplying with 2 Censoring at 1 for groups whose required approval is above 50%	0 (no percentage of group x or its legislators required to confirm appointment)	1 (at least 50% percent of group x required to confirm appointment)

Group-level indicator variable types in the CPSD: Calculation and meaning of variation, continued

Variable type	Range	Interpretation	Calculation	Meaning of min.	Meaning of max.
[6] Ethnic + organization + quotas and rotation rules of position y [group x]	0,1	Degree of mandated representation of group x in political position y	[Percentage of seats in position x reserved for group x ²] / [group size of group x] Censoring at 1 for groups that are mandated to be over-represented	0 (no quota for group x in position y)	1 (at least proportional representation of group x in position y)
[7] Ethnic + organization veto rights over constitutional amendments and legislation [group x]	0,1	Strength of veto right over decision (constitutional amendments and legislation) given to group x	Registration of percentage of ethnic group x or ethnic group x's legislators required ¹ and of the probability that its approval is required (which is lower than 1 in case the approval is required of a specific percentage of groups only) Multiplying: [Percentage required for group x to agree] * [Probability that group x's approval is required] Normalizing so that 50% of group x required equals 1, by multiplying with 2 Censoring at 1 for groups whose required approval is above 50%	0 (no percentage of group x or its legislators required to pass decision)	1 (at least 50% percent of group x or its legislators required to pass decision)
[8] Position confirmation supermajorities [country]	0,1	Degree of supermajority required for confirmation of candidate for position y	Registration of percentage required for confirmation in office for position y Normalization and setting 80% supermajority to 1 by calculating: [percentage required - 0.5] / 0.3 Censoring at 1 (= 80 percent supermajority)	0 (no supermajority required for confirmation in office for position y)	

Group-level indicator variable types in the CPSD: Calculation and meaning of variation, continued

Variable type	Range	Interpretation	Calculation	Meaning of min.	Meaning of max.
[9] Electoral inclusion thresholds [country]	0,1	Degree of proportionality of executive or legislative position y	Registration of vote hurdle to enter position y Calculation of proportionality: $2 * [0.5 - hurdle]$	0 (no inclusive threshold rule in place for position y)	1 (inclusion of all parties competing in elections in position y)
[10] Electoral system proportionalities [country]	0,1	Degree of proportionality of electoral system for lower / upper house of parliament respectively	Calculation of effective threshold: $50 / [1 + \text{mean district magnitude}] + 50 / [2 * \text{mean district magnitude}]$ Calculation of maximum threshold: maximum[effective threshold, legal threshold] For proportional electoral systems: Calculation of proportionality: $2 * [0.5 - \text{maximum threshold}]$ For majoritarian electoral systems: set to 0	0 (majoritarian electoral system or "proportional" electoral system with maximum threshold of 50%)	1 (proportional electoral system without legal threshold and an infinitely small effective threshold)
[11] Electoral quotas [country]	0,1	Degree of mandated representation of electoral minority in political position y	[Percentage of seats in position y reserved for electoral minority] *	0 (no quota for electoral minority in position y)	1 (50% representation of electoral minority in position y)

Group-level indicator variable types in the CPSD: Calculation and meaning of variation, continued

Variable type	Range	Interpretation	Calculation	Meaning of min.	Meaning of max.
[12]	0,1	Degree of supermajority required for passing constitutional amendments / legislation	Registration of percentage required to pass constitutional amendments / legislation	0 (no supermajority required to pass)	1 (at least 80% supermajority required to pass)
Supermajorities for constitutional amendments and legislation [country]			Normalization and setting 80% supermajority to 1 by calculating: [percentage required - 0.5] / 0.3	constitutional amendments / legislation	constitutional amendments / legislation

Group-level indicator variable types in the CPSD: Calculation and meaning of variation, continued

Variable type	Range	Interpretation	Calculation	Meaning of min.	Meaning of max.
[13] Territorial vote spread requirements [aggregated to group x]	0,1	Degree of expected influence of group x over appointment to political position y	Recording of majority required in each territorial unit and of the probability that the approval is required (which is lower than 1 in case the approval is required of a specific percentage of units only) Calculation of group x's expected required majority in territory. Assumption: this decreases linearly with group's share of influence within unit (e.g. if unit completely homogeneous, group x's majority is fulfilled required; if group x has share of 0, then majority is also 0; in-between linear). ⁴ Calculation of group x's expected required majority across territorial units (weighted by relative shares of group living in each territory) Multiplying with percentage of units in which majority is required (e.g., if the approval of two-thirds of territorial units is required, multiplication with 0.67) Multiplying with 2 * percentage that is required in each unit (e.g., if 50% in each unit is required, multiply with 2 * 0.5 = 1; if 25% in each unit is required, multiply with 2 * 0.25 = 0.5) Dividing by size of group x to normalize: [Approval required of group x as percentage of total population required] / [group size of group x] Censoring at 1	0 (no influence over appointment into position y accruing to group x from territorial vote spread requirement)	1 (at least proportional influence of group x over confirmation of candidate in position y)

Group-level indicator variable types in the CPSD: Calculation and meaning of variation, continued

Variable type	Range	Interpretation	Calculation	Meaning of min.	Meaning of max.
[14] Territorial quotas or rotation rules [aggregated to group x]	0,1	Degree of expected representation of group x in political position y based on territorial quotas	<p>Registration of each territorial unit's awarded seat shares³</p> <p>Calculation of group x's expected seat shares accruing in each unit based on local ethnic demography and institutional designation⁴</p> <p>For single-position quotas or quotas in majoritarian electoral systems only the largest / or designated groups are awarded shares. [HOS, HOG, HOSD, HOGD, LHS, UHS, THS, CIC, LH majoritarian, UH majoritarian, TH majoritarian]</p> <p>For multi-position quotas, a hurdle is calculated based on the Lijphart formula and only groups above this threshold or who are designated are awarded shares. [CAB, MCOM, CC, HC, JC, SC]</p> <p>For quotas in proportional electoral systems, Lijphart formula and formal threshold are considered and only groups above the combined threshold or who are designated are awarded shares. [LH, UH, TH]</p> <p>For large magnitude positions, proportional representation is assumed and all groups are awarded seat shares [OFF, MIL, POL]</p> <p>Additive aggregation of group x's total expected seat shares across units Dividing by group size to normalize: [Percentage of seats in position y expected to accrue for group x] / [group size of group x]</p> <p>Censoring at 1</p>	0 (no quota for group x in position y)	1 (at least proportional expected representation of group x in position y)

Group-level indicator variable types in the CPSD: Calculation and meaning of variation, continued

Variable type	Range	Interpretation	Calculation	Meaning of min.	Meaning of max.
[15] Territorial veto rights over constitutional amendments and legislation	0,1		Recording of percentage required in each territorial unit and of the probability that the approval is required (which is lower than 1 in case the approval is required of a specific percentage of units only)	0 (expected required percentage of group x for appointments into position y due to existing territorial veto rights is 0; or no territorial veto rights in place at all)	1 (expected required percentage of group x for appointments into position y arising from territorial veto rights is at least 50%)
[aggregated to group x]			Calculation of group x's expected required majority in territory. Assumption: this decreases linearly with group's share of influence within unit (e.g. if unit completely homogeneous, group x's majority is fulfilled required; if group x has share of 0, then majority is also 0; in-between linear). ⁴	territorial veto rights is 0; or no territorial veto rights in place at all)	
			Calculation of group x's expected required majority across territorial units (weighted by relative shares of group living in each territory)	territorial veto rights is 0; or no territorial veto rights in place at all)	
			Multiplying with percentage of units in which majority is required (e.g., if the approval of two-thirds of territorial units is required, multiplication with 0.67)		
			Multiplying with 2 * percentage that is required in each unit (e.g., if 50% in each unit is required, multiply with 2 * 0.5 = 1; if 25% in each unit is required, multiply with 2 * 0.25 = 0.5)		
			Dividing by size of group x to normalize: [Approval required of group x as percentage of total population required] / [group size of group x]		
			Censoring at 1		

Group-level indicator variable types in the CPSD: Calculation and meaning of variation, continued

Variable type	Range	Interpretation	Calculation	Meaning of min.	Meaning of max.
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¹ This includes both explicit vetoes given to a group (e.g.: 50% of group x's MPs need to agree for appointment to succeed / to pass constitutional amendments / to pass legislation) and indirect vetoes arising from the combination of quotas and supermajority arrangements (e.g.: group x has a parliamentary quota of 40% of seats and at least 75% of the votes are required -> at least $15/40 = 37.5\%$ of the group's legislators need to agree).

² Rotation rules were treated equivalently to percentage quotas, with the percentage in these cases corresponding to the likelihood of group x being in position y at any given time point; for example, if a one-seat position (e.g., a single head of state position) has to rotate every couple of years between two groups, each group has a 50% chance of being represented in the position at any given point in time.

³ Analogously to rotation rules between ethnic groups (see note 1 above), territorial rotation rules were treated equivalently to territorial percentage quotas, with the percentage in these cases corresponding to the likelihood of territorial unit x being in position y at any given time point; for example, if a one-seat position (e.g., a single head of state position) has to rotate every couple of years between two territorial subunits, each subunit has a 50% chance of being represented in the position at any given point in time.

⁴ See appendix B.1.7 for more details.

B.1.6 Aggregation of indicators into full power-sharing indices

While the CPSD provides all indicators in original and normalized form to be used flexibly, it also proposes an aggregation procedure of these indicators into full power-sharing measures covering each dimension. Within each of the four dimensions, three different power-sharing indices were created: First, an overall power-sharing index, comprising all elements of power-sharing of whatever mode of underlying group determination; second, a corporate one, comprising only group-based power-sharing indicators; and, third, a liberal one, consisting exclusively of flexible institutions that are not explicitly based on ethnic groups. In what follows, general considerations of the aggregation procedure into overall indices are first presented for each dimension, before the operationalization of the corporate-liberal distinction is discussed.

General aggregation procedure: Horizontal dimension

The overall aggregation procedure of indicators into full horizontal power-sharing indices closely follows three conceptual considerations, building on Lijphart (Lijphart 1977, 2004):

Substitutability within components: Power-sharing within each component of power-sharing (grand coalition, proportional representation, and mutual veto) can be equally reached through different institutional means (cf. Lijphart 1977: 31). For example, proportional representation can be the result of explicit ethnic, territorial or organizational quotas or the indirect result of proportional electoral systems – each of these institutional options mandates or encourages the same outcome through different means. In the CPSD's proposed aggregation procedure, the indicators are thus conceived as mutually substitutable options to institutionalize the respective component of power-sharing.

Non-substitutability between components: The components are complementary, mutually reinforcing parts of power-sharing (ibid.: 36). For example, the simultaneous combination of ethnic and territorial quotas for parliament

with proportional electoral systems cannot compensate for the absence of grand coalition provisions or accompanying veto rights over political decisions. As a result, for a group to attain full power-sharing index values, the CPSD requires that at least one institution is force in each of the three components of grand coalition, proportional representation, and mutual veto.

Based on these considerations, the CPSD's aggregation from group-level indicators into full group-level indices for horizontal power-sharing proceeds in three steps (see figure 4.2 for a graphical representation):

1. *Calculation of position score:* For grand coalitions and proportional representation, several distinct positions are coded. For each of these position, different constitutional pathways to ensuring group representation exist. Hence, in a first step, for these two components, these different pathways were aggregated into an overall score, measuring whether a given group is represented in each specific position. For example, inclusion into the head of state position can be the result of ethnic, organization-, or territorially-based quotas, of super-majority requirements for its election, of veto rights over its appointment, or of territorial vote spread requirements. These represent alternative possibilities, each of which should be mutually substitutable. Consequently, for both components, in a first step, a measure was derived measuring the maximum inclusion into each position (cabinet, head of state, head of government, their deputies and lower, upper, and third house speakers, minority commissions, highest ordinary court, constitutional court, judicial commission, commander-in-chief, security commission, military officers, military forces), which is the maximum of each position's indicators.
2. *Calculation of subcomponent score:* The proportional representation component consists of three distinct subcomponents, which are not mutually substitutable (legislature, judiciary, military). Hence, these subcomponents are aggregated separately by taking the maximum of group-wise indicators for the positions within each of them. For example,

proportional representation in the legislature can be the result of any measure requiring so for either the lower, upper, or third house. Hence, a group's value on the legislative proportional representation component is the maximum of its scores on the indicators of ethnic, organizational or territorial quotas for either house of the legislature and the degree of proportionality of their electoral systems. Similarly, proportional representation in the judiciary can be the result of measures targeting the highest ordinary court, the constitutional court, or the judiciary commission.

3. *Calculation of component score:* For the grand coalition component, a weighted addition of the inclusion into different executive offices was done, with weights of 1 for cabinet, head of state, and head of government, weights of 0.5 for head of state and head of government deputies, and weights of 0.25 for lower, upper, and third house speaker and for the minority commissions. For example, this results in situations where a group receives "half" of head of state and head of government positions being counted equally as if it were given a full share of either position. The resulting measure (which can, in some rare cases, surpass 1 in case multiple full positions are awarded to a group) was then censored to have a maximum of 1, which reflects at least proportional mandated inclusion into at least one important executive office and which considers the somewhat lower importance of deputy, house speaker, and minority commission posts (as opposed to head of state, head of government, and cabinet positions).

For proportional representation, the subcomponent scores are summed up and divided by three, which reflects the degree to which a given group is represented in any position in each of the legislature, judiciary, and military. Hence, while full substitutability was assumed within each subcomponent, no substitutability was assumed between them. This makes sense, as the proportional representation component should only take

full scores if such provisions exist for each of its three areas (legislature, judiciary, and military).

For mutual veto provisions, the presence of one indicator was set to allow to compensate for the absence of others (i.e., full substitutability). In this step, for each group, the maximum of each component's indicator variables is taken, resulting in a value between 0 and 1 for each group's mutual veto components of power-sharing. This means that the mutual veto component can take maximum values if a group is given significant veto rights over constitutional amendments or legislation by any means (for example, through veto rights in any of the legislative houses, through de-facto veto rights arising from control over an executive position possessing such powers, or through veto rights given to territorial subunits controlled by the group).

4. *Calculation of overall index:* Finally, the three components are aggregated into an overall group-based measure for political power-sharing based on an average of the components and without substitutability between them. Each group's aggregated power-sharing indices are, then, obtained by calculating: Power-sharing = [grand coalition + proportional representation + mutual veto] / 3.

The result of these aggregation steps is a group-based power-sharing index that considers different pathways to institutionalize each component of power-sharing as well as their respective importance to overall power-sharing. It ranges from 0 to 1, with maximum values for a group only reached if there are strong provisions directly or indirectly targeting the group in each of the three components.

General aggregation procedure: vertical dimension

The overall aggregation procedure in the vertical dimension proceeds in three steps, each based on specific conceptual considerations (see 4.3 for a graphical representation):

1. *Aggregation of indicators into component scores for each tier:* The three autonomy components are of slightly different natures. To institutionalize the first, policy autonomy, both a certain institutional depth and a minimal policy scope are required. If the former is missing and subnational entities are merely deconcentrated instances of the central government, any delegated policy areas become meaningless in terms of autonomous policy scope. Conversely, without any meaningful policy delegated areas, even tiers that formally are not subject to central government vetoes cannot be said to enjoy meaningful policy autonomy. Within the first component, both indicators are thus necessary conditions and are consequently aggregated in a multiplicative way to obtain a component score.

Within the second component, fiscal autonomy, the three indicators represent different possibilities in formally guaranteeing the financial autarky of the given subnational government tier. This can be enshrined, alternatively, by giving the tier the right to autonomously declare taxes, to enable it to borrow freely on financial markets, or by guaranteeing it financial resources from either the central state or from local revenue. Within the second component, the indicators are thus fully substitutable and their maximum is taken to obtain a component score.

In order to institutionalize the third component, political autonomy, both independently-selected legislatures and executives are optimally in place. However, the absence of one does not make the set-up of the other meaningless - even if the executive is appointed by the central government, an independently-selected legislature can still act as a locally-chosen check on its actions. Conversely, even if no local legislature exists, an autonomously-selected executive can still represent the interests of the tier. Consequently, neither substitutability was assumed between the two indicators nor were they seen as individually necessary, and an additive procedure was adopted to obtain the component score for political

autonomy.

2. *Aggregation of components into overall autonomy score for each tier:* Each component (policy autonomy, fiscal autonomy, and political autonomy) is required for a tier to classify as fully autonomous. Only autonomous subnational government tiers that simultaneously have a fully autonomous policy scope, complete fiscal autarky to independently fulfill their responsibilities, and completely self-selected government institutions fall within this category. However, the absence of one component, while diminishing overall autonomy, does not make the others completely meaningless. For instance, even if guaranteed financial resources are lacking, subnational government tiers can arguably find ways to make political and policy autonomy meaningful (for example, by relying on ad-hoc transfers from the central government, voluntary contributions, or minor financial instruments not considered by the CPSD). Within the CPSD's proposed aggregation scheme, the components are consequently additively combined. This is a similar procedure as the one outlined in the Regional Authority Index (Hooghe et al. 2016), although the weighting is slightly different.
3. *Aggregation of different tier types onto the ethnic group level:* The CPSD considers three broad types of subnational government tiers: First, those consisting of first-order administrative units which make up state-wide federal systems; second, those composed of autonomous areas which may or may not be part of the overall federal system (both territorial units below and above the first-order level are considered); and, third, the collection of group-based autonomy tiers which follow a non-territorial logic. These different types of autonomous government tiers may coexist in the same state at the same time. For example, a state may simultaneously adopt a federal system, grant some areas the status of special autonomy, and complement that with group-based autonomy for a part of its ethnic mosaic. For example, the United States combines a state-

wide federalism with group-based autonomy for indigenous Americans, while India complements its federalism with special autonomous areas for certain tribal groups and a special autonomy arrangement given to some areas, including Kashmir. The degree to which any given ethnic group enjoys autonomy is then given by the maximum of these existing options, which was consequently taken to obtain a group's overall score on the vertical power-sharing index.

General aggregation procedure: economic dimension

The aggregation procedure in the economic dimension proceeds according to three considerations:

1. *Substitutability of indicators within component:* Within each component, the coded indicators represent different possibilities of reaching said component's goal. For example, labor supply can be targeted with ethnic or territorial or class-based affirmative action for education. Or, it can be shaped indirectly by anti-discrimination measures.
2. *Importance of each component:* For full economic power-sharing to be in place, it should encompass all components. I.e., economic power-sharing institutions should target labor supply, labor demand, income, and capital.
3. *Diminishing marginal returns of each components:* However, the importance of each additional component gradually decreases as more other components are already in place.

Hence, the aggregation procedure proceeds in two steps that reflects these considerations (see B.2 for a graphical representation): :

1. *Aggregation of indicators into overall component score:* To attain the overall component score, the maximum across underlying indicators was taken. For individual measures that represent weaker measures,

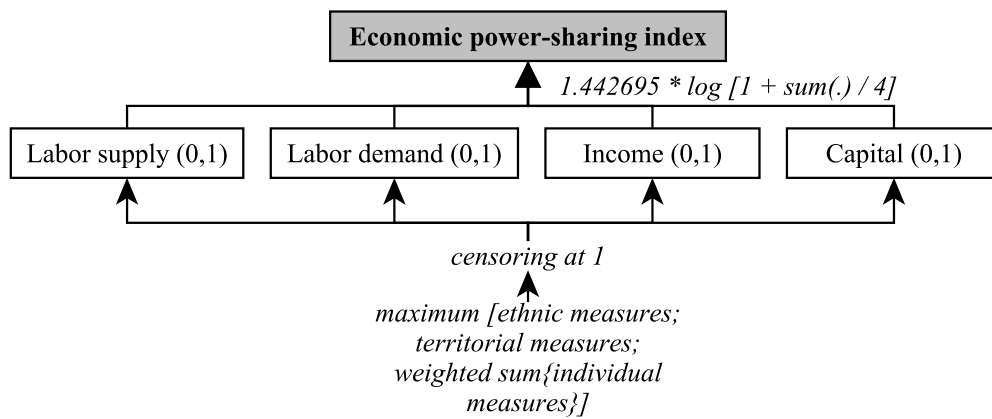


Figure B.2: Aggregation of indicators into economic power-sharing index)

a weighted addition was first conducted which then entered the derivation of maximum formula.¹³ The result of this was then censored at 1 to attain the overall component score.

2. *Aggregation into overall dimension score:* To attain an overall dimension score, the four components were then added up. To account for diminishing marginal returns of each, 1 was added and the resulting sum logged. It was then multiplied by a factor of 1.442695 to normalize the values between 0 and 1.

General aggregation procedure: cultural dimension

The aggregation of indicators into an overall dimension score is simplest for the cultural dimension of power-sharing. It builds on two considerations:

1. *Substitutability of indicators within component:* Within each component, the different indicators represent substitutes to reach the same outcome. For example, ethnic recognition can be enshrined based on explicit ethnic criteria or it can follow from the combined recognition of a group's

¹³In labor supply and demand, class-based affirmation action policies received full weight of 1. Antidiscrimination policies (individual, ethnic, cultural) were added up, averaged, and divided by 2. Hence, they received only the weight of 0.5. In the income component, class-based tax exemptions and minimum wages received the full weight of 1. Antidiscrimination policies (individual, ethnic, cultural) were added up, averaged, and divided by 2. Hence, they received only the weight of 0.5.

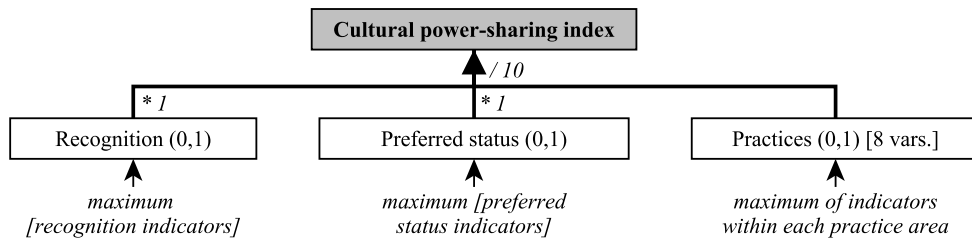


Figure B.3: Aggregation of indicators into cultural power-sharing index)

religion and language.

2. *Equal importance of different components* For full cultural power-sharing to be in place, it should encompass all components. I.e., cultural power-sharing institutions should provide ethnic recognition, preferred status, and encompass all eight cultural practices coded by the CPSD.

Hence, the aggregation procedure proceeds in two steps that reflects these considerations (see B.3 for a graphical representation): :

1. *Aggregation of indicators into overall component score:* To attain the overall component score, the maximum across underlying indicators was taken. Individual measures (for example, recognition of ethnic diversity) and ethnic ones (for example, explicit recognition of a given group) were weighted by 1. Cultural measures were added up and divided by two (for example, explicit recognition of a group's language and religion).
2. *Aggregation into overall dimension score:* To attain an overall dimension score, the 10 components (recognition, preferred status, and eight cultural practices) were then added up and divided by 10, which results in an overall dimension score ranging from 0 and 1.

Aggregation into corporate and liberal power-sharing indices

In order to arrive at separate indices for corporate and liberal power-sharing, the same aggregation procedure within each dimension was repeated, but with indicators only being counted for the each of the indices if their underlying mode of group determination follows its respective model (see figure B.4).

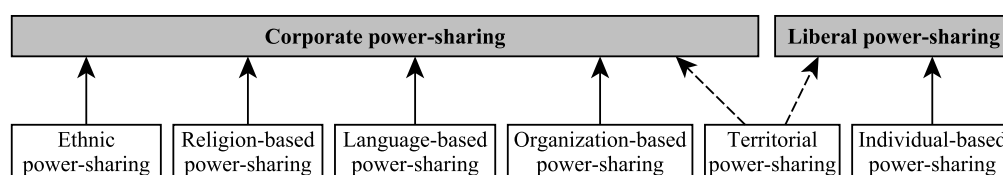


Figure B.4: Aggregation of indicators into corporate and liberal types

The attribution of power-sharing indicators relying on three types of group determination is relatively straightforward: Power-sharing institutions targeting ethnic groups directly or targeting specific organizations that purport to represent them are clearly group-based and consequently counted as part of the corporate power-sharing index. In contrast, electorally-based power-sharing institutions are clearly group-neutral and are counted as part of the liberal power-sharing index.

However, for power-sharing institutions relying on the fourth type of group-determination, territorially-based measures, additional considerations had to be made. Clearly, there are settings of territorial power-sharing that appear to belong to the corporate type (for example, Yugoslavia’s territorial institutions that are based on an ethno-federal arrangement), while there are others that seem comparably liberal (for example, Switzerland’s institutions that are strongly based on an underlying national federal structure) (cf. McGarry & O’Leary 2008).

In the CPSD’s proposed aggregation procedure, territorially-based institutions are consequently not conceived as exclusively forming a part of either the corporate or liberal power-sharing indices but are proportionally divided between them. The basis for this split between corporate and liberal indices was, similarly to the initial attribution of territorial indicators to the ethnic group-level (see appendix B.1.7), based on the spatial intersection between geo-coded administrative boundaries and group settlement patterns: In brief, a group’s territorial power-sharing indicator values were primarily attributed to the corporate power-sharing index if the used administrative boundaries

closely align with its settlement patterns (reaching a maximum if the group settles in one, fully homogeneous territorial unit that is targeted by power-sharing). This share gets lower as the alignment between territorial boundaries and settlement patterns decreases (for example, if the group is only awarded accommodation on the basis of an ethnically heterogeneous unit or is split between multiple units targeted by power-sharing measures). Indicator shares of a group-territorial unit intersection are furthermore fully attributed to the corporate power-sharing index if a territorial unit is explicitly designated as the group's "homeland", in which case the institution closely resembles an ethnic quota (see appendix B.1.7 for more details).

The result of these steps are two further power-sharing indices, each also ranging from 0 to 1: The CPSD's corporate power-sharing index is aggregated analogously to the overall one, but only counts power-sharing indicators based on ethnic groups, ethnic organizations, and the indicator parts of territorial units that closely align with ethnic settlement patterns. It reaches a maximum if there are provisions with such a basis for each of the three components of horizontal power-sharing. In contrast, the CPSD's liberal power-sharing index is also aggregated analogously, but exclusively comprises power-sharing institutions based on electorally-based rules and the indicator parts of territorial power-sharing that cross-cut ethnicity and offer a more flexible, less group-based way of accommodation. It similarly reaches a maximum only if such electoral or non-ethnic territorial provisions exist in each of the three dimensions of horizontal power-sharing.

B.1.7 Details on territorial aggregation procedures

In this section, more details are provided on the CPSD's aggregation procedures as regards its territorially-based indicators of power-sharing. First, the geographic data-sources used are presented in more detail: geocoded administrative areas underlying territorial power-sharing institutions on the one hand (taken from the Significant Administrative Unit dataset, created for this dissertation) and ethnic settlement patterns on the other. Second, the aggregation

of territorial data onto the group-level using these data-sources is discussed in more detail. Third, the way the corporate-liberal split is operationalized for territorial data is presented. Finally, several examples are given to provide a more accessible overview of the underlying procedures.

Geographic data-sources

Two types of geographic data were required, both for aggregation procedures from the territorial to the ethnic group level and for the split of the territorial indicators between corporate and liberal power-sharing indices: Data for administrative boundaries underlying the territorial power-sharing arrangements coded in the CPSD and data on each ethnic group's settlement patterns.

Data for the former were taken from the Significant Administrative Units Dataset (SAU, see chapter 4, section 4).

Data for the latter, ethnic settlement patterns, were taken from and augmented using the slightly-augmented Geo-EPR dataset (Vogt et al. 2015). This dataset geo-codes, for most EPR groups, their predominant settlement areas. For several types of groups, however, the data had to be augmented through several additional steps: For groups with an urban settlement pattern (where GeoEPR provides no settlement polygon), prospective settlement areas were identified by using local population densities (taken from the Gridded Population of the World data (GPW), cf. <http://sedac.ciesin.columbia.edu/gpw>) as a proxy for the urban areas where these groups are indicated to settle.¹⁴ To stay consistent, the same urban areas were added on analogously for EPR groups with an “urban and regional” settlement pattern. For “statewide” and “dispersed” groups, the full country polygon was assumed to constitute the settlement pattern (which for the latter is a somewhat crude, but lacking any more detailed data, arguably the least distortive method).

¹⁴Urban areas were identified by using a country-specific cut-off based on the 2015 population density estimates from GPW. For countries where the maximum recorded population density surpasses 1000 persons per square kilometer, 1000 was taken as a cut-off and the identified raster pixels converted into polygon format which were used as a proxy for urban areas. If a country's maximum population density is between 750 and 1000 persons per square kilometer, 750 was used as a cut-off. For countries with maximum population densities below this, 500 persons per square kilometer was used.

Combining the geo-coded administrative boundaries provided by the SAU dataset with group settlement patterns, it was then possible to calculate, for each administrative unit, its local ethnic demography (see the afore-mentioned figure 4 in the main part of the article for a representation of the data for Serbia and Montenegro in 2003). In particular, the relative population shares and concentration of each ethnic group in each administrative unit were calculated, based on (1) the relative area of overlap between them (given by the derived spatial intersections between each administrative boundary and group polygon) and (2) on the relative population density of that area as compared to the rest of a group's settlement area (calculated based on the Gridded Population of the World data, cf. <http://sedac.ciesin.columbia.edu/gpw>).¹⁵ As an example, table B.6 maps the resulting calculated population shares for Serbia and Montenegro for each of its subunits.

Aggregation from the territorial to the group-level

Combining the information on each administrative unit's local ethnic demography with the territorial power-sharing data, the territorial power-sharing variables were then aggregated onto the ethnic group-level using the following assumptions:

Additive aggregation from territorial intersections to ethnic groups: Each group's degree of inclusion or influence arising from territorial power-sharing (e.g., the number of cabinet seats it can expect under territorial cabinet quota arrangements) is the sum of its expected inclusion or influence in the territorial subunits targeted by such institutions (e.g., the number of cabinet seats awarded to each subunit in which it settles). An example is Switzerland's requirement for the executive to be representative of its territorial subunits, the Cantons. As the Swiss French group settles (and forms the majority) in

¹⁵Incorporating settlement densities make sure that the calculated population distributions do not get distorted by large, sparsely populated areas, such as Alaska in the United States. Population density data was only available from the GPW for the years 1990 to 2015. For 2013, the data for 2015 were used, for years between 2008 and 2012, data for 2010 were used, for years between 2003 and 2007, data for 2005 were used, for years between 1998 and 2002, data for 2000 were used, for years between 1993 and 1997, data for 1995 were used, and for years before 1993, data for 1990 were used.

Table B.6: Example of local ethnic demography calculation: Serbia and Montenegro (2003)

Territorial unit	Group	Relative population share in unit	Concentration of group in unit
Kosovo	Serbs	0.072	0.023
	Croats	0.011	0.227
	Bosniaks/Muslims	0.001	0.004
	Albanians	0.806	0.961
	Montenegrins	0.01	0.04
	Roma	0.016	0.227
	Other	0.085	0.227
Vojvodina	Serbs	0.705	0.19
	Croats	0.011	0.188
	Montenegrins	0.003	0.01
	Hungarians	0.18	1
	Roma	0.016	0.188
	Other	0.086	0.188
Montenegro	Serbs	0.042	0.005
	Croats	0.025	0.168
	Bosniaks/Muslims	0.005	0.012
	Albanians	0.017	0.007
	Montenegrins	0.688	0.933
	Roma	0.035	0.168
	Other	0.189	0.168
Serbia	Serbs	0.862	0.782
	Croats	0.007	0.416
	Bosniaks/Muslims	0.052	0.984
	Albanians	0.01	0.033
	Montenegrins	0.001	0.016
	Roma	0.01	0.416
	Other	0.056	0.416

multiple Cantons, their expected seat share in the Swiss executive is the sum of their expected seat shares arising through the executive inclusion of the different Cantons in which they settle.

Local demography matters: Seats awarded to a territorial subunit are generally likely to be split proportionally between each ethnic group settling in the respective unit (e.g., based on local population shares). For quotas that only award a limited number of seats, however, they are likely to go predominantly to the largest group(s), while some smaller groups not surpassing the local effective threshold are likely to be left out completely, depending on how many seats are awarded to the unit. For example, it appears illusory that Serbia and Montenegro's cabinet split would award any seats to the Roma minority forming a clear minority in both subunits. In the CPSD, this reasoning was incorporated as follows: If only one seat is given to a unit (for example in territorially-based upper house systems where each state receives one seat), the largest group in each unit is expected to receive that unit's seat contribution in total, while all other, locally smaller groups, are expected to receive no seat shares. In contrast, where multiple seats are allocated to a unit, a proportional distribution of seat shares was seen as more likely, with groups being able to expect seat shares as long as their size surpasses the local "effective threshold", as given by the Lijphart formula. For example, if a territorial subunit gets 5 seats in the upper house, each group surpassing the effective threshold of $50 / (5 + 1) + 50 / (2 * 5) = 13.3\%$ is expected to receive seat shares. The unit's seat shares are then distributed between all ethnic groups surpassing that threshold locally according to their local population shares.¹⁶

Ethnically-designated units' seat shares are exclusively awarded to the designated group: For territorial subunits that are designated, either constitutionally or by name, as the "homeland" of a specific ethnic group, territorial quotas were treated equivalently to ethnic quotas. Consequently, in such cases,

¹⁶For quotas targeting the Head of State, Head of Government, or their deputies, this procedure generally means that only groups forming the majority in at least one targeted subunit are awarded any expected seat shares.

territorial seats shares were not aggregated to the ethnic group level based on demography, but exclusively awarded to the respective unit's ethnically designated group. For example, Serbia and Montenegro's constitution of 2003 makes it clear that each constituent state is to be the "homeland" of one of its constituent groups; consequently, the cabinet seat shares given to the two units are directly counted as belonging to each designated group (with the Serbs receiving the 3 seats from Serbia and the Montenegrins receiving the 3 seats from Montenegro).

Non-territorially-based ethnic groups cannot be targeted with territorial power-sharing: For ethnic groups with a migrant or dispersed settlement pattern lacking a territorial base, all territorial power-sharing contributions were set to 0 and instead distributed among the other groups proportionally (if they surpassed the local effective threshold).

A similar procedure as for the above-described territorial quota variables was also followed as regards territorial vote spread requirements and territorial veto rights. Instead of seat contributions, the territorial-unit variable here was the expected influence over appointments or political decisions arising in each unit. Examples are provided below.

Splitting territorial power-sharing between corporate and liberal variants

In order to split territorial power-sharing between corporate and liberal index contributions for aggregation purposes, the same two geo-coded data-sources for administrative boundaries and ethnic settlement patterns were again used. The basic idea was to split the territorially-based indicators' index contributions between corporate and liberal power-sharing indices based on how strongly each used territorial units was ethnically-based. In most cases, this was determined based on the degree of spatial alignment between territorial entities' boundaries and ethnic groups' settlement patterns: If a particular territorial unit's boundaries closely follow ethnic settlement patterns (as in ethno-federal state structures), alignment is high and the unit's indicator contribution

largely enters the corporate indicator parts of the ethnic group settling within it. In contrast, if the alignment is low (for example, if the territorial unit in question is ethnically heterogeneous and the ethnic groups settling within it are split between different, non-homogenous territorial units), it mostly enters their liberal indicator parts instead. As an exception to this procedure based on settlement patterns, territorial units' indicator contributions were also fully counted as corporate in cases where the unit is designated as a specific group's ethnic "homeland" (see above).

It is to be noted that in this procedure, both predominantly corporate and liberal ways to accommodate groups can, on the group-level, coexist within the same country year. For example, one ethnic minority's accommodation can be based on a homogeneous territorial unit encompassing all of the group's settlement area, in which case it is counted as being territorially accommodated in a corporate way. The same country, however, may have other groups who are split between many heterogeneous territorial units, with these thus counted as being accommodated in a liberal way.

Somewhat more formally, the indicator contributions of territorial forms of power-sharing were split between their corporate and liberal parts in three steps:

In a first step, based on its local ethnic demography, the degree to which an administrative unit is ethnically-based was calculated for each group settling within it (i.e., a different measure was derived for each ethnic group-administrative unit intersection). This "ethnic basis" measure aims to capture the degree to which a given territorial unit y is congruent with a given ethnic group x . This "ethnic basis" measure for group x in administrative unit y is given by the following formula based on its local homogeneity and concentration:¹⁷ Using this formula, a unit y is thus coded as representing a full "ethnic basis" (= 1) for a given group x if there are no members of other groups living

¹⁷A group's ethnic concentration in a unit is the population share of the ethnic group x in unit y as a percentage of the total population of the group x . It ranges from 0 (no members of the group in that particular unit) to 1 (all members of the group are concentrated in unit y).

in unit y (= full homogeneity) and if all members of group x live inside unit y (= full concentration).¹⁸ The “ethnic basis” measure thus typically takes the highest values for spatial intersections in ethno-federations, where each group is concentrated in its own homogenous “homeland”. Conversely, the measure decreases as groups share administrative units with other groups and as they are split between administrative units (i.e., where the clear correlation between ethnic settlement patterns and administrative boundaries decreases).

In special cases where administrative subunits are explicitly ethnically-designated (as is the case, for example, in the Yugoslav member republics), the “ethnic basis” value of the intersection is set to 1 for the designated group (e.g., for Serbs in the Serb Yugoslav member republic) regardless of local population shares. As the power-sharing index contributions of such territorial units were already fully awarded to the respective designated group (see above and B.1.6), the question does not arise for other groups settling in the same unit (as their power-sharing contribution from the unit is already automatically set to 0).

When aggregating from the territorial to the group level (see above), the shares of inclusion or influence a group derives from a particular unit (for example, cabinet seat shares attributed to this unit) are proportionally split up between the corporate and liberal indicator parts, depending on how “ethnically based” the “contributions” from each intersection are. If the “ethnic basis” measure is 1 for a given unit-group intersection, the shares are fully attributed to the group’s corporate part of the indicator; if it is 0, they are fully attributed to its liberal part. Anything in between is split accordingly (for example, if the “ethnic basis measure is 0.7, 70% are awarded to the corporate indicator part and 30% to the liberal indicator part). Adding up these group-unit intersection shares then gives separate corporate and liberal indicator values for each group’s territorially-based indicators which then enter the respective power-sharing indices.

¹⁸Overall, this is a similar measure as the ones used by Deiwiks (2010). In contrast to those measures, the present one is additionally based on population density distributions for the calculation of local ethnic demography and treat explicit ethnic designation as analogous to cases where administrative units are fully congruent with ethnic settlement patterns.

The next pages give four examples¹⁹ for this procedure: Switzerland (1999) as an example for territorially-based quotas, Switzerland (1999) as an example for territorial veto rights, Nigeria (1999) as an example for territorial vote spread requirements, and Yugoslavia (1990) as an example for territorially-split presidencies with ethnically-designated “homelands”.

Example 1: Territorial quotas for the cabinet in Switzerland (1999)

In Switzerland, the constitution in place since 1999 mandates “adequate” representation of each Canton in the cabinet (art. 175-176). Consequently, for each of the 26 targeted administrative units, an (expected) share of the cabinet of 0.038 was coded.

In line with the conceptualization of quota variables presented above (see appendix 2), this territorial-level quota needs to be converted into a measure of the cabinet seat shares each group can expect from this arrangement. This measure can then be compared with each group’s population share: If a group can expect to be at least proportionally represented (i.e., if the seat shares it can expect based on the territorial quota add up to a total seat share equivalent or higher to its population share), a group’s territorial quota indicator takes the value of 1. If the group can only expect to be underrepresented, its territorial quota indicator takes a value between 0 and 1.

In order to aggregate from territorial quotas to expected group shares of the cabinet, the calculation proceeds in two steps:

In a first step, each Canton’s mandated seat shares are distributed between each ethnic group settling within it depending on the Canton’s local ethnic demography (see figure B.5 for a graphical representation of the situation). As

¹⁹All examples refer to an earlier version of the CPSD dataset (v1.1, used in Juon 2020). Due to slight adjustments of the underlying indicator codings and territorial boundaries, the values may diverge somewhat from those in the current version of the CPSD, used in the present dissertation. However, the aggregation steps remain analogous. Throughout the examples, all numbers were rounded to two relevant decimal places and the equalities may as a result not be precise. This was done for presentation purposes only; in the actual data aggregation procedures, the unrounded values are used.

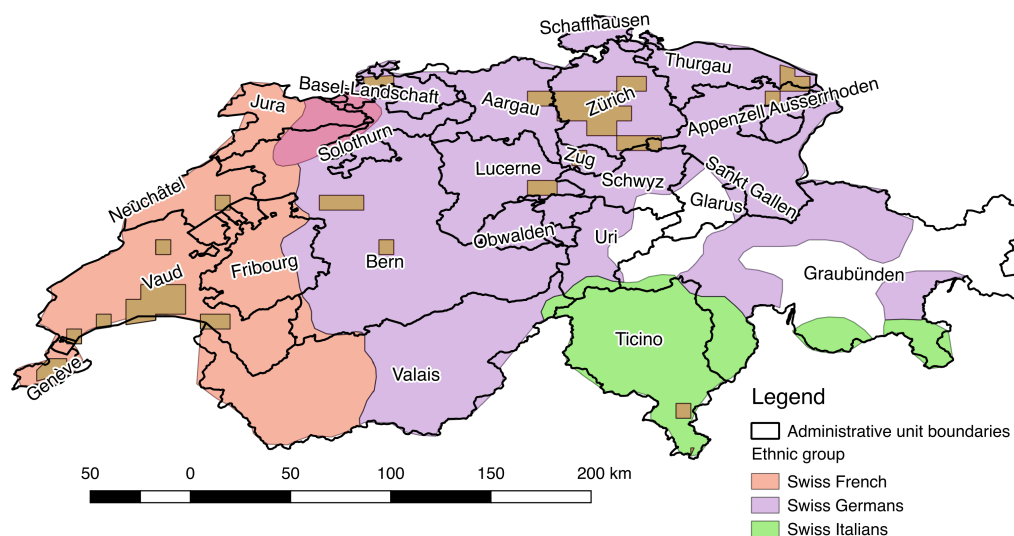


Figure B.5: Territorial boundaries and ethnic settlement patterns in Switzerland (1999)

the aggregation of territorial cabinet quotas proceeds without consideration of a local effective threshold (in contrast to positions where a specific seat number is given to each unit), each group receives, from each Canton, a part of said Canton's share proportional to its local population share. For example, in the Canton of Jura, the Swiss French have a calculated population share of 66%, while the Swiss Germans one of 34%. As a result, 66% of the Canton's mandated representation (0.038) in the cabinet is awarded to the Swiss French ($0.66 * 0.038 = 0.025$), while 34% of it is awarded to the Swiss Germans ($0.34 * 0.038 = 0.013$) (see table B.7).

In a second step, these expected seat shares arising for each group from all the Cantons together are added up to the group level. For the Swiss French, the addition of expected seat shares across cantons results in an expected Cabinet seat share of 19%.

As the Swiss French have an overall population share of 22.7% according to the EPR data, the above calculation leads one to expect a guaranteed representation below proportionality. As a result of dividing the calculated level of expected representation (0.19) by the population share of the Swiss

French, the final group-based indicator value is thus calculated as being below the maximum of 1 (which stands for proportionality or above): $0.19 / 0.23 = 0.84$ (see table B.8 for equivalent results for all groups).

Table B.7: Local ethnic demography and resulting CPSD cabinet power-sharing calculations in the Swiss Canton of Jura (1999)

Group	Relative local size	Expected group share	Group concentration	Share (corp.)	Share (lib.)
Swiss	0.34	0.013	0.0052	0.00055	0.012
Germans					
Swiss French	0.66	0.025	0.025	0.0035	0.022

The division of the territorial cabinet quota indicator between its corporate and liberal parts only slightly modifies the procedure above. Instead of adding up expected group shares as such, these are first split in two parts by considering each Canton's degree of alignment with each ethnic group's settlement patterns. As described above, this transformation takes into account both a group's level of homogeneity in the territorial unit (i.e., the percentage of citizens in the given unit belonging to the group) and a group's concentration in the given unit (i.e., the percentage of total group members settling in said unit). The square root of the multiplication of both these factors is taken to arrive at such a measure for how much "ethnically based" a group is in a given unit (i.e., at the group-unit intersection level). The full indicator is thus counted as corporate in cases of full alignment, i.e. where each group is concentrated in one single homogeneous unit, while larger shares are awarded to the liberal part where groups are split between multiple heterogeneous units.

Again using the example of the Canton of Jura, the calculation goes as follows. As the Swiss French have a local population share of 66% (their degree of homogeneity) and a concentration in the unit of 2.5%, the degree to which the Jura is ethnically based for the Swiss French is calculated by: $\sqrt{0.66 \times 0.025} = 0.13$. As a result, 13% of said unit's contribution to the overall territorial indicator is awarded to the Swiss French's corporate indicator share ($0.13 \times 0.025 = 0.0035$) while the rest is awarded to the liberal share of the same indicator (0.022).

Table B.8: Cabinet territorial quota: Degree of corporate and liberal power-sharing (Switzerland, 1999)

Group	Cabinet territorial quota	Cabinet territorial quota (corporate)	Cabinet territorial quota (liberal)
Swiss Germans	1	0.19	0.98
Swiss French	0.85	0.23	0.62
Swiss Italians	0.81	0.37	0.44
Other	0	0	0

Again, to arrive at overall group-based measures, these territory-specific shares are then added up for each group into an overall measure for a corporate portion of the territorial cabinet quota indicator on the one hand and for a liberal portion on the other. Finally, analogously to the overall indicator, the measures are divided by group size to normalize them and censored at 1 to prevent substitution across components in the full power-sharing index aggregation procedures (see again table B.8 for the resulting values for all groups).²⁰

While the procedure appears somewhat complicated, the values resulting from it are in line with the CPSD's intended conceptualization and appear to reflect political reality in general: While both the Swiss French and Swiss Italians can expect a high degree of representation in the cabinet due to the Cantonal quota, only the Swiss Germans can expect full proportionality (indeed a higher-than-proportional share). Furthermore, as the Cantons split the Swiss ethnic groups into different territorial units, the Cantonal quota is not directly ethnically-based and more flexible to deal with alternate political identifications. This is similarly reflected in the CPSD's measures in the fact that large parts of the indicator contributions go to its liberal part. A partial exception are the Swiss Italians, where an almost equal share is awarded to their corporate and liberal indices. This, too, makes substantive sense, however:

²⁰In general, the corporate and liberal shares of territorial indicators add up to the total value of the indicator. Due to the censoring at 1, this may sometimes not be the case, however (i.e., in countries where some groups are extremely over-represented due to territorial quotas).

They are the only group that is concentrated in one single Canton (Ticino), with cabinet inclusion of Ticino's representatives in Swiss political discourse almost being interchangeable with cabinet inclusion of Swiss Italians. As the institution of territorial representation thus becomes closer to an ethnic quota for Swiss Italians, the larger share going to the group's corporate index appears to make substantive sense.

Example 2: Territorial veto rights on constitutional amendments in Switzerland (1999)

The Swiss constitution in place in 1999 furthermore also mandates that constitutional amendments require the majority approval of voters in the majority of Cantons in a referendum (art. 142). Consequently, on the territorial level, a required majority of 50% for each Canton and a 50% probability that said majority needs to be reached was coded.

In line with the conceptualization of territorial majority variables (see appendix B.1.6), this needs to be converted into a measure of how many of each ethnic group's members are expected to be required for an amendment to pass. This calculated group-level measure can then be compared with each group's size: If at least 50% of a group's members are expected to be required to pass amendments, the resulting veto measure then takes the value 1; if an expected approval of below 50% is calculated, it takes a value between 0 and 1. As there are no ethnically-designated Cantons, it is expected that, in each Canton, 50% of each ethnic group's population are required for a given Canton to approve constitutional amendments. Based on these considerations, the aggregation from the Cantonal to the ethnic group level again proceeds in two steps:

In a first step, the number of each groups' members in each Canton required for constitutional amendments to pass is calculated. Based on the reasoning above, this is given by 0.5 (the probability that the Canton's approval is required) times 0.5 (the majority of the group that is expected to be required for the Canton to approve) times the number of each group's citizens living

Table B.9: Local ethnic demography and resulting CPSD constitutional amendment veto power-sharing calculations in the Swiss Canton of Jura (1999)

Group	Relative local size	Local size*	Expected local required majority*	Group concentration	Expected local required majority (corp.)*	Expected local required majority (lib.)*
Swiss Germans	0.34	0.0033	0.0008	0.0052	3.5E-05	0.0008
Swiss French	0.66	0.0064	0.0016	0.025	0.00022	0.0014

in the Canton. For example, as the number of Swiss French in the Canton of Jura as a percentage of the overall population of Switzerland is calculated to be 0.64%, an expected number of Swiss French equal to $0.5 * 0.5 * 0.64\% = 0.16\%$ of the overall Swiss population are expected to have to agree to pass constitutional amendments in the Canton of Jura (see table B.9).

In a second step, these population numbers at the Canton-ethnic group intersection level are again additively aggregated up to the group level. Unsurprisingly, as a majority in every Canton counts (i.e., no Canton is excluded from the arrangement) and as no group is explicitly awarded any Canton as a “homeland” (in which case some group members would not count for the total), the overall number of Swiss French expected to be required for constitutional amendments to pass equals 0.5 (probability that each Canton is required) * 0.5 (approval rate necessary in each Canton) * their group size = 5.68%.²¹ Comparing this to the group size of the Swiss French, the calculated expected percentage of Swiss French required to agree to pass constitutional amendments is thus 25%. Analogously to direct ethnic veto variables, this number was multiplied with a factor of 2 to account for the conceptual maximum of the variable (1), which is a required approval of at least 50. The overall coded

²¹Note however, that this equality would not hold in cases where some subunits are not required (for example, if veto rights are only given to some specific minority areas) or if some subunits were ethnically designated (in which case at least some citizens of some groups would not be counted as being required by the aggregation formula).

Table B.10: Territorial veto rights over constitutional amendments: Degree of corporate and liberal power-sharing (Switzerland, 1999)

Group	Territorial veto rights	Territorial veto rights (corporate)	Territorial veto rights (liberal)
Swiss Germans	0.5	0.14	0.36
Swiss French	0.5	0.18	0.32
Swiss Italians	0.5	0.24	0.26
Other	0	0	0

territorial veto right for the Swiss French is thus $0.25 * 2 = 0.5$.

Similar to the cabinet quotas presented in the example above, each Canton's local ethnic demography is again taken into account to split the indicator contributions between a corporate and a liberal part – the more ethnically homogeneous and concentrated an ethnic group is in a Canton the larger the share awarded to the corporate part of the indicator.

Again using the example of the Canton of Jura, the calculation goes as follows. As the Swiss French have a local population share of 66% (their degree of homogeneity) and a concentration in the unit of 2.5%, their degree to which the Jura is ethnically based is (again) calculated by: $= 0.13$. As a result, 13% of said unit's contribution to the overall indicator is awarded to the Swiss French's corporate indicator share ($0.13 * 0.0016 = 0.00022$) while the rest is awarded to the liberal share of the same indicator (0.0014). Again summing up these intersection-level shares to the group-level and comparing the calculated numbers to each ethnic group's overall population share (and again multiplying by two to consider the conceptual maximum of the variable) gives the final indicator values – for the Swiss French out of the total indicator value 0.5, a corporate part of 0.18 and a liberal part of 0.32 are calculated (see table B.10 for an overview for all groups' overall indicator values).

Example 3: Vote spread requirements for Presidential elections in Nigeria (1999)

According to the Constitution in place in Nigeria since 1999, a candidate for the election to the Presidency requires not only an overall majority of popular votes, but also at least a quarter of votes in at least two thirds of the states and the federal capital territory of Nigeria (art. 133-134). As Nigeria has (in 1999) 37 units covered by this arrangement (36 states and the federal capital territory), each unit was coded as having a $1/37$ share ($=0.027$) of influence over Presidential appointments (the exact majority conditions are considered later in the aggregation steps).

In line with the conceptualization of territorial vote spread variables (see appendix 2.5), the aggregation from territorial influence shares to group sums proceeds analogously to territorial quota variables – however, with the base variable in question not being each unit’s mandated seat shares, but its share of influence over appointments (as calculated above as the weight it carries in the vote spread agreement, most often given by dividing 1 by the number of units included in the arrangement). Analogously to quotas, territorial units’ shares of influence are split up among each ethnic group settling in them and additively aggregated onto the group level. Finally, the severity of the agreement is considered (which percentage is required in how many units?). If a group’s aggregated and converted sum of these influences results in a share over the appointment that is at least proportional to the group size, a value of 1 is recorded. If it results in a share over the appointment that is less than proportional, a value between 0 and 1 is coded. Based on these considerations, the aggregation from the state to the ethnic group level proceeds in three steps:

In a first step, each state’s mandated influence is divided between each ethnic group settling within it depending on the state’s local ethnic demography (see figure B.6 for a graphical representation of the situation). As the aggregation of territorial vote influences proceeds without consideration of a local effective threshold (in contrast to quotas where a specific seat number is

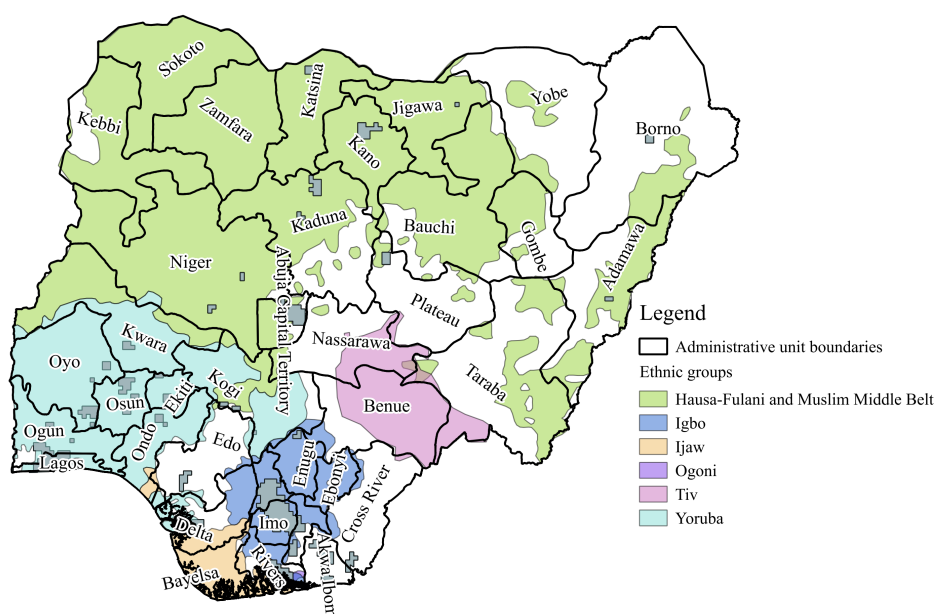


Figure B.6: Territorial boundaries and ethnic settlement patterns in Nigeria (1999)

given to each unit), each group receives, from each state, a part of said state's influence share proportional to its local population share. For example, in Edo state, the Igbo have a calculated population share of 17%. As a result, 17% of the state's mandated representation (0.027) in the cabinet is awarded to the Igbo ($0.17 * 0.027 = 0.0047$) (see table B.11).

Table B.11: Local ethnic demography and resulting CPSD territorial vote spread power-sharing calculations in Nigeria's Edo state (1999)

Group	Relative local size	Share of influence	Group concentration	Share of influence (corp.)	Share of influence (lib.)
Hausa-Fulani and Muslim Middle Belt	0.09	0.0024	0.0014	2.7E-05	0.0024
Igbo	0.17	0.0047	0.0043	0.00013	0.0046
Ijaw	0.23	0.0062	0.01	0.0003	0.0059
Yoruba	0.51	0.014	0.011	0.001	0.013

In a second step, these expected influence shares arising for each group from all the states together are added up to the group level. For the Igbo, the addition of expected influence shares across states results in an expected influence share of 21

In a third step, the precise institutional specifics of the vote spread arrangement are considered by multiplying with the probability that a state's vote is required (0.67 as the approval is required in two-thirds of states) and two times the majority required in them ($2 * 0.25$, as in 25% suffice for the state to "approve"). For the Igbo, this results in: $0.21 * 0.67 * 2 * 0.25 = 0.07$.

Finally, after these aggregation steps, the calculated influence shares are compared to the group size by dividing by it. For the Igbo, as their size is 18% of the total population of Nigeria according to EPR, the result of this calculation and the final indicator value is $0.07 / 0.18 = 0.39$ (see table 12 for all equivalent results for all ethnic groups in Nigeria).

Similar to the variables presented in the Swiss examples above, each state's local ethnic demography is again taken into account to split the indicator contributions between a corporate and a liberal part – the more ethnically homogeneous and concentrated an ethnic group is in a state the larger the share awarded to its corporate part of the indicator.

Again using the example of the Igbo in Edo state, the calculation goes

as follows. As the Igbo have a local population share of 17% (their degree of homogeneity) and a concentration in the unit of 0.4%, their degree to which Edo state is ethnically based is calculated by: $= 0.026$. As a result, 2.6% of said unit's contribution to the overall indicator is awarded to the Igbo's corporate indicator share ($0.026 * 0.0047 = 0.00013$) while the rest is awarded to the liberal share of the same indicator (0.0046). Again summing up these intersection-level shares to the group-level, multiplying by the probability that each is required (0.67) and two times the majority required in each ($2 * 0.25$) and finally comparing the calculated numbers to each ethnic group's overall population share gives the final indicator values – for the Igbo out of the total indicator value 0.4, a corporate part of 0.11 and a liberal part of 0.28 are calculated (see table B.12 for an overview for all groups).

Table B.12: Local ethnic demography and resulting CPSD territorial vote spread power-sharing calculations in Nigeria's Edo state (1999)

Group	Influence over head of state appointment	Influence over head of state appointment (corp.)	Influence over head of state appointment (lib.)
Hausa-Fulani and Muslim Middle Belt	0.5	0.11	0.39
Igbo	0.4	0.11	0.28
Ijaw	0.25	0.11	0.14
Ogoni	0.17	0.05	0.12
Tiv	0.92	0.41	0.51
Yoruba	0.33	0.11	0.22

Example 4: Territorially-split presidency with ethnic designations in Yugoslavia (1990)

In Yugoslavia, the constitution in place in 1990 mandates a territorially-split presidency, with 1 member having to stem from each member republic and each autonomous region (art. 321). Consequently, for each of the 8 targeted administrative units, a share of the presidency of 0.125 was coded. As most of the units are explicitly ethnically-designated (see table B.13), the “ethnic basis” values of their intersections with the ethnic groups settling in them are set to 1 in most cases (they were also rather high in the remaining ones due to the high alignment of the boundaries with ethnic settlement patterns, see figure B.7).

These very high “ethnic basis” values of the intersections have two implications for the aggregation from territorial power-sharing values to group-based indicators: First, the shares of the Presidency given to the ethnically-designated units of Bosnia, Croatia, Macedonia, Montenegro, Serbia, and Slovenia are directly awarded to the respective designated group (for example, the 0.125 share of the Presidency given to Bosnia and Herzegovina is, in the CPSD, counted as being awarded to the Bosniaks, regardless of the local ethnic demography). In the non-designated areas of Kosovo and Vojvodina,

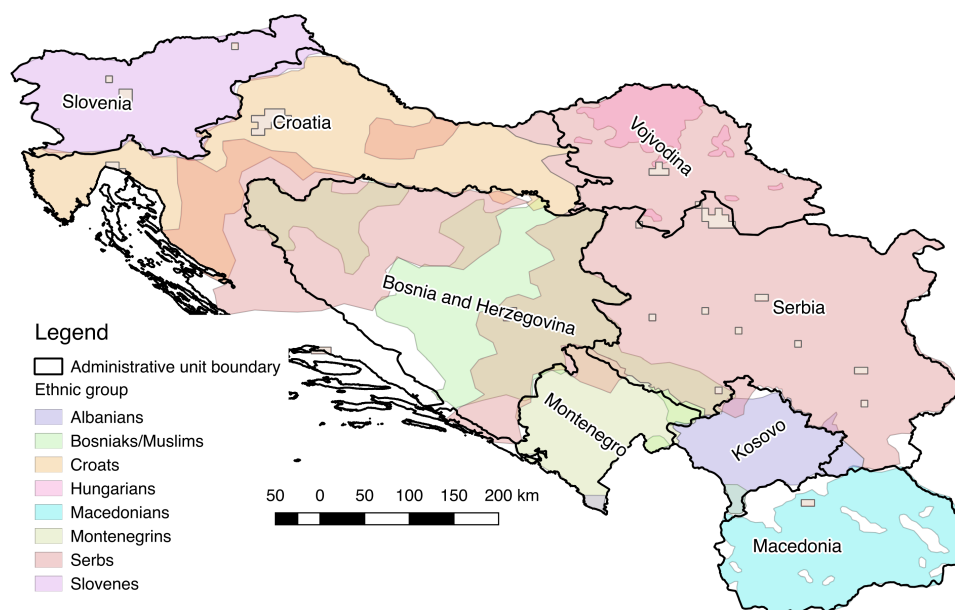


Figure B.7: Territorial boundaries and ethnic settlement patterns in Yugoslavia (1990)

however, the shares are distributed according to population shares analogously to the Swiss example above (example 1). Second, the high (in the ethnically designated areas, full) ethnic “basis values” mean that almost all of the indicator parts directly go to the corporate part of the territorial linkage indicator (for example, the Bosnia and Herzegovina seat share goes exclusively to the Bosniaks / Muslims’ corporate index). Based on these steps and by dividing the shares of the Presidency given to each group by its population size, the group-aggregated indicator values emerge as regards the head of state territorial linkage as given by table B.14.

Table B.13: Head of state linkage and ethnic designations (territorial, Yugoslavia 1990)

Administrative unit	Share of presidency	Ethnic designation
Bosnia and Herzegovina	0.125	Bosniaks / Muslims
Croatia	0.125	Croats
Kosovo	0.125	-
Macedonia	0.125	Macedonians
Montenegro	0.125	Montenegrins
Serbia	0.125	Serbs
Slovenia	0.125	Slovenes
Vojvodina	0.125	-

Table B.14: Head of state linkage: Degree of corporate power-sharing (Yugoslavia, 1990)

Group	Head of state linkage (territorial)
Serbs	0.48
Croats	0.625
Bosniaks/Muslims	1
Albanians	1
Slovenes	1
Macedonians	1
Montenegrins	1
Hungarians	0
Roma	0
Other	0

B.1.8 All CPSD variables

CPSD variables: ID

Table B.15: CPSD Variables: ID

Variable	Description	Agg. type
country	NA	NA
cowcode	NA	NA
stateabb	NA	NA
systyear	Year during which constitutional system was adopted based on CCP; some manually modified based on own research.	NA
evntyear	Year of last constitutional event based on CCP; some manually modified based on own research.	NA
systid	Constitutional system ID based on CCP; some manually modified based on own research.	NA
evntid	Constitutional event ID based on CCP; some manually modified based on own research.	NA
evnttype	Constitutional event type based on CCP; some manually modified based on own research.	NA

CPSD variables in the horizontal dimension

Table B.16: CPSD Variables: Horizontal

Variable	Description	Agg. type
hos*	Number of Head of State positions and name given to Head of State. If there is only one executive, this is always coded as HOS.	NA
hog_hos*	Does the Head of Government propose / appoint / propose dismissing / approve dismissing the Head of State?	5;13
hosd_hos*	Does the Head of State Deputy propose / appoint / propose dismissing / approve dismissing the Head of State?	5;13
hogd_hos*	Does the Head of Government Deputy propose / appoint / propose dismissing / approve dismissing the Head of State?	5;13
cab_hos*	Does the Cabinet propose / appoint / propose dismissing / approve dismissing the Head of State?	5;13

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
lh_hos*	Does the Lower House propose / appoint [with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Head of State?	5;8;13
uh_hos*	Does the Upper House propose / appoint [with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Head of State?	5;8;13
th_hos*	Does the Third House propose / appoint [with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Head of State?	5;8;13
hc_hos*	Does the Highest Ordinary Court propose / appoint / propose dismissing / approve dismissing the Head of State?	5;13
cc_hos*	Does the Constitutional Court propose / appoint / propose dismissing / approve dismissing the Head of State?	5;13
sub_hos*	Do subnational territorial units propose / appoint / propose dismissing / approve dismissing the Head of State?	13
pub_hos*	Does the public propose / appoint [with which majority / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Head of State?	5;8;13
hog*	Number of Head of Government positions and name given to Head of Government.	NA

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
hos_hog*	Does the Head of State propose / appoint / propose dismissing / approve dismissing the Head of Government?	5;13
hosd_hog*	Does the Head of State Deputy propose / appoint / propose dismissing / approve dismissing the Head of Government?	5;13
hogd_hog*	Does the Head of Government Deputy propose / appoint / propose dismissing / approve dismissing the Head of Government?	5;13
cab_hog*	Does the Cabinet propose / appoint / propose dismissing / approve dismissing the Head of Government?	5;13
lh_hog*	Does the Lower House propose / appoint [with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Head of Government?	5;8;13
uh_hog*	Does the Upper House propose / appoint [with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Head of Government?	5;8;13
th_hog*	Does the Third House propose / appoint [with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Head of Government?	5;8;13
hc_hog*	Does the Highest Ordinary Court propose / appoint / propose dismissing / approve dismissing the Head of Government?	5;13
cc_hog*	Does the Constitutional Court propose / appoint / propose dismissing / approve dismissing the Head of Government?	5;13
sub_hog*	Do subnational territorial units propose / appoint / propose dismissing / approve dismissing the Head of Government?	13

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
pub_hog*	Does the public propose / appoint [with which majority / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Head of Government?	5;8;13
hosd*	Number of Head of State Deputy positions and name given to Head of State Deputy.	NA
hos_hosd*	Does the Head of State propose / appoint / propose dismissing / approve dismissing the Head of State Deputy?	5;13
hog_hosd*	Does the Head of Government propose / appoint / propose dismissing / approve dismissing the Head of State Deputy?	5;13
hogd_hosd*	Does the Head of Government Deputy propose / appoint / propose dismissing / approve dismissing the Head of State Deputy?	5;13
cab_hosd*	Does the Cabinet propose / appoint / propose dismissing / approve dismissing the Head of State Deputy?	5;13
lh_hosd*	Does the Lower House propose / appoint [with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Head of State Deputy?	5;8;13
uh_hosd*	Does the Upper House propose / appoint [with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Head of State Deputy?	5;8;13

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
th_hosd*	Does the Third House propose / appoint [with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Head of State Deputy?	5;8;13
hc_hosd*	Does the Highest Ordinary Court propose / appoint / propose dismissing / approve dismissing the Head of State Deputy?	5;13
cc_hosd*	Does the Constitutional Court propose / appoint / propose dismissing / approve dismissing the Head of State Deputy?	5;13
sub_hosd*	Do subnational territorial units propose / appoint / propose dismissing / approve dismissing the Head of State Deputy?	13
pub_hosd*	Does the public propose / appoint [with which majority / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Head of State Deputy?	5;8;13
hogd*	Number of Head of Government Deputy positions and name given to Head of Government Deputy.	NA
hos_hogd*	Does the Head of State propose / appoint / propose dismissing / approve dismissing the Head of Government Deputy?	5;13
hog_hogd*	Does the Head of Government propose / appoint / propose dismissing / approve dismissing the Head of Government Deputy?	5;13
hosd_hogd*	Does the Head of State Deputy propose / appoint / propose dismissing / approve dismissing the Head of Government Deputy?	5;13
cab_hogd*	Does the Cabinet propose / appoint / propose dismissing / approve dismissing the Head of Government Deputy?	5;13

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
lh_hogd*	Does the Lower House propose / appoint [with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Head of Government Deputy?	5;8;13
uh_hogd*	Does the Upper House propose / appoint [with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Head of Government Deputy?	5;8;13
th_hogd*	Does the Third House propose / appoint [with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Head of Government Deputy?	5;8;13
hc_hogd*	Does the Highest Ordinary Court propose / appoint / propose dismissing / approve dismissing the Head of Government Deputy?	5;13
cc_hogd*	Does the Constitutional Court propose / appoint / propose dismissing / approve dismissing the Head of Government Deputy?	5;13
sub_hogd*	Do subnational territorial units propose / appoint / propose dismissing / approve dismissing the Head of Government Deputy?	13
pub_hogd*	Does the public propose / appoint [with which majority / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Head of Government Deputy?	5;8;13

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
cab*	Cabinet existence, name given to Cabinet, and number of seats in Cabinet.	NA
hos_cab*	Does the Head of State propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Cabinet?	5;13
hog_cab*	Does the Head of Government propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Cabinet?	5;13
hosd_cab*	Does the Head of State Deputy propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Cabinet?	5;13
hogd_cab*	Does the Head of Government Deputy propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Cabinet?	5;13
lh_cab*	Does the Lower House propose / appoint [how many seats / which percentage of seats / with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Cabinet?	5;8;13
uh_cab*	Does the Upper House propose / appoint [how many seats / which percentage of seats / with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Cabinet?	5;8;13
th_cab*	Does the Third House propose / appoint [how many seats / which percentage of seats / with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Cabinet?	5;8;13

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
hc_cab*	Does the Highest Ordinary Court propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Cabinet?	5;13
cc_cab*	Does the Constitutional Court propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Cabinet?	5;13
sub_cab*	Do subnational territorial units propose / appoint / propose dismissing / approve dismissing the Cabinet?	13
pub_cab*	Does the public propose / appoint [how many seats / which percentage of seats / with which majority / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Cabinet?	5;8;13
mcom*	Minority Commission existence, name given to Minority Commission, and number of seats in Minority Commission.	NA
hos_mcom*	Does the Head of State propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Minority Commission?	5;13
hog_mcom*	Does the Head of Government propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Minority Commission?	5;13
hosd_mcom*	Does the Head of State Deputy propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Minority Commission?	5;13
hagd_mcom*	Does the Head of Government Deputy propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Minority Commission?	5;13
cab_mcom*	Does the Cabinet propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Minority Commission?	5;13

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
lh_mcom*	Does the Lower House propose / appoint [how many seats / which percentage of seats / with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Minority Commission?	5;8;13
uh_mcom*	Does the Upper House propose / appoint [how many seats / which percentage of seats / with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Minority Commission?	5;8;13
th_mcom*	Does the Third House propose / appoint [how many seats / which percentage of seats / with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Minority Commission?	5;8;13
hc_mcom*	Does the Highest Ordinary Court propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Minority Commission?	5;13
cc_mcom*	Does the Constitutional Court propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Minority Commission?	5;13
sub_mcom*	Do subnational territorial units propose / appoint / propose dismissing / approve dismissing the Minority Commission?	13

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
pub_mcom*	Does the public propose / appoint [how many seats / which percentage of seats / with which majority / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Minority Commission?	5;8;13
hos_quota_party_elec	Are there electoral quotas for the Head of State position? Which percentage of votes is required to enter?	9
hos_diachronic_party_elec	Are there electoral rotation rules for the Head of State position? Which percentage of votes is required to enter?	9
hos_quota_party_spec	Are there specific party quotas for the Head of State position?	6
hos_diachronic_party_spec	Are there specific party rotation rules for the Head of State position?	6
hos_quota_ethnic	Are there ethnic group quotas for the Head of State position?	6
hos_diachronic_ethnic	Are there ethnic group rotation rules for the Head of State position?	6
hos_quota_territory	Are there territorial quotas for the Head of State position?	14
hos_diachronic_territory	Are there territorial rotation rules for the Head of State position?	14
hog_quota_party_elec	Are there electoral quotas for the Head of Government position? Which percentage of votes is required to enter?	9
hog_diachronic_party_elec	Are there electoral rotation rules for the Head of Government position? Which percentage of votes is required to enter?	9
hog_quota_party_spec	Are there specific party quotas for the Head of Government position?	6
hog_diachronic_party_spec	Are there specific party rotation rules for the Head of Government position?	6
hog_quota_ethnic	Are there ethnic group quotas for the Head of Government position?	6
hog_diachronic_ethnic	Are there ethnic group rotation rules for the Head of Government position?	6
hog_quota_territory	Are there territorial quotas for the Head of Government position?	14
hog_diachronic_territory	Are there territorial rotation rules for the Head of Government position?	14

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
hosd_quota_party_elec	Are there electoral quotas for the Head of State Deputy position? Which percentage of votes is required to enter?	9
hosd_diachronic_party_elec	Are there electoral rotation rules for the Head of State Deputy position? Which percentage of votes is required to enter?	9
hosd_quota_party_spec	Are there specific party quotas for the Head of State Deputy position?	6
hosd_diachronic_party_spec	Are there specific party rotation rules for the Head of State Deputy position?	6
hosd_quota_ethnic	Are there ethnic group quotas for the Head of State Deputy position?	6
hosd_diachronic_ethnic	Are there ethnic group rotation rules for the Head of State Deputy position?	6
hosd_quota_territory	Are there territorial quotas for the Head of State Deputy position?	14
hosd_diachronic_territory	Are there territorial rotation rules for the Head of State Deputy position?	14
hogd_quota_party_elec	Are there electoral quotas for the Head of Government Deputy position? Which percentage of votes is required to enter?	9
hogd_diachronic_party_elec	Are there electoral rotation rules for the Head of Government Deputy position? Which percentage of votes is required to enter?	9
hogd_quota_party_spec	Are there specific party quotas for the Head of Government Deputy position?	6
hogd_diachronic_party_spec	Are there specific party rotation rules for the Head of Government Deputy position?	6
hogd_quota_ethnic	Are there ethnic group quotas for the Head of Government Deputy position?	6
hogd_diachronic_ethnic	Are there ethnic group rotation rules for the Head of Government Deputy position?	6
hogd_quota_territory	Are there territorial quotas for the Head of Government Deputy position?	14
hogd_diachronic_territory	Are there territorial rotation rules for the Head of Government Deputy position?	14
cab_quota_party_elec	Are there electoral quotas for the Cabinet? Which percentage of votes is required to enter?	9
cab_quota_party_spec	Are there specific party quotas for the Cabinet?	6
cab_quota_ethnic	Are there ethnic group quotas for the Cabinet?	6
cab_quota_territory	Are there territorial quotas for the Cabinet?	14
mcom_quota_party_elec	Are there electoral quotas for the Minority Commission? Which percentage of votes is required to enter?	9
mcom_quota_party_spec	Are there specific party quotas for the Minority Commission?	6
mcom_quota_ethnic	Are there ethnic group quotas for the Minority Commission?	6

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
mcom_quota_territory	Are there territorial quotas for the Minority Commission?	14
lh*	Lower House existence, name given to Lower House, and number of seats in Lower House.	NA
hos_lh*	Does the Head of State propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Lower House?	5;13
hog_lh*	Does the Head of Government propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Lower House?	5;13
hosd_lh*	Does the Head of State Deputy propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Lower House?	5;13
hogd_lh*	Does the Head of Government Deputy propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Lower House?	5;13
cab_lh*	Does the Cabinet propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Lower House?	5;13
lh_lh*	Does the Lower House propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Lower House?	5;13
uh_lh*	Does the Upper House propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Lower House?	5;13
th_lh*	Does the Third House propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Lower House?	5;13
sub_lh*	Do subnational territorial units propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Lower House?	13
pub_lh*	Does the public propose / appoint [how many seats / which percentage of seats / with PR electoral system / with majoritarian electoral system / with which district magnitude / with which legal threshold] / propose dismissing / approve dismissing the Lower House?	10

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
lhs	Number of Lower House Speakers, name given to Lower House Speaker; is [Head of State / Head of Government / Head of State Deputy / Head of Government Deputy / Cabinet member / House member] the Speaker?	NA
uh*	Upper House existence, name given to Upper House, and number of seats in Upper House.	NA
hos_uh*	Does the Head of State propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Upper House?	5;13
hog_uh*	Does the Head of Government propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Upper House?	5;13
hosd_uh*	Does the Head of State Deputy propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Upper House?	5;13
hogd_uh*	Does the Head of Government Deputy propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Upper House?	5;13
cab_uh*	Does the Cabinet propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Upper House?	5;13
lh_uh*	Does the Lower House propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Upper House?	5;13
uh_uh*	Does the Upper House propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Upper House?	5;13
th_uh*	Does the Third House propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Upper House?	5;13
sub_uh*	Do subnational territorial units propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Upper House?	13

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
pub_uh*	Does the public propose / appoint [how many seats / which percentage of seats / with PR electoral system / with majoritarian electoral system / with which district magnitude / with which legal threshold] / propose dismissing / approve dismissing the Upper House?	10
uhs	Number of Upper House Speakers, name given to Upper House Speaker; is [Head of State / Head of Government / Head of State Deputy / Head of Government Deputy / Cabinet member / House member] the Speaker?	NA
th*	Third House existence, name given to Third House, and number of seats in Third House.	NA
hos_th*	Does the Head of State propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Third House?	5;13
hog_th*	Does the Head of Government propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Third House?	5;13
hosd_th*	Does the Head of State Deputy propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Third House?	5;13
hogd_th*	Does the Head of Government Deputy propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Third House?	5;13
cab_th*	Does the Cabinet propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Third House?	5;13
lh_th*	Does the Lower House propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Third House?	5;13
uh_th*	Does the Upper House propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Third House?	5;13
th_th*	Does the Third House propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Third House?	5;13

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
sub_th*	Do subnational territorial units propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Third House?	13
pub_th*	Does the public propose / appoint [how many seats / which percentage of seats / with PR electoral system / with majoritarian electoral system / with which district magnitude / with which legal threshold] / propose dismissing / approve dismissing the Third House?	10
ths	Number of Third House Speakers, name given to Third House Speaker; is [Head of State / Head of Government / Head of State Deputy / Head of Government Deputy / Cabinet member / House member] the Speaker?	NA
lh_quota_party_elec	Are there electoral quotas for the Lower House? How many seats / which percentage of seats is reserved for electoral minority parties?	11
lh_quota_party_spec	Are there specific party quotas for the Lower House?	6
lh_quota_ethnic	Are there ethnic group quotas for the Lower House?	6
lh_quota_territory	Are there territorial quotas for the Lower House?	14
lhs_quota_party_elec	Are there electoral quotas for the Lower House Speaker? How many seats / which percentage of seats is reserved for electoral minority parties?	11
lhs_diachronic_party_elec	Are there electoral rotation rules for the Lower House Speaker? How many seats / which percentage of seats is reserved for electoral minority parties?	11
lhs_quota_party_spec	Are there specific party quotas for the Lower House Speaker?	6
lhs_diachronic_party_spec	Are there specific party rotation rules for the Lower House Speaker?	6
lhs_quota_ethnic	Are there ethnic group quotas for the Lower House Speaker?	6
lhs_diachronic_ethnic	Are there ethnic group rotation rules for the Lower House Speaker?	6
lhs_quota_territory	Are there territorial quotas for the Lower House Speaker?	14
lhs_diachronic_territory	Are there territorial rotation rules for the Lower House Speaker?	14
uh_quota_party_elec	Are there electoral quotas for the Upper House? How many seats / which percentage of seats is reserved for electoral minority parties?	11
uh_quota_party_spec	Are there specific party quotas for the Upper House?	6

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
uh_quota_ethnic	Are there ethnic group quotas for the Upper House?	6
uh_quota_territory	Are there territorial quotas for the Upper House?	14
uhs_quota_party_elec	Are there electoral quotas for the Upper House Speaker? How many seats / which percentage of seats is reserved for electoral minority parties?	11
uhs_diachronic_party_elec	Are there electoral rotation rules for the Upper House Speaker? How many seats / which percentage of seats is reserved for electoral minority parties?	11
uhs_quota_party_spec	Are there specific party quotas for the Upper House Speaker?	6
uhs_diachronic_party_spec	Are there specific party rotation rules for the Upper House Speaker?	6
uhs_quota_ethnic	Are there ethnic group quotas for the Upper House Speaker?	6
uhs_diachronic_ethnic	Are there ethnic group rotation rules for the Upper House Speaker?	6
uhs_quota_territory	Are there territorial quotas for the Upper House Speaker?	14
uhs_diachronic_territory	Are there territorial rotation rules for the Upper House Speaker?	14
th_quota_party_elec	Are there electoral quotas for the Third House? How many seats / which percentage of seats is reserved for electoral minority parties?	11
th_quota_party_spec	Are there specific party quotas for the Third House?	6
th_quota_ethnic	Are there ethnic group quotas for the Third House?	6
th_quota_territory	Are there territorial quotas for the Third House?	14
ths_quota_party_elec	Are there electoral quotas for the Third House Speaker? How many seats / which percentage of seats is reserved for electoral minority parties?	11
ths_diachronic_party_elec	Are there electoral rotation rules for the Third House Speaker? How many seats / which percentage of seats is reserved for electoral minority parties?	11
ths_quota_party_spec	Are there specific party quotas for the Third House Speaker?	6
ths_diachronic_party_spec	Are there specific party rotation rules for the Third House Speaker?	6
ths_quota_ethnic	Are there ethnic group quotas for the Third House Speaker?	6
ths_diachronic_ethnic	Are there ethnic group rotation rules for the Third House Speaker?	6
ths_quota_territory	Are there territorial quotas for the Third House Speaker?	14

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
ths_diachronic_territory	Are there territorial rotation rules for the Third House Speaker?	14
hc*	Highest Ordinary Court existence, name given to Highest Ordinary Court, and number of seats in Highest Ordinary Court.	NA
hos_hc*	Does the Head of State propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Highest Ordinary Court?	5;13
hog_hc*	Does the Head of Government propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Highest Ordinary Court?	5;13
hosd_hc*	Does the Head of State Deputy propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Highest Ordinary Court?	5;13
hogd_hc*	Does the Head of Government Deputy propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Highest Ordinary Court?	5;13
cab_hc*	Does the Cabinet propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Highest Ordinary Court?	5;13
lh_hc*	Does the Lower House propose / appoint [how many seats / which percentage of seats / with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Highest Ordinary Court?	5;8;13
uh_hc*	Does the Upper House propose / appoint [how many seats / which percentage of seats / with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Highest Ordinary Court?	5;8;13

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
th_hc*	Does the Third House propose / appoint [how many seats / which percentage of seats / with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Highest Ordinary Court?	5;8;13
cc_hc*	Does the Constitutional Court propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Highest Ordinary Court?	5;13
jc_hc*	Does the Judicial Commission propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Highest Ordinary Court?	5;13
sub_hc*	Do subnational territorial units propose / appoint [with which percentage of units required] / propose dismissing / approve dismissing the Highest Ordinary Court?	13
cc*	Constitutional Court existence, name given to Constitutional Court, and number of seats in Constitutional Court.	NA
hos_cc*	Does the Head of State propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Constitutional Court?	5;13
hogd_cc*	Does the Head of Government propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Constitutional Court?	5;13
hosd_cc*	Does the Head of State Deputy propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Constitutional Court?	5;13
hogd_cc*	Does the Head of Government Deputy propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Constitutional Court?	5;13
cab_cc*	Does the Cabinet propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Constitutional Court?	5;13

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
lh_cc*	Does the Lower House propose / appoint [how many seats / which percentage of seats / with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Constitutional Court?	5;8;13
uh_cc*	Does the Upper House propose / appoint [how many seats / which percentage of seats / with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Constitutional Court?	5;8;13
th_cc*	Does the Third House propose / appoint [how many seats / which percentage of seats / with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Constitutional Court?	5;8;13
hc_cc*	Does the Highest Ordinary Court propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Constitutional Court?	5;13
jc_cc*	Does the Judicial Commission propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Constitutional Court?	5;13
sub_cc*	Do subnational territorial units propose / appoint [with which percentage of units required] / propose dismissing / approve dismissing the Constitutional Court?	13
jc*	Judicial Commission existence, name given to Judicial Commission, and number of seats in Judicial Commission.	NA

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
hos_jc*	Does the Head of State propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Judicial Commission?	5;13
hog_jc*	Does the Head of Government propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Judicial Commission?	5;13
hosd_jc*	Does the Head of State Deputy propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Judicial Commission?	5;13
hogd_jc*	Does the Head of Government Deputy propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Judicial Commission?	5;13
cab_jc*	Does the Cabinet propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Judicial Commission?	5;13
lh_jc*	Does the Lower House propose / appoint [how many seats / which percentage of seats / with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Judicial Commission?	5;8;13
uh_jc*	Does the Upper House propose / appoint [how many seats / which percentage of seats / with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Judicial Commission?	5;8;13

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
th_jc*	Does the Third House propose / appoint [how many seats / which percentage of seats / with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Judicial Commission?	5;8;13
cc_jc*	Does the Constitutional Court propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Judicial Commission?	5;13
hc_jc*	Does the Highest Ordinary Court propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Judicial Commission?	5;13
sub_jc*	Do subnational territorial units propose / appoint [with which percentage of units required] / propose dismissing / approve dismissing the Judicial Commission?	13
hc_quota_party_elec	Are there electoral quotas for the Highest Ordinary Court? Which percentage of votes is required to enter?	9
hc_quota_party_spec	Are there specific party quotas for the Highest Ordinary Court?	6
hc_quota_ethnic	Are there ethnic group quotas for the Highest Ordinary Court?	6
hc_quota_territory	Are there territorial quotas for the Highest Ordinary Court?	14
cc_quota_party_elec	Are there electoral quotas for the Constitutional Court? Which percentage of votes is required to enter?	9
cc_quota_party_spec	Are there specific party quotas for the Constitutional Court?	6
cc_quota_ethnic	Are there ethnic group quotas for the Constitutional Court?	6
cc_quota_territory	Are there territorial quotas for the Constitutional Court?	14
jc_quota_party_elec	Are there electoral quotas for the Judicial Commission? Which percentage of votes is required to enter?	9
jc_quota_party_spec	Are there specific party quotas for the Judicial Commission?	6
jc_quota_ethnic	Are there ethnic group quotas for the Judicial Commission?	6

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
jc_quota_territory	Are there territorial quotas for the Judicial Commission?	14
hos_cic*	Does the Head of State propose / appoint / propose dismissing / approve dismissing the Commander-in-Chief?	5;13
hog_cic*	Does the Head of Government propose / appoint / propose dismissing / approve dismissing the Commander-in-Chief?	5;13
hosd_cic*	Does the Head of State Deputy propose / appoint / propose dismissing / approve dismissing the Commander-in-Chief?	5;13
hagd_cic*	Does the Head of Government Deputy propose / appoint / propose dismissing / approve dismissing the Commander-in-Chief?	5;13
cab_cic*	Does the Cabinet propose / appoint / propose dismissing / approve dismissing the Commander-in-Chief?	5;13
lh_cic*	Does the Lower House propose / appoint [with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Commander-in-Chief?	5;8;13
uh_cic*	Does the Upper House propose / appoint [with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Commander-in-Chief?	5;8;13
th_cic*	Does the Third House propose / appoint [with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Commander-in-Chief?	5;8;13
hc_cic*	Does the Highest Ordinary Court propose / appoint / propose dismissing / approve dismissing the Commander-in-Chief?	5;13

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
cc_cic*	Does the Constitutional Court propose / appoint / propose dismissing / approve dismissing the Commander-in-Chief?	5;13
sc*	Security Commission existence, name given to Security Commission, and number of seats in Security Commission.	NA
hos_sc*	Does the Head of State propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Security Commission?	5;13
hog_sc*	Does the Head of Government propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Security Commission?	5;13
hosd_sc*	Does the Head of State Deputy propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Security Commission?	5;13
hogd_sc*	Does the Head of Government Deputy propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Security Commission?	5;13
cab_sc*	Does the Cabinet propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Security Commission?	5;13
lh_sc*	Does the Lower House propose / appoint [how many seats / which percentage of seats / with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Security Commission?	5;8;13
uh_sc*	Does the Upper House propose / appoint [how many seats / which percentage of seats / with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Security Commission?	5;8;13

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
th_sc*	Does the Third House propose / appoint [how many seats / which percentage of seats / with which majority / with which influence share / with party veto / with which percentage of parties required / with ethnic veto / with which percentage of ethnic groups required / with territorial veto / with which percentage of territorial units required] / propose dismissing / approve dismissing the Security Commission?	5;8;13
hc_sc*	Does the Highest Ordinary Court propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Security Commission?	5;13
cc_sc*	Does the Constitutional Court propose / appoint [how many seats / which percentage of seats] / propose dismissing / approve dismissing the Security Commission?	5;13
cic_quota_party_elec	Are there electoral quotas for the Commander-in-Chief position? Which percentage of votes is required to enter?	9
cic_diachronic_party_elec	Are there electoral rotation rules for the Commander-in-Chief position? Which percentage of votes is required to enter?	9
cic_quota_party_spec	Are there specific party quotas for the Commander-in-Chief position?	6
cic_diachronic_party_spec	Are there specific party rotation rules for the Commander-in-Chief position?	6
cic_quota_ethnic	Are there ethnic group quotas for the Commander-in-Chief position?	6
cic_diachronic_ethnic	Are there ethnic group rotation rules for the Commander-in-Chief position?	6
cic_quota_territory	Are there territorial quotas for the Commander-in-Chief position?	14
cic_diachronic_territory	Are there territorial rotation rules for the Commander-in-Chief position?	14
sc_quota_party_elec	Are there electoral quotas for the Security Commission? Which percentage of votes is required to enter?	9
sc_quota_party_spec	Are there specific party quotas for the Security Commission?	6
sc_quota_ethnic	Are there ethnic group quotas for the Security Commission?	6
sc_quota_territory	Are there territorial quotas for the Security Commission?	14

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
off_quota_party_elec	Are there electoral quotas for the Military Officers? Which percentage of votes is required to enter?	9
off_quota_party_spec	Are there specific party quotas for the Military Officers?	6
off_quota_ethnic	Are there ethnic group quotas for the Military Officers?	6
off_quota_territory	Are there territorial quotas for the Military Officers?	14
mil_quota_party_elec	Are there electoral quotas for the Military Forces? Which percentage of votes is required to enter?	9
mil_quota_party_spec	Are there specific party quotas for the Military Forces?	6
mil_quota_ethnic	Are there ethnic group quotas for the Military Forces?	6
mil_quota_territory	Are there territorial quotas for the Military Forces?	14
pol_quota_party_elec	Are there electoral quotas for the Police Forces? Which percentage of votes is required to enter?	9
pol_quota_party_spec	Are there specific party quotas for the Police Forces?	6
pol_quota_ethnic	Are there ethnic group quotas for the Police Forces?	6
pol_quota_territory	Are there territorial quotas for the Police Forces?	14
hos_leg*	Can the Head of State propose / delay / veto / propose to constitutionally review legislation?	7;15
hog_leg*	Can the Head of Government propose / delay / veto / propose to constitutionally review legislation?	7;15
hosd_leg*	Can the Head of State Deputy propose / delay / veto / propose to constitutionally review legislation?	7;15
hogd_leg*	Can the Head of Government Deputy propose / delay / veto / propose to constitutionally review legislation?	7;15
cab_leg*	Can the Cabinet propose / delay / veto / propose to constitutionally review legislation?	7;15
hc_leg*	Can the Highest Ordinary Court propose / delay / veto / propose to constitutionally review legislation?	7;15
cc_leg*	Can the Constitutional Court propose / delay / veto / constitutionally review legislation?	7;15

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
lh_leg*	Can the Lower House propose / delay / veto [with which majority 1/2 / with specific party veto [and with which percentage of indicated parties 1/2] / with ethnic group veto [and with which percentage of indicated groups 1/2] / with territorial subunit veto [and with which percentage of indicated subunits ½]] / propose to constitutionally review legislation?	7;12;15
uh_leg*	Can the Upper House propose / delay / veto [with which majority 1/2 / with specific party veto [and with which percentage of indicated parties 1/2] / with ethnic group veto [and with which percentage of indicated groups 1/2] / with territorial subunit veto [and with which percentage of indicated subunits ½]] / propose to constitutionally review legislation?	7;12;15
th_leg*	Can the Third House propose / delay / veto [with which majority 1/2 / with specific party veto [and with which percentage of indicated parties 1/2] / with ethnic group veto [and with which percentage of indicated groups 1/2] / with territorial subunit veto [and with which percentage of indicated subunits ½]] / propose to constitutionally review legislation?	7;12;15
sub_leg*	Can Subnational Units propose / delay / veto [with which percentage of indicated units 1/2] / propose to constitutionally review legislation?	15
pub_leg*	Can the Public propose / veto [with which majority 1/2 / with specific party veto [and with which percentage of indicated parties 1/2] / with ethnic group veto [and with which percentage of indicated groups 1/2] / with territorial subunit veto [and with which percentage of indicated subunits ½]] / propose to constitutionally review legislation?	7;12;15
hos_amnd*	Can the Head of State propose / delay / veto constitutional amendments?	7;15
hog_amnd*	Can the Head of Government propose / delay / veto constitutional amendments?	7;15
hosd_amnd*	Can the Head of State Deputy propose / delay / veto constitutional amendments?	7;15
hagd_amnd*	Can the Head of Government Deputy propose / delay / veto constitutional amendments?	7;15
cab_amnd*	Can the Cabinet propose / delay / veto constitutional amendments?	7;15

CPSD Variables: Horizontal, continued

Variable	Description	Agg. type
hc_amnd*	Can the Highest Ordinary Court propose / delay / veto constitutional amendments?	7;15
cc_amnd*	Can the Constitutional Court propose / delay / veto / constitutionally review constitutional amendments?	7;15
lh_amnd*	Can the Lower House propose / delay / veto [with which majority 1/2 / with specific party veto [and with which percentage of indicated parties 1/2] / with ethnic group veto [and with which percentage of indicated groups 1/2] / with territorial subunit veto [and with which percentage of indicated subunits ½]] constitutional amendments?	7;12;15
uh_amnd*	Can the Upper House propose / delay / veto [with which majority 1/2 / with specific party veto [and with which percentage of indicated parties 1/2] / with ethnic group veto [and with which percentage of indicated groups 1/2] / with territorial subunit veto [and with which percentage of indicated subunits ½]] constitutional amendments?	7;12;15
th_amnd*	Can the Third House propose / delay / veto [with which majority 1/2 / with specific party veto [and with which percentage of indicated parties 1/2] / with ethnic group veto [and with which percentage of indicated groups 1/2] / with territorial subunit veto [and with which percentage of indicated subunits ½]] constitutional amendments?	7;12;15
sub_amnd*	Can Subnational Units propose / delay / veto [with which percentage of indicated units 1/2] constitutional amendments?	15
pub_amnd*	Can the Public propose / veto [with which majority 1/2 / with specific party veto [and with which percentage of indicated parties 1/2] / with ethnic group veto [and with which percentage of indicated groups 1/2] / with territorial subunit veto [and with which percentage of indicated subunits ½]] constitutional amendments?	7;12;15

Notes: * indicates that there exist subvariables (e.g. on the ethnic, territorial, religion, or language level) starting with the same expression.

CPSD variables in the vertical dimension

Table B.17: CPSD Variables: Vertical

Variable	Description	Agg. type
sa_fed_territory	Is the state structure described as federal or confederal or decentralized?	4
sa_aut_territory	Are there autonomous regions?	4
sa_aut_ethnic	Are there autonomous ethnic groups?	1

*Notes: * indicates that there exist subvariables (e.g. on the ethnic, territorial, religion, or language level) starting with the same expression.*

CPSD variables in the cultural dimension

Table B.18: CPSD Variables: Cultural

Variable	Description	Agg. type
rec_party_spec	Are specific parties explicitly recognized in the constitution?	1
pref_party_spec	Does the constitutions express a preference for specific parties?	1
rec_ethnic	Are specific ethnic groups explicitly recognized in the constitution?	1
pref_ethnic	Does the constitutions express a preference for specific ethnic groups?	1
ngaut_ethnic	Are specific ethnic groups explicitly given the rights to their own non-governmental organizations? / Are diverse (unnamed) ethnic groups given this right?	1
cust_ethnic	Are specific ethnic groups explicitly given the rights to their own customs or culture? / Are diverse (unnamed) ethnic groups given this right?	1;4
land_ethnic	Are specific ethnic groups explicitly given the rights to their own reserved lands? / Are diverse (unnamed) ethnic groups given this right?	1
edu_ethnic	Are specific ethnic groups explicitly given the rights to their own educational systems? / Are diverse (unnamed) ethnic groups given this right?	1;4
med_ethnic	Are specific ethnic groups explicitly given the rights to their own media? / Are diverse (unnamed) ethnic groups given this right?	1
jud_ethnic	Are specific ethnic groups explicitly given the rights to their own judicial systems? / Are diverse (unnamed) ethnic groups given this right?	1;4
gov_ethnic	Are specific ethnic groups explicitly given the rights to their own government positions at local levels? Or is the state, at any level, associated with them, e.g. through reserved posts or policies? / Are diverse (unnamed) ethnic groups given this right?	1
symb_ethnic	Are specific ethnic groups' symbols constitutionally recognized? / Are diverse (unnamed) ethnic groups' symbols recognized?	1;4
rec_relig	Are specific religions explicitly recognized in the constitution?	2
pref_relig	Does the constitution express a preference for specific religions?	2
ngaut_relig	Are specific religions explicitly given the rights to their own non-governmental organizations? / Are diverse (unnamed) religions given this right?	2
cust_relig	Are specific religions explicitly given the rights to their own customs or culture? / Are diverse (unnamed) religions given this right?	2

CPSD Variables: Cultural, continued

Variable	Description	Agg. type
edu_relig	Are specific religions explicitly given the rights to their own educational systems? / Are diverse (unnamed) religions given this right?	2
jud_relig	Are specific religions explicitly given the rights to their own judicial systems? / Are diverse (unnamed) religions given this right?	2
gov_relig	Are specific religions explicitly given the rights to their own government positions at local levels? Or is the state, at any level, associated with them, e.g. through reserved posts or policies? / Are diverse (unnamed) religions given this right?	2
symb_relig	Are specific religions' symbols constitutionally recognized? / Are diverse (unnamed) religions' symbols recognized?	2
rec_lang	Are specific languages explicitly recognized in the constitution?	2
pref_lang	Does the constitutions express a preference for specific languages?	2
edu_lang	Is education guaranteed to be in specific languages? / Is education guaranteed to be multilingual?	2
ngaut_lang	Are specific language speakers explicitly given the rights to their own non-governmental organizations? / Are diverse (unnamed) languages given this right?	2
med_lang	Are specific language groups explicitly given the rights to their own media? / Are diverse (unnamed) language groups given this right?	2
court_lang	Are court procedures guaranteed to be in specific languages?	2
gov_lang	Are specific languages to be used in government positions? Or is the state, at any level, associated with specific languages, e.g. specific language policies? / Are diverse (unnamed) language groups given this right?	2
symb_lang	Are specific linguistic symbols constitutionally recognized? / Are there multilingual symbols?	2

CPSD variables in the economic dimension

Table B.19: CPSD Variables: Economic

Variable	Description	Agg. type
edu_comp	Are there provisions for compulsory education? For how many years?	3
edu_free	Are there provisions for free education? For how many years?	3
edu_unemp	Are there provisions for unemployment programs or continuing adult education?	3
edu_antidisc	Are there provisions prohibiting discrimination in educational access? [on an individual / racial / language / religion / ethnic / territorial / party basis]	3
edu_aff_ethnic	Are there provisions for affirmative action programs for educational institutions on an ethnic basis?	1
edu_aff_territory	Are there provisions for affirmative action programs for educational institutions on a territorial basis?	4
edu_aff_class	Are there provisions for affirmative action programs for educational institutions on a class basis? Or provisions for scholarships for economically weak students?	3
edu_aff_disability	Are there provisions for affirmative action programs for educational institutions for disabled persons?	3
emp_antidisc	Are there provisions prohibiting discrimination in employment? [on an individual / racial / language / religion / ethnic / territorial / party basis]	3
income_antidisc	Are there provisions prohibiting discrimination in wages? [on an individual / racial / language / religion / ethnic / territorial / party basis]	3
wage_min	Are there provisions guaranteeing a minimum wage?	3
ins_unemployed	Are there provisions guaranteeing an unemployment insurance?	3
ins_disabled	Are there provisions guaranteeing a disability insurance?	3
ins_elderly	Are there provisions guaranteeing an old age insurance?	3
ins_health	Are there provisions guaranteeing a health insurance?	3
emp_aff_ethnic	Are there provisions for affirmative action programs for employment on an ethnic basis?	1
emp_aff_territory	Are there provisions for affirmative action programs for employment on a territorial basis?	4
emp_aff_class	Are there provisions for affirmative action programs for employment on a class basis? Or provisions for scholarships for economically weak students?	3
emp_aff_disability	Are there provisions for affirmative action programs for employment for disabled persons?	3
tax_inherit	Are there provisions mandating an inheritance tax?	3
tax_pi_ex_class	Are there provisions for progressive income taxation / incometax exemptions for economically weak persons?	3
tax_pi_ex_ethnic	Are there income tax exemptions for specific ethnic groups?	1
tax_pi_ex_territory	Are there income tax exemptions for specific territorial subunits / regions?	4
tax_pi_ex_relig	Are there income tax exemptions for specific religious groups?	NA

CPSD Variables: Economic, continued

Variable	Description	Agg. type
tax_prop_ex_class	Are there provisions for progressive wealth taxation / wealth tax exemptions for economically weak persons?	3
tax_prop_ex_ethnic	Are there wealth tax exemptions for specific ethnic groups?	1
tax_prop_ex_territory	Are there wealth tax exemptions for specific territorial subunits / regions?	4
tax_prop_ex_relig	Are there wealth tax exemptions for specific religious groups?	NA
income_keep_ethnic	Are there provisions guaranteeing a reserved income for specific ethnic groups?	1
income_keep_territory	Are there provisions guaranteeing a reserved income for specific territorial units / regions?	4
income_redib_ethnic	Are there provisions guaranteeing a redistribution of income or subsidies for specific ethnic groups?	1
income_redib_territory	Are there provisions guaranteeing redistribution of income or subsidies for specific territorial units / regions?	4
wealth_redib_ethnic	Are there provisions guaranteeing a redistribution of wealth to specific ethnic groups?	1
wealth_redib_territory	Are there provisions guaranteeing redistribution of wealth to specific territorial units / regions?	4
dev_ethnic	Are there development plans / programs for specific ethnic groups?	1
dev_territory	Are there development plans / programs for specific territorial subunits / regions?	4

B.1.9 Testing underlying dimensions: factor analysis

Table B.20: CPSD indicators: Factor analysis

	Factor 1	Factor 2	Factor 3	Factor 4	Uniqueness
Aut. policy scope cultural (ter. corp.)	0.96	0.02	0.03	0.02	0.10
Aut. policy scope welfare (ter. corp.)	0.96	0.01	0.02	0.02	0.10
Aut. institutional depth (ter. corp.)	0.96	0.04	0.05	0.02	0.10
Aut. policy scope economic (ter. corp.)	0.95	0.02	0.03	0.02	0.10
Aut. legislature (ter. corp.)	0.95	0.05	0.05	0.02	0.10
Aut. executive (ter. corp.)	0.86	0.01	0.10	0.04	0.25
Aut. policy scope institutional (ter. corp.)	0.83	0.06	0.11	-0.04	0.29
Aut. policy scope police (ter. corp.)	0.83	0.00	0.07	0.01	0.31
Aut. policy scope judiciary (ter. corp.)	0.79	-0.01	0.10	0.02	0.37
Aut. fiscal autonomy (ter. corp.)	0.72	0.14	0.08	0.07	0.45
Aut. borrowing autonomy (ter. corp.)	0.72	0.12	-0.03	0.04	0.46
Aut. policy scope residual (ter. corp.)	0.61	0.08	0.26	0.00	0.56
PR upper house (corp.)	0.45	-0.04	0.20	0.01	0.76
Aut. policy scope military (ter. corp.)	0.37	-0.04	0.36	0.00	0.73
Aut. policy scope community (ter. corp.)	0.19	0.10	0.13	-0.01	0.93
PR lower house (corp.)	0.15	-0.04	0.14	-0.01	0.96
PR third house (corp.)	0.13	-0.03	0.09	0.00	0.98
MV supermajority const. amnd.	0.07	0.03	0.04	0.04	0.99
PR lower house (lib.)	0.00	-0.01	0.00	0.00	1.00
Aut. institutional depth (ter. lib.)	0.08	0.92	-0.02	0.09	0.15
Aut. policy scope cultural (ter. lib.)	0.12	0.91	-0.01	0.03	0.16
Aut. policy scope welfare (ter. lib.)	0.11	0.90	-0.01	0.11	0.16
Aut. policy scope economic (ter. lib.)	0.09	0.89	-0.03	0.09	0.19
Aut. fiscal autonomy (ter. lib.)	0.08	0.87	0.00	0.08	0.22
Aut. policy scope institutional (ter. lib.)	0.09	0.87	-0.02	-0.08	0.23
Aut. legislature (ter. lib.)	0.08	0.87	-0.03	0.11	0.23
Aut. executive (ter. lib.)	0.08	0.86	0.00	0.16	0.22
Aut. borrowing autonomy (ter. lib.)	0.08	0.86	-0.01	0.10	0.25
Aut. policy scope police (ter. lib.)	0.09	0.81	-0.01	-0.02	0.34
Aut. policy scope judiciary (ter. lib.)	0.06	0.79	-0.05	-0.01	0.38
Aut. policy scope residual (ter. lib.)	0.04	0.77	0.00	-0.01	0.41
Aut. policy scope military (ter. lib.)	0.02	0.29	0.00	-0.03	0.91
Aut. policy scope community (ter. lib.)	0.06	0.26	0.08	-0.03	0.92
PR upper house (lib.)	0.06	0.22	0.02	0.01	0.95
PR lower house (corp.)	-0.04	0.17	0.02	0.02	0.97
MV supermajority legislation	0.01	0.13	0.03	0.02	0.98
GC upper house speaker (lib.)	0.05	0.10	0.08	-0.01	0.98
GC HOG deputy (lib.)	-0.01	0.07	0.00	-0.01	1.00
GC lower house speaker (lib.)	-0.01	0.04	0.00	-0.01	1.00
PR highest Court (lib.)	-0.02	0.04	0.03	-0.01	1.00
PR commander-in-Chief (corp.)	0.11	-0.01	0.67	0.01	0.54
GC cabinet (corp.)	0.18	-0.03	0.66	0.03	0.53
PR highest Court (corp.)	0.17	-0.01	0.65	0.01	0.55
GC head of state (corp.)	0.13	0.01	0.63	0.01	0.58
GC HOS deputy (corp.)	0.17	-0.03	0.62	0.01	0.58
PR constitutional Court (corp.)	0.13	0.03	0.55	0.01	0.68
PR officer corps (corp.)	0.10	0.00	0.50	0.19	0.71
MV veto rights legislation (corp.)	0.05	0.01	0.45	0.01	0.80
Aut. policy scope secession (ter. corp.)	0.38	-0.07	0.43	0.00	0.67
MV veto rights const. amnd. (corp.)	0.23	0.00	0.38	0.02	0.80
GC upper house speaker (corp.)	0.03	0.01	0.25	0.00	0.94
PR judiciary commission (corp.)	-0.02	0.05	0.24	0.01	0.94
PR commander-in-chief (lib.)	0.03	0.01	0.22	0.00	0.95
GC lower house speaker (corp.)	0.00	-0.02	0.20	0.01	0.96
GC HOS deputy (lib.)	0.08	0.18	0.19	0.00	0.93

GC head of government (corp.)	0.02	-0.01	0.15	0.00	0.98
GC cabinet (lib.)	0.03	0.08	0.12	0.05	0.98
GC head of state (lib.)	0.06	0.03	0.11	-0.01	0.98
GC minority commission (corp.)	-0.03	0.02	0.10	0.00	0.99
PR constitutional court (lib.)	0.00	0.04	0.08	-0.01	0.99
Aut. policy scope judiciary (ter. lib.)	0.02	0.05	0.05	0.04	0.99
GC HOG deputy (corp.)	-0.01	0.00	0.05	0.00	1.00
GC minority commission (lib.)	-0.01	0.02	0.03	0.01	1.00
GC head of government (lib.)	-0.02	-0.02	0.00	0.00	1.00
PR police (lib.)	0.00	0.06	-0.03	0.95	0.10
PR military (lib.)	0.01	0.10	-0.01	0.83	0.29
PR officer corps (lib.)	0.02	0.08	0.01	0.82	0.32
PR police (corp.)	0.04	0.01	0.09	0.40	0.83
PR military (corp.)	0.08	-0.03	0.12	0.12	0.96
PR judiciary commission (lib.)	-0.04	-0.02	-0.01	-0.01	1.00

Appendix C

Appendix for Chapter 5

C.1 Data description

C.1.1 Identification of predecessor groups

To enable the calculation of group-wise power-sharing stocks, for some groups in the augmented EPR group list (Vogt et al. 2015, see chapter 4), their predecessors had to be identified. This refers, for example, to groups settling in states that became independent after the Second World War, such as Bosnia and Herzegovina (from Yugoslavia) or South Sudan (from Sudan). Alternatively, it also refers to groups who became politically relevant over the course of this time period, for example by "splitting off" from a larger umbrella group. For these groups, their predecessors were identified and their previous power-sharing value calculated as follows:

1. Identification of predecessor group(s), mostly by name; if the group was not contained before in a politically relevant group, the predecessor state(s)'s "Other" ethnic category was identified as the predecessor group.
2. Identification of relevant territorial areas for seceded countries; for example, for South Sudan, this refers exclusively to the area that covered the Southern part of its predecessor state, Sudan.
3. Calculate weight of predecessor groups: If there is only one predeces-

sor group, the value 1 was taken; if there were multiple, their relative population shares were taken as weights.

4. Calculate respective power-sharing measure of each predecessor group. If a predecessor group's full territory is equivalent to the subsequent group, the group-level index at the respective year was taken. If not, the indices were calculated exclusively for the territorial areas corresponding to that area. For example, for Bosniaks in Bosnia, exclusively the area corresponding to the Bosnian part of Yugoslavia were taken as the basis for this aggregation.

C.1.2 Descriptive statistics

Table C.1: Descriptive statistics (non-core groups)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
PS corp. h	38,178	0.072	0.150	0.000	0.000	0.087	1.000
PS lib. h	38,178	0.163	0.152	0.000	0.000	0.289	0.779
PS corp. v	38,178	0.095	0.170	0	0	0.1	1
PS lib. v	38,178	0.069	0.154	0	0	0.02	1
PS corp. h diff.	38,178	0.036	0.094	0.000	0.000	0.014	0.918
PS corp. v diff.	38,178	0.034	0.093	0	0	0.004	1
PS corp. h concession	38,178	0.067	0.196	0	0	0.002	1
PS corp. v concession	38,178	0.097	0.235	0	0	0.02	1
PS lib. h concession	38,178	0.017	0.100	0	0	0	1
PS lib. v concession	38,178	0.063	0.199	0	0	0	1
PS corp. h stock	38,178	1.574	3.448	0.000	0.000	1.551	30.659
PS lib. h stock	38,178	3.722	3.678	0.000	0.607	5.895	26.983
PS corp. v stock	38,178	2.329	4.690	0	0	2.1	34
PS lib. v stock	38,178	1.655	4.256	0	0	1.2	44
Size	38,178	0.078	0.123	0.000001	0.006	0.094	0.975
TEK state	38,178	0.189	0.392	0	0	0	1
Previous conflicts	38,178	0.184	0.570	0	0	0	7
GDP pc.	38,178	8,103.776	11,322.020	227.886	1,580.733	10,625.430	158,327.500
Population	38,178	132.412	287.225	0.148	5.790	113.695	1,386.395
Year	38,178	1,986.269	20.043	1,946	1,970	2,004	2,018

Table C.2: Descriptive statistics (core groups)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
PS corp. h avg.	1,606	0.023	0.063	0	0	0.02	1
PS lib. h avg.	1,606	0.146	0.151	0.000	0.000	0.264	0.771
PS corp. v avg.	1,606	0.031	0.079	0.000	0.000	0.000	0.576
PS lib. v avg.	1,606	0.033	0.086	0.000	0.000	0.000	0.515
Size	1,606	0.271	0.209	0.010	0.140	0.385	0.896
TEK state	1,606	0.156	0.363	0	0	0	1
Previous conflicts	1,606	0.125	0.405	0	0	0	2
GDP pc.	1,606	2,815.405	3,550.527	227.886	1,002.139	2,815.995	25,458.960
Population	1,606	11,432	16,307	0.401	3,080	12,405	135,394
Year	1,606	1,983.147	13.678	1,946	1,972	1,995	2,005

C.1.3 Additional descriptive analyses

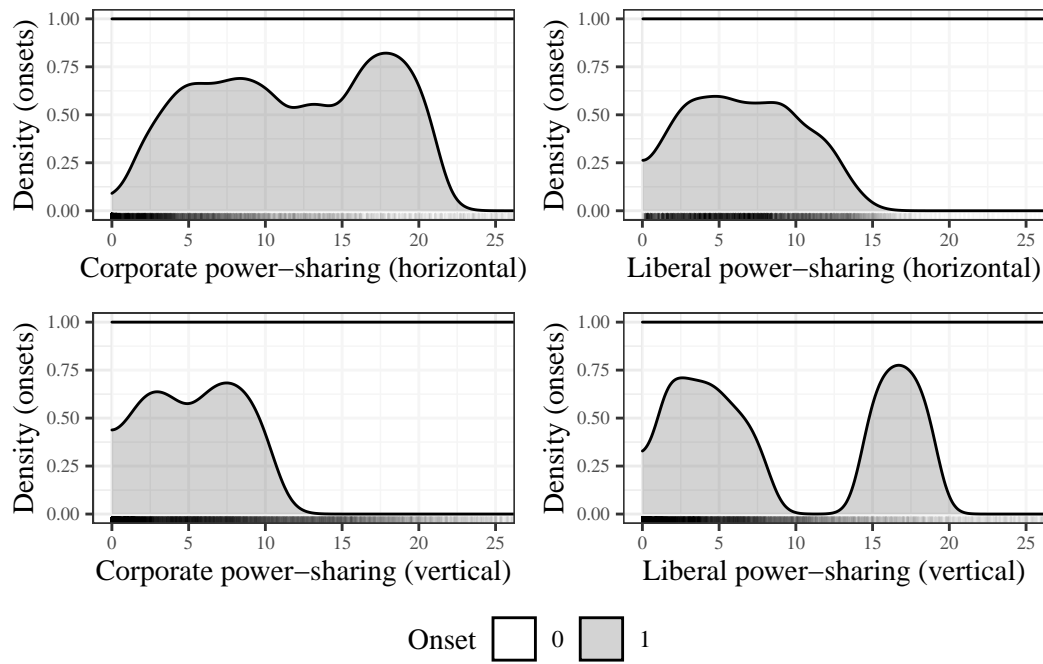


Figure C.1: PS stocks and onset density: Governmental conflict

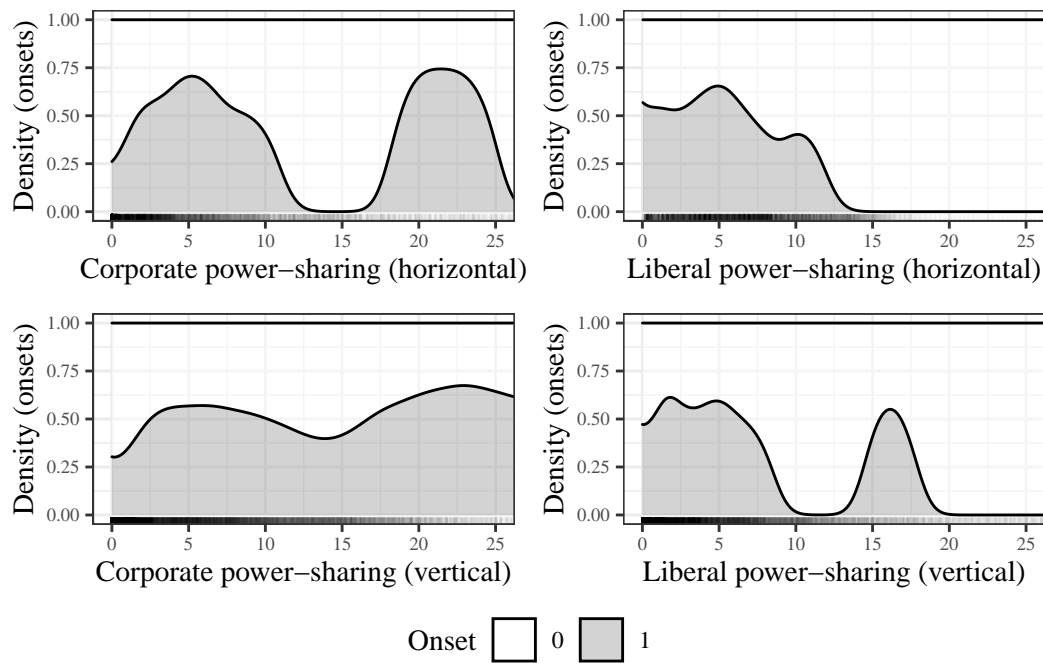


Figure C.2: PS stocks and onset density: Territorial conflict

C.1.4 Additional plots

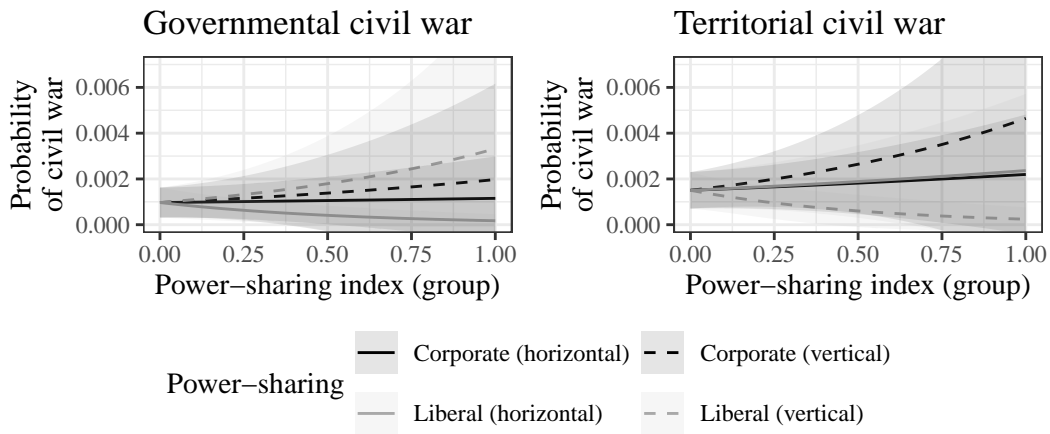


Figure C.3: Predicted probabilities: Civil war onset (non-core), depending on current power-sharing levels

C.2 Robustness checks

Table C.3: Robustness I: different independent variables

	<i>Dependent variable:</i>							
	Gov.	Gov.	Gov.	Gov.	Terr.	Terr.	Terr.	Terr.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PS corp. h	0.500 (0.776)	-0.008 (0.914)	0.580 (0.790)	1.444* (0.790)	0.622 (0.594)	1.704** (0.794)	0.772 (0.482)	0.321 (0.503)
PS lib. h	-1.641* (0.893)	-1.601* (0.875)	-1.647* (0.882)	-0.796 (0.995)	1.510 (0.999)	1.331 (1.038)	1.437 (0.985)	1.901 (1.403)
PS corp. v	-0.953 (1.166)	-0.642 (1.553)	-1.109 (1.295)	0.841 (0.919)	0.989 (0.706)	0.688 (0.661)	0.949 (0.601)	1.725** (0.777)
PS lib. v	1.273 (1.177)	1.634 (1.113)	1.438 (1.185)	2.201 (1.760)	-3.070*** (0.994)	-3.179*** (0.879)	-2.959*** (0.899)	-2.838* (1.674)
PS corp. h diff	0.455 (1.124)				-4.078 (3.775)			
PS corp. v diff.	0.876 (1.512)				0.468 (1.352)			
PS lib. h diff	0.458 (3.199)				-3.041 (5.265)			
PS lib. v diff.	-0.502 (2.574)				-0.554 (1.302)			
PS corp. h avg. others		0.943 (0.757)				-1.971 (1.650)		
PS corp. v avg. others		-1.063 (1.504)				0.761 (1.197)		
PS corp. h concession 2			-0.684 (1.338)				0.680 (0.873)	
PS corp. v concession 2			0.795 (1.087)				-0.871 (0.887)	
PS lib. h concession 2			0.483 (0.951)				0.988 (0.656)	
PS lib. v concession 2			-0.868 (0.881)				-0.497 (1.062)	
PS corp. h year				0.024*** (0.009)				0.004 (0.011)
PS lib. h year				-0.016 (0.013)				0.011 (0.013)
PS corp. v year				0.004 (0.010)				0.001 (0.010)
PS lib. v year				0.003 (0.011)				0.007 (0.009)
PS corp. h x PS corp. h year				-0.005 (0.072)				0.054 (0.044)
PS lib. h x PS lib. h year				-0.101 (0.073)				-0.026 (0.057)
PS corp. v x PS corp. v year				-0.264** (0.129)				-0.056** (0.028)
PS lib. v x PS lib. v year				-0.015 (0.080)				0.022 (0.047)
Size	4.184*** (0.602)	4.109*** (0.582)	4.182*** (0.603)	4.242*** (0.576)	-0.923 (0.940)	-0.729 (0.878)	-0.878 (0.909)	-1.023 (0.923)
TEK state	-0.406 (0.340)	-0.398 (0.339)	-0.394 (0.334)	-0.464 (0.334)	0.229 (0.256)	0.245 (0.252)	0.210 (0.249)	0.250 (0.262)
Previous conflicts	0.444*** (0.136)	0.441*** (0.134)	0.423*** (0.144)	0.438*** (0.129)	0.420*** (0.113)	0.437*** (0.102)	0.422*** (0.104)	0.345*** (0.104)
GDP pc. (log)	-0.467*** (0.134)	-0.455*** (0.137)	-0.451*** (0.144)	-0.383*** (0.123)	-0.188 (0.187)	-0.223 (0.178)	-0.227 (0.177)	-0.277 (0.190)
Population (log)	-0.089 (0.077)	-0.077 (0.077)	-0.083 (0.076)	-0.067 (0.083)	0.267** (0.114)	0.246** (0.104)	0.271** (0.105)	0.221** (0.108)
Year	0.038*** (0.007)	0.038*** (0.007)	0.038*** (0.008)	0.031*** (0.007)	0.019*** (0.005)	0.020*** (0.006)	0.022*** (0.006)	0.017*** (0.009)
Constant	-77.538*** (14.611)	-77.003*** (14.340)	-77.746*** (15.201)	-64.631*** (14.467)	-42.439*** (10.792)	-42.915*** (10.927)	-47.423*** (12.422)	-37.407** (17.044)
Observations	34,649	34,649	34,649	34,649	34,196	34,196	34,196	34,196
Log Likelihood	-570.158	-569.958	-569.818	-558.841	-766.390	-768.165	-768.789	-766.208
Akaike Inf. Crit.	1,176.317	1,171.916	1,175.636	1,161.681	1,568.780	1,568.330	1,573.578	1,576.417

Note:

*p<0.1; **p<0.05; ***p<0.01
Country-clustered standard errors in parentheses; cubic terms for group-wise peace years included but not reported.

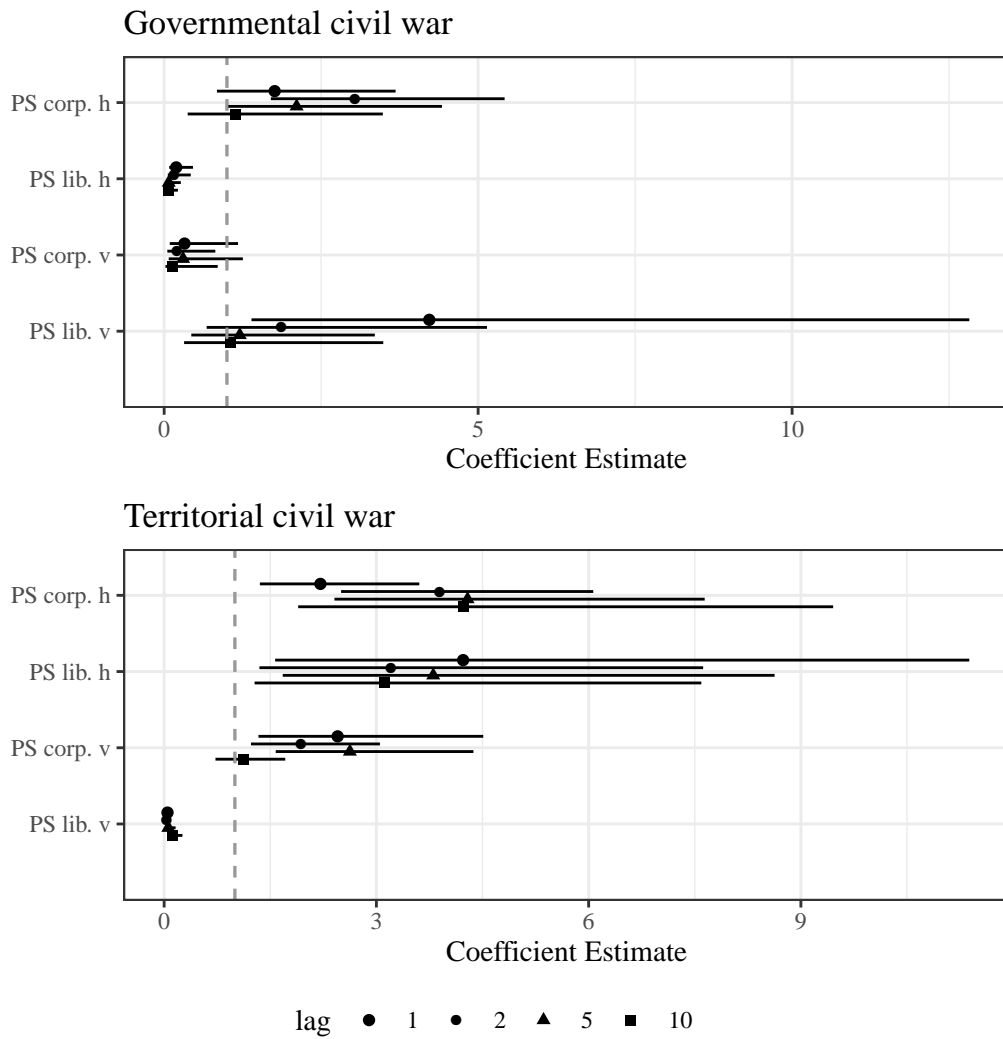


Figure C.4: Coefficient comparison of direct power-sharing measures across specifications with different lags (change in odds ratios)

Table C.4: Robustness II: different time lags

	<i>Dependent variable:</i>					
	Gov.	Gov.	Gov.	Gov.	Terr.	Terr.
	(1)	(2)	(3)	(4)	(5)	(6)
PS corp. h lag2	1.110*			1.360***		
	(0.580)			(0.443)		
PS lib. h lag2	-1.851*			1.164		
	(0.993)			(0.867)		
PS corp. v lag2	-1.593			0.660		
	(1.389)			(0.455)		
PS lib. v lag2	0.624			-3.412***		
	(1.013)			(1.034)		
PS corp. h lag5		0.746			1.456**	
		(0.741)			(0.577)	
PS lib. h lag5		-2.614**			1.336	
		(1.289)			(0.819)	
PS corp. v lag5		-1.198			0.965*	
		(1.424)			(0.510)	
PS lib. v lag5		0.186			-2.833***	
		(1.024)			(1.012)	
PS corp. h lag10			0.133			1.443*
			(1.115)			(0.804)
PS lib. h lag10			-2.612**			1.136
			(1.095)			(0.891)
PS corp. v lag10			-2.015			0.109
			(1.856)			(0.429)
PS lib. v lag10			0.052			-2.131***
			(1.198)			(0.778)
Size	4.118***	3.900***	4.051***	-0.844	-1.074	-0.893
	(0.612)	(0.590)	(0.725)	(0.890)	(0.914)	(0.913)
TEK state	-0.327	-0.359	-0.391	0.244	0.266	0.305
	(0.343)	(0.329)	(0.363)	(0.252)	(0.249)	(0.240)
Previous conflicts	0.501***	0.449***	0.421***	0.430***	0.406***	0.346***
	(0.131)	(0.138)	(0.141)	(0.108)	(0.122)	(0.124)
GDP pc. (log)	-0.422***	-0.395***	-0.348**	-0.233	-0.223	-0.208
	(0.147)	(0.132)	(0.142)	(0.184)	(0.186)	(0.181)
Population (log)	-0.076	-0.115	-0.079	0.259***	0.220**	0.252**
	(0.083)	(0.087)	(0.090)	(0.100)	(0.100)	(0.107)
Year	0.035***	0.031***	0.022**	0.021***	0.016**	0.015**
	(0.008)	(0.009)	(0.011)	(0.007)	(0.007)	(0.007)
Constant	-71.134***	-63.260***	-46.200**	-44.508***	-35.168**	-32.687**
	(15.151)	(16.683)	(21.462)	(13.447)	(14.393)	(14.735)
Observations	33,972	31,973	28,741	33,539	31,565	28,379
Log Likelihood	-541.152	-532.063	-478.240	-758.401	-728.335	-670.425
Akaike Inf. Crit.	1,110.304	1,092.126	984.481	1,544.802	1,484.671	1,368.851

Note:

*p<0.1; **p<0.05; ***p<0.01
Country-clustered standard errors in parentheses; cubic terms for group-wise peace years included but not reported.

Table C.5: Robustness III: More control variables

	Dependent variable:								
	Gov.	Gov.	Gov.	Gov.	Terr.	Terr.	Terr.	Terr.	Coup
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PS corp. h	0.614 (0.691)	0.618 (0.723)	0.583 (0.699)	0.001 (0.750)	1.133** (0.460)	1.051** (0.438)	1.125** (0.457)	0.520 (0.602)	
PS lib. h	-0.329 (0.853)	-0.294 (0.886)	-0.301 (0.854)	-0.543 (0.995)	0.456 (1.030)	0.504 (1.050)	0.312 (1.002)	0.151 (1.264)	
PS corp. v	-1.382 (1.311)	-1.311 (1.346)	-1.314 (1.287)	0.241 (1.544)	0.914* (0.544)	0.918* (0.546)	0.945* (0.552)	1.128 (0.869)	
PS lib. v	1.519 (1.141)	1.440 (1.161)	1.478 (1.165)	1.328 (1.705)	-3.667*** (1.074)	-3.755*** (1.097)	-3.628*** (1.060)	-2.583 (1.681)	
PS corp. h avg.									4.225*** (1.410)
PS lib. h avg.									0.552 (1.200)
PS corp. v avg.									-3.525 (3.378)
PS lib. v avg.									1.928 (2.193)
PS corp. h diff.		0.939 (1.219)				-2.656 (2.913)			
PS corp. v diff.		0.380 (1.620)				0.792 (1.254)			
PS corp. h concession			-0.310 (0.913)				-0.063 (0.454)		
PS corp. v concession			0.527 (0.607)				-0.656 (0.467)		
PS lib. h concession			0.726 (1.224)				1.431** (0.576)		
PS lib. v concession			-0.403 (0.983)				-0.265 (0.859)		
PS corp. h stock				0.093 (0.095)				0.111 (0.076)	
PS lib. h stock				0.121 (0.139)				0.455* (0.249)	
PS corp. v stock				-0.175 (0.163)				-0.070 (0.074)	
PS lib. v stock				0.037 (0.131)				-0.126 (0.094)	
PS corp. h stock ²				-0.003 (0.004)				-0.004 (0.003)	
PS lib. h stock ²				-0.012 (0.012)				-0.051*** (0.020)	
PS corp. v stock ²				0.0004 (0.007)				0.003 (0.003)	
PS lib. v stock ²				-0.0002 (0.004)				0.004 (0.004)	
Size	3.018*** (0.598)	2.989*** (0.573)	3.029*** (0.596)	3.061*** (0.581)	-1.055 (0.922)	-1.069 (0.961)	-1.107 (0.953)	-0.969 (0.893)	-6.218*** (1.515)
TEK state	-0.248 (0.338)	-0.252 (0.342)	-0.248 (0.329)	-0.284 (0.341)	0.238 (0.229)	0.264 (0.229)	0.229 (0.227)	0.197 (0.268)	0.639** (0.315)
Previous conflicts	0.346*** (0.109)	0.353*** (0.108)	0.348*** (0.111)	0.327** (0.128)	0.328*** (0.120)	0.332*** (0.121)	0.336*** (0.125)	0.349*** (0.126)	-0.919* (0.533)
GDP pc. (log)	-0.318** (0.146)	-0.323** (0.142)	-0.312** (0.149)	-0.293* (0.160)	-0.288 (0.210)	-0.283 (0.213)	-0.284 (0.207)	-0.164 (0.227)	-0.260 (0.350)
Population (log)	-0.021 (0.081)	-0.027 (0.078)	-0.029 (0.083)	-0.002 (0.081)	0.403*** (0.092)	0.396*** (0.101)	0.426*** (0.084)	0.462*** (0.102)	-0.107 (0.330)
Year	0.030*** (0.007)	0.030*** (0.006)	0.030*** (0.007)	0.031*** (0.007)	0.016** (0.007)	0.016** (0.007)	0.016** (0.007)	0.013 (0.010)	-0.019 (0.015)
Democracy	-1.068*** (0.392)	-1.067*** (0.397)	-1.095*** (0.403)	-1.093*** (0.405)	0.359 (0.354)	0.367 (0.350)	0.382 (0.358)	0.330 (0.454)	-0.036 (0.422)
Non-core sum	2.437*** (0.761)	2.429*** (0.753)	2.431*** (0.768)	2.313*** (0.773)	-0.141 (0.634)	-0.102 (0.653)	-0.114 (0.638)	-0.043 (0.623)	-5.869*** (1.635)
Country area	-0.00000 (0.00000)	-0.00000 (0.00000)	-0.00000 (0.00000)	-0.00000 (0.00000)	-0.00000* (0.00000)	-0.00000 (0.00000)	-0.00000** (0.00000)	-0.00000** (0.00000)	0.00000 (0.00000)
Fuel exports	0.024** (0.012)	0.024** (0.012)	0.023** (0.012)	0.023* (0.013)	0.037*** (0.014)	0.037*** (0.014)	0.037*** (0.014)	0.033** (0.016)	0.001 (0.018)
Constant	-64.258*** (12.385)	-64.028*** (12.178)	-64.264*** (12.456)	-65.966*** (14.270)	-35.765*** (12.795)	-34.506*** (12.501)	-34.775*** (12.593)	-31.687 (19.458)	41.429 (28.654)
Observations	34,648	34,648	34,648	34,648	34,195	34,195	34,195	34,195	1,606
Log Likelihood	-546.709	-546.243	-546.108	-543.127	-752.364	-751.207	-749.077	-737.814	-255.599
Akaike Inf. Crit.	1,129.417	1,132.487	1,136.215	1,138.254	1,540.729	1,542.413	1,542.154	1,527.627	547.197

Note:

*p<0.1; **p<0.05; ***p<0.01
Country-clustered standard errors in parentheses; cubic terms for group-wise peace years included but not reported.

Table C.6: Robustness III: Random country-intercepts

	Dependent variable:								
	Gov.				Terr.			Coup	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PS corp. h	0.305 (0.765)	0.281 (0.777)	0.264 (0.767)	0.032 (0.903)	1.118* (0.576)	1.005* (0.609)	1.081* (0.586)	0.913 (0.666)	
PS lib. h	-1.138 (0.829)	-1.128 (0.843)	-1.135 (0.837)	-1.168 (0.941)	0.931 (0.779)	1.061 (0.788)	1.159 (0.814)	0.338 (0.879)	
PS corp. v	-1.065 (0.970)	-0.978 (1.017)	-0.950 (0.992)	0.002 (1.272)	0.852 (0.590)	0.662 (0.656)	0.794 (0.610)	0.848 (0.806)	
PS lib. v	0.802 (0.906)	0.733 (0.936)	0.732 (0.918)	0.801 (1.221)	-2.873*** (1.090)	-2.794** (1.099)	-3.027*** (1.114)	-1.553 (1.400)	
PS corp. h avg.								3.723** (1.713)	
PS lib. h avg.								0.780 (0.973)	
PS corp. v avg.								-1.096 (3.446)	
PS lib. v avg.								-0.804 (2.866)	
PS corp. h diff.		0.108 (1.159)				-3.841* (2.312)			
PS corp. v diff.		0.535 (1.902)				-0.725 (1.671)			
PS corp. h concession			-0.199 (0.734)				-0.111 (0.529)		
PS corp. v concession			0.150 (0.677)				-0.793 (0.516)		
PS lib. h concession			0.852 (1.038)				2.079*** (0.651)		
PS lib. v concession			-0.692 (0.834)				-0.709 (0.552)		
PS corp. h stock				0.096 (0.104)			0.044 (0.083)		
PS lib. h stock				0.090 (0.149)			0.434*** (0.146)		
PS corp. v stock				-0.088 (0.186)			-0.012 (0.079)		
PS lib. v stock				0.011 (0.114)			-0.138 (0.100)		
PS corp. h stock ²				-0.004 (0.005)			-0.0004 (0.004)		
PS lib. h stock ²				-0.012 (0.012)			-0.046*** (0.013)		
PS corp. v stock ²				-0.006 (0.016)			0.001 (0.003)		
PS lib. v stock ²				-0.0003 (0.004)			0.004 (0.005)		
Size	4.103*** (0.563)	4.110*** (0.568)	4.117*** (0.566)	4.075*** (0.561)	-0.382 (0.937)	-0.452 (0.945)	-0.381 (0.949)	-0.298 (0.939)	0.005 (0.989)
TEK state	-0.292 (0.293)	-0.292 (0.293)	-0.298 (0.294)	-0.329 (0.294)	0.228 (0.222)	0.266 (0.222)	0.210 (0.224)	0.195 (0.230)	0.340 (0.406)
Previous conflicts	0.378** (0.151)	0.382** (0.151)	0.366** (0.153)	0.385** (0.151)	0.122 (0.111)	0.113 (0.111)	0.134 (0.113)	0.127 (0.118)	-0.450 (0.857)
GDP pc. (log)	-0.488*** (0.144)	-0.492*** (0.145)	-0.484*** (0.145)	-0.428*** (0.146)	-0.026 (0.150)	-0.020 (0.149)	0.026 (0.153)	0.012 (0.149)	-0.073 (0.261)
Population (log)	-0.101 (0.109)	-0.107 (0.110)	-0.096 (0.112)	-0.082 (0.110)	0.420*** (0.123)	0.449*** (0.124)	0.464*** (0.127)	0.465*** (0.124)	0.119 (0.235)
Year	0.031*** (0.009)	0.030*** (0.009)	0.031*** (0.009)	0.032*** (0.010)	0.019** (0.007)	0.018** (0.007)	0.018** (0.008)	0.016* (0.009)	-0.055** (0.025)
Constant	-62.608*** (17.026)	-62.240*** (17.056)	-62.810*** (17.151)	-65.586*** (19.040)	-43.330*** (14.086)	-42.256*** (14.024)	-41.940*** (14.284)	-39.463*** (17.629)	104.760** (49.627)
Observations	34,649	34,649	34,649	34,649	34,196	34,196	34,196	34,196	1,606
Log Likelihood	-559.465	-559.397	-558.907	-556.062	-739.703	-737.144	-734.078	-729.501	-247.119
Akaike Inf. Crit.	1,148.9301	1,152.7931	1,155.8151	1,160.1251	1,509.4061	1,508.2891	1,506.1561	1,507.0015	24.239
Bayesian Inf. Crit.	1,275.7251	1,296.4951	1,316.4221	1,362.9981	1,636.0041	1,651.7661	1,666.5141	1,709.5586	0.961

Note:

*p<0.1; **p<0.05; ***p<0.01

Cubic terms for group-wise peace years included but not reported.

Table C.7: Robustness IV: Subset of cases - no non-democracies

	Dependent variable:								
	Gov.				Terr.				Coup
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PS corp. h	-0.389 (1.577)	-0.688 (1.674)	-0.419 (1.458)	-0.815 (1.938)	0.576 (0.908)	0.700 (0.898)	0.562 (0.879)	-0.023 (0.947)	
PS lib. h	-1.424 (2.710)	-1.437 (2.754)	-1.446 (2.748)	0.0003 (2.530)	0.844 (1.375)	0.943 (1.366)	0.743 (1.290)	0.313 (1.996)	
PS corp. v	-0.706 (1.880)	-0.291 (1.939)	-0.997 (1.808)	3.952 (2.742)	0.523 (0.769)	0.176 (0.954)	0.634 (0.717)	0.479 (1.016)	
PS lib. v	0.571 (1.030)	0.247 (1.062)	0.569 (1.036)	-1.564 (1.331)	-2.717*** (0.958)	-2.557*** (0.970)	-2.683*** (0.918)	-0.769 (1.739)	
PS corp. h avg.									3.490** (1.478)
PS lib. h avg.									0.233 (1.144)
PS corp. v avg.									-3.408 (3.132)
PS lib. v avg.									1.323 (2.045)
PS corp. h diff.		-0.103 (2.117)				-1.061 (3.697)			
PS corp. v diff.		2.683 (2.245)				-2.124 (2.129)			
PS corp. h concession			-0.335 (0.758)				-0.379 (0.953)		
PS corp. v concession			-0.050 (0.590)				-1.437** (0.640)		
PS lib. h concession			0.741 (1.108)				0.978 (0.848)		
PS lib. v concession			1.342 (1.112)				-0.204 (1.438)		
PS corp. h stock				0.052 (0.242)				0.101 (0.082)	
PS lib. h stock				-0.295** (0.140)				0.384 (0.282)	
PS corp. v stock				-0.398 (0.275)				0.021 (0.113)	
PS lib. v stock				0.193 (0.122)				-0.206* (0.109)	
PS corp. h stock ²				-0.010 (0.017)				-0.004 (0.004)	
PS lib. h stock ²				0.013 (0.010)				-0.041** (0.021)	
PS corp. v stock ²				-0.002 (0.016)				-0.002 (0.005)	
PS lib. v stock ²				-0.005 (0.003)				0.005 (0.004)	
Size	3.132*** (1.206)	3.286*** (1.204)	3.230*** (1.223)	3.543*** (1.197)	-2.666 (1.840)	-2.626 (1.762)	-2.847 (1.937)	-2.138 (1.556)	-0.523 (0.732)
TEK state	-0.428 (0.505)	-0.442 (0.513)	-0.443 (0.476)	-0.507 (0.536)	0.032 (0.297)	0.037 (0.294)	0.023 (0.302)	-0.024 (0.317)	0.741* (0.418)
Previous conflicts	0.693*** (0.129)	0.713*** (0.128)	0.733*** (0.126)	0.779*** (0.136)	0.007 (0.159)	-0.026 (0.167)	-0.022 (0.160)	-0.014 (0.246)	-0.788 (0.528)
GDP pc. (log)	-0.584*** (0.144)	-0.582*** (0.148)	-0.580*** (0.133)	-0.449*** (0.158)	-0.211 (0.187)	-0.211 (0.187)	-0.223 (0.174)	-0.090 (0.202)	-0.171 (0.270)
Population (log)	0.018 (0.120)	-0.013 (0.121)	-0.014 (0.118)	0.087 (0.116)	0.388*** (0.083)	0.422*** (0.100)	0.444*** (0.083)	0.445*** (0.098)	0.113 (0.206)
Year	0.019** (0.010)	0.019* (0.010)	0.019** (0.009)	0.029*** (0.010)	0.012 (0.010)	0.013 (0.010)	0.011 (0.009)	0.015 (0.012)	-0.027* (0.015)
Constant	-39.496** (18.993)	-38.443** (19.584)	-37.887** (17.834)	-60.313*** (20.526)	-27.948 (19.040)	-28.893 (18.434)	-24.717 (16.612)	-33.588 (23.503)	52.003* (28.506)
Observations	17,199	17,199	17,199	17,199	16,863	16,863	16,863	16,863	1,606
Log Likelihood	-233.413	-232.647	-231.531	-225.602	-376.427	-375.696	-373.802	-369.322	-259.206
Akaike Inf. Crit.	494.825	497.294	499.063	495.205	780.853	783.391	783.605	782.644	546.412

Note:

*p<0.1; **p<0.05; ***p<0.01

Country-clustered standard errors in parentheses; cubic terms for group-wise peace years included but not reported.

Table C.8: Robustness V: Subset of cases - no very consolidated democracies

	<i>Dependent variable:</i>								
	Gov.	Gov.	Gov.	Gov.	Terr.	Terr.	Terr.	Terr.	Coup
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PS corp. h	0.496 (1.002)	0.456 (1.100)	0.473 (1.022)	-0.567 (0.890)	1.678** (0.662)	1.663** (0.725)	1.802*** (0.682)	0.211 (0.850)	
PS lib. h	-1.008 (0.969)	-1.003 (0.986)	-0.961 (0.973)	-1.709 (1.123)	1.034 (1.169)	1.019 (1.202)	1.002 (1.062)	0.537 (1.682)	
PS corp. v	-0.752 (1.684)	-0.681 (1.849)	-0.504 (1.479)	1.679 (2.170)	-0.222 (1.203)	-0.314 (1.230)	-0.181 (1.170)	1.410 (1.668)	
PS lib. v	1.876 (1.262)	1.789 (1.310)	1.799 (1.332)	2.160 (2.397)	-3.932** (1.642)	-3.790** (1.593)	-3.638** (1.516)	-4.764** (1.950)	
PS corp. h avg.									3.490** (1.478)
PS lib. h avg.									0.233 (1.144)
PS corp. v avg.									-3.408 (3.132)
PS lib. v avg.									1.323 (2.045)
PS corp. h diff.		0.167 (1.704)				-2.803 (3.377)			
PS corp. v diff.		0.554 (1.916)				-0.518 (1.497)			
PS corp. h concession			-0.017 (1.006)				-0.722 (0.853)		
PS corp. v concession			0.487 (0.628)				-1.778* (0.963)		
PS lib. h concession			-27.058* (14.432)				-0.301 (1.821)		
PS lib. v concession			-1.225 (1.522)				-0.180 (1.113)		
PS corp. h stock				0.093 (0.114)			0.170* (0.099)		
PS lib. h stock				0.284 (0.176)			0.436 (0.268)		
PS corp. v stock				-0.217 (0.206)			-0.211** (0.090)		
PS lib. v stock				-0.007 (0.176)			0.055 (0.083)		
PS corp. h stock ²				-0.002 (0.005)			-0.005 (0.004)		
PS lib. h stock ²				-0.026* (0.015)			-0.046** (0.021)		
PS corp. v stock ²				0.001 (0.009)			0.008*** (0.003)		
PS lib. v stock ²				-0.001 (0.004)			-0.0004 (0.004)		
Size	4.018*** (0.686)	4.026*** (0.671)	3.921*** (0.705)	4.024*** (0.659)	-2.113* (1.167)	-2.210* (1.223)	-2.324* (1.190)	-1.879* (1.073)	-0.523 (0.732)
TEK state	-0.610** (0.306)	-0.614** (0.305)	-0.581* (0.310)	-0.652** (0.309)	0.598** (0.284)	0.645** (0.279)	0.624** (0.269)	0.566 (0.360)	0.741* (0.418)
Previous conflicts	0.269 (0.184)	0.272 (0.183)	0.239 (0.199)	0.203 (0.210)	0.527*** (0.127)	0.512*** (0.126)	0.508*** (0.133)	0.555*** (0.169)	-0.788 (0.528)
GDP pc. (log)	-0.360** (0.151)	-0.367** (0.147)	-0.366** (0.150)	-0.301* (0.168)	-0.101 (0.222)	-0.053 (0.222)	-0.132 (0.217)	0.039 (0.224)	-0.171 (0.270)
Population (log)	-0.166* (0.094)	-0.170* (0.093)	-0.169* (0.096)	-0.104 (0.100)	0.119 (0.122)	0.137 (0.128)	0.175 (0.119)	0.213* (0.117)	0.113 (0.206)
Year	0.044*** (0.008)	0.044*** (0.008)	0.046*** (0.008)	0.042*** (0.009)	0.023** (0.010)	0.021** (0.009)	0.023** (0.010)	0.014 (0.015)	-0.027* (0.015)
Constant	-89.071*** (15.458)	-89.286*** (15.507)	-92.856*** (16.124)	-85.118*** (17.303)	-49.365** (19.502)	-46.323*** (17.186)	-50.766*** (19.582)	-33.665 (29.941)	52.003* (28.506)
Observations	22,375	22,375	22,375	22,375	22,237	22,237	22,237	22,237	1,606
Log Likelihood	-426.131	-426.068	-423.231	-420.605	-485.827	-484.140	-480.569	-475.886	-259.206
Akaike Inf. Crit.	880.261	884.136	882.463	885.209	999.655	1,000.279	997.138	995.772	546.412

Note:

*p<0.1; **p<0.05; ***p<0.01

Country-clustered standard errors in parentheses; cubic terms for group-wise peace years included but not reported.

Table C.9: Robustness VI: Region-fixed effects

	Dependent variable:								
	Gov.	Gov.	Gov.	Gov.	Terr.	Terr.	Terr.	Terr.	Coup
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PS corp. h	0.394 (0.614)	0.351 (0.655)	0.369 (0.604)	-0.018 (0.886)	0.673 (0.536)	0.534 (0.588)	0.636 (0.521)	0.280 (0.562)	
PS lib. h	-1.148* (0.684)	-1.103 (0.701)	-1.126 (0.692)	-0.936 (0.958)	1.583* (0.917)	1.542 (0.948)	1.527* (0.913)	0.617 (1.236)	
PS corp. v	-0.950 (1.183)	-0.726 (1.191)	-0.868 (1.165)	0.310 (1.502)	0.997* (0.590)	0.960 (0.677)	1.068* (0.629)	1.026 (0.891)	
PS lib. v	1.314 (1.079)	1.010 (1.093)	1.291 (1.117)	0.865 (1.749)	-2.791*** (1.006)	-2.775*** (1.018)	-2.722*** (1.010)	-1.623 (1.744)	
PS corp. h avg.									4.265*** (1.465)
PS lib. h avg.									0.589 (1.230)
PS corp. v avg.									-2.939 (2.504)
PS lib. v avg.									1.520 (1.743)
PS corp. h diff.		1.062 (1.166)				-4.059 (3.618)			
PS corp. v diff.		1.783 (2.024)				0.344 (1.532)			
PS corp. h concession			-0.011 (0.885)				-0.285 (0.415)		
PS corp. v concession			0.386 (0.720)				-0.799* (0.478)		
PS lib. h concession			0.823 (1.201)				1.431** (0.567)		
PS lib. v concession			-0.555 (0.945)				-0.388 (0.833)		
PS corp. h stock				0.153* (0.084)			0.073 (0.076)		
PS lib. h stock				0.034 (0.172)			0.623** (0.242)		
PS corp. v stock				-0.185 (0.175)			-0.048 (0.076)		
PS lib. v stock				0.079 (0.147)			-0.150 (0.149)		
PS corp. h stock ²				-0.007** (0.004)			-0.002 (0.004)		
PS lib. h stock ²				-0.008 (0.013)			-0.064*** (0.019)		
PS corp. v stock ²				0.001 (0.009)			0.002 (0.003)		
PS lib. v stock ²				-0.002 (0.004)			0.007 (0.008)		
Size	3.614*** (0.621)	3.605*** (0.603)	3.641*** (0.617)	3.619*** (0.598)	-0.884 (0.830)	-0.869 (0.840)	-0.977 (0.853)	-0.832 (0.788)	-0.096 (0.791)
TEK state	-0.363 (0.379)	-0.354 (0.376)	-0.364 (0.373)	-0.402 (0.381)	0.215 (0.217)	0.210 (0.218)	0.203 (0.212)	0.171 (0.246)	0.192 (0.365)
Previous conflicts	0.334*** (0.103)	0.346*** (0.104)	0.328*** (0.111)	0.351*** (0.128)	0.413*** (0.117)	0.414*** (0.115)	0.417*** (0.125)	0.431*** (0.128)	-0.915* (0.505)
GDP pc. (log)	-0.546*** (0.150)	-0.547*** (0.143)	-0.544*** (0.157)	-0.482*** (0.162)	-0.257 (0.254)	-0.237 (0.253)	-0.285 (0.250)	-0.103 (0.263)	-0.209 (0.352)
Population (log)	-0.024 (0.088)	-0.037 (0.086)	-0.032 (0.086)	-0.014 (0.093)	0.229* (0.131)	0.237* (0.139)	0.271** (0.127)	0.344** (0.135)	0.042 (0.244)
Year	0.035*** (0.007)	0.034*** (0.006)	0.035*** (0.007)	0.037*** (0.008)	0.020*** (0.007)	0.018*** (0.007)	0.020*** (0.007)	0.012 (0.010)	-0.023* (0.014)
Constant	-69.714*** (12.648)	-68.746*** (12.413)	-70.147*** (13.034)	-74.703*** (15.808)	-57.951*** (13.825)	-54.912*** (12.144)	-57.466*** (13.539)	-44.046*** (21.224)	45.992* (26.756)
Observations	34,649	34,649	34,649	34,649	34,196	34,196	34,196	34,196	1,606
Log Likelihood	-550.415	-549.173	-549.816	-546.188	-763.919	-760.762	-759.493	-745.587	-253.273
Akaike Inf. Crit.	1,138.831	1,140.347	1,145.632	1,146.377	1,565.837	1,563.523	1,564.987	1,545.175	536.546

Note:

*p<0.1; **p<0.05; ***p<0.01

Country-clustered standard errors in parentheses; cubic terms for group-wise peace years included but not reported; region-fixed effects included but not reported.

C.3 Panel matching procedure

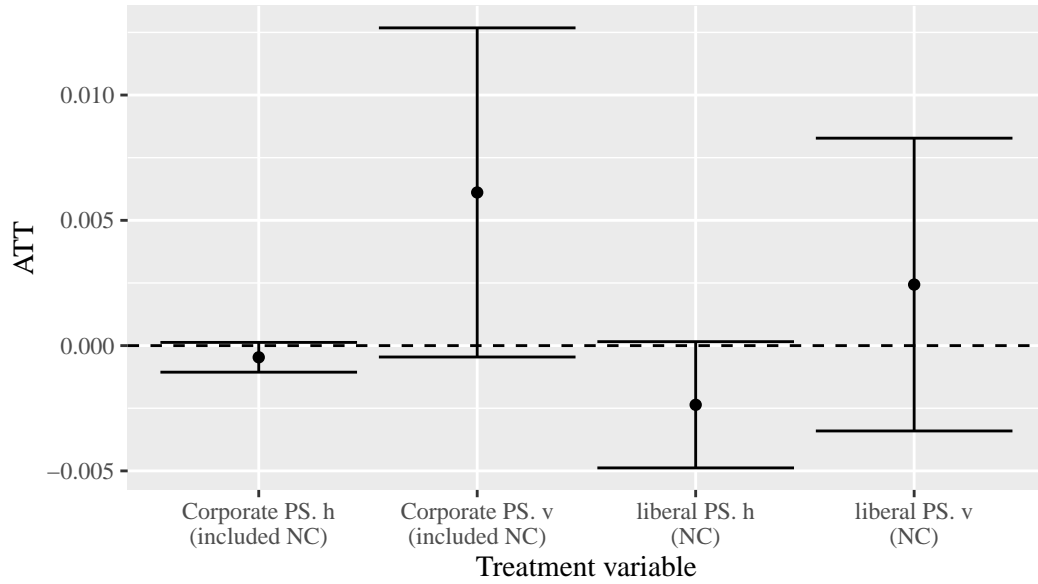


Figure C.5: Panel matching: ATT (non-core groups, governmental civil wars)

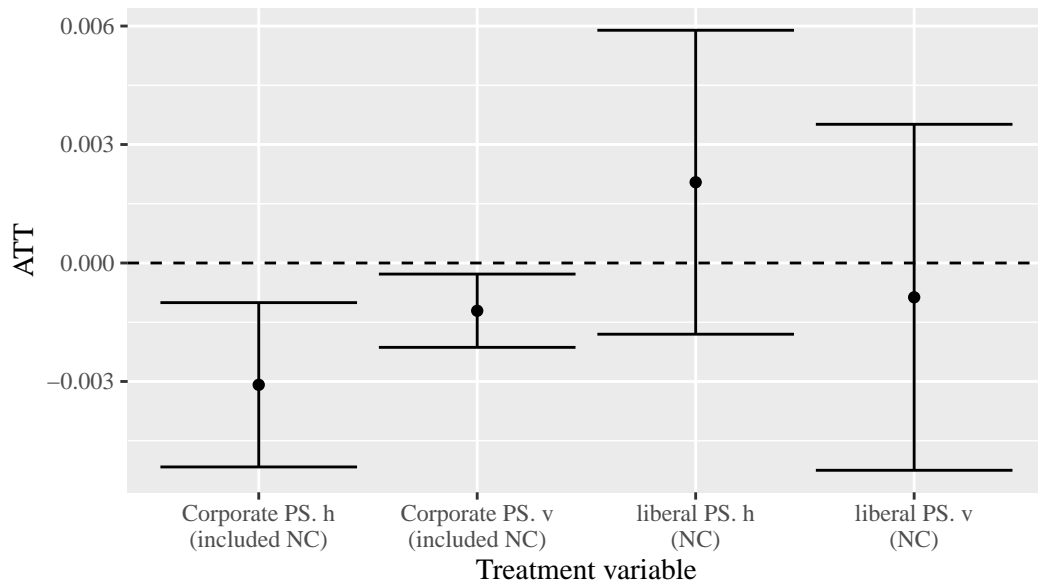


Figure C.6: Panel matching: ATT (non-core groups, territorial civil wars)

C.4 Instrumental variables: Colonial heritage

C.4.1 Examples for formalized power-sharing in former British independence constitutions

Table C.10: Former British and French colonies: Ethnic + territorial power-sharing provisions in post-independence constitutions

Coun-try	Year	Brit.	Provisions
Bhutan	1954	1	The Monk bodies are represented in the Royal Advisory Council. (d2.1; d5.5.7; d5.8) Monk bodies are represented by around 1/3 of members stemming from the Central Monastic Body in Thimphu and the district monastic bodies. (d2.1)
Botswana	1967	1	In the legislature, there are ex-officio seats for the Chiefs of the Bakgatla, Bakwena, Bamalete, Bamangwato, Bangwaketse, Barolong, Batawana, and Batlowka tribes. (79)
Brunei	1985	1	
Fiji	1971	1	22 lower house seats are given to the Fijians, 22 to the Indians, 8 to the rest. This is done through separate rolls of voters who are Fijians, who are Indians and who are neither Fijians nor Indians as well as an overall national roll. Of 22 Fijians and Indians, 12 each are elected on the communal roll and 10 each on the national roll; the eight other members are elected by 3 from the communal roll and 5 by the national roll. (s.32.3-s.32.5) The Senate has 22 members, six of which are appointed on the advice of the opposition leader and one on the advice of the Council of Rotuma.(s.45)
Ghana	1958	1	

Former British and French colonies: Explicit ethnic provisions in post-independence constitutions

Coun-try	Year	Brit.	Provisions
India	1948	1	In the Indian-designated states belonging to the Assembly, out of 172 seats, 15 are reserved for Scheduled Castes, 43 for Muhamadans, 3 for Anglo Indians, 5 for Europeans, 6 for Indian Christians. In the Pakistani-designated states, out 78 seats, 4 are reserved for Scheduled Castes, 6 for Sikhs, 39 for Muhamadans, 1 for Anglo Indians, 3 for Europeans, 2 for Indian Christians. (Schedule 1)
Kenya	1964	1	
Malaysia	1958	1	There is a lengthy process to be elected monarch (head of state), and part of it requires a rotation among 9 local rulers every 5 years. The states involved are Kedah, Kelantan, Johor, Negeri Sembilan, Perak, Perlis, Pahang, Selangor and Terengganu. (Schedule 3) There is a lengthy process to be elected deputy king, and part of it requires a rotation among 9 local rulers every 5 years. The states involved are Kedah, Kelantan, Johor, Negeri Sembilan, Perak, Perlis, Pahang, Selangor and Terengganu. This seems to have been introduced in 1957. (Schedule 3) Each state has two members in the Senate. (45) In the Supreme Court are represented the Chief Justices of the High Courts (of Malaya and Sabah/Sarawak). (122) There can be provision restricting the enlistment in the Malay Regiment to ethnic Malays. In the security forces, there can be reserved posts for the Malays and natives of the states of Sabah and Sarawak. (8;132;153)

Former British and French colonies: Explicit ethnic provisions in post-independence constitutions

Coun-try	Year	Brit.	Provisions
Myanmar	1949	1	<p>A member of the Shan State, Kachin State, Karen state, Karenni State, and China Special Division each is appointed by the President on nomination of the PM acting in consultation with the respective council from among the members in Parliament representing the respective state. (160;173;181;189;197) A number of seats in the Chamber of Deputies are reserved for Karens so they are proportionally represented. (83) Out of the 12 seats given to Kachin State, six are filled by Kachins and six by members of non Kachins in the state. (166;s2)</p> <p>There is a general reference to the representation of the various states in the upper house. According to Schedule 2, 25 seats are given to the Shan State, 12 to Kachin (modified by an ethnic quota), 8 to the Chin Special Division, 3 to the Karenni state, 24 to Karen representatives, 53 to the remaining territories. (87;Schedule 2;166) The Chamber of Deputies generally decides by simple majority. If the two chambers cannot agree, the issue is decided in a joint sitting. Any act affecting the Kachins or non-Kachins of Kachin state needs separate majorities among these two groups as well. Any matter affecting the Karens is under control of the Minister of Karen affairs. A similar relationship applies for China matters. (69; 90; 98; 209.3;100;109;167;181;197) The Chamber of Nationalities generally decides by simple majority. Any act affecting the Kachins or non-Kachins of Kachin state needs separate majorities among these two groups as well. Any matter affecting the Karens is under control of the Minister of Karen affairs. A similar relationship applies for China matters. (69;90; 98; 99;100;167;183;197) A bill for amending the constitution needs the approval of both chambers in a joint sitting. A bill affecting matters under state legislative control and state revenues may only be passed if in a joint sitting the majority of members representing the affected state or states agree. Bill seeking to amend the special rights given to Karens and Chins can only be passed in a joint sitting if the majority of each affected group agrees. (209)</p>

Former British and French colonies: Explicit ethnic provisions in post-independence constitutions

Coun-try	Year	Brit.	Provisions
Nigeria	1961	1	One Chief is selected by the White-Cap Chiefs and War Chiefs of Lagos to be a Senator. (37) The senate consists of 12 senators from each region, four senators from the federal territory, and four senators selected by the governor general. (37) The Chief Justice of each territory is a member of the Federal Supreme Court (at least six members in total). (104;105) Some provisions have to be approved by referendum in the affected region. (4.5)
Pak-istan	1948	1	In the Indian-designated states belonging to the Assembly, out of 172 seats, 15 are reserved for Scheduled Castes, 43 for Muhamadans, 3 for Anglo Indians, 5 for Europeans, 6 for Indian Christians. In the Pakistani-designated states, out 78 seats, 4 are reserved for Scheduled Castes, 6 for Sikhs, 39 for Muhamadans, 1 for Anglo Indians, 3 for Europeans, 2 for Indian Christians. (Schedule 1)
Sierra Leone	1962	1	In the lower house, there is one member from each district appointed by the Paramount Chiefs. (30)
Sri Lanka	1949	1	The Governor-General is to appoint members to the House of Representatives stemming from important interests that are not adequately represented. The district delimitation commission is also to create districts for concentrated communities of interest, whether racial, religious or otherwise but differing in one or more respects from the majority in an area. (11;41)

Former British and French colonies: Explicit ethnic provisions in post-independence constitutions

Coun-try	Year	Brit.	Provisions
Sudan	1957	1	At least two Ministers out of a maximum of 15 have to stem from the Southern constituencies. This means the Provinces of Equatoria, Bahr El Ghazal and Upper Nile. If this right is being abused, the Governor-General has the right to suspend their representation, however. (2;14)
The Gam-bia	1966	1	In the legislature four members are Chief's representative members. (33)
Uganda	1963	1	Both the President and the Vice President are elected from among the rulers of the federal states and the heads of districts, which implies that they stem from another territorial entity, respectively. (36)
Zam-bia	1965	1	In the legislature, there are four Chiefs representing Barotseland, four Chiefs representing Northern, Southern and Eastern provinces, three representing North-Western, Luapula, and Central Province, and one representing the Western Province. (85)
Zanz-ibar	1963	1	
Algeria	1963	0	
Benin	1961	0	
Burk-ina Faso (Upper Volta)	1961	0	

Former British and French colonies: Explicit ethnic provisions in post-independence constitutions

Coun-try	Year	Brit.	Provisions
Cam- bodia	1954	0	In the legislature, eight members, each representing a region or Phnom Penh, are directly elected. The seven regions are the provinces of Battambang and Siemreap, Pursat and Kompong-Chhnang, Kompong-Thom and Kompon-Cham, Kratie and Stung-Treng, Prey-Veng and Svairieng, Kandal and Kompong-Speu, and Takeo and Kampot. (73)
Cameroon	1961	0	The President and the Vice-President must not be natives of the same Federated State. During the first five years, the Vice-President post is filled by the Prime Minister of West Cameroon. (9;52) The cabinet Ministers and Deputy Ministers must be selected from among the nationals of each of the Federated States. (11) There can be no amendments that impair the unity and integrity of the Federation. One third of Assembly members can propose amendments. Proposals are voted upon by majority, but a majority of each Federated State needs to agree. (47)
Cen- tral African Repub- lic	1961	0	
Chad	1961	0	
Co- moros	1976	0	There are 22 councillors each of Grande Comore and Anjouan and 15 each from Mayotte and Mohéli. (d8.2)
Congo	1961	0	
Cote d'Ivoire	1961	0	

Former British and French colonies: Explicit ethnic provisions in post-independence constitutions

Coun-try	Year	Brit.	Provisions
Djibouti	1978	0	
Gabon	1961	0	
Guinea	1959	0	
Laos	1954	0	
Madagascar	1961	0	2/3 of the 54 senators (36) are elected by local authorities and in equal numbers in each province. This means 6 seats per province. (28)
Mali	1961	0	
Mauritania	1961	0	
Mauritius	1969	0	In the Assembly, 8 seats are reserved to compensate for lacking proportionality of the majoritarian electoral system. These seats ensure proportional representation of the Hindu, Muslim, Sino-Mauritian, and General Communities. (s1) Rodrigues has 2 members in the Assembly; its administrative boundaries correspond to one constituency. (39;s1)
Morocco	1957	0	
Niger	1961	0	
Senegal	1961	0	
Togo	1961	0	
Vietnam, Democratic Republic Of	1955	0	There is a number of parliamentary representatives for up-country areas where there are ethnic minorities. (24)

Former British and French colonies: Explicit ethnic provisions in post-independence constitutions

Coun- try	Year	Brit.	Provisions
Viet- nam, Repub- lic Of	1955	0	

C.4.2 Diagnostics

Table C.11: IV Diagnostics (governmental civil wars model)

Underidentification test (Kleibergen-Paap rk LM statistic):	4.318
Chi-sq(2) P-val =	0.1155
Weak identification test (Cragg-Donald Wald F statistic):	50.209
(Kleibergen-Paap rk Wald F statistic):	2.646
Stock-Yogo weak ID test critical values:	N/A
Hansen J statistic (overidentification test of all instruments)	0.571
Chi-sq(1) P-val =	0.4497

Table C.12: IV Diagnostics (territorial civil wars model)

Underidentification test (Kleibergen-Paap rk LM statistic):	4.215
Chi-sq(2) P-val =	0.1215
Weak identification test (Cragg-Donald Wald F statistic):	48.503
(Kleibergen-Paap rk Wald F statistic):	2.400
Stock-Yogo weak ID test critical values:	N/A
Hansen J statistic (overidentification test of all instruments)	0.268
Chi-sq(1) P-val =	0.6047

C.4.3 Augmented IV approach with regional averages

Table C.13: Instrumental variables estimates: Colonial legacies [alternative approach]

	PS corp. h	PS corp. v	PS hb. h	PS hb. v	Gov.	PS corp. h	PS corp. v	PS hb. h	PS hb. v	Terr.
PS corp. h										
PS corp. v					(3.905)					-2.901
PS hb. h					(-0.557)					(-0.192)
PS hb. v					(2.793)					(2.959)
					(-1.229)					(2.279)
					(2.967)					(2.447)
					(-4.176)					(-3.11)
					(5.317)					(5.429)
Brit. x Dist. coast (log)	0.0325***	0.0117	0.000376	-0.0143		0.0306**	0.0085	-0.00138	-0.012	
	(0.0124)	(0.0189)	(0.0118)	(0.0104)		(0.0123)	(0.0186)	(0.0119)	(0.0104)	
Brit. x Abs. size (log)	0.0912***	-0.0592*	0.154***	0.0668**		0.0943***	-0.0595*	0.151***	0.0663**	
	(0.0288)	(0.0336)	(0.0428)	(0.0311)		(0.0285)	(0.0312)	(0.0435)	(0.0324)	
Brit. x Homogeneity	-0.0442	0.0891	-0.495***	-0.128		-0.067	0.103	-0.485***	-0.106	
	(0.0813)	(0.135)	(0.0951)	(0.0951)		(0.0808)	(0.131)	(0.161)	(0.100)	
Brit. x Abs. size (log) x Homogeneity	-0.0833**	0.105**	-0.138***	-0.0655*		-0.0864**	0.105**	-0.134***	-0.0647*	
	(0.0354)	(0.0469)	(0.0501)	(0.0375)		(0.0351)	(0.0447)	(0.0511)	(0.0392)	
Brit. x PS hb. h region	-0.103	0.124	-0.143	0.237		-0.093	0.129	-0.15	0.239	
	(0.180)	(0.145)	(0.265)	(0.221)		(0.174)	(0.142)	(0.267)	(0.233)	
PS hb. h region	0.178	0.137	0.720***	0.168		0.225	0.198*	0.771***	0.17	
	(0.167)	(0.121)	(0.166)	(0.136)		(0.149)	(0.105)	(0.166)	(0.142)	
Brit.	-0.0716	-0.108	0.473***	0.195**		-0.0486	-0.105	0.475***	0.166	0.407
	(0.0799)	(0.103)	(0.161)	(0.0943)		(0.0807)	(0.0982)	(0.165)	(0.101)	(0.358)
Dist. coast (log)	-0.0342***	-0.0207	-0.00268	0.0118		-0.0326***	-0.0192	-0.00179	0.0115	-0.0564
	(0.0117)	(0.0182)	(0.0103)	(0.00870)		(0.0117)	(0.0180)	(0.0103)	(0.00855)	(0.0397)
Abs. size (log)	-0.0813***	-0.0347	-0.177***	-0.00747		-0.0823***	-0.0288	-0.175***	-0.00755	0.575
	(0.0255)	(0.0295)	(0.0404)	(0.0245)		(0.0255)	(0.0276)	(0.0409)	(0.0250)	(0.406)
Homogeneity	0.0735	0.276**	0.508***	-0.0249		0.0702	0.248**	0.493***	-0.0323	1.306
	(0.0776)	(0.125)	(0.152)	(0.0782)		(0.0818)	(0.122)	(0.155)	(0.0784)	(2.024)
Homogeneity x abs. size (log)	0.0746**	0.0187	0.174***	0.0263		0.0737**	0.017	0.173***	0.0292	(0.408)
	(0.0302)	(0.0394)	(0.0483)	(0.0283)		(0.0296)	(0.0378)	(0.0490)	(0.0289)	(0.408)
Size	0.0887	0.141	0.141	-0.102		0.108	0.02	0.139	-0.121	-0.187
	(0.0818)	(0.107)	(0.114)	(0.0753)		(0.0766)	(0.102)	(0.115)	(0.0801)	(0.978)
TEK state	-0.0206***	-0.00973	-0.0172	-0.0146		-0.0200***	-0.0156	-0.0153	-0.0151	0.00829
	(0.00612)	(0.0180)	(0.0106)	(0.0123)		(0.00570)	(0.0152)	(0.0109)	(0.0134)	(0.162)
Previous conflicts	0.0193***	0.00322	-0.0113	-0.00289		0.00167	-0.000662	-0.0149	0.00522	0.214**
	(0.00559)	(0.0164)	(0.0103)	(0.0107)		(0.0107)	(0.0171)	(0.0108)	(0.0197)	(0.0856)
GDP pc. (log)	-0.00278	0.0123	0.0102	0.00917		-0.000175	0.0107	0.00943	0.00779	-0.122
	(0.0124)	(0.00968)	(0.0137)	(0.00990)		(0.0115)	(0.00944)	(0.0142)	(0.0101)	(0.139)
Population (log)	0.00241	0.0384***	0.00369	-0.0012		0.00378	0.0312***	0.00349	-0.00577	0.152
	(0.00464)	(0.00856)	(0.0116)	(0.00951)		(0.0144)	(0.00388)	(0.0119)	(0.0107)	(0.116)
Year	0.00105	0.000552	-0.000484	0.000476		0.000924	-6.9E-05	-0.000412	-0.000117	0.00631
	(0.00116)	(0.000887)	(0.000883)	(0.000699)		(0.00580)	(0.000826)	(0.000839)	(0.000704)	(0.00733)
Constant	-1.961	-1.375	0.466	-1.026		-1.76	-0.128	0.314	0.171	-15.49
	(2.258)	(1.698)	(1.680)	(1.396)		(1.612)	(1.289)	(1.589)	(1.408)	(13.02)
Observations	10340	10340	10340	10340	10340	10122	10122	10122	10122	10122

Country-clustered standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. Cubic terms for group-wise piece years included but not reported.

C.4.4 Sensitivity analyses

Omitted factors

Table C.14: Instrumental variables estimates: Colonial legacies (robustness 1)

	(1) Gpv.	(2) PS corp. h	(3) PS corp. v	(4) PS lib. v	(1) Terr.	(2) PS corp. h	(3) PS corp. v	(4) PS lib. v
PS corp. h	-0.97 (8.147)				8.254 (5.424)			
PS corp. v	-1.342 (4.136)				-3.449 (0)			
PS lib. v	-1.949 (5.244)				5.085 (15.15)			
Brit. x Dist. coast (log)		0.021 (0.0139)	0.0201 (0.0214)	-0.0129 (0.00978)		0.0164 (0.0147)	0.0131 (0.0210)	-0.0135 (0.0108)
Brit. x Abs. size (log)		-0.0476 (0.0332)	-0.086 (0.0859)	0.0211 (0.0652)		-0.0429 (0.0333)	-0.0792 (0.0796)	0.0192 (0.0629)
Brit. x Homogeneity		0.0447 (0.0939)	-0.0439 (0.190)	-0.153 (0.130)		0.0169 (0.167)	-0.0198 (0.189)	-0.132 (0.176)
Brit. x Abs. size (log) x Homogeneity		0.065 (0.0416)	0.137 (0.0987)	-0.0127 (0.0714)		0.0601* (0.167)	0.13 (0.13)	-0.0106 (0.0929)
Brit.	0.157 (0.141)	-0.116* (0.0692)	-0.00511 (0.167)	0.253** (0.116)	-0.189 (0.850)	-0.0755 (0.128)	0.00582 (0.162)	0.237 (0.151)
Dist. coast (log)	0.118 (0.0868)	-0.0244* (0.0130)	-0.0245 (0.0198)	0.0088 (0.00685)	0.0235 (0.0453)	-0.0212 (0.0142)	-0.0217 (0.0198)	0.00977 (0.00878)
Abs. size (log)	-0.212 (0.466)	0.0411 (0.0310)	0.0175 (0.0869)	0.0346 (0.0624)	-0.507 (1.328)	0.0399 (0.0316)	0.0137 (0.0805)	0.0346 (0.0649)
Homogeneity	1.441 (1.943)	0.0439 (0.0696)	0.262 (0.163)	-0.0531 (0.115)	1.477 (1.464)	0.0451 (0.0940)	0.234 (0.157)	-0.0599 (0.132)
Homogeneity x abs. size (log)	0.376 (0.499)	-0.0536 (0.0399)	-0.04 (0.102)	-0.0251 (0.0676)	0.512 (1.238)	-0.057 (0.0370)	-0.0318 (0.0962)	-0.0235 (0.0674)
Size	-1.082 (0.974)	0.027 (0.0747)	0.0594 (0.128)	-0.0605 (0.0775)	-0.181 (2.533)	0.0655 (0.0697)	0.0837 (0.125)	-0.0674 (0.0829)
TEK state	-0.232 (0.192)	-0.0191** (0.00837)	-0.0179 (0.0155)	-0.0107 (0.0106)	0.106 (0.238)	-0.0169** (0.00691)	-0.0222 (0.0137)	-0.00952 (0.0119)
Previous conflicts	0.0645 (0.252)	0.0221*** (0.00696)	-0.000261 (0.0166)	-0.012 (0.00920)	-0.0142 (0.351)	0.00864 (0.0317)	-0.0118 (0.0168)	-0.0154 (0.0235)
GDP pc. (log)	-0.0937 (0.139)	-0.00916 (0.0117)	0.0132 (0.0111)	0.00974 (0.00896)	0.0212 (0.181)	-0.00734 (0.0111)	0.0105 (0.0108)	0.00809 (0.0107)
Population (log)	-0.107 (0.166)	0.00205 (0.00537)	0.0388*** (0.00902)	0.00276 (0.00875)	0.07 (0.0539)	0.00571 (0.00559)	0.0323*** (0.00865)	0.00116 (0.0102)
Year	0.0209*** (0.00150)	0.00154 (0.00128)	0.00174* (0.000930)	0.00126 (0.000783)	-0.00765*** (0.00110)	0.000984 (0.00239)	0.000971 (0.000780)	0.000966 (0.00173)
Latitude	0.0157 (0.00990)	7.45E-05 (0.000763)	0.000923 (0.00123)	-0.000243 (0.00105)	0.0113 (0.0317)	-0.000387 (0.000602)	0.000494 (0.00115)	-0.000397 (0.00119)
Constant	-44.44 (0)	-2.833 (2.499)	-3.666** (1.774)	-2.500* (1.517)	12.45 (0)	-1.809 (4.733)	-2.114 (1.461)	-1.904 (3.406)
Observations	9085	9085	9085	9085	8851	8851	8851	8851

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table C.15: Instrumental variables estimates: Colonial legacies (robustness 2)

	(1) Gov.	(2) PS corp. h	(3) PS corp. v	(4) PS lib. v	(1) Terr.	(2) PS corp. h	(3) PS corp. v	(4) PS lib. v
PS corp. h	-6.916*** (2.580)				5.422 (5.325)			
PS corp. v	3.41 (3.185)				-3.308 (3.268)			
PS lib. v	-7.059*** (2.11)				7.563*** (2.069)			
Brit. x Dist. coast (log)		0.0224 (0.0323)	0.0184 (0.0219)	-0.0113 (0.0240)		0.0204 (0.0139)	0.0127 (0.0212)	-0.0102 (0.00979)
Brit. x Abs. size (log)		-0.0651 (0.0590)	-0.0916 (0.0872)	0.00871 (0.0625)		-0.0458 (0.0329)	-0.0843 (0.0801)	0.0152 (0.0662)
Brit. x Homogeneity		0.102 (0.480)	0.0121 (0.185)	-0.124 (0.346)		0.0396 (0.0931)	0.0253 (0.178)	-0.119 (0.145)
Brit. x Abs. size (log) x Homogeneity		0.0834 (0.0549)	0.143 (0.0992)	0.000345 (0.0654)		0.0633 (0.0410)	0.135 (0.0931)	-0.00639 (0.0728)
Brit.	0.391 (0.991)	-0.173 (0.274)	-0.0498 (0.160)	0.22 (0.195)	-0.283 (0.175)	-0.113* (0.0664)	-0.0333 (0.159)	0.212 (0.129)
Dist. coast (log)	-0.00966 (0.615)	-0.0249 (0.0228)	-0.0233 (0.0202)	0.00803 (0.0146)	-0.016 (0.0636)	-0.0232* (0.0130)	-0.0212 (0.0196)	0.00814 (0.00696)
Abs. size (log)	0.491 (0.675)	0.0519 (0.0483)	0.0224 (0.0853)	0.0417 (0.0571)	-0.661 (0.403)	0.0365 (0.0308)	0.0165 (0.0786)	0.0335 (0.0605)
Homogeneity	-1.125 (4.473)	0.0109 (0.279)	0.235 (0.160)	-0.0714 (0.205)	2.636 (2.213)	0.0326 (0.0704)	0.214 (0.147)	-0.0689 (0.110)
Homogeneity x abs. size (log)	-0.375 (0.892)	-0.0607 (0.0461)	-0.0434 (0.0980)	-0.0297 (0.0598)	0.558 (0.389)	-0.0484 (0.0373)	-0.0327 (0.0925)	-0.0185 (0.0654)
Size	-0.698 (1.939)	0.0146 (0.0741)	0.0638 (0.120)	-0.0721 (0.0695)	0.387 (0.845)	0.0423 (0.0621)	0.0329 (0.115)	-0.0867 (0.0749)
TEK state	-0.174 (0.693)	-0.0177** (0.00742)	-0.0142 (0.0173)	-0.0108 (0.0129)	0.126 (0.184)	-0.0171*** (0.00623)	-0.0197 (0.0154)	-0.01 (0.0135)
Previous conflicts	0.0628 (0.873)	0.0205* (0.0116)	0.000616 (0.0188)	-0.0136 (0.0170)	0.12 (0.159)	0.00615 (0.00909)	-0.0102 (0.0182)	-0.018 (0.0155)
GDP pc. (log)	-0.0461 (0.524)	-0.00835 (0.0128)	0.0123 (0.0115)	0.0107 (0.0120)	-0.0463 (0.137)	-0.00596 (0.0110)	0.0105 (0.0102)	0.0092 (0.00976)
Population (log)	-0.15 (0.539)	-0.000168 (0.00439)	0.0403*** (0.00932)	0.000437 (0.00941)	0.159*** (0.0610)	0.00123 (0.00300)	0.0325*** (0.00799)	-0.00256 (0.00890)
Year	0.0166** (0.00670)	0.00153*** (9.06e-05)	0.00149 (0.00157)	0.00134 (0.00331)	-0.00992 (0.00748)	0.00105 (0.000967)	0.000816 (0.000793)	0.00105 (0.000782)
Agricultural land	-0.232 (1.002)	-0.0320** (0.0158)	-0.0259 (0.0224)	-0.0179 (0.0152)	0.11 (16.01)	-0.0268* (0.0145)	-0.0225 (0.0204)	-0.0196 (0.0151)
Constant	-30.72 (0)	-2.78 (0)	-3.125 (3.024)	-2.635 (6.369)	16.01 (16.26)	-1.901 (1.891)	-1.781 (1.475)	-2.052 (1.509)
Observations	9085	9085	9085	9085	8851	8851	8851	8851

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table C.16: Instrumental variables estimates: Colonial Legacies (robustness 3)

	(1) Gov.	(2) PS corp. h	(3) PS corp. v	(4) PS lib. v	(1) Terr.	(2) PS corp. h	(3) PS corp. v	(4) PS lib. v
PS corp. h	-7.393*** (2.140)				5.696 (4.804)			
PS corp. v	3.416 (3.910)				-3.36 (3.119)			
PS lib. v	-6.432*** (2.226)				7.214*** (2.206)			
Brit. x Dist. coast (log)		0.0205 (0.0149)	0.0147 (0.0204)	-0.0128 (0.00973)		0.0186 (0.0139)	0.00985 (0.0198)	-0.0118 (0.00935)
Brit. x Abs. size (log)		-0.0602 (0.0466)	-0.0939 (0.0853)	0.0112 (0.0727)		-0.0416 (0.0323)	-0.087 (0.0787)	0.0177 (0.0637)
Brit. x Homogeneity		0.063 (0.154)	-0.0202 (0.187)	-0.148 (0.159)		0.0058 (0.0970)	-0.00572 (0.181)	-0.145 (0.138)
Brit. x Abs. size (log) x Homogeneity		0.0786 (0.0567)	0.145 (0.0982)	-0.00229 (0.0803)		0.0593 (0.0410)	0.138 (0.0916)	-0.00884 (0.0702)
Brit.	0.368*** (0.175)	-0.13 (0.103)	-0.0076 (0.166)	0.248* (0.130)	-0.259* (0.136)	-0.075 (0.0667)	-0.0341 (0.160)	0.240* (0.123)
Dist. coast (log)	-0.0293 (0.0979)	-0.0244* (0.0134)	-0.0162 (0.0190)	0.00998 (0.0726)	-0.00283 (0.0660)	-0.0224* (0.0131)	-0.0144 (0.0188)	0.00968 (0.00708)
Abs. size (log)	0.494 (0.329)	0.0535 (0.0388)	0.0227 (0.0820)	0.0412 (0.0654)	-0.690** (0.340)	0.0369 (0.0291)	0.0159 (0.0763)	0.0333 (0.0587)
Homogeneity	-0.927 (1.826)	0.0295 (0.0985)	0.243 (0.155)	-0.061 (0.128)	2.704 (1.748)	0.0487 (0.0706)	0.223 (0.151)	-0.0575 (0.113)
Homogeneity x abs. size (log)	-0.407 (0.434)	-0.0669 (0.0464)	-0.0505 (0.0960)	-0.0324 (0.0709)	0.607* (0.318)	-0.053 (0.0369)	-0.0391 (0.0902)	-0.0219 (0.0631)
Size	-0.513 (0.806)	0.0294 (0.0686)	0.0589 (0.124)	-0.0682 (0.0686)	0.23 (0.830)	0.0552 (0.0632)	0.0314 (0.122)	-0.0793 (0.0729)
TEK state	-0.195 (0.200)	-0.0189** (0.00761)	-0.012 (0.0166)	-0.0107 (0.0123)	0.152 (0.183)	-0.0181*** (0.00643)	-0.0171 (0.0140)	-0.0102 (0.0133)
Previous conflicts	0.0857 (0.103)	0.0221*** (0.00639)	0.00585 (0.0168)	-0.0117 (0.00854)	0.131 (0.141)	0.00737 (0.00808)	-0.00236 (0.0166)	-0.016 (0.0155)
GDP pc. (log)	-0.0692 (0.141)	-0.0092 (0.0125)	0.0117 (0.00959)	0.0103 (0.00908)	-0.0455 (0.133)	-0.00668 (0.0116)	0.0104 (0.00921)	0.00876 (0.00973)
Population (log)	-0.139*** (0.0662)	0.00228 (0.00364)	0.0431*** (0.00861)	0.00201 (0.00780)	0.154*** (0.0621)	0.00361 (0.00299)	0.0356*** (0.00825)	-0.000651 (0.00925)
Year	0.0171 (0.0143)	0.00152 (0.00124)	0.00141 (0.000965)	0.0103 (0.000799)	-0.0103 (0.00689)	0.00106 (0.000944)	0.00072 (0.000768)	0.00105 (0.000809)
Suitable land	-0.328 (0.327)	-0.00597 (0.0291)	0.103*** (0.0390)	0.0239 (0.0306)	0.159 (0.357)	0.00259 (0.0281)	0.105*** (0.0394)	0.0187 (0.0316)
Constant	-31.86 (31.08)	-2.777 (2.413)	-3.049* (1.843)	-2.617* (1.539)	16.62 (14.26)	-1.968 (1.849)	-1.678 (1.449)	-2.074 (1.561)
Observations	9085	9085	9085	9085	8851	8851	8851	8851

Robust standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Table C.17: Instrumental variables estimates: Colonial legacies (robustness 4)

	(1) Gov.	(2) PS corp. h	(3) PS corp. v	(4) PS lib. v	(1) Terr.	(2) PS corp. h	(3) PS corp. v	(4) PS lib. v
PS corp. h	-8.377*** (1.988)	0.0209 (0.0148)	0.0188 (0.0214)	-0.0126 (0.00946)	6.143 (4.450)	0.0193 (0.0138)	0.0137 (0.0207)	-0.0118 (0.00929)
PS corp. v	4.079 (2.926)	-0.057 (0.0480)	-0.0794 (0.0876)	0.016 (0.0764)	-3.752 (3.095)	-0.0402 (0.0322)	-0.0746 (0.0812)	0.0183 (0.0626)
PS lib. v	-4.746 (5.560)	0.0661 (0.157)	0.00208 (0.188)	-0.157 (0.155)	6.845*** (2.633)	0.0146 (0.0997)	0.0278 (0.182)	-0.147 (0.143)
Brit. x Dist. coast (log)		0.0741 (0.0581)	0.125 (0.101)	-0.00635 (0.0837)		0.0565 (0.0413)	0.12 (0.0953)	-0.00881 (0.0687)
Brit. x Abs. size (log)	0.245 (0.466)	-0.135 (0.107)	-0.0439 (0.163)	0.256* (0.132)	-0.223 (0.145)	-0.0859 (0.0665)	-0.0409 (0.154)	0.243* (0.129)
Dist. coast (log)	-0.0336 (0.0765)	-0.0238* (0.0135)	-0.0216 (0.0200)	0.00822 (0.00676)	-0.00373 (0.0586)	-0.0223* (0.0134)	-0.0198 (0.0199)	0.00848 (0.00659)
Abs. size (log)	0.412 (0.499)	0.051 (0.0412)	0.0193 (0.0859)	0.0376 (0.0700)	-0.677* (0.346)	0.0365 (0.0295)	0.0141 (0.0803)	0.0336 (0.0586)
Homogeneity	-1.043 (1.525)	0.0332 (0.0987)	0.260* (0.155)	-0.0565 (0.126)	2.798 (1.706)	0.0506 (0.0715)	0.236 (0.152)	-0.0577 (0.112)
Homogeneity x abs. size (log)	-0.343 (0.615)	-0.0638 (0.0492)	-0.0414 (0.102)	-0.0282 (0.0755)	0.612* (0.313)	-0.0518 (0.0376)	-0.031 (0.0963)	-0.0219 (0.0629)
Size	-0.611 (1.135)	0.0286 (0.0679)	0.0751 (0.122)	-0.0644 (0.0689)	0.235 (0.869)	0.0554 (0.0615)	0.0435 (0.120)	-0.077 (0.0731)
TEK state	-0.16 (1.156)	-0.0192** (0.00779)	-0.0172 (0.0171)	-0.011 (0.0124)	0.133 (0.186)	-0.0188*** (0.00666)	-0.0228 (0.0151)	-0.0106 (0.0134)
Previous conflicts	0.133 (0.226)	0.0227*** (0.00612)	0.00373 (0.0174)	-0.0129 (0.00834)	0.115 (0.144)	0.00799 (0.00813)	-0.00627 (0.0180)	-0.0175 (0.0151)
GDP pc. (log)	-0.162 (0.466)	-0.00844 (0.0122)	0.0148 (0.0110)	0.00962 (0.00945)	-0.03 (0.133)	-0.00588 (0.0116)	0.013 (0.0105)	0.00835 (0.00989)
Population (log)	-0.206 (0.244)	0.00253 (0.00364)	0.0432*** (0.00860)	0.00168 (0.00743)	0.166*** (0.0621)	0.00376 (0.00298)	0.0352*** (0.00808)	-0.000908 (0.00894)
Year	0.0163 (0.0147)	0.0015 (0.00124)	0.00143 (0.000994)	0.00134* (0.000797)	-0.0102 (0.00631)	0.00105 (0.00105)	0.000758 (0.000761)	0.00108 (0.000792)
North Africa	0.372 (1.036)	-0.0117 (0.0161)	-0.0501** (0.0207)	0.00905 (0.0154)	-0.129 (0.171)	-0.0129 (0.0121)	-0.0490** (0.0193)	0.00495 (0.0162)
Constant	-29.67 (29.65)	-2.765 (2.417)	-3.075 (1.883)	-2.647* (1.536)	16.23 (12.82)	-1.939 (1.853)	-1.719 (1.411)	-2.115 (1.529)
Observations	9085	9085	9085	9085	8851	8851	8851	8851

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table C.18: Instrumental variables estimates: Colonial legacies (robustness 5)

	(1) Gov.	(2) PS corp. h	(3) PS corp. v	(4) PS lib. v	(1) Terr.	(2) PS corp. h	(3) PS corp. v	(4) PS lib. v
PS corp. h	-6.803*** (2.255)				5.305 (4.776)			
PS corp. v	2.363 (2.535)				-3.089 (2.844)			
PS lib. v	-6.465 (4.678)				7.734*** (1.747)			
Brit. x Dist. coast (log)		0.0211 (0.0140)	0.0142 (0.0215)	-0.0121 (0.00813)		0.0191 (0.0142)	0.00843 (0.0210)	-0.0116 (0.00872)
Brit. x Abs. size (log)		-0.0544 (0.0433)	-0.089 (0.0838)	0.0168 (0.0677)		-0.0419 (0.0325)	-0.0814 (0.0773)	0.0177 (0.0658)
Brit. x Homogeneity		0.0576 (0.0971)	-0.0589 (0.169)	-0.157 (0.133)		0.0137 (0.0940)	-0.0446 (0.167)	-0.145 (0.144)
Brit. x Abs. size (log) x Homogeneity		0.0718 (0.0516)	0.143 (0.0969)	-0.00824 (0.0726)		0.0592 (0.0416)	0.135 (0.0909)	-0.00865 (0.0722)
Brit.	0.327 (0.277)	-0.130* (0.0787)	0.0416 (0.154)	0.253** (0.116)	-0.250* (0.134)	-0.0862 (0.0709)	0.0582 (0.153)	0.240* (0.123)
Dist. coast (log)	0.0196 (0.119)	-0.0242* (0.0128)	-0.023 (0.0193)	0.00832 (0.0532)	-0.019 (0.0532)	-0.0225* (0.0132)	-0.0212 (0.0193)	0.00857 (0.00662)
Abs. size (log)	0.38 (0.451)	0.0468 (0.0395)	0.0315 (0.0826)	0.0376 (0.0663)	-0.639* (0.384)	0.0361 (0.0309)	0.0245 (0.0759)	0.0346 (0.0605)
Homogeneity	-0.291 (2.014)	0.0429 (0.0740)	0.218 (0.145)	-0.0534 (0.117)	2.32 (2.123)	0.0541 (0.0740)	0.196 (0.140)	-0.0582 (0.117)
Homogeneity x abs. size (log)	-0.289 (0.489)	-0.06 (0.0466)	-0.0557 (0.0964)	-0.0277 (0.0701)	0.562 (0.348)	-0.0523 (0.0383)	-0.0433 (0.0900)	-0.0227 (0.0648)
Size	-0.691 (0.582)	0.0266 (0.0688)	0.0831 (0.113)	-0.0648 (0.0653)	0.36 (0.719)	0.0543 (0.0623)	0.0507 (0.111)	-0.077 (0.0702)
TEK state	-0.227 (0.183)	-0.0189** (0.00810)	-0.0141 (0.0174)	-0.0114 (0.0125)	0.147 (0.191)	-0.0184*** (0.00669)	-0.0192 (0.0152)	-0.0108 (0.0134)
Previous conflicts	0.122 (0.206)	0.0227*** (0.00615)	8.83E-05 (0.0178)	-0.0126 (0.00861)	0.114 (0.168)	0.0076 (0.00924)	-0.0116 (0.0181)	-0.0173 (0.0154)
GDP pc. (log)	-0.0875 (0.163)	-0.0096 (0.0129)	0.0138 (0.0104)	0.0102 (0.00847)	-0.0398 (0.138)	-0.00705 (0.0118)	0.0119 (0.00998)	0.00872 (0.00916)
Population (log)	-0.121 (0.0813)	0.00237 (0.00369)	0.0432*** (0.00882)	0.00185 (0.00769)	0.136* (0.074)	0.00365 (0.00290)	0.0342*** (0.00847)	-0.000846 (0.00920)
Year	0.0197*** (0.00191)	0.00152 (0.00127)	0.00145 (0.000987)	0.00133 (0.000811)	-0.0107 (0.00698)	0.00107 (0.000947)	0.000803 (0.000777)	0.00107 (0.000802)
Nightlights	0.0112 (0.00110)	0.00041 (0.00110)	-0.00257 (0.00195)	-1.78E-05 (0.00201)	-0.0127 (0.0170)	0.000474 (0.00112)	-0.00265 (0.00200)	-5.97E-05 (0.00207)
Constant	-38.19 (0)	-2.793 (2.480)	-3.062* (1.859)	-2.640* (1.563)	18.04 (14.86)	-1.986 (1.845)	-1.758 (1.442)	-2.1 (1.551)
Observations	9085	9085	9085	9085	8851	8851	8851	8851

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Other mechanisms

Table C.19: IV approach: influence on other factors

	<i>Dependent variable:</i>	
	Nightlights	Size
	(1)	(2)
Brit.	11.815 (9.137)	0.204** (0.091)
Dist. coast (log)	-0.947* (0.520)	-0.003 (0.007)
Abs. size (log)	-1.024* (0.565)	-0.046*** (0.010)
Homogeneity	-11.010 (6.738)	0.310*** (0.098)
Size	2.080 (4.492)	
TEK state	0.872 (1.130)	-0.001 (0.013)
Previous conflicts	-0.866 (0.765)	-0.003 (0.011)
GDP pc. (log)	1.278** (0.602)	-0.007 (0.007)
Population (log)	-0.057 (0.488)	-0.058*** (0.009)
Year		
	(0.731)	(0.008)
Brit. x Dist. coast (log)	-0.935 (1.793)	0.001 (0.013)
Brit. x Abs. size (log)	2.161 (9.368)	0.082 (0.103)
Brit. x Homogeneity	-3.737*** (0.923)	-0.259*** (0.017)
Abs. size x Homogeneity	1.059 (2.176)	0.129*** (0.020)
Brit. x Abs. size x Homogeneity	-0.635	-0.108
Constant	6.420 (9.411)	0.087 (0.113)
Observations	208	208
R ²	0.407	0.674
Adjusted R ²	0.364	0.653

Note:

*p<0.1; **p<0.05; ***p<0.01
Country-clustered standard errors in parentheses;
cubic terms for group-wise peace years included
but not reported.

C.5 Mediation analysis

C.5.1 Sensitivity checks

Linear probability version of models

Table C.20: Mediation analysis: power-sharing institutions, practice, and conflict

	<i>Dependent variable:</i>								
	In- cluded (1)	Auton- omy (2)	Gov. (3)	In- cluded (4)	Auton- omy (5)	Terr. (6)	Avg. Incl. (7)	Avg. Aut. (8)	Coup (9)
PS corp. h	0.359** (0.169)		0.003 (0.003)	0.373** (0.167)		0.002 (0.004)			
PS lib. h	0.247 (0.169)		-0.005* (0.003)	0.242 (0.169)		0.005 (0.004)			
PS corp. v		1.160*** (0.111)	-0.001 (0.003)		1.192*** (0.112)	0.003 (0.005)			
PS lib. v		-0.229*** (0.083)	0.003 (0.003)		-0.250*** (0.079)	-0.008*** (0.003)			
PS corp. h avg.							0.673 (0.430)		0.213 (0.133)
PS lib. h avg.							0.113 (0.159)		0.014 (0.046)
PS corp. v avg.								0.924** (0.396)	-0.135 (0.088)
PS lib. v avg.								-0.340 (0.373)	0.050 (0.063)
PS corp. h diff.	-0.326** (0.142)		0.006 (0.007)	-0.333** (0.146)		-0.010* (0.005)			
PS corp. v diff.		0.272 (0.218)	0.002 (0.005)		0.280 (0.215)	0.001 (0.004)			
Included			-0.002** (0.001)			-0.003** (0.001)			
Autonomy			-0.001 (0.001)			0.002 (0.002)			
Avg. included									-0.028 (0.018)
Avg. autonomy									0.027 (0.066)
Size	0.823*** (0.173)	-0.115* (0.063)	0.029*** (0.009)	0.757*** (0.168)	-0.104* (0.056)	-0.002 (0.003)	0.130 (0.169)	0.017 (0.037)	-0.013 (0.028)
TEK state	0.016 (0.034)	-0.024 (0.040)	-0.001 (0.001)	0.025 (0.034)	-0.019 (0.040)	0.001 (0.001)	0.025 (0.122)	0.009 (0.011)	0.041 (0.028)
Previous conflicts	0.001 (0.033)	0.032 (0.030)	0.003** (0.001)	0.024 (0.036)	0.007 (0.024)	0.010*** (0.002)	0.137** (0.063)	-0.001 (0.014)	-0.010 (0.011)
GDP pc. (log)	-0.018 (0.020)	0.036* (0.020)	-0.001** (0.0005)	-0.022 (0.020)	0.041** (0.016)	-0.0004 (0.001)	0.103*** (0.038)	0.004 (0.010)	-0.003 (0.011)
Population (log)	-0.011 (0.026)	0.043*** (0.010)	0.0001 (0.0003)	-0.014 (0.026)	0.044*** (0.010)	0.001 (0.001)	-0.025 (0.032)	0.013* (0.008)	0.002 (0.008)
Year			0.0001*** (0.00004)			0.0001 (0.00005)			-0.001 (0.001)
Constant	0.269 (0.166)	-0.314* (0.165)	-0.268*** (0.086)	0.267* (0.162)	-0.344** (0.142)	-0.109 (0.097)	-0.490* (0.282)	-0.053 (0.077)	1.743 (1.157)
Observations	34,649	34,649	34,649	34,196	34,196	34,196	1,606	1,606	1,606
R ²	0.114	0.368	0.008	0.115	0.387	0.013	0.116	0.340	0.022
Adjusted R ²	0.114	0.368	0.007	0.114	0.387	0.012	0.110	0.336	0.012

Note:

*p<0.1; **p<0.05; ***p<0.01
Country-clustered standard errors in parentheses; cubic terms for group-wise peace years
included but not reported.

Mediation results (linear probability version)

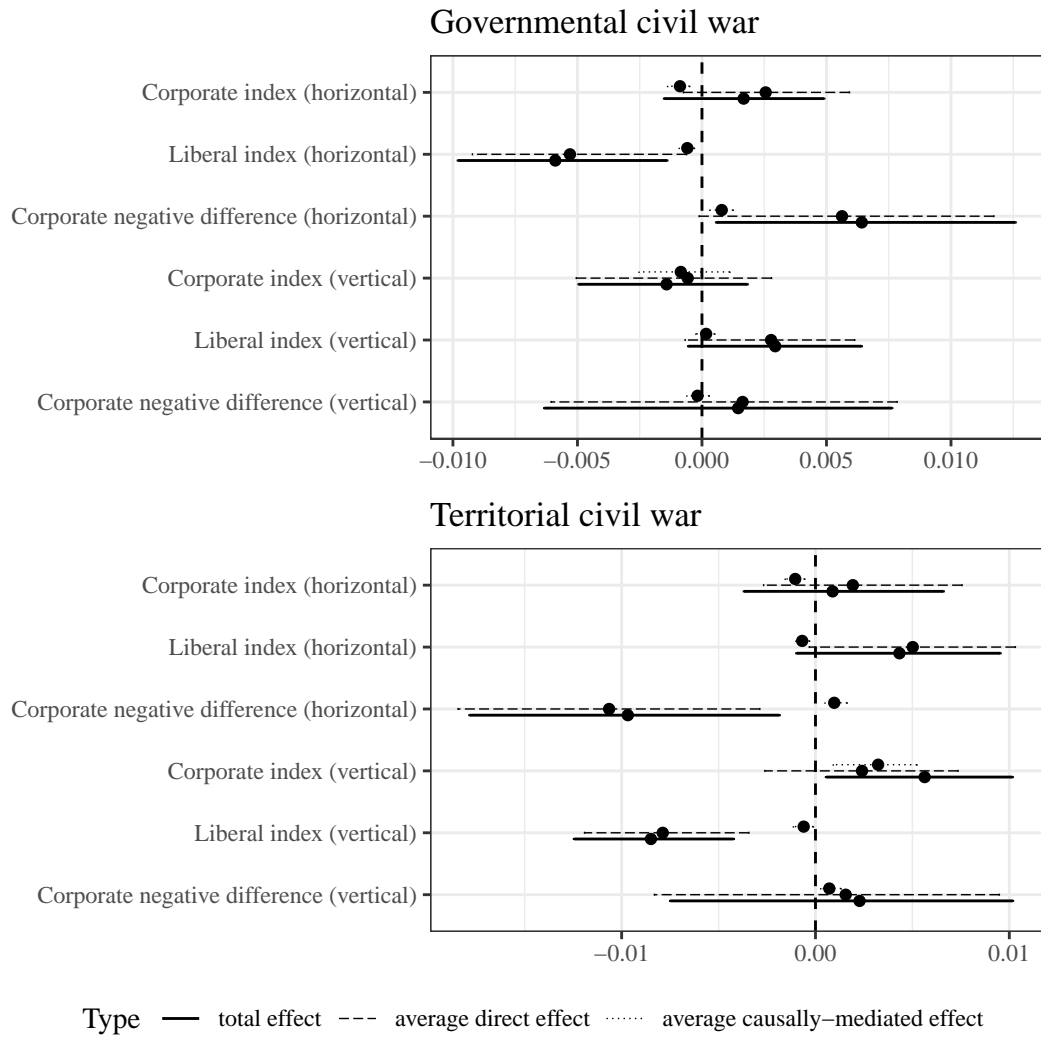


Figure C.7: Mediation (linear probability version)

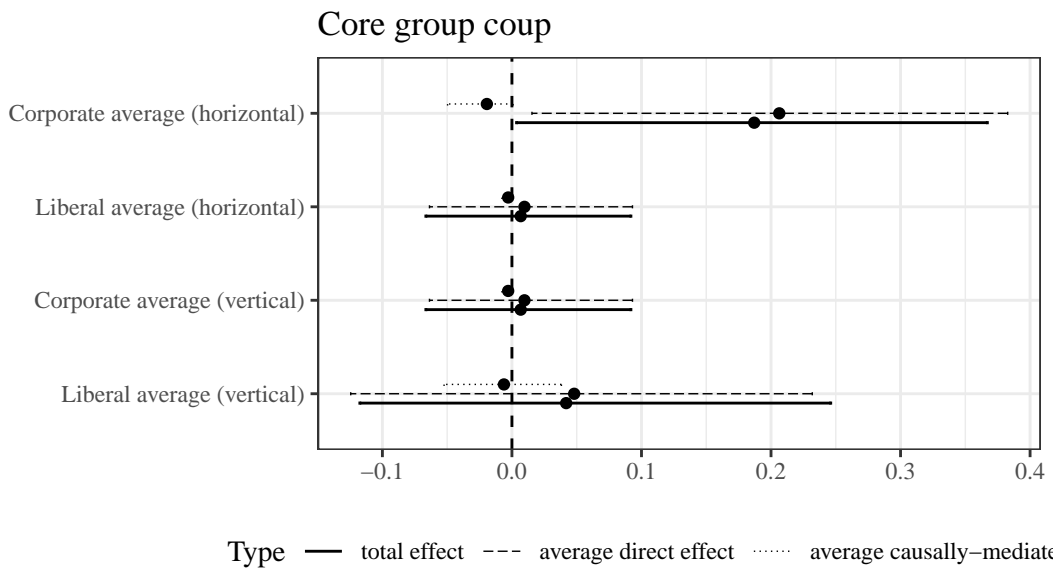


Figure C.8: Mediation: Core group coups (linear probability version)

Sensitivity analyses

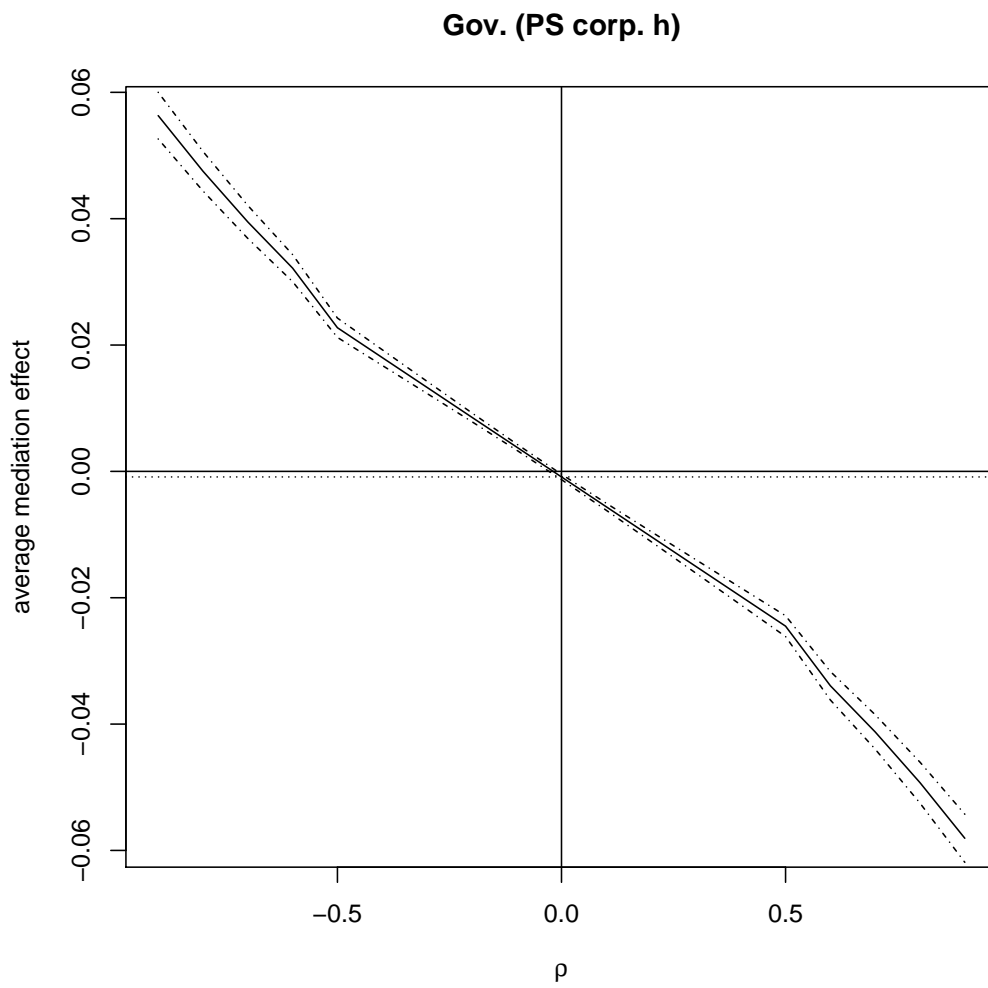


Figure C.9: Sensitivity: Governmental civil wars: average causally-mediated effect of corporate power-sharing (horizontal)

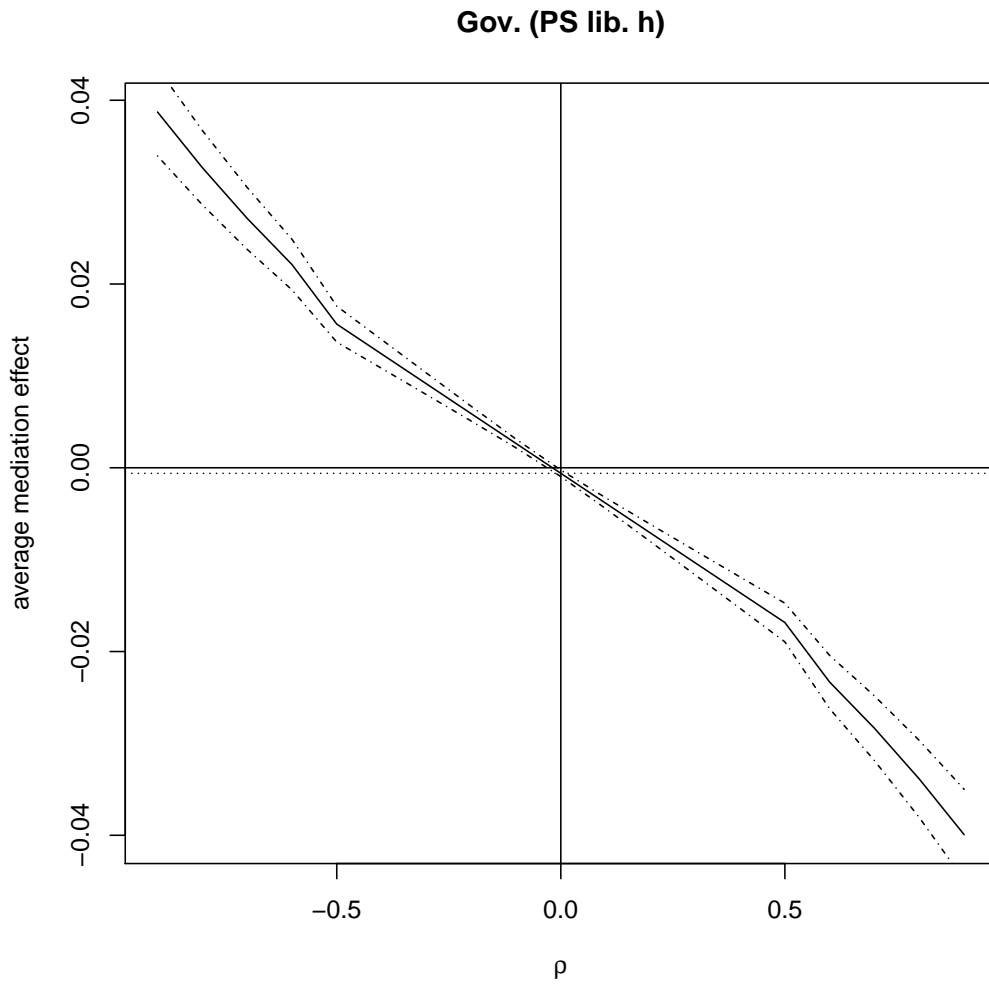


Figure C.10: Sensitivity: Governmental civil wars: average causally-mediated effect of liberal power-sharing (horizontal)

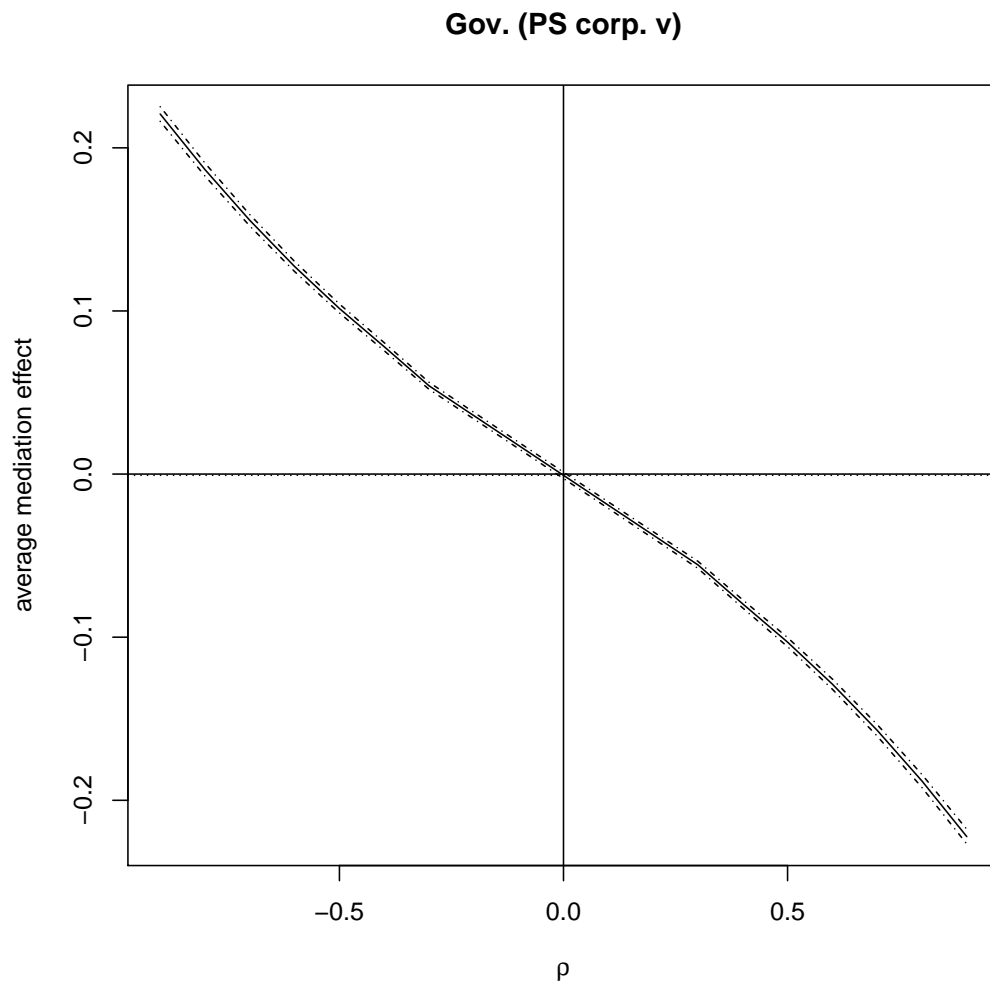


Figure C.11: Sensitivity: Governmental civil wars: average causally-mediated effect of corporate power-sharing (vertical)

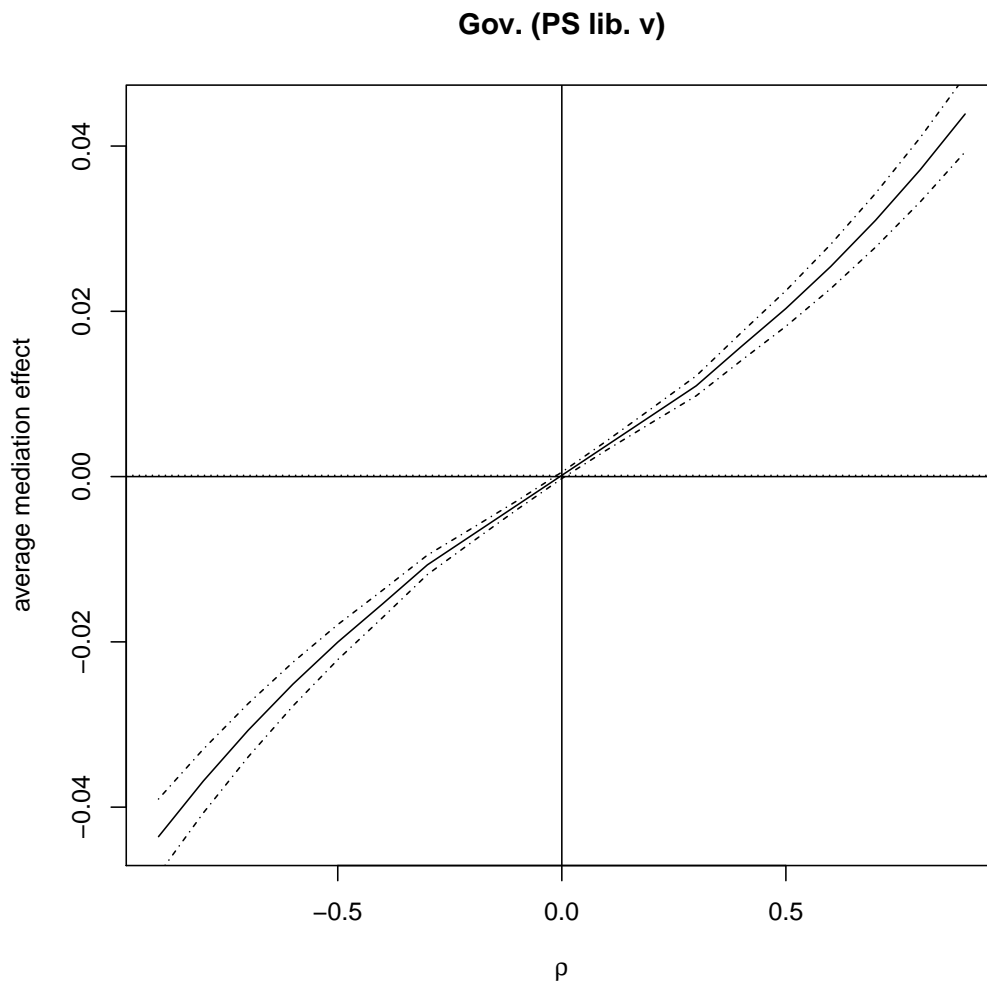


Figure C.12: Sensitivity: Governmental civil wars: average causally-mediated effect of liberal power-sharing (vertical)

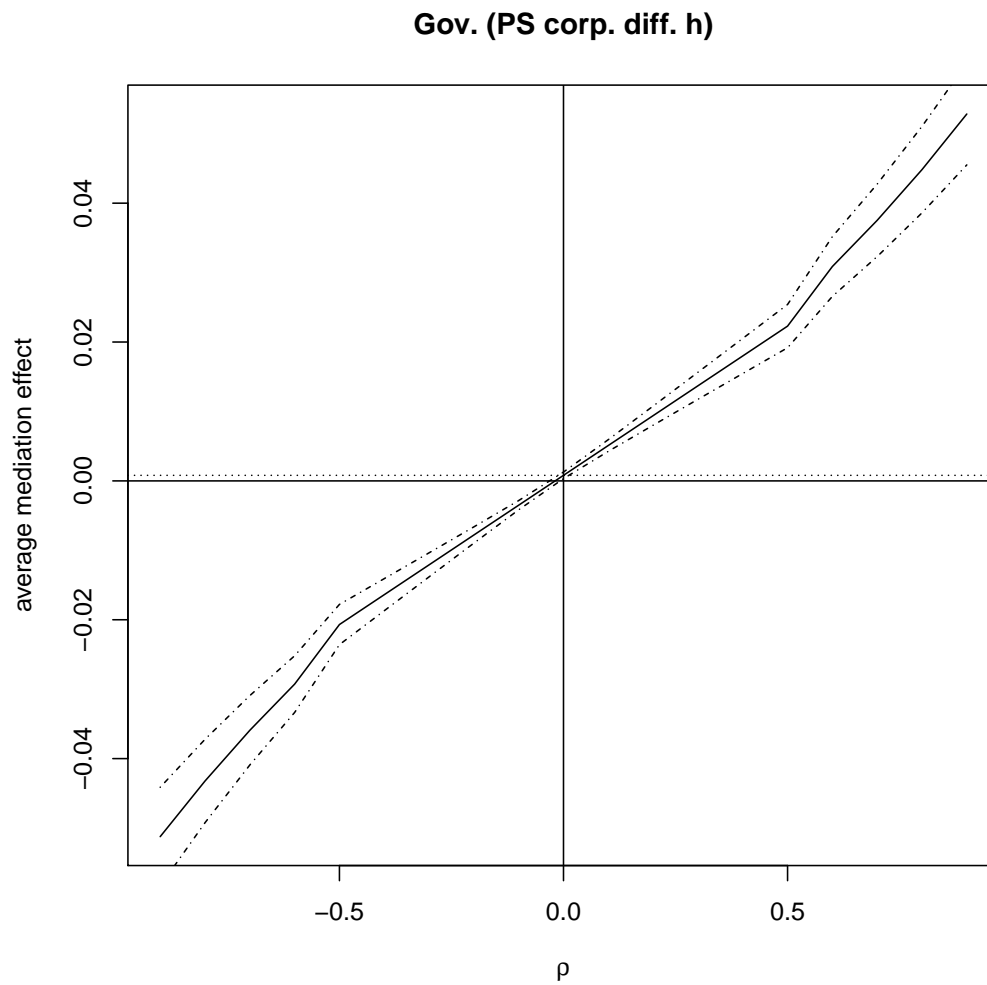


Figure C.13: Sensitivity: Governmental civil wars: average causally-mediated effect of corporate power-sharing (horizontal, negative difference)

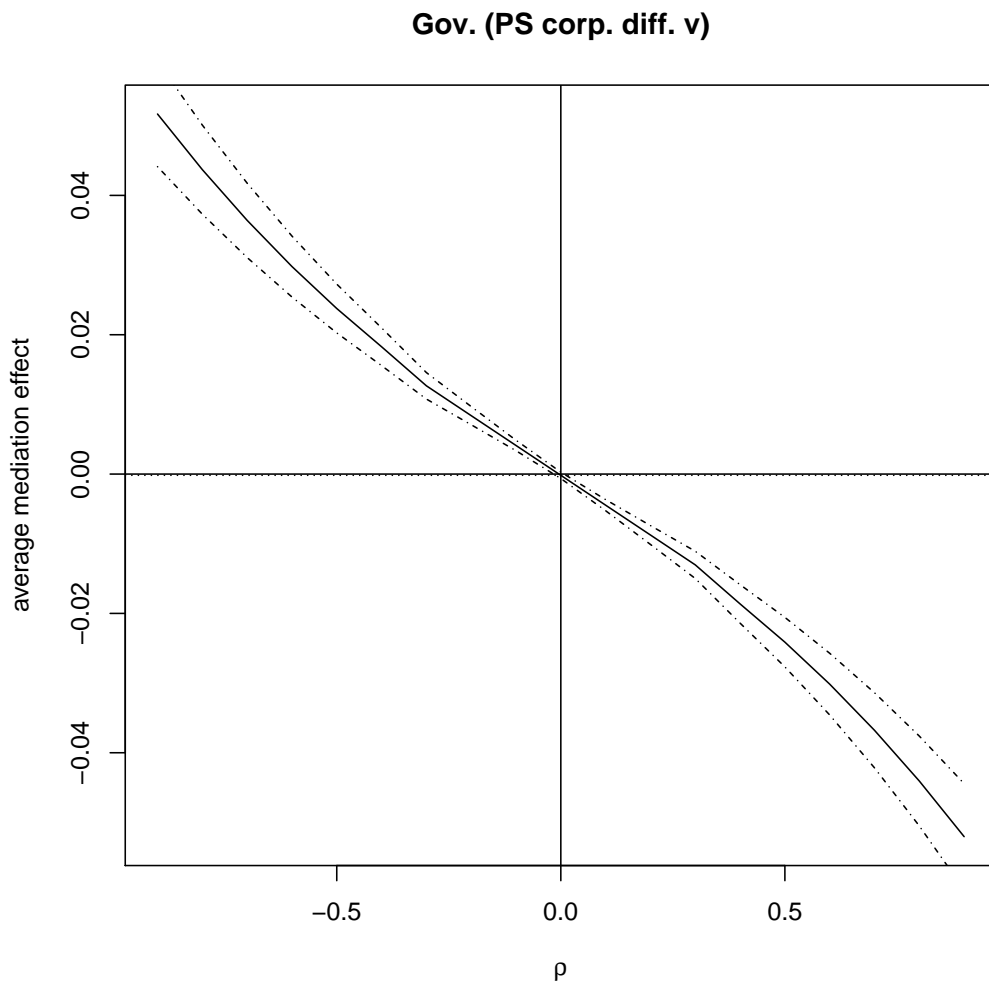


Figure C.14: Sensitivity: Governmental civil wars: average causally-mediated effect of corporate power-sharing (vertical, negative difference)

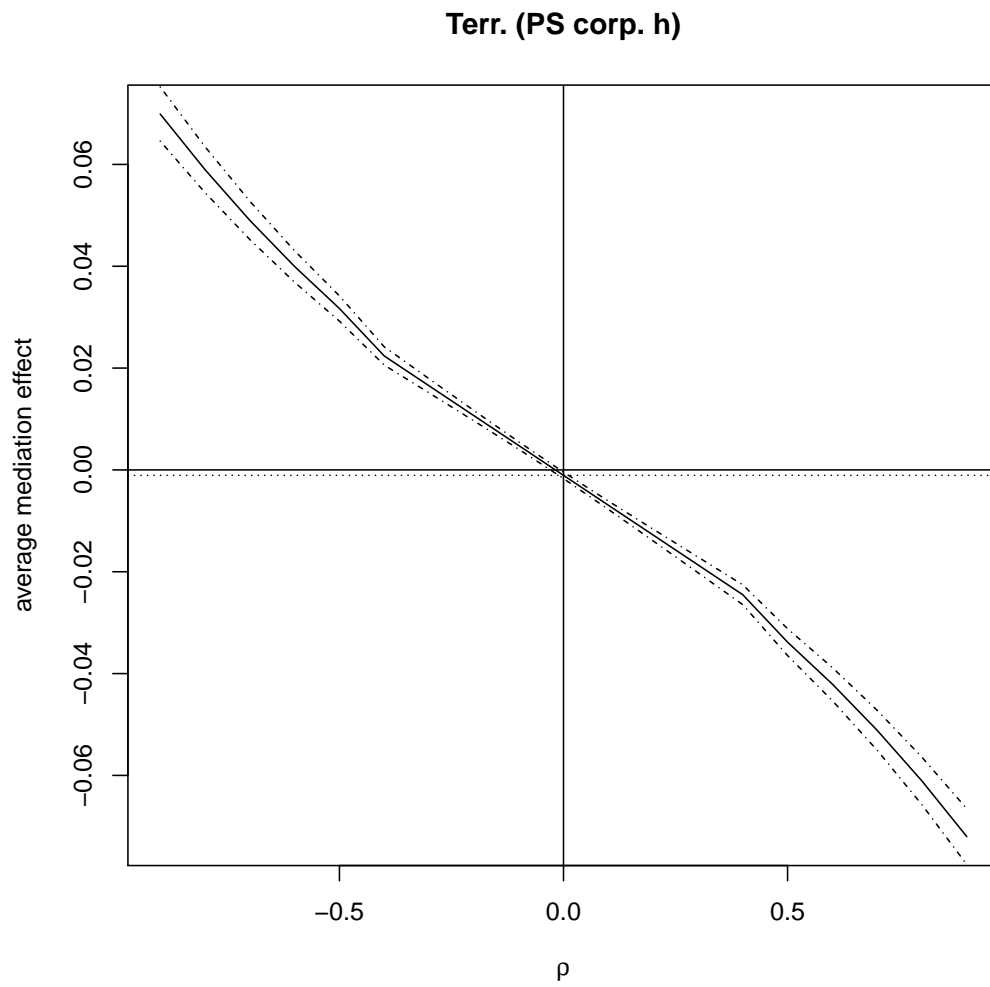


Figure C.15: Sensitivity: Territorial civil wars: average causally-mediated effect of corporate power-sharing (horizontal)

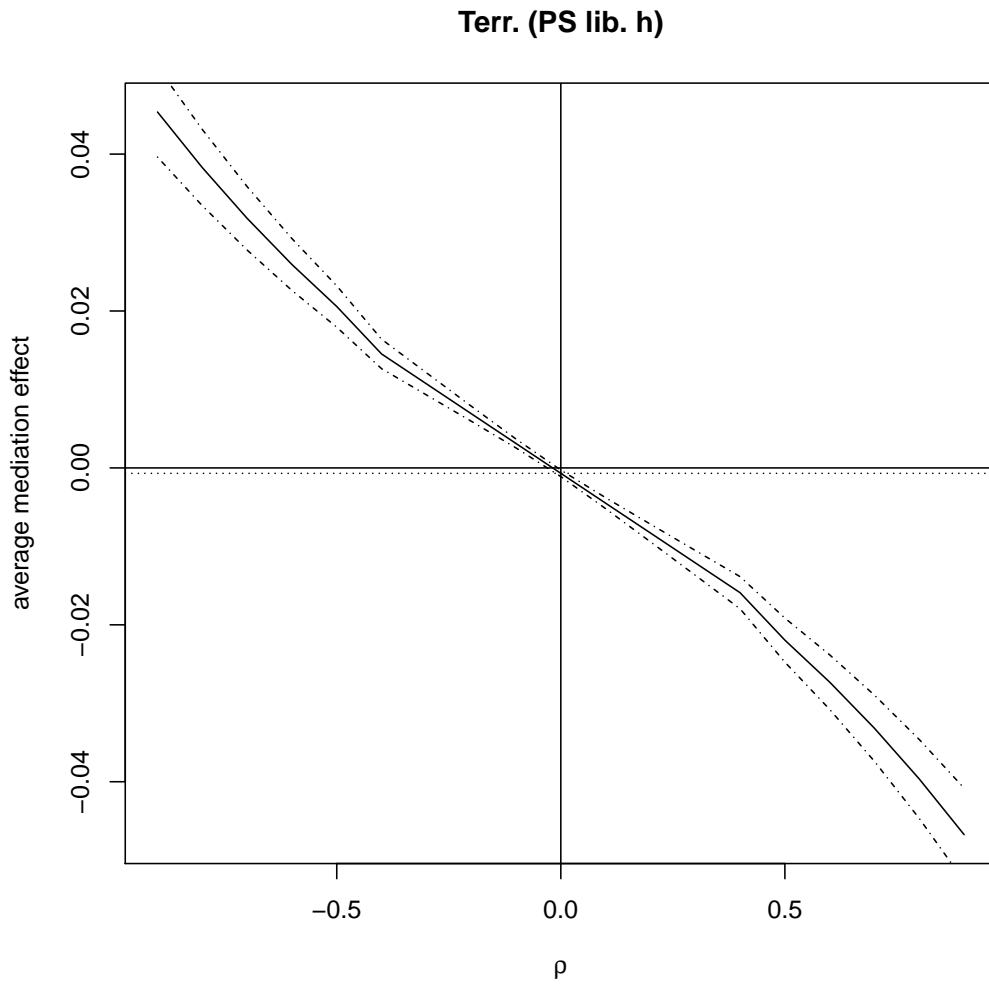


Figure C.16: Sensitivity: Territorial civil wars: average causally-mediated effect of liberal power-sharing (horizontal)

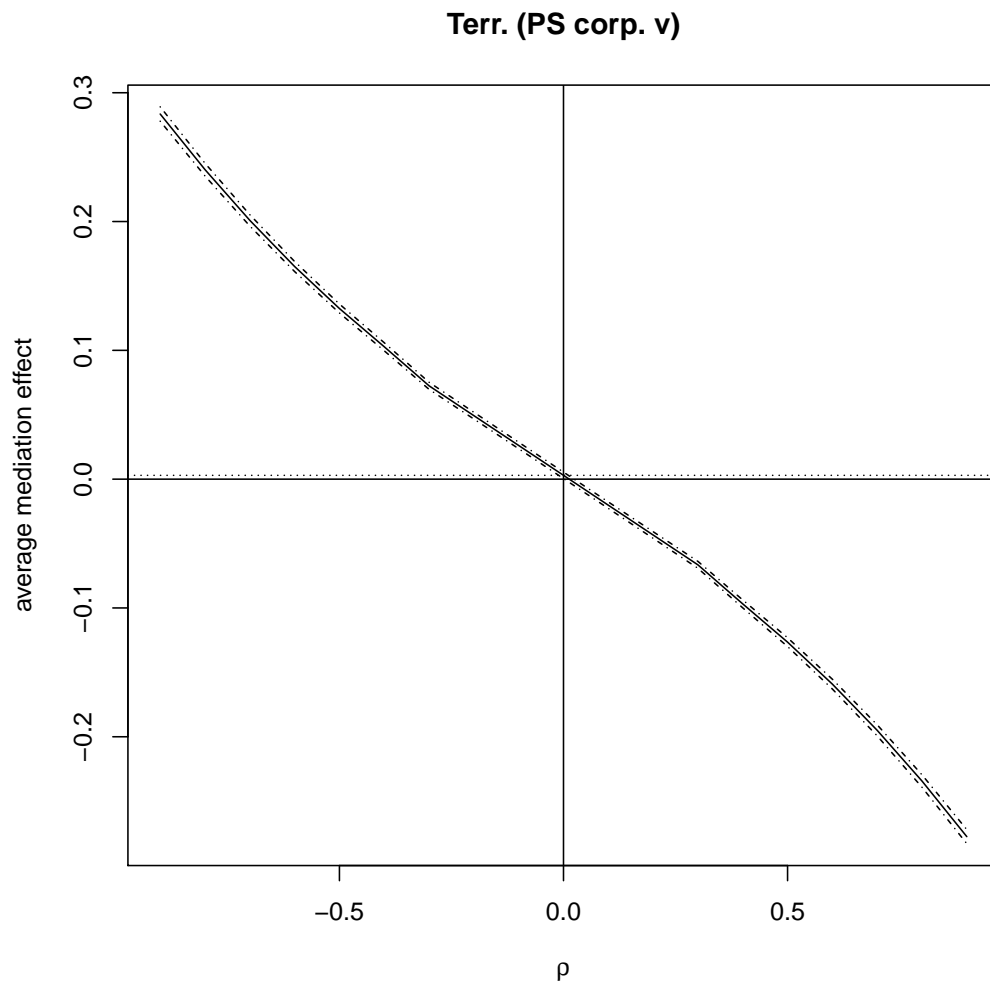


Figure C.17: Sensitivity: Territorial civil wars: average causally-mediated effect of corporate power-sharing (vertical)

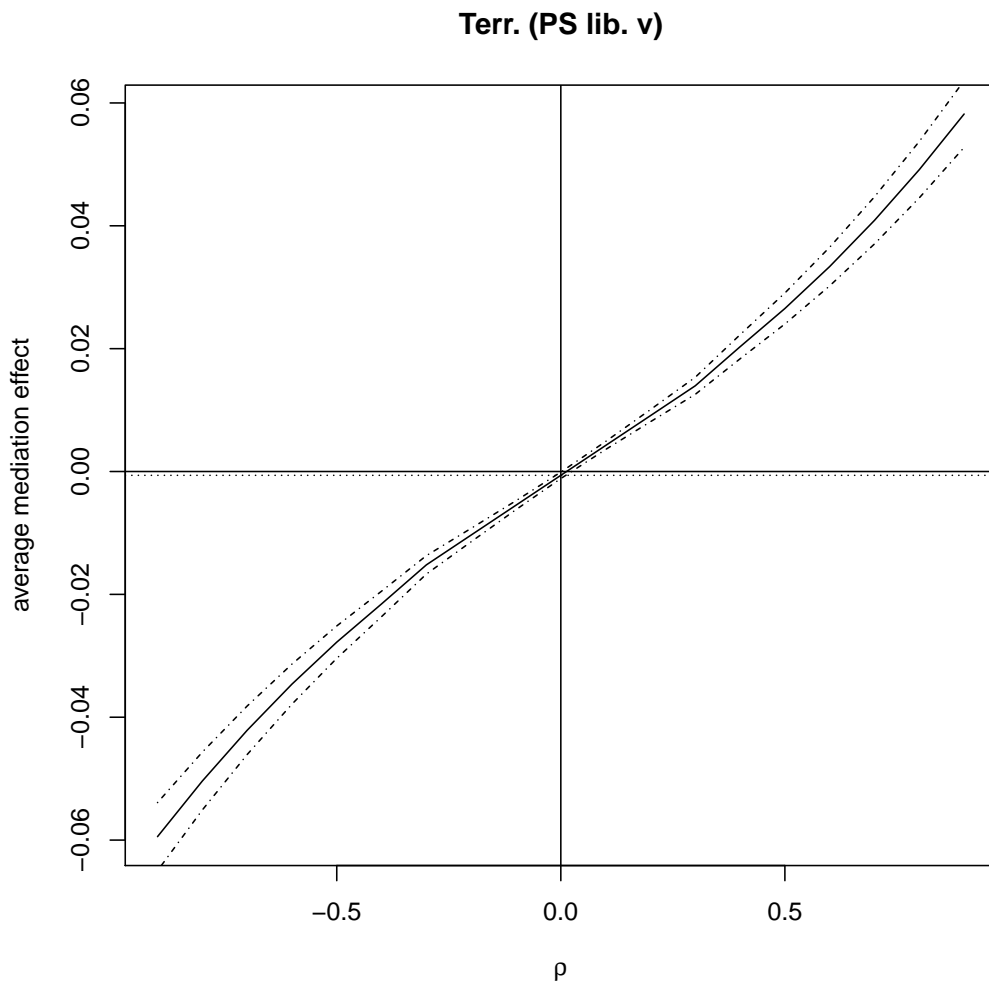


Figure C.18: Sensitivity: Territorial civil wars: average causally-mediated effect of liberal power-sharing (vertical)

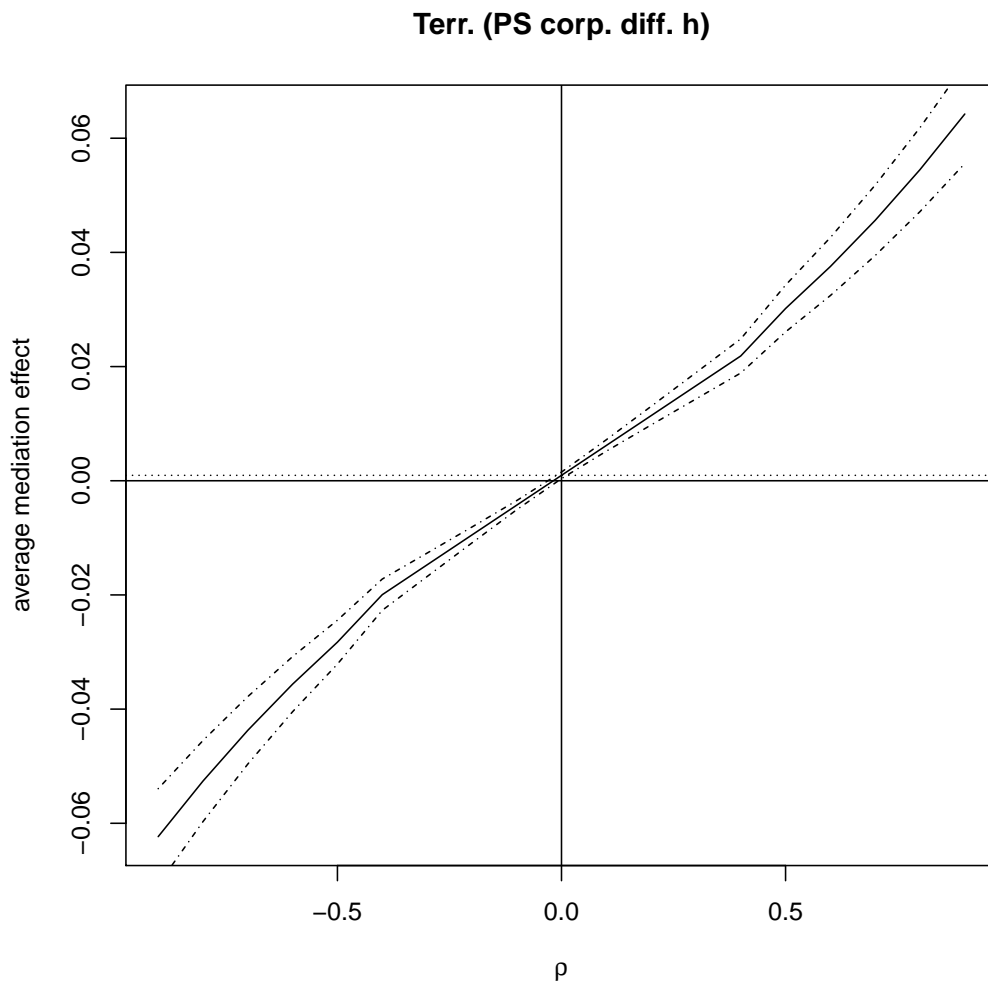


Figure C.19: Sensitivity: Territorial civil wars: average causally-mediated effect of corporate power-sharing (horizontal, negative difference)

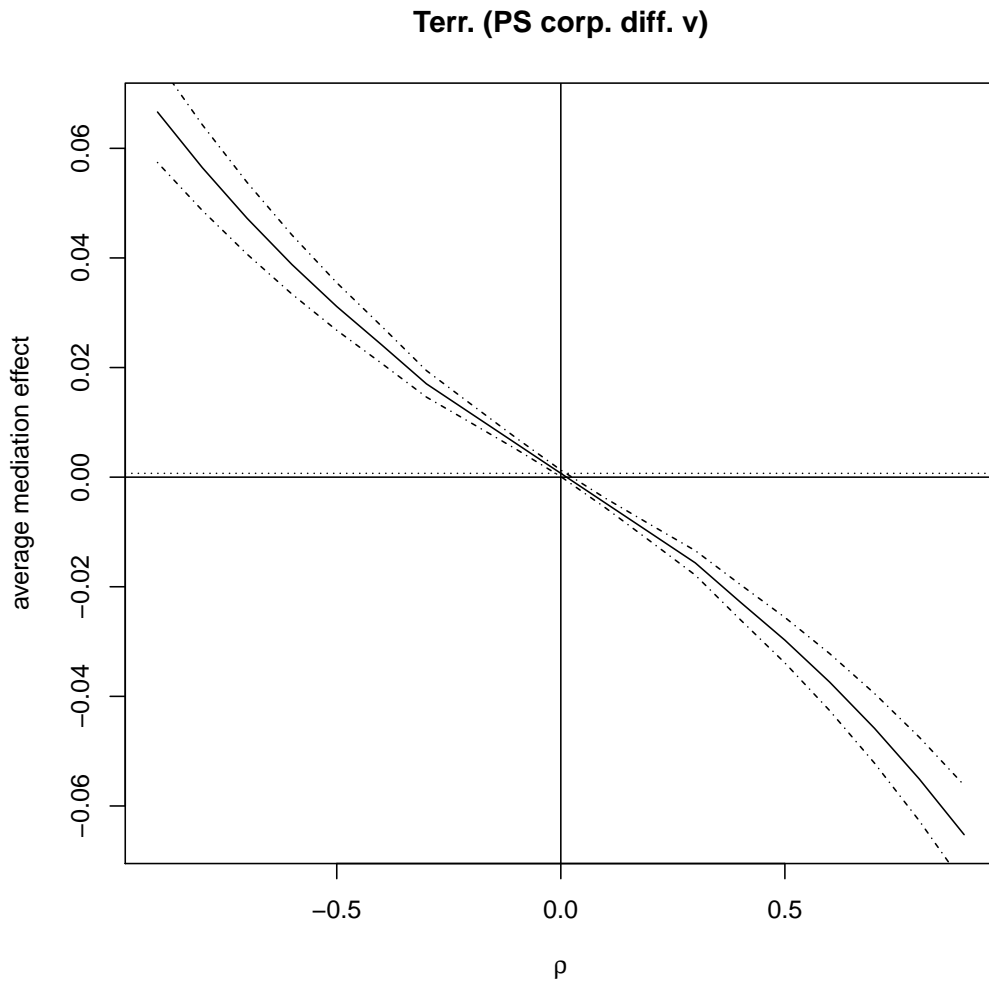


Figure C.20: Sensitivity: Territorial civil wars: average causally-mediated effect of corporate power-sharing (vertical, negative difference)

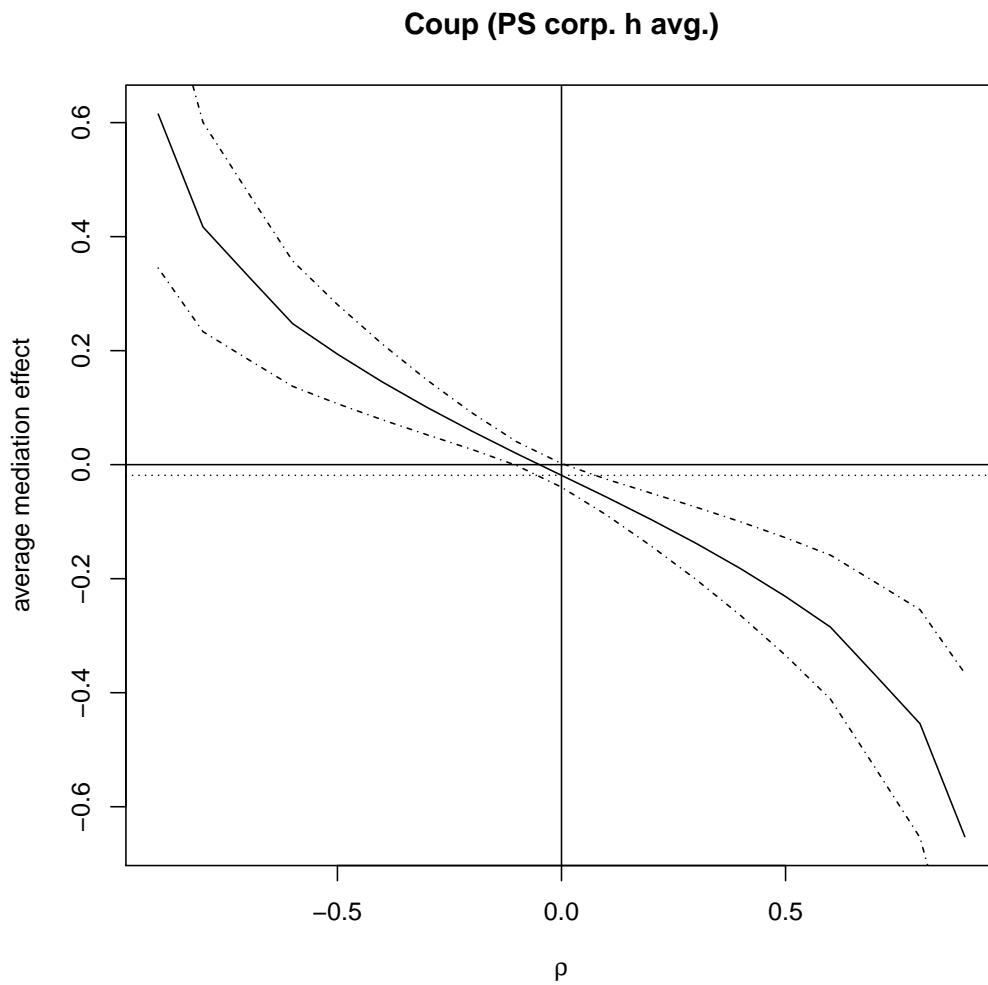


Figure C.21: Sensitivity: Coups: average causally-mediated effect of corporate power-sharing (horizontal, average)

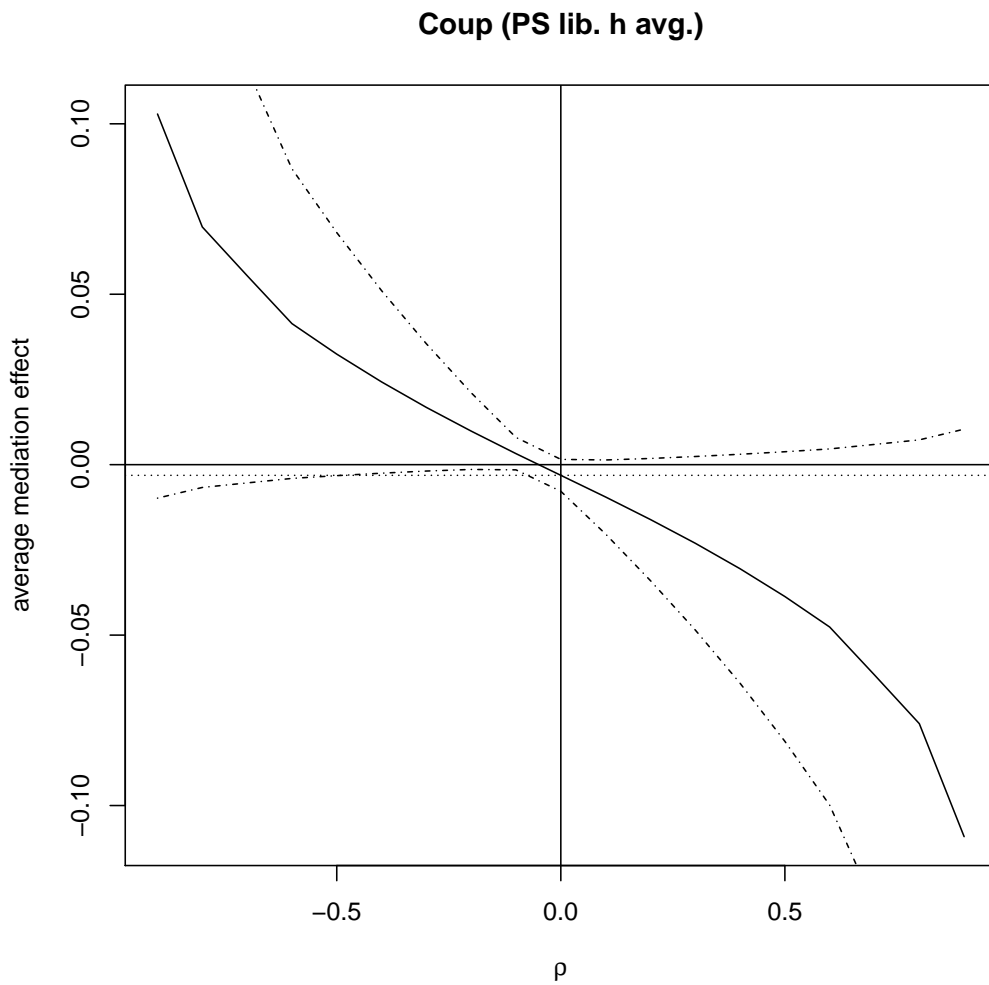


Figure C.22: Sensitivity: Coups: average causally-mediated effect of liberal power-sharing (horizontal, average)

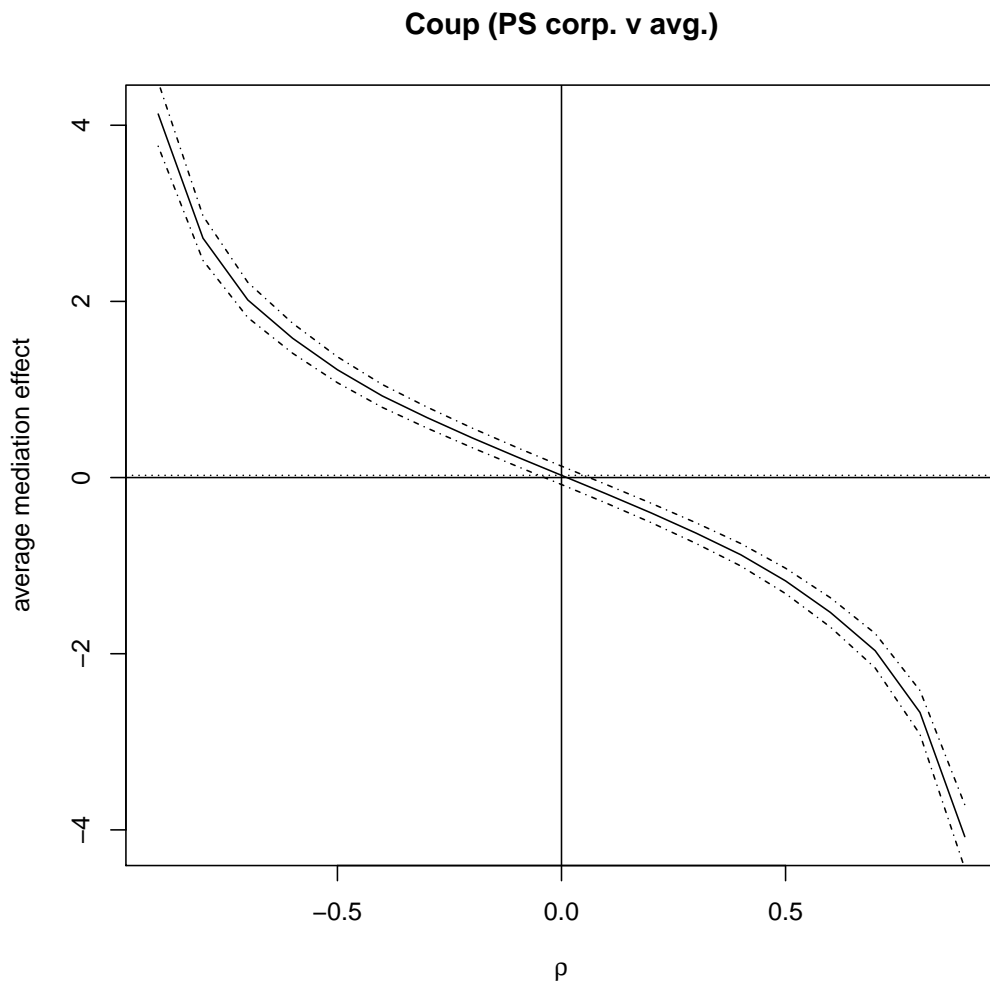


Figure C.23: Sensitivity: Coups: average causally-mediated effect of corporate power-sharing (vertical, average)

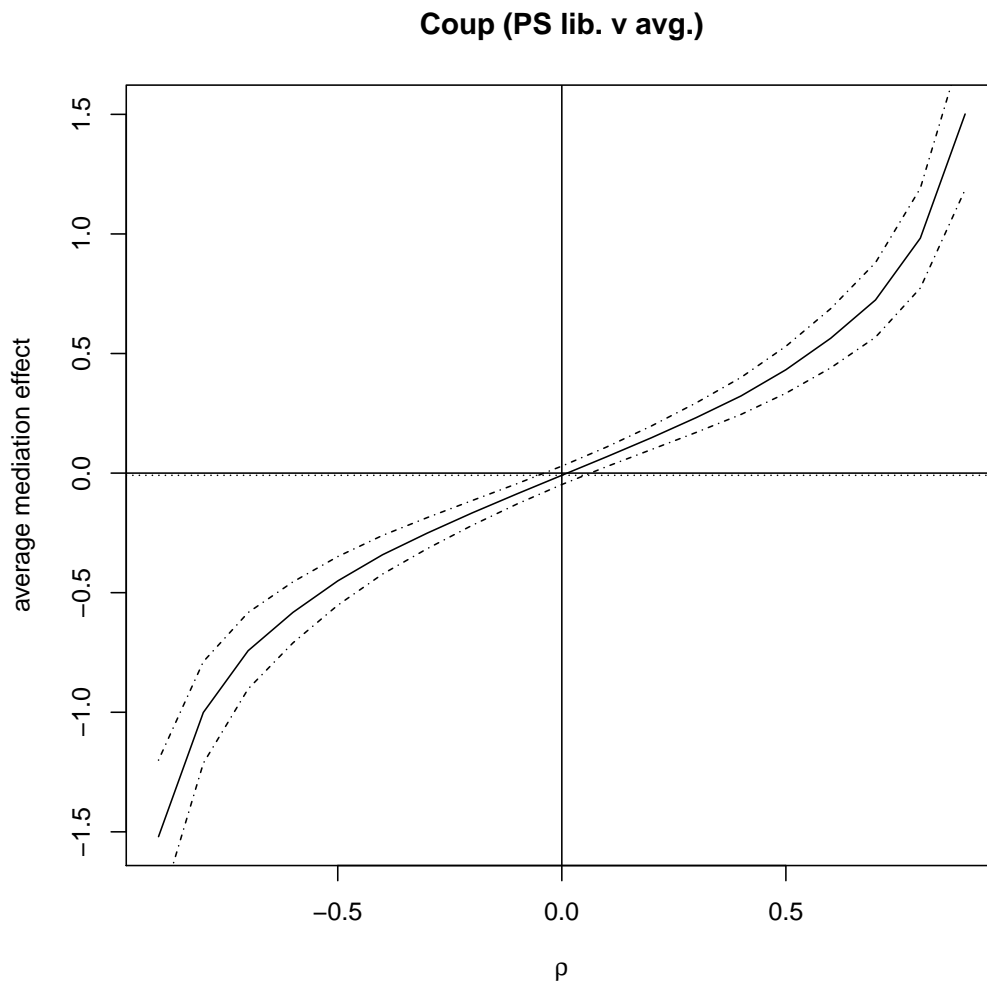


Figure C.24: Sensitivity: Coups: average causally-mediated effect of liberal power-sharing (vertical, average)

C.5.2 Different time lags

Lag 2

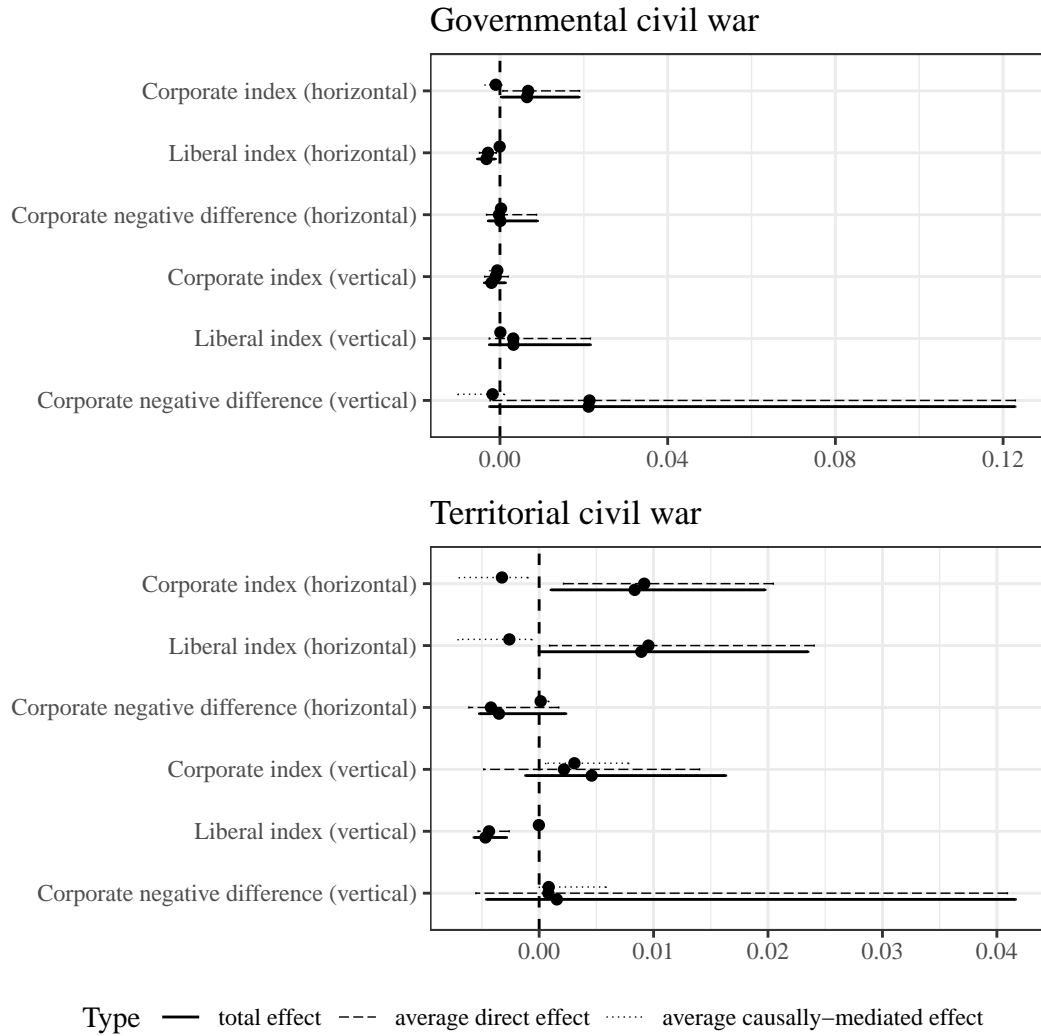


Figure C.25: Mediation (lag 2)

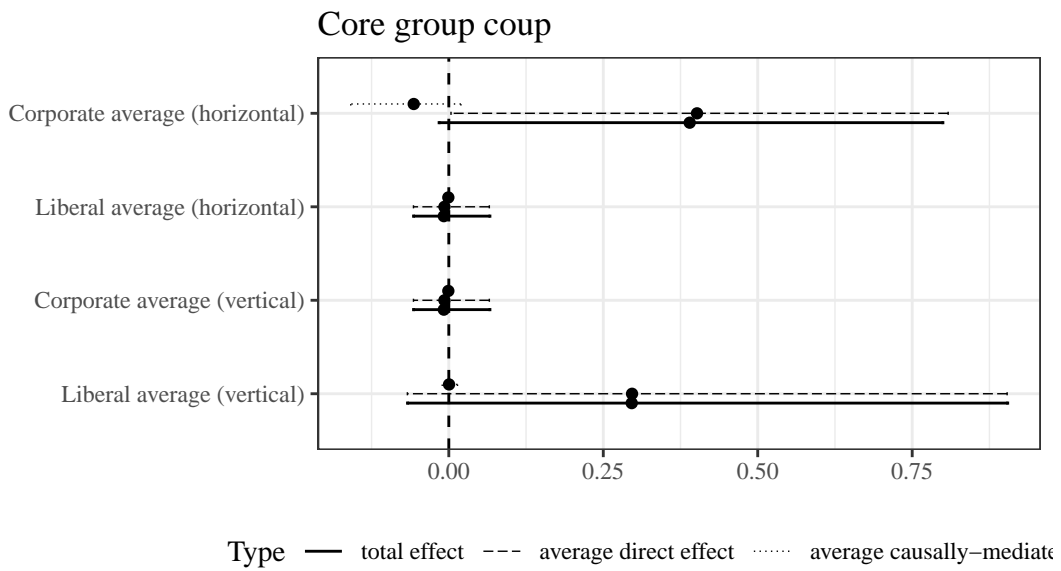


Figure C.26: Mediation: Core group coups (lag 2)

Lag 5

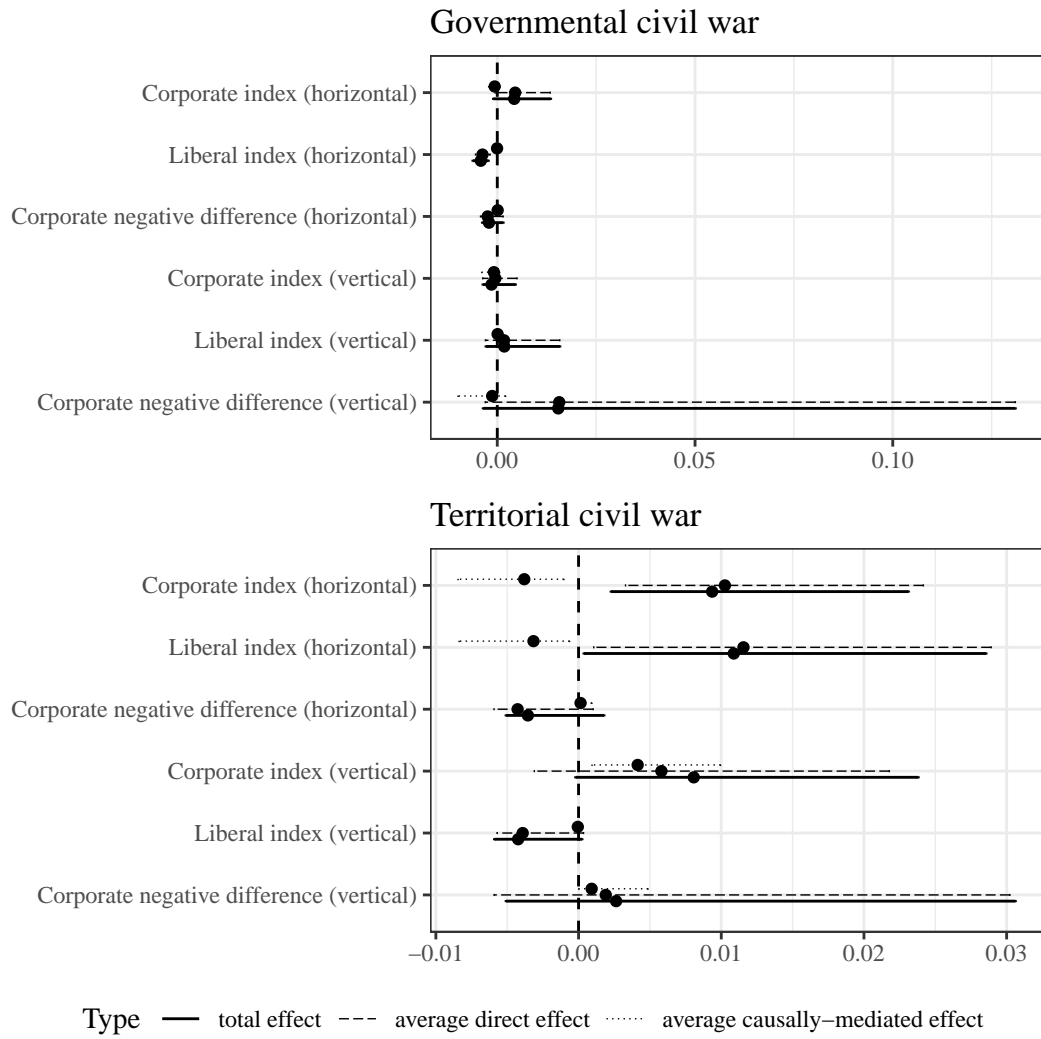


Figure C.27: Mediation (lag 5)

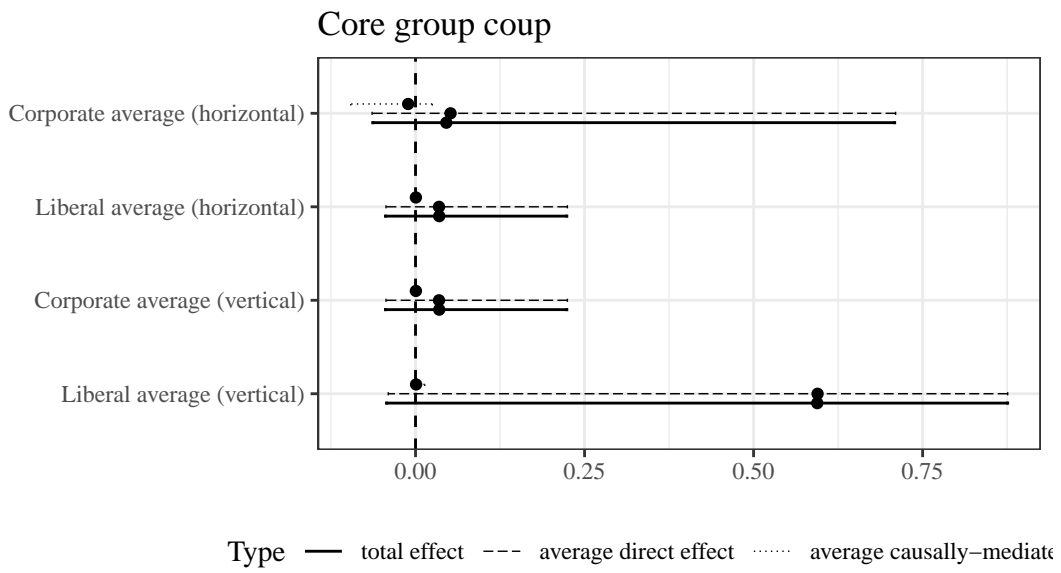


Figure C.28: Mediation: Core group coups (lag 5)

Lag 10

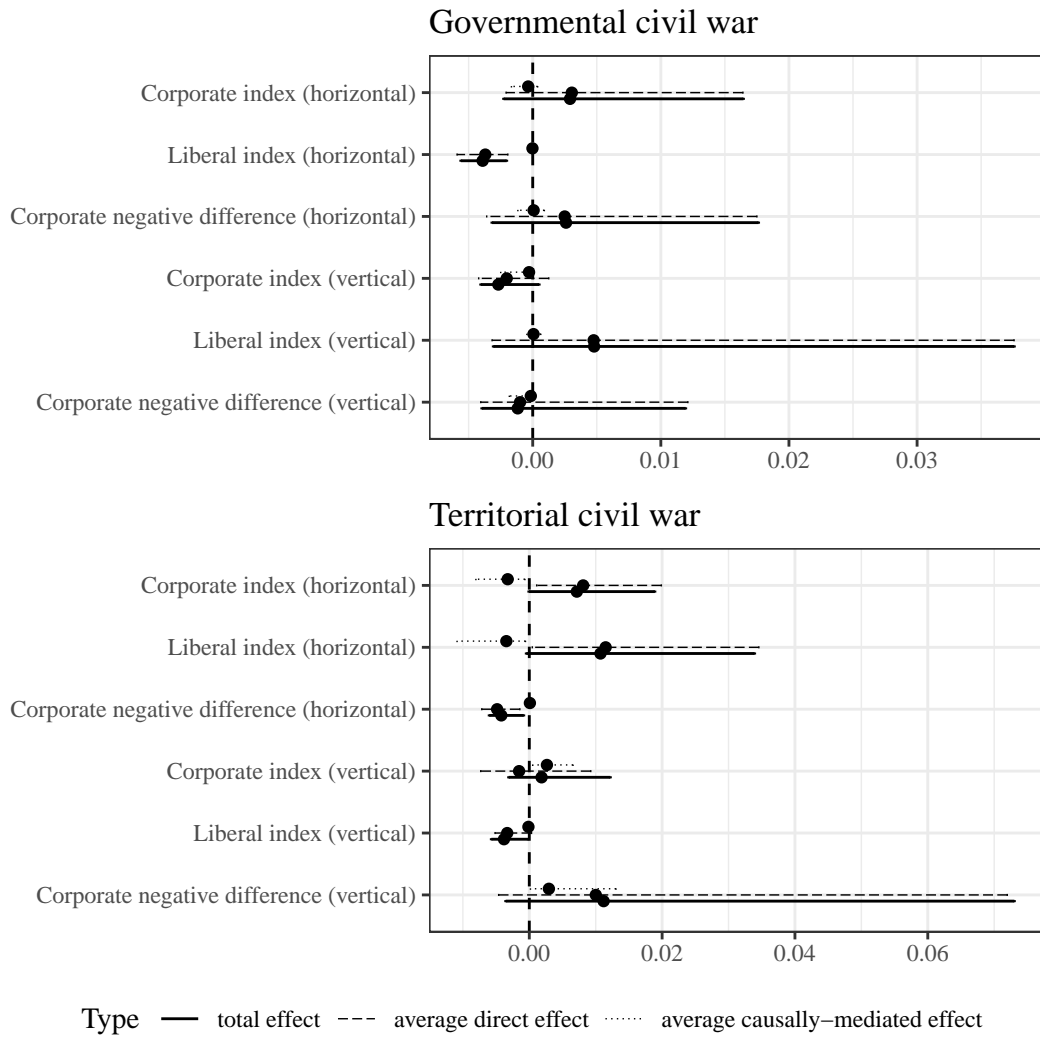


Figure C.29: Mediation (lag 10)

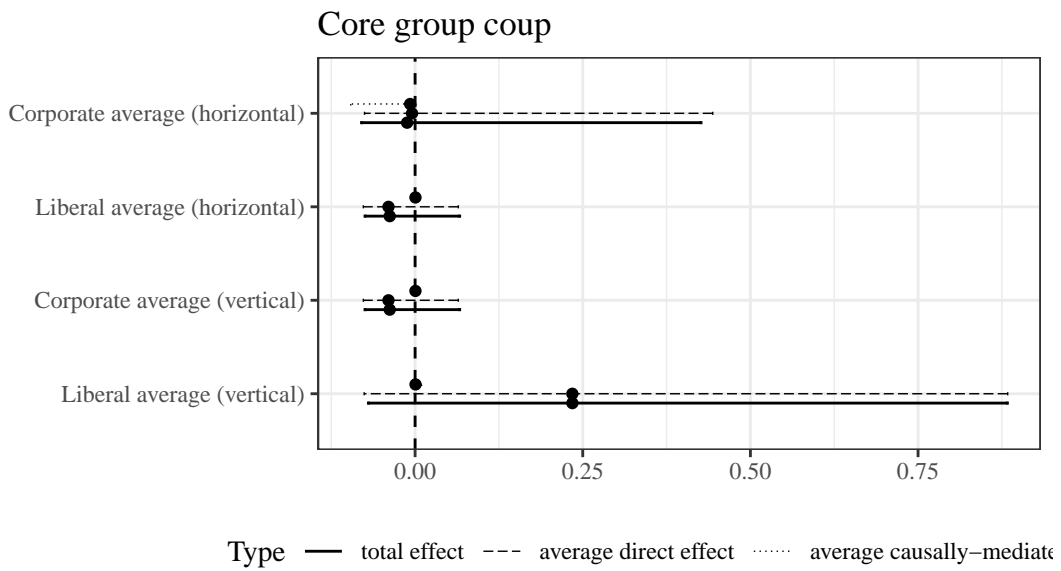


Figure C.30: Mediation: Core group coups (lag 10)

C.5.3 Reversed causal order

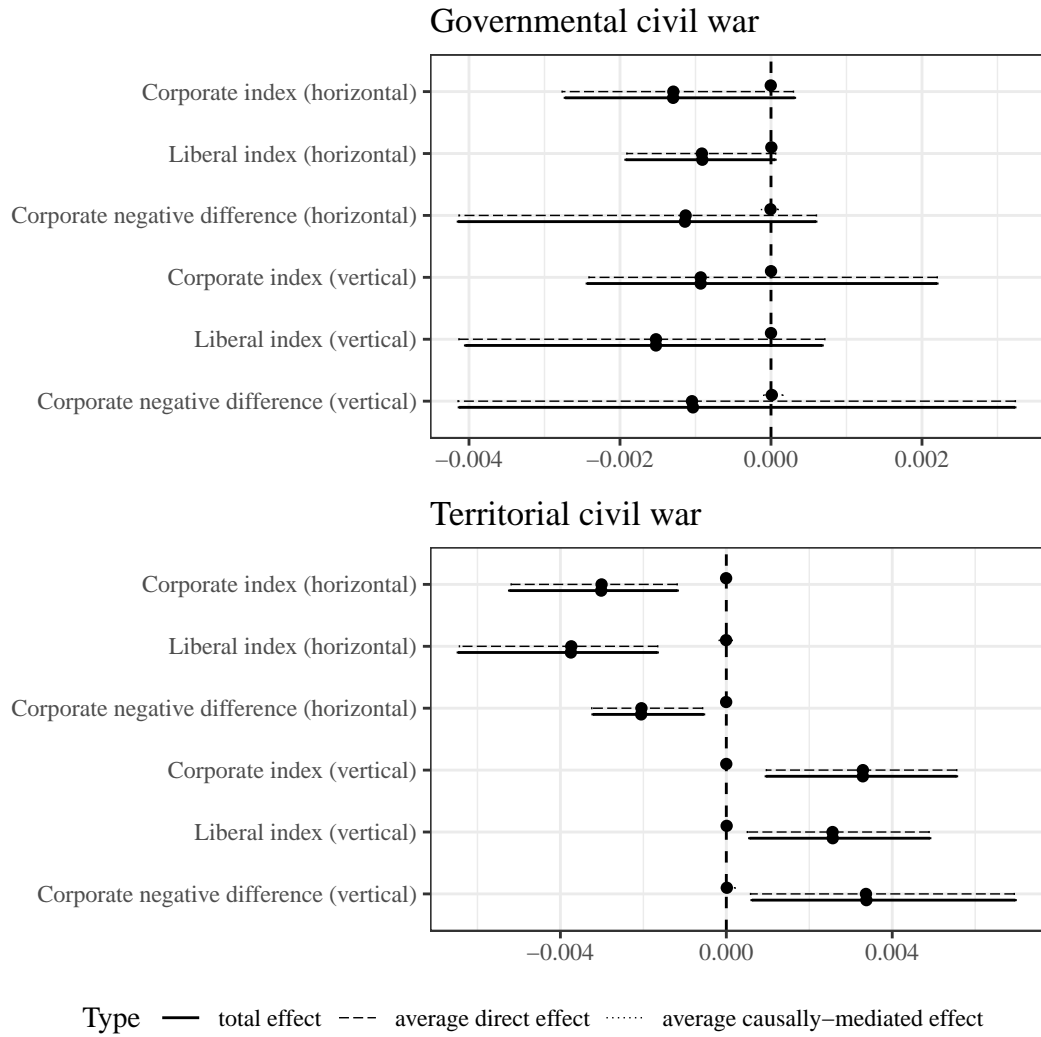


Figure C.31: Mediation (reversed)

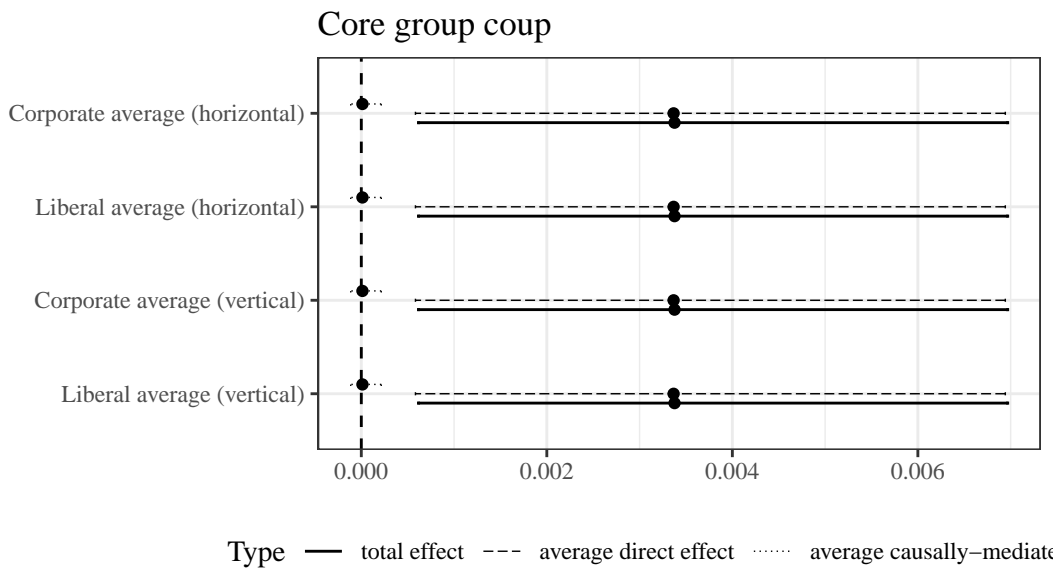


Figure C.32: Mediation: Core group coups (reversed)

Appendix D

Appendix for Chapter 6

D.1 Robustness checks

Table D.1: Additional controls and country-fixed effects (NC)

	5a [terr.]	5b [terr.]	5c [terr.]	5d [terr.]
Constant	100.310*** (12.206)	81.736*** (13.330)	95.324*** (12.890)	72.074*** (20.966)
Corp. (h)	-0.684 (0.490)	-0.201 (0.528)	-0.360 (0.491)	-1.891** (0.759)
Corp. (v, terr.)	-0.368* (0.190)	-0.292* (0.176)	-0.344* (0.179)	-0.322 (0.214)
Lib. (h.)	1.175** (0.477)	0.672 (0.536)	0.969** (0.470)	0.370 (1.124)
Lib. (v, terr.)	-0.335*** (0.123)	-0.285** (0.114)	-0.315*** (0.113)	-0.276 (0.192)
Corp. others (h)	-0.119 (0.448)	-0.074 (0.514)	-0.204 (0.475)	-1.219 (1.080)
Corp. others (h) × size	2.909 (4.764)	4.448 (8.185)	5.033 (7.706)	-3.926 (5.835)
Corp. others (h) × education	-0.075 (0.065)	-0.068 (0.066)	-0.081 (0.064)	-0.056 (0.089)
Corp. others (h) × size × education	1.367 (0.969)	1.800*** (0.633)	2.337*** (0.647)	1.637 (1.226)
Corp. others (v, terr.)	-0.233 (0.192)	-0.190 (0.190)	-0.251 (0.189)	-0.278 (0.281)
Corp. others (v, terr.) × education	-0.013 (0.087)	-0.035 (0.074)	-0.029 (0.074)	-0.004 (0.100)
Size × education	0.042 (0.093)	0.042 (0.093)	0.044 (0.093)	0.072 (0.087)
Size	-0.156 (0.416)	0.213 (0.422)	-0.012 (0.403)	-0.076 (0.449)
Size (territory)	-0.159 (0.652)	-0.157 (0.662)	-0.154 (0.669)	-0.605 (0.966)
Peaceyears group (log)		-0.085* (0.051)	-0.084 (0.052)	
TEK state	-0.301*** (0.091)	-0.295*** (0.090)	-0.285*** (0.093)	-0.347*** (0.103)
Previous conflicts	0.063 (0.047)	0.066 (0.065)	0.063 (0.071)	0.114** (0.058)
Cultural PS (corp.)		-0.751*** (0.234)	-0.750*** (0.233)	
Cultural PS (lib.)		0.211 (0.629)	-0.028 (0.655)	
Discriminated		0.414* (0.226)	0.365 (0.246)	
Electoral democracy	-0.310** (0.145)		-0.303* (0.155)	
GDP p.c. (log)	0.094 (0.114)	-0.156** (0.069)	0.112 (0.124)	-1.225*** (0.447)
Size all NC	1.108*** (0.305)		1.037*** (0.313)	
Population (log)	-0.058 (0.062)	-0.012 (0.072)	-0.042 (0.064)	0.826 (0.652)
CPI	-0.068 (0.055)		-0.087 (0.059)	
Year	-0.051*** (0.006)	-0.040*** (0.007)	-0.048*** (0.007)	-0.032*** (0.012)
Age	-0.003*** (0.001)	-0.003*** (0.001)	-0.003*** (0.001)	-0.003*** (0.001)
Female	-0.051*** (0.015)	-0.049*** (0.015)	-0.052*** (0.015)	-0.057*** (0.019)
Education	0.039 (0.026)	0.038 (0.026)	0.040 (0.026)	0.032 (0.024)
Var(country)	0.088*** (0.031)	0.080*** (0.029)	0.080*** (0.030)	0.048** (0.024)
Var(group)	0.225*** (0.075)	0.233*** (0.077)	0.235*** (0.078)	0.251*** (0.063)
Var(group year)	0.200*** (0.033)	0.203*** (0.040)	0.201*** (0.034)	0.307*** (0.038)
Corp. others (v, terr.) × size (terr.)	-13.715** (6.214)	-7.625** (3.124)	-7.470** (3.203)	-10.923 (11.252)
Size (terr.) × education	0.169 (0.171)	0.101 (0.150)	0.103 (0.151)	0.271 (0.252)
Corp. others (v, terr.) × size (terr.) × education	7.575*** (1.690)	6.753*** (1.494)	6.664*** (1.506)	8.167*** (3.154)
Var(terr.)	0.314*** (0.067)	0.390*** (0.078)	0.292*** (0.063)	
Individual	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)
Log-likelihood				
N	75899	75107	75107	75899

Significance: * $\equiv p < 0.1$; ** $\equiv p < 0.05$; *** $\equiv p < 0.01$

Table D.2: Additional controls (Core)

	4a [terr.]	4b [terr.]	4c [terr.]
Constant	121.367*** (38.914)	106.332*** (34.030)	106.852*** (35.398)
Corp. others (h)	3.381 (14.239)	10.953 (16.907)	10.343 (14.146)
Corp. others (h) × size	-5.565 (16.020)	-14.917 (19.078)	-13.755 (16.018)
Corp. others (h) × education	1.509 (4.544)	1.485 (4.462)	1.609 (4.595)
Corp. others (h) × size × education	-1.219 (5.133)	-1.190 (5.035)	-1.333 (5.183)
Lib. others (h)	0.101 (0.976)	0.408 (1.052)	0.208 (0.942)
Corp. others (v, terr.)	-0.263 (0.616)	-0.301 (0.670)	-0.259 (0.684)
Corp. others (v, terr.) × size (terr.)	1.914 (8.816)	1.987 (10.071)	1.101 (10.480)
Corp. others (v, terr.) × education	0.481** (0.194)	0.487** (0.213)	0.498** (0.220)
Corp. others (v, terr.) × size (terr.) × education	-4.058 (2.885)	-4.179 (3.407)	-4.288 (3.612)
Lib. others (v, terr.)	0.137 (0.268)	0.116 (0.267)	0.171 (0.281)
Size × education	-0.218** (0.099)	-0.215** (0.098)	-0.217** (0.100)
Size (terr.) × education	0.317** (0.140)	0.309** (0.130)	0.311** (0.131)
Size	3.731* (2.040)	-1.577*** (0.436)	3.369 (2.837)
Size (territory)	-0.030 (0.371)	-0.044 (0.343)	-0.037 (0.355)
Peaceyears group (log)		-0.284** (0.136)	-0.231* (0.121)
TEK state	-0.499* (0.258)	-0.343 (0.213)	-0.511* (0.275)
Previous conflicts	0.500*** (0.137)	0.262 (0.231)	0.340* (0.205)
Cultural PS (corp.)		-0.719 (0.765)	-0.939 (0.681)
Cultural PS (lib.)		-0.943 (0.579)	-1.361** (0.576)
Electoral democracy	-0.289 (0.233)		-0.354 (0.234)
GDP p.c. (log)	-0.163 (0.134)	-0.159* (0.096)	-0.017 (0.135)
Size all NC	5.350** (2.207)		5.192* (2.990)
Population (log)	-0.013 (0.085)	0.061 (0.098)	0.029 (0.085)
CPI	-0.023 (0.067)		-0.063 (0.070)
Year	-0.062*** (0.019)	-0.052*** (0.017)	-0.055*** (0.018)
Age	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)
Female	-0.041* (0.022)	-0.041* (0.021)	-0.041* (0.022)
Education	0.063 (0.070)	0.062 (0.070)	0.063 (0.071)
Var(country)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Var(group)	0.380** (0.171)	0.295** (0.121)	0.319** (0.126)
Var(group year)	0.241*** (0.059)	0.223*** (0.053)	0.238*** (0.057)
Var(terr.)	0.243*** (0.085)	0.321*** (0.088)	0.251*** (0.072)
Individual	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)
Log-likelihood			
N	191088	191088	191088

Significance: * $\equiv p < 0.1$; ** $\equiv p < 0.05$; *** $\equiv p < 0.01$

Table D.3: Different probability thresholds (NC): 0 / 0.2 / 0.4 / 0.6 / 1 / 0.8 + no group exclusion

	5e [terr.]	5f [terr.]	5g [terr.]	5h [terr.]	5i [terr.]	5j [terr.]
Constant	84.684*** (13.373)	84.676*** (13.367)	84.402*** (13.270)	86.063*** (12.384)	77.501*** (25.253)	83.341*** (12.524)
Corp. (h)	-0.492 (0.537)	-0.491 (0.537)	-0.480 (0.541)	-0.465 (0.538)	-0.386 (0.566)	-0.342 (0.489)
Corp. (v, terr.)	-0.178 (0.180)	-0.179 (0.180)	-0.190 (0.178)	-0.256* (0.155)	-0.422* (0.235)	-0.255 (0.156)
Lib. (h)	0.653 (0.512)	0.655 (0.512)	0.625 (0.512)	0.582 (0.505)	0.802 (0.550)	0.562 (0.521)
Lib. (v, terr.)	-0.221* (0.132)	-0.222* (0.132)	-0.211* (0.127)	-0.285** (0.128)	-0.589*** (0.107)	-0.202 (0.128)
Corp. others (h)	0.579 (0.475)	0.587 (0.474)	0.598 (0.473)	0.371 (0.459)	-0.001 (0.440)	0.351 (0.462)
Corp. others (h) × size	-0.657 (2.231)	-0.671 (2.221)	-0.785 (2.214)	-0.090 (1.960)	1.177 (3.851)	7.628** (3.695)
Corp. others (h) × education	-0.101 (0.069)	-0.102 (0.069)	-0.100 (0.070)	-0.071 (0.070)	-0.051 (0.054)	0.084 (0.143)
Corp. others (h) × size × education	0.648*** (0.225)	0.651*** (0.224)	0.640*** (0.226)	0.594** (0.248)	0.977 (0.857)	-5.351*** (1.186)
Corp. others (v, terr.)	-0.287 (0.224)	-0.282 (0.219)	-0.280 (0.220)	-0.218 (0.229)	-0.229 (0.297)	-0.205 (0.205)
Corp. others (v, terr.) × education	0.020 (0.083)	0.018 (0.081)	0.012 (0.081)	-0.004 (0.100)	0.047 (0.133)	-0.016 (0.095)
Size × education	0.032 (0.090)	0.033 (0.090)	0.027 (0.090)	0.020 (0.092)	0.079 (0.107)	-0.032 (0.087)
Size	0.261 (0.426)	0.257 (0.426)	0.269 (0.428)	0.206 (0.434)	-0.163 (0.461)	0.147 (0.432)
Size (territory)	-0.321 (0.628)	-0.319 (0.628)	-0.311 (0.624)	-0.241 (0.630)	0.223 (0.640)	-0.123 (0.536)
TEK state	-0.258*** (0.087)	-0.258*** (0.087)	-0.253*** (0.088)	-0.285*** (0.093)	-0.119 (0.123)	-0.242*** (0.093)
Previous conflicts	0.082 (0.060)	0.081 (0.060)	0.089 (0.060)	0.083* (0.050)	0.007 (0.067)	0.093** (0.047)
GDP p.c. (log)	-0.203*** (0.069)	-0.203*** (0.069)	-0.205*** (0.069)	-0.177*** (0.064)	-0.043 (0.070)	-0.166** (0.068)
Population (log)	-0.035 (0.074)	-0.035 (0.074)	-0.038 (0.075)	-0.026 (0.075)	-0.051 (0.078)	-0.036 (0.072)
Year	-0.041*** (0.007)	-0.041*** (0.007)	-0.041*** (0.007)	-0.042*** (0.006)	-0.038*** (0.013)	-0.041*** (0.006)
Age	-0.002 (0.001)	-0.002 (0.001)	-0.002 (0.001)	-0.002*** (0.001)	-0.002*** (0.001)	-0.002*** (0.001)
Female	-0.046*** (0.013)	-0.046*** (0.013)	-0.046*** (0.013)	-0.049*** (0.014)	-0.041*** (0.018)	-0.039*** (0.014)
Education	0.039 (0.027)	0.040 (0.027)	0.041 (0.027)	0.039 (0.025)	0.015 (0.024)	0.045* (0.025)
Var(country)	0.077*** (0.029)	0.078*** (0.029)	0.080*** (0.029)	0.087*** (0.028)	0.076** (0.032)	0.109*** (0.033)
Var(group)	0.245*** (0.071)	0.245*** (0.071)	0.238*** (0.070)	0.234*** (0.073)	0.151** (0.062)	0.209*** (0.071)
Var(group year)	0.210*** (0.040)	0.210*** (0.040)	0.212*** (0.040)	0.207*** (0.040)	0.231*** (0.047)	0.221*** (0.039)
Corp. others (v, terr.) × size (terr.)	-8.079** (3.605)	-8.329** (3.581)	-8.388** (3.545)	-14.407** (6.309)	-23.363** (11.658)	-8.897 (8.671)
Size (terr.) × edu.	0.247 (0.171)	0.247 (0.171)	0.247 (0.171)	0.228 (0.172)	0.374 (0.298)	0.239 (0.170)
Corp. others (v, terr.) × size (terr.) × edu.	6.391*** (1.606)	6.484*** (1.585)	6.550*** (1.590)	7.651*** (1.688)	5.280 (4.754)	2.778 (3.729)
Var(terr.)	0.392*** (0.080)	0.391*** (0.080)	0.393*** (0.081)	0.390*** (0.082)	0.442*** (0.095)	0.399*** (0.078)
Individual	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)
Log-likelihood						
N	89905	89903	89544	84019	49787	90582

Significance: * $\equiv p < 0.1$; ** $\equiv p < 0.05$; *** $\equiv p < 0.01$

Table D.4: Different probability thresholds (Core): 0 / 0.2 / 0.4 / 0.6 / 1 / 0.8 + no group exclusion

	4e [terr.]	4f [terr.]	4g [terr.]	4h [terr.]	4i [terr.]	4j [terr.]
Constant	127.445*** (37.893)	127.445*** (37.893)	125.824*** (38.152)	126.815*** (38.916)	134.596*** (48.898)	126.904*** (37.810)
Corp. others (h)	-7.937 (16.736)	-7.937 (16.736)	-8.029 (16.767)	7.799 (15.449)	15.057 (14.184)	8.059 (15.088)
Corp. others (h) × size	6.968 (18.762)	6.968 (18.762)	7.074 (18.797)	-10.788 (17.342)	-46.356** (18.971)	-11.091 (16.981)
Corp. others (h) × education	1.062 (4.533)	1.062 (4.533)	1.033 (4.544)	0.780 (4.314)	3.286 (5.026)	2.874 (4.708)
Corp. others (h) × size × education	-0.705 (5.110)	-0.705 (5.110)	-0.672 (5.122)	-0.389 (4.881)	-0.463 (7.893)	-2.741 (5.314)
Lib. others (h)	0.393 (0.977)	0.393 (0.977)	0.413 (0.997)	0.354 (1.040)	-0.027 (1.470)	0.347 (1.062)
Corp. others (v, terr.)	-0.097 (0.655)	-0.097 (0.655)	-0.091 (0.657)	-0.224 (0.616)	-0.532 (0.740)	-0.284 (0.596)
Corp. others (v, terr.) × size (terr.)	0.727 (9.229)	0.727 (9.229)	0.700 (9.254)	0.683 (8.696)	-8.915 (14.605)	-0.294 (8.361)
Corp. others (v, terr.) × education	0.465** (0.191)	0.465** (0.191)	0.466** (0.191)	0.442** (0.190)	0.495*** (0.157)	0.515*** (0.187)
Corp. others (v, terr.) × size (terr.) × education	-3.673 (2.850)	-3.673 (2.850)	-3.695 (2.851)	-3.593 (2.908)	-2.942 (4.233)	-3.194 (2.611)
Lib. others (v, terr.)	0.192 (0.337)	0.192 (0.337)	0.200 (0.337)	0.026 (0.275)	-0.140 (0.322)	0.205 (0.267)
Size × education	-0.217** (0.093)	-0.217** (0.093)	-0.218** (0.094)	-0.227** (0.097)	-0.003 (0.135)	-0.177* (0.098)
Size (terr.) × education	0.326** (0.139)	0.326** (0.139)	0.326** (0.139)	0.327** (0.135)	0.025 (0.223)	0.336** (0.138)
Size	-1.526*** (0.404)	-1.526*** (0.404)	-1.516*** (0.417)	-1.499*** (0.423)	-1.918*** (0.518)	-1.500*** (0.414)
Size (territory)	-0.099 (0.352)	-0.099 (0.352)	-0.094 (0.354)	-0.092 (0.354)	0.573 (0.754)	-0.115 (0.326)
TEK state	-0.292 (0.206)	-0.292 (0.206)	-0.296 (0.206)	-0.336 (0.208)	-0.004 (0.210)	-0.382* (0.206)
Previous conflicts	0.492*** (0.162)	0.492*** (0.162)	0.497*** (0.161)	0.482*** (0.132)	0.675*** (0.232)	0.440*** (0.127)
GDP p.c. (log)	-0.221** (0.091)	-0.221** (0.091)	-0.223** (0.093)	-0.229** (0.089)	-0.047 (0.120)	-0.249*** (0.093)
Population (log)	0.015 (0.091)	0.015 (0.091)	0.015 (0.092)	0.017 (0.091)	0.049 (0.153)	0.005 (0.092)
Year	-0.063*** (0.019)	-0.063*** (0.019)	-0.062*** (0.019)	-0.062*** (0.019)	-0.067*** (0.025)	-0.062*** (0.019)
Age	-0.003* (0.001)	-0.003* (0.001)	-0.003* (0.001)	-0.003* (0.001)	-0.002 (0.003)	-0.002* (0.001)
Female	-0.042** (0.021)	-0.042** (0.021)	-0.043** (0.021)	-0.045** (0.022)	-0.047 (0.036)	-0.043** (0.021)
Education	0.056 (0.065)	0.056 (0.065)	0.057 (0.066)	0.064 (0.068)	-0.025 (0.085)	0.022 (0.073)
Var(country)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Var(group)	0.367** (0.171)	0.367** (0.171)	0.369** (0.174)	0.388** (0.179)	0.057 (0.039)	0.361** (0.159)
Var(group year)	0.226*** (0.051)	0.226*** (0.051)	0.225*** (0.051)	0.232*** (0.054)	0.276*** (0.084)	0.231*** (0.052)
Var(terr.)	0.280*** (0.083)	0.280*** (0.083)	0.283*** (0.084)	0.260*** (0.090)	0.455*** (0.135)	0.254*** (0.083)
Individual	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)
Log-likelihood						
N	197520	197520	197431	195446	47704	204603

Significance: * $\equiv p < 0.1$; ** $\equiv p < 0.05$; *** $\equiv p < 0.01$

Table D.5: Survey-random effects (non-core)

	1S [terr.]	2S [terr.]	3S [terr.]	4S [terr.]	5S [terr.]
Constant	32.917 (28.890)	33.434 (28.271)	33.214 (28.714)	33.492 (28.309)	32.823 (28.706)
Corp. (h)	-0.364 (0.223)	-0.432 (0.303)	-0.433 (0.309)	-0.436 (0.303)	-0.430 (0.314)
Corp. (v, terr.)	-0.200 (0.148)	-0.255 (0.193)	-0.251 (0.187)	-0.255 (0.192)	-0.264 (0.184)
Lib. (h)	0.456 (0.285)	0.480 (0.306)	0.485 (0.306)	0.479 (0.303)	0.472 (0.309)
Lib. (v, terr.)	-0.253* (0.137)	-0.263* (0.155)	-0.257* (0.155)	-0.261* (0.157)	-0.255 (0.158)
Corp. others (h)		-0.172 (0.230)	-0.280 (0.236)	-0.067 (0.208)	-0.197 (0.201)
Corp. others (h) × size			2.559 (2.415)		1.078 (1.460)
Corp. others (h) × education				-0.062 (0.077)	-0.038 (0.063)
Corp. others (h) × size × education					0.765 (1.006)
Corp. others (v, terr.)		-0.116 (0.150)	-0.131 (0.190)	-0.172*** (0.053)	-0.172** (0.070)
Corp. others (v, terr.) × education				0.035 (0.072)	0.031 (0.099)
Included					
Autonomy					
Size × education					0.094*** (0.024)
Size	0.063 (0.143)	0.041 (0.155)	0.007 (0.182)	0.042 (0.157)	-0.095 (0.164)
Size (territory)	0.185 (0.275)	0.167 (0.300)	0.171 (0.282)	0.165 (0.296)	-0.039 (0.291)
TEK state	-0.218 (0.152)	-0.222 (0.153)	-0.224 (0.155)	-0.222 (0.153)	-0.225 (0.154)
Previous conflicts	0.061** (0.026)	0.059** (0.025)	0.059** (0.025)	0.059** (0.026)	0.058** (0.028)
GDP p.c. (log)	0.015 (0.086)	0.022 (0.079)	0.020 (0.080)	0.023 (0.079)	0.023 (0.081)
Population (log)	-0.084 (0.053)	-0.078 (0.047)	-0.079 (0.048)	-0.078 (0.048)	-0.078 (0.049)
Year	-0.017 (0.015)	-0.017 (0.014)	-0.017 (0.015)	-0.017 (0.014)	-0.017 (0.015)
Age	-0.002*** (0.001)	-0.002*** (0.001)	-0.002*** (0.001)	-0.002*** (0.001)	-0.002*** (0.001)
Female	-0.048** (0.019)	-0.048** (0.019)	-0.048** (0.019)	-0.048** (0.019)	-0.047** (0.019)
Education	0.042*** (0.006)	0.042*** (0.005)	0.042*** (0.005)	0.042*** (0.006)	0.012 (0.012)
Var(group)	0.124** (0.054)	0.124** (0.053)	0.124** (0.054)	0.124** (0.054)	0.123** (0.053)
Var(group year)	0.077*** (0.010)	0.077*** (0.010)	0.077*** (0.010)	0.077*** (0.010)	0.077*** (0.010)
Var(survey)	0.187*** (0.068)	0.189*** (0.068)	0.189*** (0.068)	0.189*** (0.068)	0.189*** (0.068)
Var(terr.)	0.232** (0.102)	0.237** (0.102)	0.236** (0.101)	0.237** (0.102)	0.239** (0.101)
Var(country)	0.357*** (0.130)	0.355*** (0.130)	0.353*** (0.129)	0.355*** (0.130)	0.356*** (0.130)
Individual	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)
Corp. others (v, terr.) × size (terr.)			1.851 (5.274)		-12.356*** (4.608)
Size (terr.) × education					0.181*** (0.039)
Corp. others (v, terr.) × size (terr.) × education					6.564*** (0.869)
N	75899	75899	75899	75899	75899

Significance: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table D.6: Survey-random effects (Core)

	1S [terr.]	2S [terr.]	3S [terr.]	4S [terr.]
Constant	89.524*** (30.159)	86.224*** (31.071)	89.740*** (30.321)	86.003*** (31.675)
Corp. others (h)	-0.314* (0.180)	-3.868 (3.460)	-1.240*** (0.197)	-3.597 (7.063)
Corp. others (h) × size		4.042 (3.889)		3.077 (7.858)
Corp. others (h) × education			0.588*** (0.017)	-0.164 (4.121)
Corp. others (h) × size × education				0.642 (4.635)
Lib. others (h)	0.100 (0.144)	0.105 (0.141)	0.104 (0.140)	0.143 (0.136)
Corp. others (v, terr.)	-0.088 (0.189)	0.137 (0.299)	-0.477 (0.310)	-0.453 (0.451)
Corp. others (v, terr.) × size (terr.)		-1.856 (3.691)		3.621 (5.941)
Corp. others (v, terr.) × education			0.238** (0.098)	0.379** (0.137)
Corp. others (v, terr.) × size (terr.) × education				-3.418* (1.944)
Lib. others (v, terr.)	-0.227** (0.094)	-0.075 (0.141)	-0.217** (0.085)	-0.047 (0.118)
Included (others)				
Autonomy (others)				
Size × education				-0.198** (0.101)
Size (terr.) × education				0.230*** (0.052)
Size	-1.098*** (0.134)	-1.090*** (0.113)	-1.103*** (0.133)	-0.885*** (0.159)
Size (territory)		0.390** (0.032)		0.040 (0.100)
TEK state	-0.165*** (0.061)	-0.172** (0.073)	-0.166*** (0.061)	-0.178** (0.069)
Previous conflicts	0.403*** (0.008)	0.405*** (0.007)	0.408*** (0.008)	0.400*** (0.009)
GDP p.c. (log)	0.212** (0.098)	0.200* (0.110)	0.214** (0.097)	0.198* (0.109)
Population (log)	0.109*** (0.028)	0.098** (0.033)	0.108*** (0.027)	0.095*** (0.031)
Year	-0.046*** (0.015)	-0.044*** (0.016)	-0.046*** (0.015)	-0.044*** (0.016)
Age	-0.002*** (0.001)	-0.002*** (0.001)	-0.002*** (0.001)	-0.002*** (0.001)
Female	-0.035*** (0.013)	-0.035*** (0.013)	-0.035*** (0.013)	-0.034*** (0.013)
Education	-0.028 (0.031)	-0.028 (0.031)	-0.037 (0.031)	0.072 (0.069)
Var(group)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Var(group year)	0.102*** (0.019)	0.102*** (0.020)	0.102*** (0.019)	0.103*** (0.019)
Var(survey)	0.081 (0.082)	0.080 (0.081)	0.081 (0.081)	0.080 (0.080)
Var(terr.)	0.525** (0.241)	0.538** (0.246)	0.526** (0.242)	0.538** (0.247)
Var(country)	0.183* (0.110)	0.180 (0.111)	0.183* (0.110)	0.164 (0.101)
Individual	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)
Log-likelihood				
N	191088	191088	191088	191088

Significance: *≡ p < 0.1; **≡ p < 0.05; ***≡ p < 0.01

D.2 Alternative dependent variables

D.2.1 Descriptives: Democratic dissatisfaction

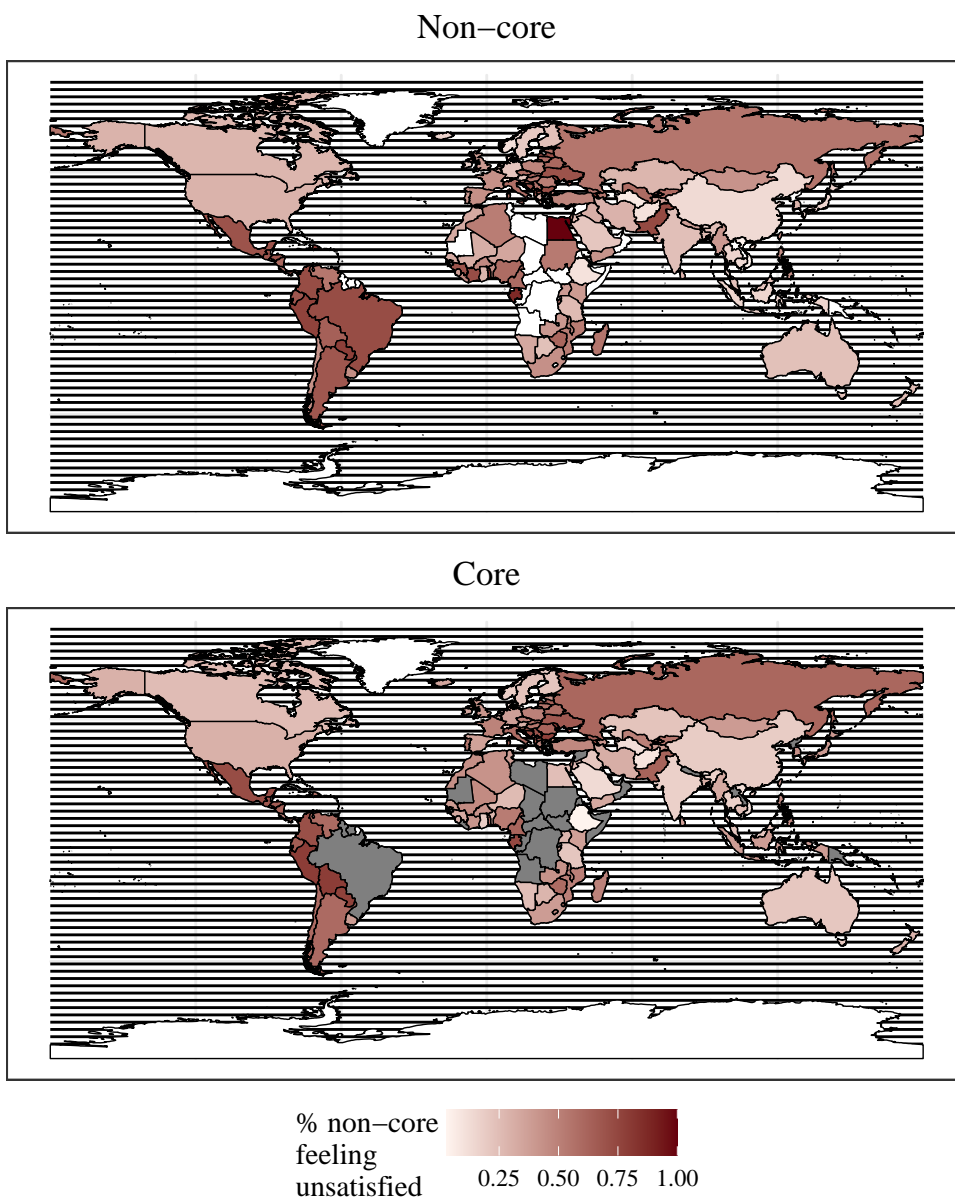


Figure D.1: Feeling unsatisfied: grand averages (non-core)

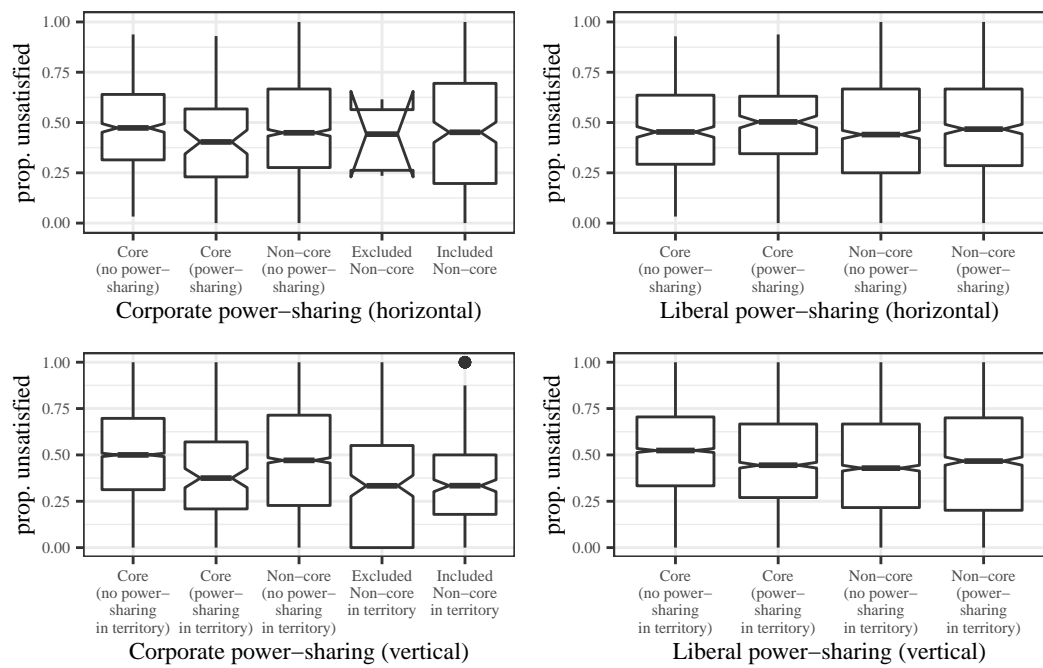


Figure D.2: De-jure institutional status and feeling of belonging to discriminated group

D.2.2 Results: Democratic dissatisfaction

Table D.7: Democratic dissatisfaction (Non-core)

	1 [terr.]	2 [terr.]	3 [terr.]	4 [terr.]	5 [terr.]
Constant	-4.511 (15.575)	-4.298 (15.633)	-4.185 (15.582)	-4.316 (15.581)	-4.537 (15.555)
Corp. (h)	-0.141 (0.279)	-0.127 (0.330)	-0.066 (0.375)	-0.139 (0.335)	-0.051 (0.374)
Corp. (v, terr.)	-0.010 (0.210)	0.011 (0.217)	0.008 (0.218)	0.009 (0.219)	-0.005 (0.220)
Lib. (h)	-0.909 (0.589)	-0.923 (0.620)	-0.925 (0.627)	-0.970 (0.623)	-0.970 (0.629)
Lib. (v, terr.)	-0.277* (0.150)	-0.273* (0.148)	-0.269* (0.149)	-0.272* (0.148)	-0.269* (0.149)
Corp. others (h)		0.032 (0.327)	0.073 (0.344)	0.637 (0.417)	0.227 (0.408)
Corp. others (h) × size			-1.166 (1.555)		1.034 (2.128)
Corp. others (h) × education				-0.370** (0.146)	-0.082 (0.129)
Corp. others (h) × size × education					-1.509 (0.989)
Corp. others (v, terr.)		0.136 (0.145)	0.124 (0.150)	0.610*** (0.154)	0.389** (0.166)
Corp. others (v, terr.) × education				-0.266*** (0.089)	-0.141 (0.100)
Included					
Autonomy					
Size × education					0.277 (0.227)
Size	0.449* (0.237)	0.458* (0.236)	0.529** (0.266)	0.467** (0.232)	0.217 (0.340)
Size (territory)	0.534** (0.259)	0.548** (0.252)	0.425 (0.362)	0.508** (0.241)	0.167 (0.592)
Electoral democracy	-0.184 (0.234)	-0.185 (0.234)	-0.185 (0.234)	-0.187 (0.230)	-0.185 (0.232)
Peaceyears (log)	-0.089 (0.101)	-0.088 (0.102)	-0.087 (0.102)	-0.082 (0.101)	-0.084 (0.101)
GDP p.c. (log)	-0.063 (0.094)	-0.067 (0.095)	-0.064 (0.095)	-0.077 (0.092)	-0.071 (0.093)
CPI	-0.168*** (0.055)	-0.168*** (0.055)	-0.169*** (0.055)	-0.167*** (0.054)	-0.168*** (0.055)
Year	0.003 (0.008)	0.003 (0.008)	0.003 (0.008)	0.003 (0.008)	0.003 (0.008)
Age	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Female	-0.026 (0.017)	-0.026 (0.017)	-0.026 (0.017)	-0.023 (0.017)	-0.023 (0.017)
Education	0.075** (0.037)	0.075** (0.037)	0.075** (0.037)	0.131*** (0.040)	0.071 (0.048)
Var(country)	0.033** (0.014)	0.032** (0.014)	0.032** (0.014)	0.032** (0.014)	0.033** (0.015)
Var(group)	0.140** (0.020)	0.140** (0.020)	0.141** (0.020)	0.140** (0.020)	0.140** (0.020)
Var(group year)	0.133*** (0.017)	0.132*** (0.017)	0.133*** (0.017)	0.131*** (0.017)	0.131*** (0.017)
Var(terr.)	0.577*** (0.085)	0.575*** (0.084)	0.574*** (0.084)	0.574*** (0.084)	0.575*** (0.084)
Individual	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)
Corp. others (v, terr.) × size (terr.)			1.031 (1.070)		3.253 (2.138)
Size (terr.) × education					0.193 (0.418)
Corp. others (v, terr.) × size (terr.) × education					-1.552 (1.178)
Log-likelihood					
N	90855	90855	90855	90855	90855

Significance: ** $p < 0.01$; *** $p < 0.05$; **** $p < 0.01$

Table D.8: Democratic dissatisfaction (Core)

	1 [terr.]	2 [terr.]	3 [terr.]	4 [terr.]
Constant	-7.641 (15.989)	-9.975 (16.242)	-7.782 (15.935)	-11.666 (15.998)
Corp. others (h)	-0.614 (0.405)	1.788 (1.248)	-0.531 (0.607)	4.770*** (1.520)
Corp. others (h) × size		-3.667* (1.878)		-7.819*** (2.280)
Corp. others (h) × education			-0.046 (0.176)	-2.075** (0.484)
Corp. others (h) × size × education				3.017*** (0.719)
Lib. others (h)	-0.045 (0.704)	-0.037 (0.664)	-0.061 (0.705)	0.023 (0.653)
Corp. others (v, terr.)	0.254** (0.110)	0.260** (0.129)	0.450** (0.184)	0.587*** (0.190)
Corp. others (v, terr.) × size (terr.)		-0.076 (0.871)		-1.011 (1.170)
Corp. others (v, terr.) × education			-0.127 (0.090)	-0.215** (0.084)
Corp. others (v, terr.) × size (terr.) × education				0.595 (0.395)
Lib. others (v, terr.)	-0.058 (0.108)	-0.061 (0.108)	-0.065 (0.109)	-0.081 (0.110)
Included (others)				
Autonomy (others)				
Size × education				-0.396*** (0.122)
Size (terr.) × education				-0.334*** (0.043)
Size	0.943** (0.396)	1.248*** (0.477)	0.936** (0.395)	1.724*** (0.502)
Size (territory)		0.152 (0.107)		0.704*** (0.133)
Electoral democracy	0.081 (0.252)	0.077 (0.251)	0.082 (0.251)	0.086 (0.250)
Peaceyears (log)	-0.167** (0.069)	-0.176** (0.069)	-0.165** (0.069)	-0.168** (0.069)
GDP p.c. (log)	0.084 (0.097)	0.047 (0.106)	0.082 (0.097)	0.007 (0.110)
CPI	-0.213*** (0.044)	-0.208*** (0.044)	-0.212*** (0.043)	-0.200*** (0.044)
Year	0.004 (0.008)	0.005 (0.008)	0.004 (0.008)	0.006 (0.008)
Age	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)
Female	0.010 (0.012)	0.010 (0.012)	0.010 (0.012)	0.012 (0.012)
Education	0.028 (0.019)	0.028 (0.019)	0.038* (0.022)	0.404*** (0.097)
Var(country)	0.017 (0.047)	0.016 (0.049)	0.019 (0.049)	0.010 (0.041)
Var(group)	0.208*** (0.019)	0.209*** (0.020)	0.208*** (0.019)	0.208*** (0.020)
Var(group year)	0.141*** (0.012)	0.142*** (0.012)	0.141*** (0.012)	0.141*** (0.012)
Var(terr.)	0.292*** (0.080)	0.289*** (0.084)	0.291*** (0.081)	0.297*** (0.081)
Individual	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)
Log-likelihood				
N	386238	386238	386238	386238

Significance: * ≡ $p < 0.1$; ** ≡ $p < 0.05$; *** ≡ $p < 0.01$

D.2.3 Predicted probabilities: Democratic dissatisfaction

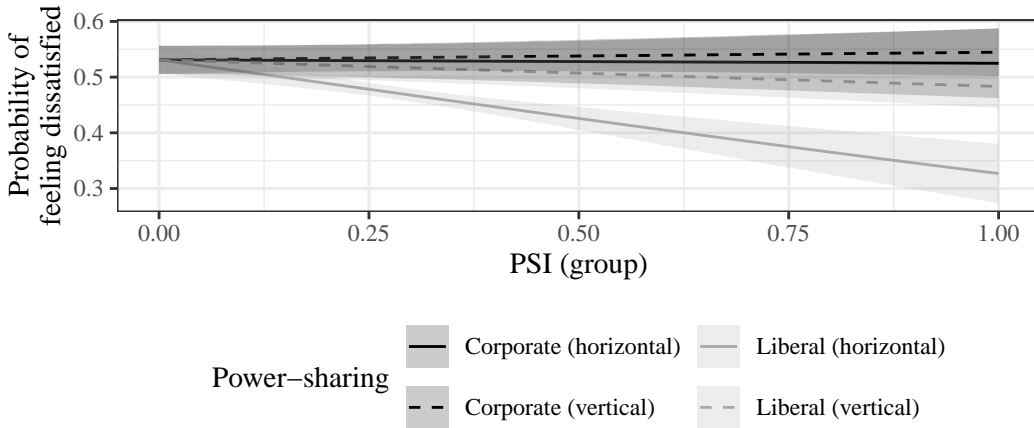


Figure D.3: Predicted non-core dissatisfaction with democracy, depending on power-sharing (direct)

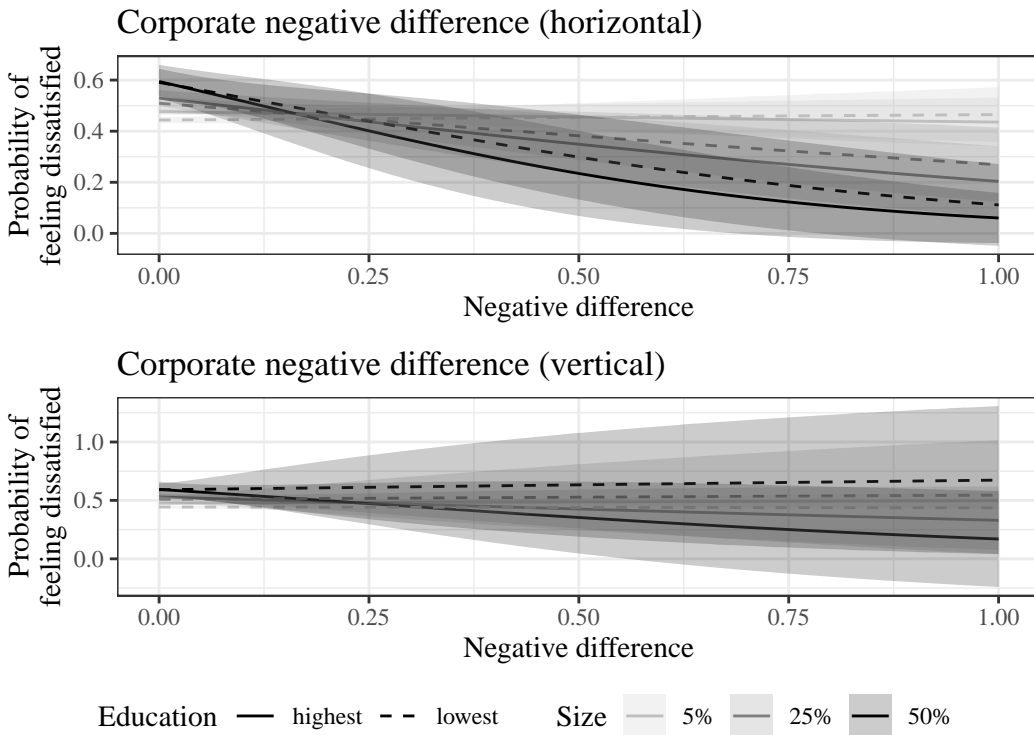


Figure D.4: Predicted non-core dissatisfaction with democracy, depending on power-sharing (indirect)

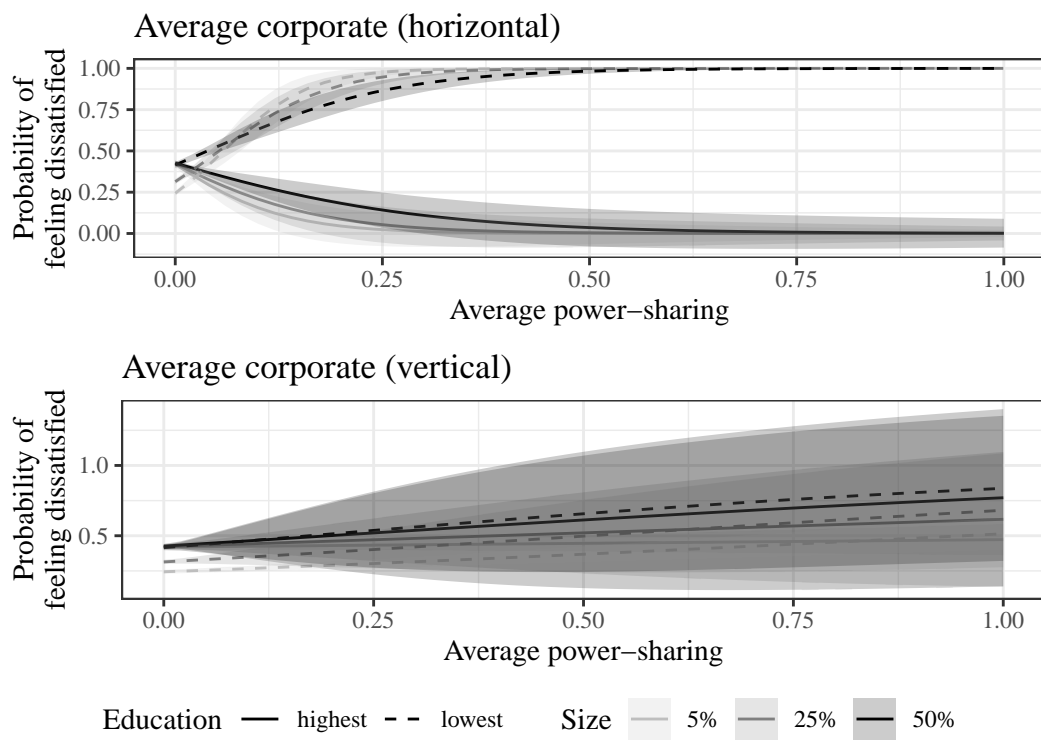


Figure D.5: Predicted core dissatisfaction with democracy, depending on power-sharing (indirect)

Appendix E

Appendix for Chapter 7

E.1 Descriptives (measures 1 and 3)

E.1.1 Maps

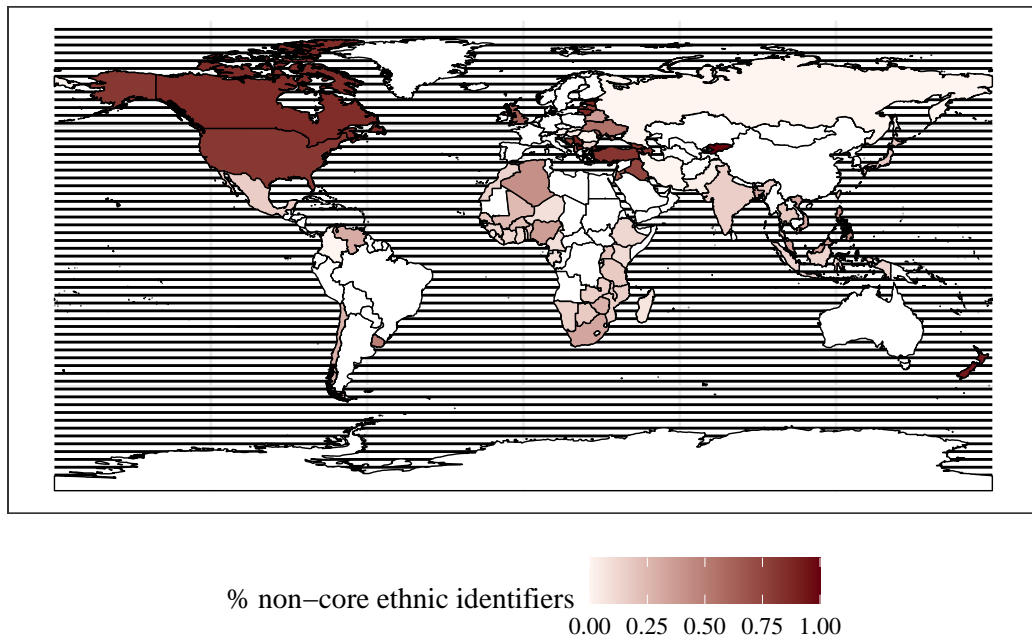


Figure E.1: Ethnic identifiers: grand averages (non-core, measure 1)

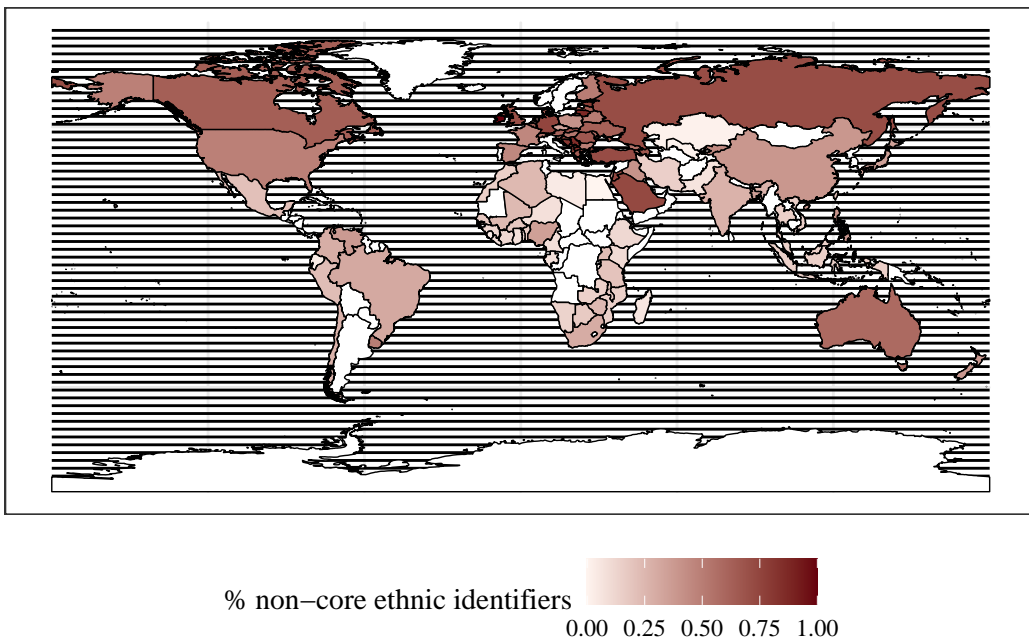


Figure E.2: Ethnic identifiers: grand averages (non-core, measure 3)

E.1.2 Descriptive plots

Measure 1

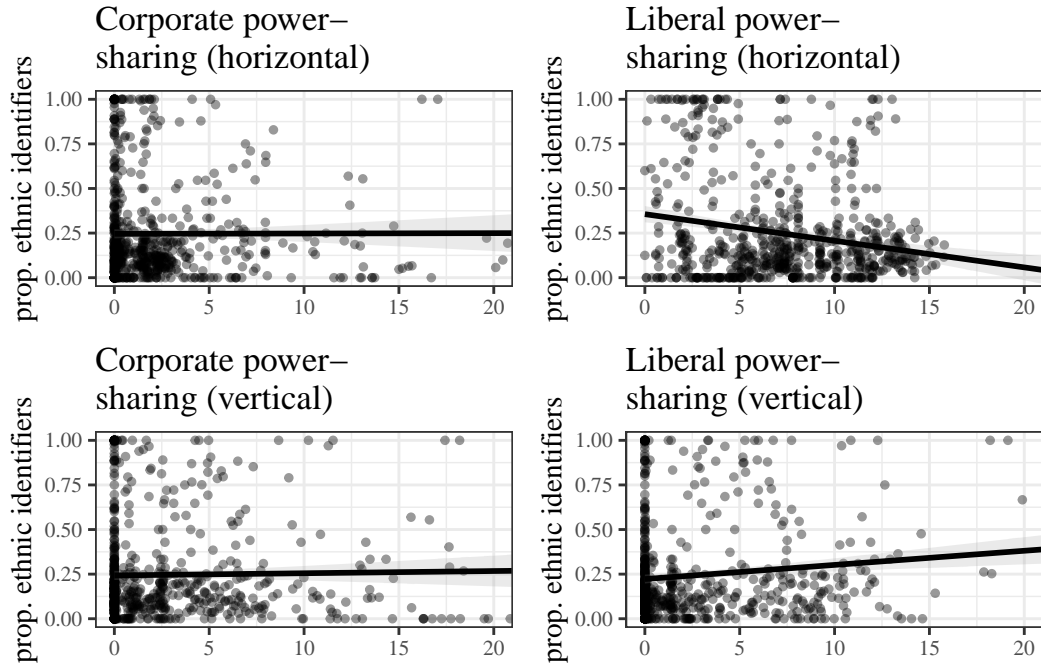


Figure E.3: Ethnic identifiers, non-core (power-sharing stocks)

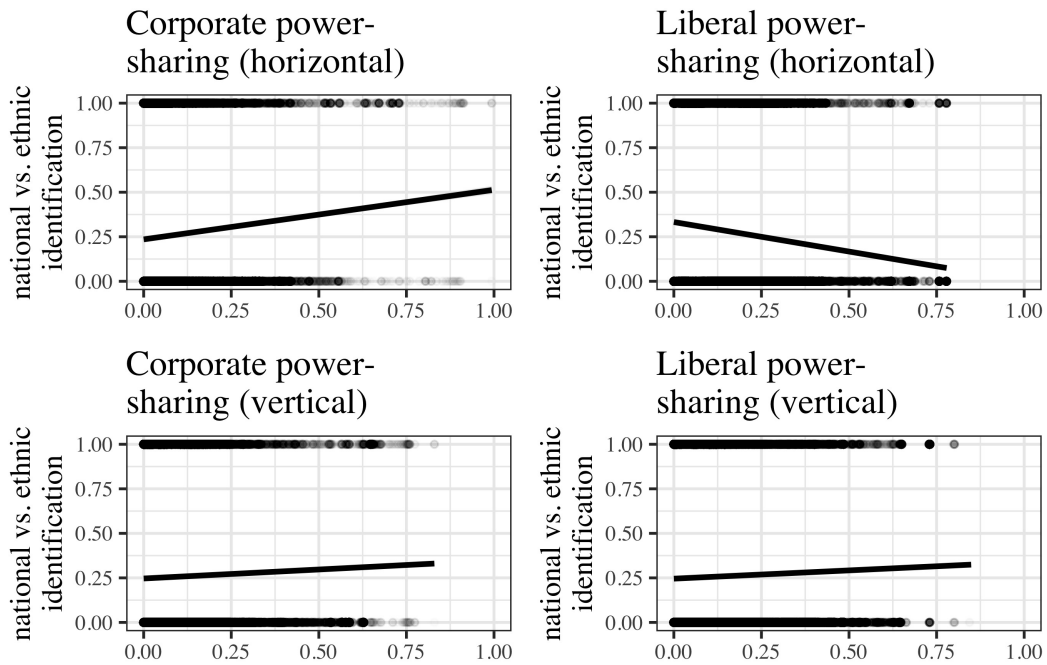


Figure E.4: Ethnic identifiers, non-core (power-sharing lifetime)

Measure 3

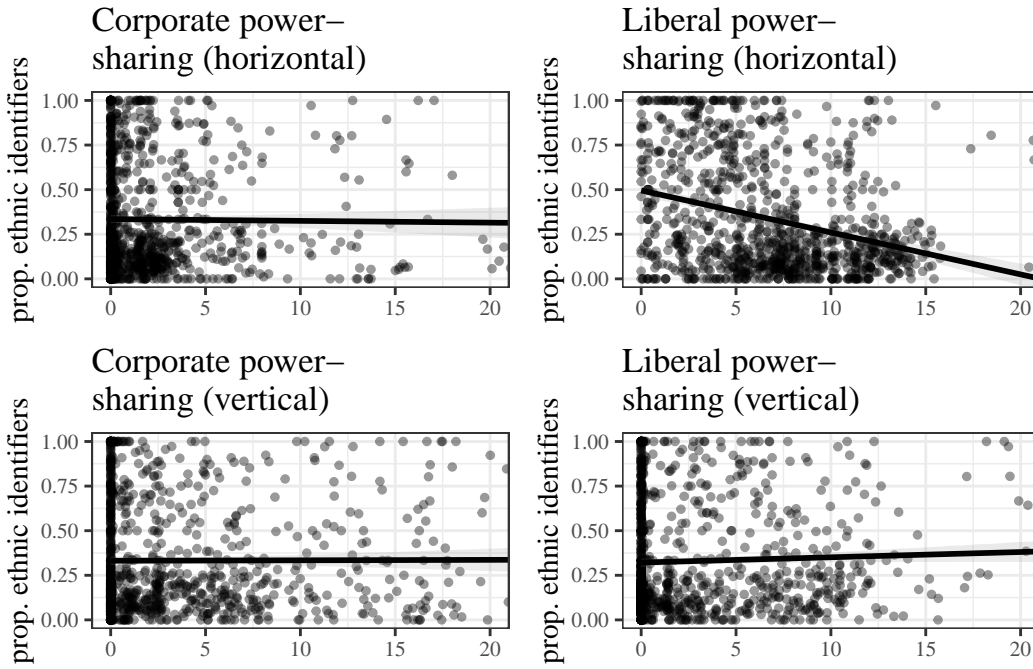


Figure E.5: Ethnic identifiers, non-core (power-sharing stocks)

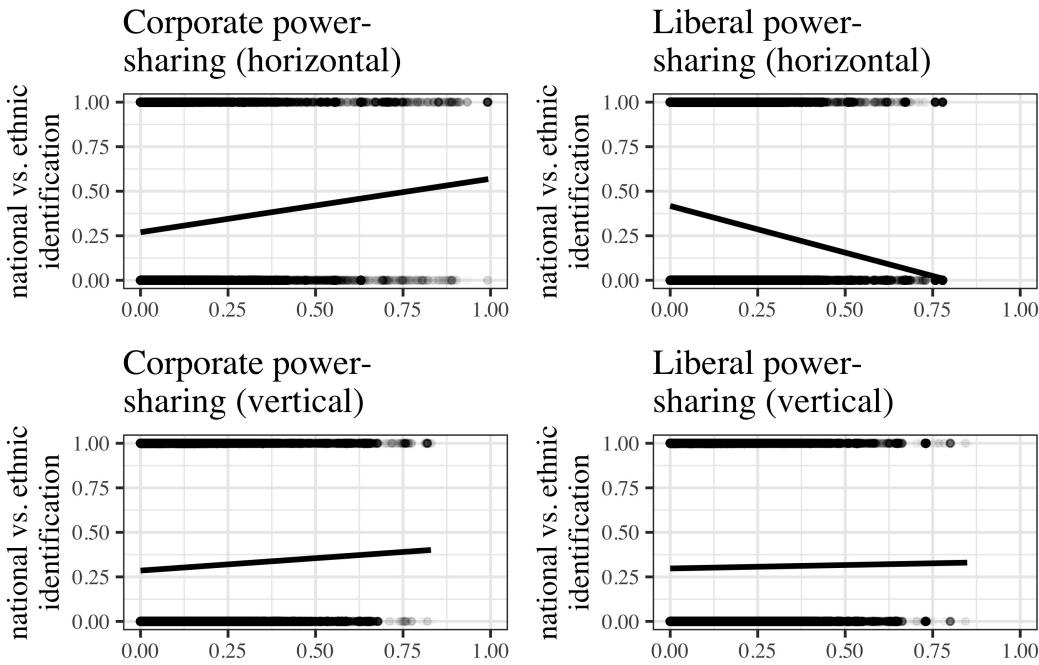


Figure E.6: Ethnic identifiers, non-core (power-sharing lifetime)

E.2 Robustness checks

E.2.1 Alternative measures

Table E.1: Main results (Non-core groups, measure 1)

	M3.1	M3.2	M3.3	M3.4	M3.5
Constant	202.064*** (27.961)	200.297*** (29.296)	165.885*** (26.865)	197.616*** (30.038)	164.840*** (27.376)
Corp. (h)	-0.974 (0.653)	-0.899 (0.671)	-0.968* (0.560)	-0.816 (0.682)	-0.903 (0.558)
Corp. (v)	0.204 (0.543)	0.187 (0.480)	1.151*** (0.399)	0.081 (0.453)	0.992*** (0.379)
Lib. (h)	-0.016 (0.972)	-0.006 (0.969)	0.362 (0.864)	0.002 (1.003)	0.349 (0.879)
Lib. (v)	0.433 (0.440)	0.458 (0.442)	0.208 (0.505)	0.527 (0.518)	0.295 (0.508)
Included		-0.121 (0.131)	-0.118 (0.112)	-0.126 (0.128)	-0.117 (0.110)
Autonomy		0.019 (0.297)	0.069 (0.250)	0.006 (0.297)	0.064 (0.247)
Corp. (h, stock)			0.015* (0.008)		0.019** (0.009)
Corp. (v, stock)			-0.064*** (0.020)		-0.071*** (0.020)
Lib. (h, stock)			-0.077* (0.040)		-0.077* (0.042)
Lib. (v, stock)			0.010 (0.024)		0.014 (0.026)
Corp. (h, life)				-0.076 (0.144)	-0.136 (0.162)
Corp. (v, life)				0.098 (0.197)	0.369* (0.220)
Lib. (h, life)				-0.010 (0.171)	0.055 (0.172)
Lib. (v, life)				-0.174 (0.234)	-0.288 (0.256)
Size	1.125 (0.839)	1.313 (0.878)	1.653** (0.737)	1.274 (0.861)	1.603** (0.721)
TEK state	-0.152 (0.095)	-0.160 (0.099)	-0.133 (0.083)	-0.162 (0.101)	-0.130 (0.084)
Previous conflicts	0.037 (0.091)	0.030 (0.087)	0.051 (0.071)	0.032 (0.088)	0.057 (0.073)
Cleavages	0.520 (0.523)	0.519 (0.535)	0.206 (0.501)	0.495 (0.526)	0.144 (0.497)
GDP p.c. (log)	0.281** (0.137)	0.269* (0.139)	0.307** (0.133)	0.293** (0.137)	0.331** (0.132)
Population (log)	-0.123 (0.100)	-0.126 (0.100)	-0.074 (0.103)	-0.131 (0.101)	-0.080 (0.103)
Year	-0.102*** (0.014)	-0.101*** (0.015)	-0.084*** (0.014)	-0.100*** (0.015)	-0.084*** (0.014)
Age	-0.003*** (0.001)	-0.003*** (0.001)	-0.003*** (0.001)	-0.003*** (0.001)	-0.003*** (0.001)
Female	0.041** (0.017)	0.041** (0.017)	0.041** (0.017)	0.048*** (0.017)	0.048*** (0.017)
Education	-0.206*** (0.022)	-0.206*** (0.023)	-0.211*** (0.022)	-0.208*** (0.023)	-0.213*** (0.022)
Var(group)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Var(group year)	0.648*** (0.109)	0.667*** (0.115)	0.690*** (0.128)	0.656*** (0.114)	0.676*** (0.127)
Var(country)	1.235*** (0.285)	1.208*** (0.281)	1.059*** (0.272)	1.189*** (0.269)	1.045*** (0.261)
Individual	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)
Log-likelihood					
N	82729	82729	82729	80628	80628

Significance: * $\equiv p < 0.1$; ** $\equiv p < 0.05$; *** $\equiv p < 0.01$

Table E.2: Main results (Non-core groups, measure 3)

	M2.1	M2.2	M2.3	M2.4	M2.5
Constant	205.174*** (15.982)	203.145*** (16.386)	177.732*** (17.410)	204.969*** (17.156)	178.793*** (17.545)
Corp. (h)	-0.359 (0.567)	-0.292 (0.582)	-0.549 (0.514)	-0.352 (0.588)	-0.533 (0.528)
Corp. (v)	0.097 (0.507)	0.037 (0.467)	1.202*** (0.443)	0.005 (0.448)	1.128*** (0.431)
Lib. (h)	0.546 (0.567)	0.554 (0.565)	1.005** (0.507)	0.620 (0.577)	1.022** (0.511)
Lib. (v)	0.291 (0.301)	0.293 (0.323)	0.175 (0.499)	0.206 (0.368)	0.182 (0.506)
Included		-0.162 (0.130)	-0.156 (0.114)	-0.161 (0.129)	-0.155 (0.111)
Autonomy		0.072 (0.202)	0.122 (0.162)	0.076 (0.206)	0.129 (0.166)
Corp. (h, stock)			0.018** (0.009)		0.017* (0.009)
Corp. (v, stock)			-0.058*** (0.017)		-0.063*** (0.018)
Lib. (h, stock)			-0.072*** (0.025)		-0.073*** (0.026)
Lib. (v, stock)			0.007 (0.022)		0.004 (0.021)
Corp. (h, life)				0.116 (0.141)	0.066 (0.147)
Corp. (v, life)				0.053 (0.218)	0.259 (0.220)
Lib. (h, life)				-0.119 (0.155)	-0.041 (0.160)
Lib. (v, life)				0.110 (0.216)	0.062 (0.212)
Size	0.687 (0.647)	0.933 (0.659)	1.099** (0.529)	0.934 (0.655)	1.087** (0.521)
TEK state	0.038 (0.114)	0.048 (0.119)	0.080 (0.110)	0.032 (0.115)	0.068 (0.108)
Previous conflicts	0.066 (0.064)	0.060 (0.063)	0.084 (0.055)	0.066 (0.062)	0.086 (0.055)
Cleavages	-0.015 (0.388)	-0.014 (0.384)	-0.224 (0.349)	-0.038 (0.394)	-0.250 (0.359)
GDP p.c. (log)	0.345*** (0.084)	0.329*** (0.084)	0.382*** (0.080)	0.328*** (0.085)	0.387*** (0.081)
Population (log)	-0.139** (0.060)	-0.139** (0.060)	-0.105* (0.060)	-0.140** (0.061)	-0.105* (0.061)
Year	-0.104*** (0.008)	-0.103*** (0.008)	-0.090*** (0.009)	-0.104*** (0.009)	-0.091*** (0.009)
Conflict (life)				-0.035 (0.100)	-0.001 (0.111)
Age	-0.003*** (0.001)	-0.003*** (0.001)	-0.003*** (0.001)	-0.003*** (0.001)	-0.002** (0.001)
Female	0.034** (0.014)	0.035** (0.014)	0.035** (0.014)	0.040*** (0.014)	0.041*** (0.014)
Education	-0.164*** (0.018)	-0.165*** (0.019)	-0.170*** (0.019)	-0.168*** (0.019)	-0.173*** (0.019)
Var(group)	0.005 (0.035)	0.003 (0.036)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Var(group year)	0.712*** (0.081)	0.731*** (0.085)	0.752*** (0.086)	0.714*** (0.083)	0.736*** (0.086)
Var(country)	0.468*** (0.094)	0.444*** (0.093)	0.346*** (0.076)	0.476*** (0.096)	0.367*** (0.080)
Individual	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)
Log-likelihood					
N	122095	122095	122095	117741	117741

Significance: * $\equiv p < 0.1$; ** $\equiv p < 0.05$; *** $\equiv p < 0.01$

E.2.2 More control variables

Table E.3: Additional control variables

	M1.5a	M1.5b	M1.5c
Constant	168.805*** (30.933)	149.597*** (26.879)	158.663*** (31.511)
Corp. (h)	-0.849 (0.667)	-1.022 (0.622)	-0.986 (0.675)
Corp. (v)	0.860** (0.419)	1.117*** (0.427)	1.153** (0.459)
Lib. (h)	0.810 (0.695)	0.296 (0.610)	0.502 (0.567)
Lib. (v)	0.096 (0.496)	0.844 (0.563)	0.753 (0.565)
Included	-0.134 (0.112)	-0.144 (0.124)	-0.156 (0.120)
Autonomy	0.026 (0.247)	-0.037 (0.222)	0.006 (0.230)
Corp. (h, stock)	0.019** (0.010)	0.025** (0.012)	0.025** (0.012)
Corp. (v, stock)	-0.067*** (0.022)	-0.070*** (0.024)	-0.069*** (0.023)
Lib. (h, stock)	-0.066* (0.036)	-0.067* (0.037)	-0.058* (0.035)
Lib. (v, stock)	0.014 (0.027)	0.008 (0.024)	0.013 (0.024)
Corp. (h, life)	-0.129 (0.174)	-0.126 (0.185)	-0.130 (0.185)
Corp. (v, life)	0.398 (0.250)	0.434 (0.300)	0.432 (0.296)
Lib. (h, life)	0.041 (0.204)	0.034 (0.205)	0.034 (0.209)
Lib. (v, life)	-0.224 (0.269)	-0.216 (0.270)	-0.210 (0.273)
Size	1.752** (0.727)	1.582** (0.737)	1.629** (0.728)
Peaceyears group (log)		-0.153** (0.068)	-0.151** (0.070)
TEK state	-0.153* (0.086)	-0.138 (0.094)	-0.132 (0.094)
Previous conflicts	0.125 (0.080)	0.003 (0.115)	0.007 (0.114)
Cleavages	0.055 (0.476)	-0.189 (0.464)	-0.089 (0.470)
Cultural PS (corp.)		-0.256 (0.454)	-0.270 (0.476)
Cultural PS (lib.)		-1.428** (0.686)	-1.335* (0.682)
Discriminated		-0.122 (0.258)	-0.110 (0.266)
Electoral democracy	-0.376 (0.499)		-0.422 (0.508)
GDP p.c. (log)	0.199 (0.187)	0.257** (0.116)	0.167 (0.182)
Size all NC	-0.326 (0.718)		-0.268 (0.683)
Population (log)	-0.065 (0.100)	-0.065 (0.084)	-0.069 (0.088)
CPI	0.077 (0.123)		0.081 (0.112)
Year	-0.085*** (0.015)	-0.075*** (0.013)	-0.079*** (0.016)
Conflict (life)	0.055 (0.123)	0.024 (0.122)	0.031 (0.123)
Age	-0.003*** (0.001)	-0.003*** (0.001)	-0.003*** (0.001)
Female	0.043** (0.018)	0.042** (0.019)	0.042** (0.019)
Education	-0.206*** (0.023)	-0.204*** (0.024)	-0.208*** (0.024)
Var(group)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Var(group year)	0.730*** (0.113)	0.781*** (0.137)	0.790*** (0.127)
Var(country)	0.774*** (0.179)	0.715*** (0.157)	0.609*** (0.132)
Individual	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)
Log-likelihood			
N	84368	82644	82558

Significance: * $\equiv p < 0.1$; ** $\equiv p < 0.05$; *** $\equiv p < 0.01$

E.2.3 Country-Fixed Effects

Table E.4: Main results (Non-core groups, measure 2 (FE))

	M1.1 (FE)	M1.2 (FE)	M1.3 (FE)	M1.4 (FE)	M1.5 (FE)
Constant	18.966*** (4.608)	18.938*** (4.535)	7.655 (5.250)	17.164*** (4.375)	7.408 (5.105)
Corp. (h)	-1.402* (0.760)	-1.255* (0.668)	-0.940 (0.617)	-1.243* (0.697)	-0.946 (0.630)
Corp. (v)	-0.267 (0.588)	-0.166 (0.530)	0.583 (0.485)	-0.326 (0.528)	0.451 (0.480)
Lib. (h)	1.123 (0.822)	1.246 (0.763)	1.211* (0.724)	1.247 (0.777)	1.042 (0.736)
Lib. (v)	-0.111 (0.570)	-0.052 (0.545)	-0.153 (0.628)	0.088 (0.564)	0.086 (0.635)
Included		-0.188 (0.116)	-0.139 (0.114)	-0.189* (0.112)	-0.137 (0.110)
Autonomy		-0.253 (0.229)	-0.084 (0.214)	-0.275 (0.233)	-0.093 (0.215)
Corp. (h, stock)			0.013 (0.010)		0.016 (0.010)
Corp. (v, stock)			-0.065*** (0.024)		-0.080*** (0.023)
Lib. (h, stock)			-0.188*** (0.062)		-0.168*** (0.061)
Lib. (v, stock)			-0.022 (0.036)		-0.033 (0.037)
Corp. (h, life)				-0.005 (0.175)	-0.051 (0.170)
Corp. (v, life)				0.280 (0.247)	0.495* (0.259)
Lib. (h, life)				-0.003 (0.210)	0.039 (0.229)
Lib. (v, life)				-0.252 (0.226)	-0.265 (0.244)
Size	1.971*** (0.615)	2.322*** (0.635)	2.381*** (0.616)	2.398*** (0.621)	2.428*** (0.592)
TEK state	-0.186** (0.091)	-0.222** (0.095)	-0.152* (0.092)	-0.227** (0.094)	-0.164* (0.090)
Previous conflicts	0.080 (0.078)	0.079 (0.078)	0.095 (0.079)	0.084 (0.077)	0.099 (0.078)
Cleavages	0.772* (0.467)	0.654 (0.481)	0.107 (0.526)	0.637 (0.493)	0.029 (0.543)
GDP p.c. (log)	-2.559*** (0.820)	-2.513*** (0.799)	-1.686** (0.777)	-2.222*** (0.745)	-1.416* (0.733)
Population (log)	-0.915 (1.037)	-0.944 (1.008)	0.196 (0.935)	-1.284 (0.940)	-0.219 (0.864)
Year	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Conflict (life)				-0.030 (0.166)	-0.010 (0.164)
Age	-0.004*** (0.001)	-0.004*** (0.001)	-0.005*** (0.001)	-0.004*** (0.001)	-0.004*** (0.001)
Female	0.040** (0.020)	0.040** (0.020)	0.040** (0.020)	0.046** (0.020)	0.047** (0.020)
Education	-0.229*** (0.019)	-0.229*** (0.020)	-0.234*** (0.020)	-0.231*** (0.019)	-0.236*** (0.020)
Var(group)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Var(group year)	0.846*** (0.086)	0.838*** (0.083)	0.803*** (0.084)	0.800*** (0.077)	0.758*** (0.076)
Log-likelihood					
N	86863	86863	86863	84454	84454

Significance: * $\equiv p < 0.1$; ** $\equiv p < 0.05$; *** $\equiv p < 0.01$

E.2.4 Survey-random intercepts

Table E.5: Main results (Non-core groups, survey-random intercepts)

	M1.1	M1.2	M1.3	M1.4	M1.5
Constant	68.622*** (5.287)	68.210*** (5.254)	51.198*** (6.061)	67.990*** (6.150)	50.772*** (5.839)
Corp. (h)	0.083 (0.320)	0.142 (0.344)	0.023 (0.349)	0.167 (0.314)	0.076 (0.309)
Corp. (v)	0.056 (0.144)	0.158 (0.184)	0.695* (0.367)	0.077 (0.280)	0.550 (0.385)
Lib. (h)	-1.199*** (0.268)	-1.172*** (0.284)	-0.857 (0.552)	-1.183*** (0.252)	-0.909* (0.505)
Lib. (v)	0.451*** (0.149)	0.495*** (0.139)	0.211 (0.338)	0.443*** (0.150)	0.263 (0.231)
Included		-0.040 (0.047)	-0.019 (0.034)	-0.039 (0.044)	-0.016 (0.032)
Autonomy		-0.190*** (0.073)	-0.142** (0.057)	-0.183*** (0.066)	-0.130** (0.054)
Corp. (h, stock)			0.010** (0.004)		0.011* (0.006)
Corp. (v, stock)			-0.030*** (0.012)		-0.037*** (0.014)
Lib. (h, stock)			-0.047*** (0.015)		-0.048*** (0.014)
Lib. (v, stock)			0.017 (0.015)		0.016 (0.015)
Corp. (h, life)				0.014 (0.044)	-0.075 (0.097)
Corp. (v, life)				0.174 (0.189)	0.440*** (0.134)
Lib. (h, life)				-0.108 (0.091)	-0.039 (0.102)
Lib. (v, life)				0.062 (0.123)	-0.082 (0.082)
Size	1.152** (0.549)	1.246*** (0.482)	1.342*** (0.448)	1.254*** (0.487)	1.356*** (0.448)
TEK state	-0.175*** (0.049)	-0.193*** (0.048)	-0.170*** (0.045)	-0.199*** (0.047)	-0.173*** (0.045)
Previous conflicts	0.091 (0.074)	0.092 (0.076)	0.111 (0.075)	0.090 (0.064)	0.108* (0.060)
Cleavages	0.188 (0.562)	0.131 (0.575)	-0.054 (0.547)	0.149 (0.575)	-0.047 (0.549)
GDP p.c. (log)	-0.035 (0.130)	-0.036 (0.138)	-0.022 (0.135)	-0.026 (0.137)	-0.006 (0.130)
Population (log)	-0.263*** (0.092)	-0.258*** (0.097)	-0.241*** (0.084)	-0.246*** (0.095)	-0.224*** (0.081)
Year	-0.034*** (0.003)	-0.034*** (0.003)	-0.025*** (0.003)	-0.034*** (0.003)	-0.025*** (0.003)
Conflict (life)				-0.025 (0.071)	-0.007 (0.091)
Age	-0.002*** (0.001)	-0.002*** (0.001)	-0.002*** (0.001)	-0.002*** (0.001)	-0.002*** (0.001)
Female	0.037* (0.022)	0.036* (0.022)	0.036 (0.023)	0.038* (0.021)	0.039* (0.021)
Education	-0.155*** (0.021)	-0.153*** (0.021)	-0.157*** (0.022)	-0.159*** (0.019)	-0.163*** (0.020)
Var(group year)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Var(survey)	0.280* (0.153)	0.283* (0.158)	0.288* (0.165)	0.259* (0.142)	0.266* (0.150)
Var(country)	0.959** (0.445)	0.956** (0.433)	0.907** (0.395)	1.007** (0.461)	0.952** (0.421)
Var(group)	0.677*** (0.254)	0.679*** (0.249)	0.661*** (0.244)	0.695** (0.273)	0.683** (0.272)
Individual	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)
Log-likelihood					
N	86863	86863	86863	84454	84454

Significance: * $\equiv p < 0.1$; ** $\equiv p < 0.05$; *** $\equiv p < 0.01$

E.2.5 Probability thresholds

Table E.6: Main results (Non-core groups, measure 2 (thresholds))

	1.5a	1.5b	1.5c	1.5d	1.5e	1.5f
Constant	128.644*** (28.882)	128.417*** (28.962)	129.249*** (28.897)	135.811*** (28.598)	206.758*** (35.645)	153.373*** (25.703)
Corp. (h)	-0.855 (0.639)	-0.852 (0.638)	-0.854 (0.636)	-0.916 (0.666)	-1.341** (0.670)	-0.463 (0.549)
Corp. (v)	0.865** (0.358)	0.857** (0.358)	0.854** (0.359)	0.884** (0.368)	1.054* (0.582)	0.888** (0.413)
Lib. (h)	0.737 (0.728)	0.742 (0.727)	0.729 (0.729)	0.905 (0.662)	2.709 (1.733)	0.331 (0.837)
Lib. (v)	0.424 (0.513)	0.418 (0.513)	0.406 (0.517)	0.183 (0.517)	-0.647 (0.573)	0.256 (0.451)
Included	-0.135 (0.089)	-0.134 (0.089)	-0.139 (0.089)	-0.122 (0.092)	-0.168 (0.115)	-0.083 (0.097)
Autonomy	0.036 (0.205)	0.035 (0.205)	0.044 (0.208)	-0.011 (0.228)	0.089 (0.300)	-0.005 (0.230)
Corp. (h, stock)	0.010 (0.010)	0.010 (0.010)	0.010 (0.010)	0.009 (0.012)	0.014 (0.010)	0.018* (0.010)
Corp. (v, stock)	-0.058*** (0.021)	-0.057*** (0.021)	-0.057*** (0.021)	-0.061*** (0.022)	-0.087*** (0.021)	-0.067*** (0.021)
Lib. (h, stock)	-0.096** (0.041)	-0.096** (0.041)	-0.095** (0.040)	-0.094** (0.041)	-0.132** (0.060)	-0.082** (0.038)
Lib. (v, stock)	0.004 (0.029)	0.004 (0.029)	0.005 (0.029)	0.010 (0.028)	0.028 (0.026)	0.004 (0.023)
Corp. (h, life)	-0.027 (0.114)	-0.028 (0.115)	-0.029 (0.117)	0.012 (0.139)	0.141 (0.188)	-0.110 (0.164)
Corp. (v, life)	0.290 (0.255)	0.284 (0.254)	0.276 (0.256)	0.284 (0.266)	0.279 (0.181)	0.362 (0.245)
Lib. (h, life)	0.002 (0.198)	-0.006 (0.201)	0.019 (0.198)	-0.016 (0.188)	0.001 (0.152)	0.030 (0.201)
Lib. (v, life)	-0.168 (0.226)	-0.155 (0.229)	-0.155 (0.230)	-0.181 (0.227)	-0.284 (0.200)	-0.240 (0.247)
Size	1.840*** (0.592)	1.838*** (0.592)	1.845*** (0.595)	1.788*** (0.621)	2.319*** (0.690)	1.593*** (0.600)
TEK state	-0.086 (0.096)	-0.086 (0.096)	-0.086 (0.096)	-0.153 (0.096)	-0.089 (0.111)	-0.166** (0.078)
Previous conflicts	0.097 (0.071)	0.096 (0.071)	0.095 (0.071)	0.079 (0.075)	0.103 (0.079)	0.093 (0.080)
Cleavages	-0.040 (0.382)	-0.041 (0.382)	-0.023 (0.382)	-0.064 (0.394)	0.092 (0.573)	-0.162 (0.392)
GDP p.c. (log)	0.249** (0.116)	0.249** (0.116)	0.251** (0.115)	0.252** (0.116)	0.495*** (0.125)	0.247** (0.114)
Population (log)	-0.064 (0.092)	-0.063 (0.092)	-0.068 (0.092)	-0.044 (0.097)	0.041 (0.099)	-0.073 (0.092)
Year	-0.065*** (0.014)	-0.065*** (0.014)	-0.066*** (0.014)	-0.069*** (0.014)	-0.105*** (0.018)	-0.078*** (0.013)
Conflict (life)	0.006 (0.113)	0.008 (0.115)	0.016 (0.116)	0.032 (0.131)	0.107 (0.177)	0.052 (0.120)
Age	-0.004*** (0.001)	-0.004*** (0.001)	-0.004*** (0.001)	-0.004*** (0.001)	-0.002** (0.001)	-0.004*** (0.001)
Female	0.044*** (0.016)	0.045*** (0.016)	0.044*** (0.016)	0.040** (0.015)	0.054** (0.021)	0.042** (0.017)
Education	-0.191*** (0.019)	-0.192*** (0.019)	-0.192*** (0.019)	-0.198*** (0.019)	-0.212*** (0.026)	-0.184*** (0.020)
Var(group)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Var(group year)	0.769*** (0.141)	0.769*** (0.142)	0.774*** (0.141)	0.749*** (0.141)	0.667*** (0.112)	0.766*** (0.133)
Var(country)	0.872*** (0.211)	0.872*** (0.211)	0.857*** (0.206)	0.909*** (0.217)	0.594*** (0.141)	0.888*** (0.209)
Individual	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)	1.000*** (0.000)
Log-likelihood						
N	103728	102598	101746	96606	66716	97931

Significance: * $\equiv p < 0.1$; ** $\equiv p < 0.05$; *** $\equiv p < 0.01$

E.2.6 Predicted probabilities: measures 1, 3

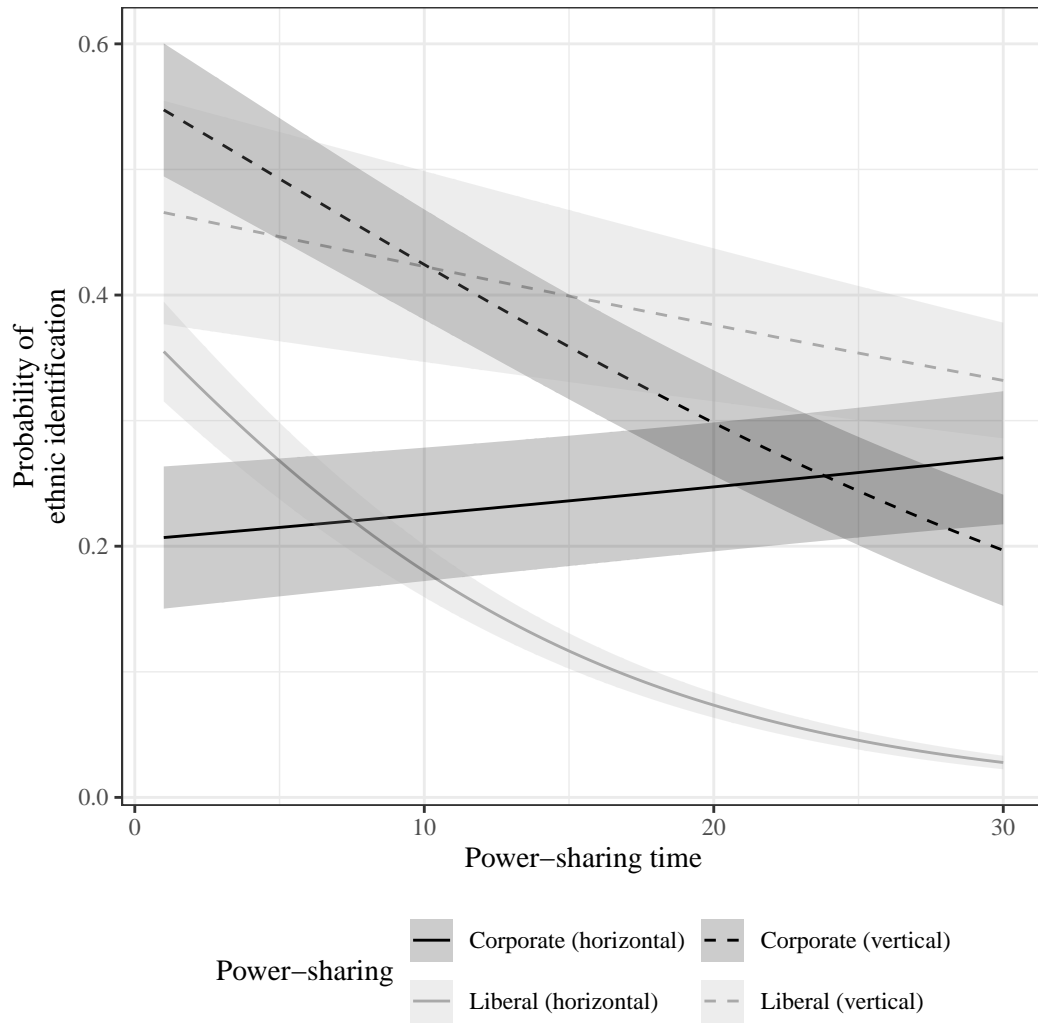


Figure E.7: Power-sharing and ethnic identification: predictions (measure 1)

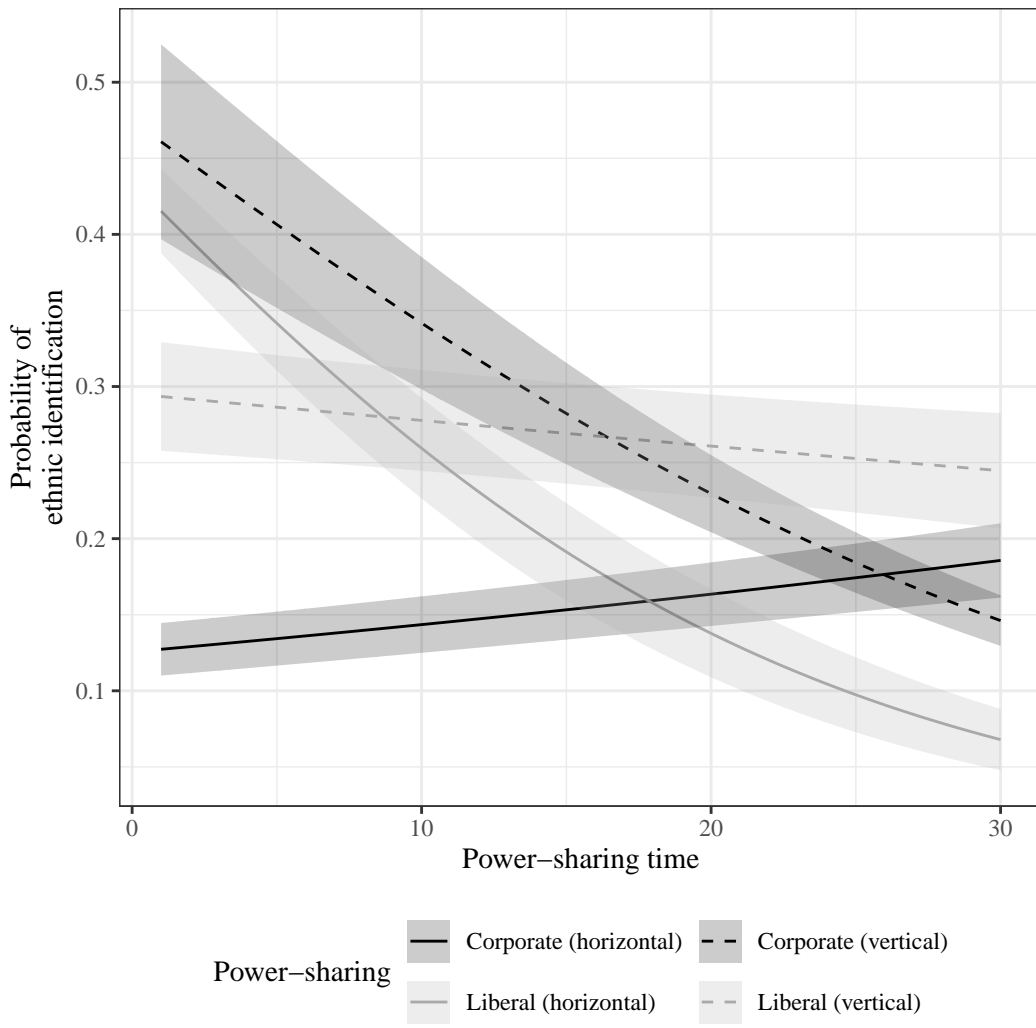


Figure E.8: Power-sharing and ethnic identification: predictions (measure 3)