



Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

DISS ETH NO. 19991

**Fighting for Change:
Onset, Duration, and Recurrence of Ethnic Conflict**

A dissertation submitted to

ETH ZURICH

for the degree of

Doctor of Sciences

presented by

JULIAN WUCHERPFENNIG

M.A., ETH Zurich

B.A., Jacobs University

Born August 23, 1980

Citizen of Germany

accepted on the recommendation of

Examiner: Lars-Erik CEDERMAN - ETH Zurich
Co-Examiner: Kristian Skrede GLEDITSCH - University of Essex
Co-Examiner: Simon HUG - University of Geneva

October 2011

To the memory of mother.

Acknowledgments

A dissertation is not completed without the support of many people. Thus, the printed pages of this dissertation hold far more than the culmination of years of study. They also reflect the relationships with many generous and inspiring people

My first and foremost debt of gratitude must go to my academic advisor, Lars-Erik Cederman. While being an MA student, Lars-Erik not only sparked my—then somewhat unexpected—interest in conflict research, he also provided me with the opportunity and freedom to pursue it. This dissertation would not have been possible without him, and I cannot express enough gratitude for the vision, encouragement, patience and advice necessary for me to proceed. Countless comments, advice and thought-provoking discussions about my, his, or our joint work over the past years helped me become a better scholar.

I am also indebted to the members of my committee. Simon Hug's comments at various stages of the project were frequently spot-on, although this sometimes took me a while to realize. Kristian Gleditsch also knows how to ask the types of constructive questions that can push and improve a project. Moreover, outright co-authoring with both of them was great experience for a young scholar. Camber Warren provided most useful comments and discussions about various parts of the dissertation, as did Kyle Joyce during the final phase. Critical inspiration for parts of the dissertation came from Jude Hays. Christa Deiwiks, Sebastian Schutte, Nils Weidmann, Nils-Christian Bormann and Manuel Vogt were great office mates and/or PhD colleagues who generously shared their wisdom and contributed to a great working atmosphere. Their hard work was also instrumental for providing the data for the empirical analyses.

Special thanks goes to Nils Metternich, who has not only become my closest collaborator, but also good friend. Joining forces with Nils has been an exceptionally rewarding and inspiring experience, and I envision many

more joint projects in the future. The mission it is! Coffee or lunch with Lena Schaffer is always appreciated, not least since summer school experiences at Essex and Ann Arbor. At international conferences Hanne Fjelde and Lisa Hultman made the difference, and I look forward to more mansion-like experiences.

This research was supported by the European Science Foundation through a grant by the Swiss National Science Foundation (116795) whose financial assistance is greatly appreciated. Kelsey Harmon provided excellent linguistic support for the final version of the dissertation.

I would like thank my parents and my brothers for continuous support and so much more. My parents have always supported and encouraged me in everything I did without a second thought. In retrospect, much of the content and focus of this dissertation is their achievement. The guys from Ready have always been there and helped me maintaining a healthy work-life balance. Finally, Joke's unending love, support, motivation and friendship enabled me to carry on when things did not look so bright and are warmly appreciated. Without her, life would not be same.

Julian Wucherpfennig

Zurich, October 2011

Abstract

This dissertation develops an integrated approach to the role of ethnicity in civil wars. “Integrated” here carries a twofold meaning. First, whereas existing quantitative approaches tend to champion explanations of opportunity, while largely discounting the role of motivations, this dissertation develops a theoretical framework that systematically integrates elements from grievance-based theories into a rationalist logic. Second, whereas current research considers onset, duration, termination, and recurrence of civil wars largely in isolation, both in terms of theory as well as empirical analyses, this dissertation seeks to analyze them as part of an overarching, integrated process.

To this effect, I lay out the logic of ethno-political change in the context of civil wars. This theoretical approach holds that the systematic denial of valuable state benefits on the basis of ethnicity facilitates the politicization of collective grievances among affected group members. Grievances then translate into a collective motivation and the demand for political change. Because the state can be identified as the perpetrator of the undesirable condition, there exists a sense that the root cause can be resolved and rectified by means of political change. To this end, violence becomes a viable substitute for conventional political struggle, since regular institutional channels are blocked. Fighting for change then affects the dynamics of onset, duration and recurrence in systematic ways. These dynamics unfold systematically as the result of competing claims to state power. As such, divergent preferences give rise to strategic interaction.

This dissertation then subjects the logic of political change to empirical testing by considering a series of empirical implications across three stages of civil war processes: onset, duration and recurrence. The overarching modeling strategy takes seriously strategic interaction and analyzes disaggregated data at the level of relevant actors, including governments, ethnic groups, and rebel organizations, as well as systematic linkages between them.

Consistent with previous research, I find that ethnic groups suffering from ethno-political exclusion are significantly more likely to demand political change that can lead to fighting. However, in line with the strategic logic, I find that the scope of such demands is determined in anticipation of success, while an escalation to full-fledged war can result from bargaining failure when both governments and challengers have incentives to misrepresent their true resolve and capacities.

In contrast to previous research, this dissertation argues that conflicts driven by ethno-politics can also be settled politically. However, this is difficult precisely because ethno-political grievances imply valuable stakes, and so the actors are more willing to invest in fighting. Thus, it is not ethnicity *per se* that drives long conflict duration, but politicized ethnicity that makes negotiated settlements more difficult to achieve. This process is complicated by the fact that ethno-political exclusion limits conventional participation. Rivaling factions thus compete for popular support by means of fighting the government. Theorized in this way, I provide a theoretical and empirical account of spoiler dynamics, which have been difficult to capture in previous frameworks.

Finally, in stark contrast to dominant approaches, which either claim that grievances are ubiquitous and hence a constant that cannot explain conflict dynamics, or fixed and thus make conflict inevitable, the logic of political change implies that grievances can and should be accommodated and rectified in order to prevent future conflict. While existing research discounts the prime mechanism for doing so - power sharing - on the basis of a seemingly negative record, I show that this logic is deeply flawed because it omits the strategic considerations that lead to power sharing in some cases, but not others. Bolstered by both a game-theoretic model and statistical evidence, I show that power sharing tends to occur when peace is fragile to begin with. Once this reverse causality is factored in systematically, however, I demonstrate that political change in the form of power sharing exerts a strong pacifying effect that limits the risk of recurrent conflict.

Zusammenfassung

Die Dissertation entwickelt einen im doppelten Sinn „integrierten“ Ansatz zur Rolle von Ethnizität in Bürgerkriegen. Im Gegensatz zum überwiegenden Teil der quantitativen Bürgerkriegsliteratur, welche Erklärungen auf der Grundlage von Opportunität vertritt und solche auf der Basis von Motivationen grösstenteils verwirft, integriert die Dissertation erstens systematisch Elemente aus Frustrationstheorien („grievances“) in einen rationalistischen Ansatz. Zweitens werden – im Gegensatz zum Forschungsstand – Ausbruch, Dauer und Wiederausbruch von Bürgerkriegen als Teil eines übergeordneten und integrierten Prozesses betrachtet, sowohl theoretisch, als auch empirisch.

Aus diesen Gründen entwickelt die Dissertation die Logik der politischen Veränderung im Kontext Bürgerkriegen. Dieser Ansatz besagt, dass eine systematisch Vorenthaltung von Rechten und Leistungen seitens des Staates auf der Grundlage von ethnischer Zugehörigkeit die Politisierung von kollektiv gefühlten Benachteiligungen unter Mitgliedern betroffener ethnischer Gruppen fördert. Subjektiv wahrgenommene Missstände bilden die Basis für kollektive Motivationen und Forderungen nach politischen Veränderungen gegenüber dem Staat, der als Ursprung der Missstände ausgemacht wird. Weil reguläre institutionelle Kanäle politischen Einflusses verschlossen bleiben, wird Gewalt zu einer gangbaren Alternative. Der Kampf für Veränderung wirkt dann systematisch auf die Dynamiken von Ausbruch, Dauer und Wiederkehr von Konflikten, welche sich als Folge von konkurrierenden Ansprüchen auf staatliche Macht entfalten. Demnach haben divergierende Präferenzen strategische Interaktion mit dem Staat zur Folge.

Die Dissertation unterzieht verschiedene Implikationen einer Reihe von empirischen Tests in drei Phasen von Bürgerkriegsprozessen: Ausbruch, Dauer und Wiederausbruch. Die übergreifende Modellierungsstrategie versucht strategischer Interaktion gerecht zu werden, u.a. indem disaggregierte Daten auf der Ebene von relevanten Akteuren wie Regierungen, ethnischen Gruppen und Rebellenorganisationen, sowie systematischen

Verbindungen zwischen diesen Akteuren analysiert werden. Die Ergebnisse bestätigen vorherige Befunde, dass ethnische Gruppen, die von ethno-politischer Exklusion betroffen sind, mit höherer Wahrscheinlichkeit Veränderungen fordern, was zu Gewalt führen kann. Wie weit diese Forderungen gehen, ist jedoch - im Einklang mit der strategischen Logik – von der antizipierten Erfolgswahrscheinlichkeit abhängig. Eine Eskalation zu vollständigem Krieg kann dann die Folge von gescheiterten Verhandlungen sein, wenn sowohl Regierungen, wie auch Herausforderer Anreize haben, ihre wahren Positionen falsch darzustellen.

Im Gegensatz zur bisherigen Forschung argumentiert die Dissertation, dass sich ethno-politische Konflikte politisch beilegen lassen. Dies wird jedoch dadurch erschwert, dass bei gefühlten ethno-politischen Missständen viel auf dem Spiel steht, sodass die Akteure besonders gewillt sind, in den Konflikt zu investieren. Demnach ist es nicht Ethnizität *per se*, die zu langwierigen Konflikten führt, sondern deren Politisierung, welche eine Einigung erschwert. Dieser Prozess wird zudem dadurch verkompliziert, dass ethno-politische Exklusion konventionelle politische Partizipation einschränkt. Dies kann dazu führen, dass konkurrierende Splittergruppen über den Kampf gegen die Regierung in politischen Wettbewerb gegeneinander treten. In diesem Sinn bietet die Dissertation ein theoretisches und empirisches Modell von sogenannten „Spoiler-Dynamiken.“

Entgegen dominierender Forschungsergebnisse, welche entweder besagen, dass Frustrationen allgegenwärtig sind und somit keine Erklärungskraft besitzen oder aber unveränderlich und Konflikte somit gar unvermeidbar sind, impliziert die Logik der politischen Veränderung, dass die gefühlte Missstände rektifiziert werden können um zukünftige Konflikte zu verhindern. Der bisherige Forschungsstand verwirft den wichtigen Lösungsansatz von ethnischer Machtteilung auf der Grundlage eines dem Anschein nach schlechten Abschneidens. Die Dissertation zeigt jedoch, dass diese Schlussfolgerung fehlerhaft und unzutreffend ist, da sie diejenigen strategischen Abwägungen auslässt, die bestimmen, warum Machtteilung nur unter bestimmten Umständen angewandt wird. Basierend auf einem spieltheoretischen Modell und statistischer Evidenz zeigt sie, dass Machtteilung gerade dort angewandt wird, wo die Bedingungen für Frieden von vornherein schwierig sind. Berücksichtigt man diese umgekehrte Kausalität, zeigt die Dissertation, dass politische Veränderungen in der Form von Machtteilung einen starken friedenssichernden Effekt haben, der das Wiederausbruchsrisiko reduziert.

Contents

Abstract	v
Zusammenfassung	vii
List of Figures	xiv
List of Tables	xv
1 Introduction	1
1.1 Background, Motivation, and Themes	1
1.1.1 Dynamics	2
1.1.2 Ethno-Politics	3
1.1.3 Disaggregation and Interaction	5
1.2 Organization and Roadmap	8
2 Previous Research	11
2.1 Rationalist Approaches	11
2.1.1 Political Economy Approaches	11
2.1.2 Bargaining Approaches	15
2.2 Grievance-Based Approaches	17
2.2.1 Structural Grievance-Based Approaches	17
2.2.2 Institutional Grievance-Based Approaches	18
2.3 Summary	21
3 From Ethno-Politics to Conflict and Back Again	23
3.1 Introduction and Definitions	23
3.2 Ethnic Groups, Ethno-Politics, and the State	26
3.3 The Logic of Ethno-Political Change	30
3.3.1 Political Change Through Fighting: Onset	31
3.3.2 Political Change While Fighting: Duration	33
3.3.3 Political Change After Fighting: Recurrence	35

3.4	Summary	37
4	Bargaining, Power, and Ethnic War	39
4.1	Introduction	39
4.2	Power and War	41
4.2.1	Power and Intrastate War	41
4.2.2	Power and Interstate War	42
4.3	Ethnic Bargaining	45
4.3.1	Power, Dissatisfaction, and Stakes	45
4.3.2	Power and Information Problems	47
4.4	Empirical Strategy	50
4.5	Data	52
4.5.1	Ethno-Political Exclusion: Access to Central Power	53
4.5.2	Bargaining Power	54
4.5.3	Control Variables	55
4.5.4	Dependent Variable	56
4.6	Method	57
4.7	Empirical Results	59
4.8	Discussion and Conclusion	68
5	Ethnicity, the State, and the Duration of Civil Wars	71
5.1	Introduction	71
5.2	Existing Approaches to Civil War Duration	74
5.3	Ethno-Political Exclusion and Civil War Duration	76
5.4	Data and Empirical Strategy	85
5.4.1	Coding the Group-Organization Nexus	85
5.4.2	Coding Ethno-Nationalist Politics	86
5.4.3	Control Variables	87
5.5	Method and Empirical Results	88
5.5.1	Alternative Explanations	93
5.6	Robustness Checks	96
5.7	Conclusion	100
6	Modeling Spoiler Dynamics in Civil Wars	103
6.1	Introduction	103
6.2	Identifying Spoiler Dynamics	105
6.3	A Theoretical Model of Spoiler Dynamics	108
6.3.1	Intuition and Illustration of the Argument	108

6.3.2	Heterogeneity among Rebel Organizations	109
6.3.3	Competition for Public Support	111
6.3.4	Conditional Spatial Reaction Functions	113
6.4	An Empirical Model of Spoiler Dynamics	114
6.4.1	Spatial Event History	115
6.4.2	Conditional Spatial Lags	117
6.5	Data	119
6.6	Results	120
6.7	Conclusion	125
	Appendix A: Maximum Likelihood Estimation	127
	Appendix B: Locating Interdependence: \mathbf{W}_i	129
7	The Logic of Power Sharing after Civil War	133
7.1	Introduction	133
7.2	Towards A Minimalist Definition of Power Sharing	135
7.2.1	Power Sharing in Democracies	135
7.2.2	Power Sharing in Authoritarian Regimes	136
7.2.3	Power Sharing in Peace Agreements	136
7.2.4	Defining and Endogenizing Post-Conflict Power Sharing	138
7.3	A Strategic Model of Post-Conflict Power Sharing	140
7.4	Statistical Analysis of the Game	145
7.5	Data and Specification of the Model	146
7.5.1	Measuring Power Sharing	147
7.5.2	Assigning Covariates	148
7.6	Results	152
7.7	Conclusion	159
8	Conclusion	161
8.1	Summary and Main Contributions	161
8.2	Limitations and Future Directions	164
8.3	Policy Implications	165
	Bibliography	169

List of Figures

4.1	Relating Ethnic Groups to Rebel Organizations	57
4.2	Bargaining Power and Low Intensity Conflict (Groups in Power)	62
4.3	Bargaining Power and High Intensity Conflict (Groups in Power)	62
4.4	Bargaining Power and Low Intensity Territorial Conflict (Ex- cluded Groups)	65
4.5	Bargaining Power and Low Intensity Governmental Conflict (Excluded Groups)	65
4.6	Bargaining Power and High Intensity Territorial Conflict (Ex- cluded Groups)	67
4.7	Bargaining Power and High Intensity Governmental Conflict (Excluded Groups)	67
5.1	Sequential Fighting in Civil Wars	78
5.2	Predicted Survival Functions	92
6.1	Dyadic and Triadic Constellations	107
6.2	Asynchronous Fighting Durations	129
7.1	Extensive Form	140
7.2	Visualization of Comparative Statics	143
7.3	Normalized Payoffs	146
7.4	Measuring Power Sharing	147
7.5	Specification of the Model with Regressors	148
7.6	Predicted Probabilities of Fighting under PS and SQ (1) . .	154
7.7	Predicted Probabilities of Fighting under PS and SQ (2) . .	155
7.8	Predicted Probabilities of Fighting under PS and SQ (3) . .	156
7.9	Predicted Probabilities for Government Actions (1)	157
7.10	Predicted Probabilities for Government Actions (2)	158
7.11	Predicted Probabilities for Government Actions (3)	159
7.12	Predicted Probabilities for Government Actions (4)	160

List of Tables

1.1	Themes and Stages	8
4.1	Relative Group Strength and Conflict Engagement	52
4.2	Explaining Group-Level Conflict: All Groups and Included Groups	61
4.3	Explaining Group-Level Conflict: Excluded Groups	64
5.1	Cox Proportional Hazard Estimates	90
5.2	Competing Risk Estimates	97
5.3	Robustness Checks	98
6.1	Estimates of Fighting Durations	122
6.2	Estimates of Fighting Durations: Robustness Checks	124
7.1	Summary of Results	142
7.2	Player Utilities for Statistical Strategic Model	153

Chapter 1

Introduction

1.1 Background, Motivation, and Themes

Research on political violence shows that since 1945, the majority of all wars fought have been intrastate wars as opposed to interstate wars (Gleditsch et al., 2002). What is frequently omitted, however, is that civil wars outnumber interstate wars not because so many different countries are affected, but because some places are affected over and over again (Quinn, Mason and Gurses, 2007).

In explaining this surge of civil conflict, policy-makers and journalists, as well as many qualitatively oriented researchers, have pointed to the role played by ethnic identities. Inspired by the conflicts in former Yugoslavia, Georgia or Rwanda, this approach suggests that conflicts result from diversity in cultural composition or long-standing cultural practices that define and distinguish ethnic groups' identities. This view is not without critics, however. Prominent quantitative research of the past decade failed to find that diversity in ethnic demography is associated with civil conflict. This non-finding has been highly influential. In what has become the dominant explanation, the common view today holds that civil violence is predominantly a problem of the poor (Fearon and Laitin, 2003; Collier and Hoeffler, 2004). Accordingly, structural conditions of poverty and the absence of state institutions generate an opportunity structure that is favorable to rebellion. Put simply, rebellion is said to occur where it is feasible, and this feasibility is itself widely considered a sufficient explanation for civil violence.

Yet, is knowing a country's structural conditions enough to judge that country's prospects for peace? Will economic development and stronger state reach be the keys to containing intra-state violence, ultimately making

the world a more peaceful place? The short answer to these questions is no. The long answer, provided in this thesis, is that these questions are themselves misspecified in at least three ways, each of which has compromised our understanding of civil conflict. First, dominant research has generally neglected the role of dynamics. Second, the alleged irrelevance of ethnicity and ethnic politics has gone hand in hand with discounting the role of motivations in conflict processes altogether. But this view has neglected the political context in which particular motivations arise. Third, researchers have emphasized structural opportunities at the cost of motivations, leading them to neglect the roles played by actors, agency, and the interactions between them. Put differently, we are missing a unified perspective that does justice to the political and strategic context in which relevant actors decide whether or not to raise arms against the state, when to lay them down, and when and/or whether to pick them up again. In what follows, I elaborate on each of these deficiencies in more detail.

1.1.1 Dynamics

Current research on civil conflict champions structural factors of opportunity. By heavily focusing on such conditions, it is implied that a single “snapshot” informs about the prospects of peace. Indeed, the underlying conceptualization of conflict as the result of an opportunity structure favorable to rebellion presumes that such violence occurs largely in a historical vacuum. Conflicts are not history-free, however. To assess the question as to why so many conflicts recur, two related aspects precede in the causal chain. Intuitively, it is inadvisable to omit the question as to why the initial conflict erupted in the first place. This holds true all the more for the question as to why the initial conflict eventually ended, despite the fact that a prior conflict onset and termination are strictly necessary in order to be able to observe a recurrence of conflict in the first place. In other words, in disregarding the procedural nature of conflict with distinct stages - onset, duration, and possibly recurrence - it is therefore likely that, over time, important causal connections will be overlooked - not only because duration and recurrence clearly depend on previous stages, but also because onset depends on the prospects of duration and termination.

Consider the example of power sharing as a prominent policy prescription designed to prevent recurrent conflict. Based on the observation that several power-sharing arrangements broke down and lead to renewed conflict during

the recent past, many influential researchers have come to question its usefulness as a tool for peace. Some even advised against power sharing altogether and advocated that policy makers instead “give war a chance”, allowing the parties to fight it out until one side suffers defeat (Luttwak, 1999; Toft, 2010*a*). However, by disregarding prior dynamics, these studies implicitly assume that power sharing arrangements appear from nowhere and occur by pure chance. To use an analogy from medical studies, current research observes that patients who are hospitalized to receive the treatment of power sharing occasionally relapse. The resulting conclusion is that hospitalization is detrimental. But this of course neglects the fact that the sick patients are the ones who are rushed to the hospital in the first place, and that the dose of the treatment is directly related to the severity of the diagnosis. Through this lens, power sharing is a policy prescription for conflict-prone countries. In other words, because civil war processes are not controlled experiments, the treatment is not assigned randomly, but systematically.

Needless to say, power sharing is rarely the result of a coin toss. By contrast, Chapter 7 demonstrates that power sharing arrangements tend to be implemented in the most difficult cases, rather than the easy ones in which conflict is less likely in the first place. As a result, static inferences about power sharing’s seemingly limited abilities to keep peace are flawed because they neglect the simple fact that policymakers respond to conflict deliberately: their actions are the results of history and are implemented with the aim of altering the future. Encouragingly, and against the critics, I find that, once strategic dynamics are explicitly accounted for, power sharing has a positive effect on the durability of post-conflict peace.

More generally, the predominant approaches to the study of civil war feature an important limitation: an inherent negligence of dynamics. This deficiency pertains in particular to those explanations drawing on quantitative methods. This limitation in the status quo provides a key motivation for this dissertation, and the sequential nature of the various stages in conflict (onset, duration, and recurrence) serves as an organizing principle for the analyses presented in the later chapters.

1.1.2 Ethno-Politics

The emphasis on structural conditions has lead researchers to favor factors of opportunity over motivations for conflict. If, as an example, we take

seriously one prominent set of results from the field, rough terrain presumably provides conditions favorable to rebellion that are deemed sufficient: all else being equal, mountainous terrain leads to a higher probability of conflict. Initially, this raises the question as to why a country like Switzerland enjoys long-standing peace, despite its mountains (and perhaps ethnic diversity). Ultimately, however, from a policymaker's point of view the deeper problem arises from the fact that mountains can hardly be changed. Does this make conflict inevitable, at least in the long run? Naturally, similar concerns also apply to large populations, as well as poverty—both of which are also said to drive civil conflict, but are difficult to change (at least in the short- and medium-run). Current research thus provides a rather grim outlook on the prospects for peace in countries with conditions allegedly favorable to rebellion. Likewise, the famous non-finding that ethnic diversity appears to be unrelated to conflict rests on an implicit understanding of ethnicity that is purely demographic, i.e. structural (Cederman and Girardin, 2007). In sum, given these types of explanations, it appears that there is relatively little that can be done to prevent and contain civil wars. Is this really the case? I disagree.

The problem with each of these explanations lies in the poorly theorized *assumption* that opportunities for rebellion are deemed sufficient explanations. Critically, this fails to take into account the role of motivations and political institutions. Indeed, it seems implausible that motivations do not play a critical role in conflict processes. Thus, it is not by chance that more qualitatively oriented scholars speak of ethnic identities, rather than ethnic demography, as is implied by concepts like ethnic diversity. Consider the Dinka of Southern Sudan. When a large-scale conflict over governmental power broke out in 1983 (the second Sudanese civil war), it was in response to changes in national politics announced by the Arab regime in Khartoum. While this regime had come to power with the help of former colonial powers Egypt and the United Kingdom, the country-wide adoption of Sharia law in predominantly Christian-Animist Southern Sudan resulted in strong grievances that ultimately escalated into one of the deadliest conflicts of the 20th century. Clearly, conflict in Sudan was not caused by ethnic demography *per se*, but was the result of a politicization of ethnic identities that provided the motivation to trigger and sustain a long and costly conflict. The Sudanese South wanted a change in political reality, which was ultimately reflected in the January 2011 referendum, in which 98.83 percent voted in

favor of independence. Put colloquially: it's politics, stupid!

Thus, rather than discarding motivations at the outset and focusing solely on the narrow nexus between opportunities and conflict, the second main theme of this dissertation is to highlight the role of motivations, in particular those induced by ethnic politics and ethno-political institutional arrangements. However, going beyond the current debate, the question is not whether *either* opportunities *or* motivations matter. They both do. My evidence shows that both are critical, and it is their conjunction that matters. Substantively, Chapter 4 assesses the linkage between opportunity and motives by demonstrating this complementarity. Had the Khartoum regime granted the South access to state power and not imposed its one-sided ideas about the rule of law, the South would have had no reason to resort to violence in the first place; had the Dinka not been roughly on par with the regime in Khartoum and thus stood a chance of obtaining a favorable outcome through fighting, they probably would not have resorted to arms. Moreover, had the Dinka not been highly motivated to put an end to “being governed” by Khartoum, the fighting would not have lasted for more than two decades. This endurance was not simply a result of the ethnic component in the conflict, but of the *ethno-political* context in which it was fought. Indeed, Chapter 5 demonstrates that ethnicity *per se* does not lead to long and protracted conflicts. What drives long conflicts is politicized ethnicity that is charged with ethno-nationalist grievances.

More generally, ethno-nationalist grievances provide the collective motive for political change. This, in turn, links peace and conflict as part of one and the same process. Focusing on the motives for political change, rather than structural opportunities alone, has an additional benefit. Whereas opportunities are largely static, ethno-political motives can be addressed dynamically by means of relevant policies. Thus, to the degree that political change is possible, it can help prevent and contain conflict. To this effect, Chapter 5 demonstrates that political change can rectify grievances, and thereby limit the risk of future conflict.

1.1.3 Disaggregation and Interaction

The third problem existing in the dominant literature also stems from the conceptual focus on structural conditions. Commonly measured at the level of countries, these conditions have misdirected our attention away from actors and agency. Paradoxically, and despite being a conflict actor by necessity,

the state is frequently “assumed away,” rather than treated as an active actor in both theories and analyses (Cederman, Wimmer and Min, 2010). This emphasis on state weakness has caused researchers to conceptualize state institutions in countries experiencing civil wars as destitute. As an unfortunate result, attention has been shifted away from state actions. While the unavailability of sub-national data can partly account for this deficiency, other research drew on data at the level of ethnic groups from the minorities at risk (MAR) project (Gurr, 1993*a*). However, these data focus deliberately on numerical minorities, regardless of their political status. Moreover the state is systematically excluded, making it impossible to study ethno-political configurations.

Recognizing such limitations, recent research has made significant steps in moving towards disaggregation (for an overview, see Cederman and Gleditsch, 2009). These efforts generally fall into three camps. First, a number of studies analyze local- or micro-dynamics in particular conflicts (e.g., Kalyvas and Kocher, 2009). However, these studies are usually confined to single conflicts, and thus suffer from problems of external validity. Second, geographic research on civil war analyzed spatial aspects of conflict by combining various spatial data, such as terrain properties. Here, the unit is typically the GIS grid-cell. Although this strand has made important contributions, there exists an implicit problem in the lack of agency. Put simply, grid-cells do not fight, and so actors are largely absent from the theoretical mechanisms.

In this dissertation I take a middle ground that emphasizes not only disaggregation below the level of the state, but also actors and agency. More complete data at the level of ethnic groups, which also includes those groups at the political center, has recently been introduced by Cederman, Wimmer and Min (2010) and has been used to study the effects of particular ethno-political constellations. I follow this avenue of research in Chapter 4, which explores the linkage between opportunities, motives, and ethnic civil war through the lens of bargaining theory.

Once a civil war breaks out, an important question comes to the fore: how long will the fighting last before there is a return to peace? By definition, fighting in civil wars generally occurs between a state and a non-state actor. This non-state actor need not be an ethnic group. Indeed, several scholars question whether or not it is appropriate to categorize ethnic groups as meaningful actors within civil wars (e.g., Brubaker, 2003). Thus, the

theoretically more appropriate actor is arguably the rebel organization. Chapters 5 and 6, which both address the duration and termination of civil wars, thus rely on data at the level of rebel organizations (Cunningham, Gleditsch and Salehyan, 2009; Gleditsch et al., 2002). These organizations may or may not share close links to ethnic groups. Here, I break new ground by taking seriously such variation within the nexus between ethnic groups and rebel organizations, based on new data that codes such linkages explicitly. Chapter 5 then shows that the connection between ethnic groups and rebel organizations affects the duration of civil wars largely through political institutions. More specifically, when state policies form along categorical ethnic lines, they increase the likelihood of civil war by providing a motive to fight for political change while also making it more difficult to end such violence once it has broken out. This persistence of violence occurs in part because of how the challenger was treated *prior* to the conflict onset, and in part because of what government expects to occur *after* a settlement. The finding yields a clear indication that intra-war dynamics are shaped by political processes and interactions, and that addressing the desire for political change is a key to containing conflict processes. Understanding and incorporating prior politics before the onset of violence is therefore important to understanding how history “unfolds” through conflict processes and beyond.

The data on both ethnic groups and rebel organizations are fairly new, and so their full potential has not yet been exhausted. Whereas previous research has analyzed these data as given constellations with a focus on actor characteristics, interactions *between* actors have been addressed partially at best. In Chapters 6 and 7 I employ tailor-made statistical techniques to examine the way in which past, current, or expected actions by one actor condition those of other actors, and vice-versa. Because the actors act simultaneously (at least in terms of the data), conventional statistical techniques are not capable of capturing such dynamics. Chapter 6 addresses the well-known, but insufficiently theorized and to-date untested, spoiler problem in civil wars. Spoiler problems arise when fragmentation on either side (typically on the side of the non-state challenger) leads to divergent interests that motivate the use of violence with the intention of impeding peace processes between other parties. The Israeli-Palestinian conflict is a prime example. Conceptualizing the difficulties in making peace between Israel and the PLO/Fatah would be incomplete without factoring in the

active role of Hamas and its relations with both the Israeli state and the PLO/Fatah. Chapter 7 lays out a theoretical model that explains why post-conflict power sharing concessions are systematically more likely to occur under precisely those conditions in which peace is fragile to begin with because the challenger possesses the means and motives for renewed fighting. Bolstered by empirical data, the important implication of this model is that a naïve assessment of such arrangements would systematically underestimate the beneficial effects on post-conflict peace. For example, the Khartoum regime in Sudan was willing to grant the South a referendum on self-determination only after several decades of fighting and an estimated one to two million casualties. Without this concession, fighting would likely have continued.

In sum, understanding actors, as well as their capacities, motivations and willingness to use violence, adds causal depth to the study of civil war processes. While disaggregation seems a necessary first step, a closer examination of the actors, agency, their policies, as well as the interactions between them, thus allows for a more complete and realistic picture of the role played by violence in the making of history.

1.2 Organization and Roadmap

Broadly speaking, the dissertation is organized along two dimensions. The first dimension considers the three themes outlined above - dynamics, ethno-politics and disaggregation -, whereas the second dimension addresses the three temporal stages - onset, duration and recurrence. This is depicted in Table 1.2.

Table 1.1: Themes and Stages

	Onset	Duration	Recurrence
Dynamics			
Ethno-Politics			
Disaggregation			

In terms of chapter structure, I begin in Chapter 2 with a comprehensive literature review that addresses each of these dimensions for a variety of existing approaches and follows the two dimensions. Chapter 3 then lays out my own approach, which attempts to overcome some of the existing weaknesses while building on the strengths of existing work. While the

general theoretical framework takes a rationalist perspective, it also borrows deliberately from grievance-based approaches. As such, it develops the logic of ethno-political change, which states that systematic denial of valuable state benefits on the basis of ethnicity facilitates the politicization of collective grievances, which in turn translates into a demand for political change. This becomes possible because the perpetrator of the undesirable condition is known (the state) to those who are affected, and so there exists a sense that grievances can be resolved and rectified by means of political change. Since institutional channels of political participation are largely blocked, violence becomes a viable alternative.

Chapters 4 through 7 contain the empirical work of the dissertation, and they subject the logic of political change to empirical testing. Chapter 4 then examines the conditions under which particular groups will make specific types of demands for political change, and explains when this can lead to war. In line with earlier work, the findings suggest that excluded groups are generally more likely to seek political change that can lead to fighting (Cederman, Wimmer and Min, 2010). However, in contrast to previous work, I find that a given group chooses its war aims strategically depending on the group's relative strength, and that escalation to war can occur as the result of strategic incentives to misrepresent true capabilities and resolve. Chapter 5 then turns to the fighting dynamics that occur during conflicts by analyzing the interaction between governments and non-state challengers. The chapter revisits a common but yet untested assumption about ethnicity's role as a conflict catalyst. Whereas previous research either discounts the role of ethnicity entirely or equates it with the facilitation of collective action, the chapter shows that merely politicized ethnicity leads to longer conflicts. In the context of politicized ethnicity rebel organizations benefit from cost-tolerant fighters and collective solidarity, while governments fear the costs of turning the tables should they be forced from power. As a result, settlements become more difficult to secure, thus leading to protracted conflict. Chapter 6 further opens the black-box of conflict and examines the effect of internal contestation among the opposition. As such, it addresses the well-known spoiler syndrome (Stedman, 1997). In delineating this problem from other types of bargaining failure, I lay out a theoretical argument that conceptualizes spoiler dynamics as a negative externality that arises when rivaling rebel factions compete over public support by means of violence against the state. Here, I argue that such

dynamics are likely to emerge when rebel organizations are linked to excluded ethnic groups, since violence against the state resonates particularly well with populations that experience grievances. In Chapter 7 I examine closely the conditions under which beneficial settlements—framed here as power sharing—can be obtained by ethnic groups in conflict with their states. I find that, theoretically, the state is more likely to make concessions when there is a high-risk conflict in the first place. I conclude that power sharing is likely under difficult conditions. This, in turn, implies that previous research has systematically underestimated the pacifying effect of power sharing. Encouragingly, my empirical findings show considerable support for these theoretical conjectures and demonstrate that it is not impossible to rectify grievances by means of political change. As such, it contradicts prominent positions, which either argue that grievances do not matter because they are ubiquitous (e.g. Fearon and Laitin, 2003; Laitin, 2007; Collier, 2007) or that grievances are fixed, making political polarization or conflict inevitable (Rabushka and Shepsle, 1972). The final chapter summarizes the findings, reflects on limitations of the dissertation and points to future directions for research.

Chapter 2

Previous Research

The scientific study of civil war is a relatively young topic, despite being an age-old phenomenon. Indeed, examples date back as far as to the Roman Civil Wars that occurred between 100 B.C. and A.D. 400. Yet, it was not until the 1990s that mainstream political scientists and economists began to study the topic using quantitative methods. It is this quantitative literature that is most closely related to this dissertation, and thus the primary focus of this literature review.

Broadly speaking, the existing research falls into two camps: (1) rationalist approaches and (2) grievance-based approaches. In the following review, I discuss each camp at some length. For this I follow the two dimensions, the theme dimension and the stage dimension, laid out in the previous chapter. This allows me to identify strengths and weaknesses as well as differences and similarities. Moreover, it motivates and helps to position my own approach, which is detailed in Chapter 3.

2.1 Rationalist Approaches

2.1.1 Political Economy Approaches

As noted, the quantitative literature on civil war gained strong momentum only recently, driven in part by a then-newly established World Bank unit, which was staffed primarily with economists (for reviews, see Blattman and Miguel, 2010; Kalyvas, 2007; Hegre and Sambanis, 2006; Sambanis, 2002). Here, the political economy approaches by Fearon and Laitin (2003) and Collier and Hoeffler (2004) are considered foundational. According to this view, civil war is primarily a problem of the poor. That is, in what has

become the dominant explanation of civil war, these authors argue that structural conditions and state-characteristics are the main causes of civil war. What matters to the onset of civil war are “[t]he conditions that favor insurgency—in particular, state weakness marked by poverty, a large population, and instability” (Fearon and Laitin, 2003, 88) or the existence of an opportunity-structure favorable to ‘greedy’ bandit rebellion (Collier and Hoeffler, 2004). These approaches are based on rational cost-benefit calculations. Individuals will participate in rebellions in which the potential gains outweigh the associated risks or costs. In short, civil war is considered a form of business.

Focusing on the opportunity for rebellion, many scholars have therefore emphasized the role of natural resources in generating conflict, or as a means by which to finance violent activities in civil wars (e.g., Ross, 2004, 2006; Buhaug, Gates and Lujala, 2009; Lujala, Rød and Thieme, 2007; Lujala, 2010). According to this literature, the presence of natural resources, such as oil, gas, diamonds, timber or narcotics, is said to associate with the onset of civil conflicts. Collier (2000) summarizes this idea as “doing well out of war.” Broadly speaking, then, political economy approaches argue that civil wars will occur when rebellious activity is feasible and profitable. However, scholars differ in their evaluations of the underlying causes of such behavior. Whereas Fearon and Laitin (2003) emphasize the absence of state institutions, which could contain rebellion through effective state reach, especially in peripheral areas and difficult terrain that provides rebel hideouts, Collier and Hoeffler (2004) emphasize the availability of material spoils.

Although the vast majority of studies focuses on the onset of civil war, the political economy school has also addressed the duration and recurrence of civil war violence. For example, Collier, Hoeffler and Söderbom (2004) argue that looting opportunities result in longer conflicts, since rebel revenues are raised and recruitment costs are lowered (see Weinstein, 2007). With regard to civil war recurrence, Walter (2004) finds that the characteristics of the previous war, such as its duration, severity, and its resolution, cannot account fully for civil war recurrence. Instead, she argues, higher economic wellbeing and political freedoms make renewed conflict less likely. Curiously, her key indicators are infant mortality and life expectancy, both of which are well known to correlate highly with per capita income, the key indicator used by both Fearon and Laitin (2003) and Collier and Hoeffler (2004). Thus

it can be argued that what Walter (2004) calls “living conditions” are in fact very similar to the economic conditions that, according to political economy arguments, make conflict more likely in the first place.

While the political economy approach has clearly enhanced our understanding of civil war, it is not free from problems, however. By focusing on structural variables and explanations, these scholars suggest that a “snapshot” of a country’s current conditions contains adequate information from which to estimate the likelihood that that country will experience a civil war. For example, the key variables to Fearon and Laitin (2003) are poverty, political instability, rough terrain and population size. If one were to know a country’s values for these (and some other) variables during a given year, one could simply plug them into the equation and arrive at the likelihood of civil war. Strikingly, however, with the exception of political instability, each of these factors exhibits little to no change over time within countries. For instance, a country’s terrain is clearly invariant and can hardly serve as an explanation for why a civil war occurred at time t and not at, say, $t - 7$. In short, the bulk of the variance in civil war data is found cross-sectionally, as opposed to longitudinally. Thus, while we do learn something from these models about *where* civil conflicts tend to occur, we hardly understand *when* civil war breaks out.¹

Moreover, if we take the postulated findings by political economy approaches seriously, civil wars result from structural conditions, such as poverty, state weakness or natural resource abundance. These, it is argued, make it rational to engage in rebellion. Accordingly, recurrence is merely a consequence of *ex ante* risk of civil war; countries featuring low income, a large population and a weak state (and thus vulnerable to civil war) are also likely to exhibit the same characteristics *after* the end of a civil war. This places a grim outlook on the future of countries affected by civil war, while also limiting the choices available to policymakers who want to intervene. If the conditions that are said to drive conflicts -such as poverty, state weakness or mountainous terrain- are more or less constant over time, and actors are only indirectly theorized, there exists no notion of temporality, and conflict processes occur in a historical vacuum. Indeed, the implicit actors are profit-maximizing individuals who neither have the ability to learn from the past, nor do they engage in any strategic behavior that anticipates the

¹Relatedly, Buhaug et al. (2011) show that relative poverty predicts conflict locations *within* countries, but also find some evidence that relatively wealthy regions are also affected.

future, nor do they anticipate the actions of other actors. Rather, under these limitations, they fight where and when fighting pays, stop doing so when it no longer pays, and restart fighting once it pays again.

Nevertheless, with few exceptions (see, e.g., Buhaug, Gates and Lujala, 2009; Buhaug et al., 2011), political economy studies have relied on data at the country level, whereas the assumed actors are profit-seeking individuals who come to the foreground in situations in which the state is largely absent. This raises questions about actors and agency, even if the unit of analysis is geographically disaggregated at the level of GIS grid-cells (for a discussion, see Wucherpfennig et al., 2011). For example, whereas Fearon and Laitin (2003) use per capita GDP as a proxy for state weakness, Collier and Hoeffler (2004) employ the same variable as a proxy for poverty. Thus, the exact mechanisms remain unclear. Kalyvas (2007, 430) summarizes these problems succinctly:

“Even when the findings of large cross-national studies are statistically significant and econometrically sound, the likelihood that a country identified as being at risk will experience a civil war in a given year remains very small, which limits the direct policy relevance of this research. More importantly, the actual causal pathways through which the long-term risk of civil war turns into realization remain unspecified, unknown, and/or untested.”

Political economy approaches largely discount the role of motivations, especially political and collective ones. Yet, it is not clear how rational individuals overcome problems of collective action when a critical mass is required to start and sustain a rebellion (see Lichbach, 1995). Perhaps the most famous (non-)result by the political economy approach is the alleged irrelevance of ethnicity. In their studies Fearon and Laitin (2003) and Collier and Hoeffler (2004) both fail to find statistically significant results for an effect of ethnic diversity on the probability of conflict (though see, e.g., Sambanis, 2001; Hegre and Sambanis, 2006; Buhaug, 2006; Montalvo and Reynal-Querol, 2005). They interpret this lack of statistical significance as evidence that collective motivations for conflict are so ubiquitous that, at most, they matter only in so much as they provide cover stories for underlying economic interests. This non-result has been met with widespread acceptance.

However, it is far from clear why this should be the case. Posner (2004) argues that the commonly used measure of motivations, the ethnolinguistic fractalization index (ELF), is inappropriate because it is generally con-

structed on the basis of all ethnic groups, irregardless of whether or not they engage in political competition. Additionally, Cederman and Girardin (2007) stress that the measure is inherently apolitical because it focuses entirely on ethnic demography, rather than on ethno-political constellations that capture political power differentials between groups. Indeed, the state is either assumed away entirely or assumed to be ethnically neutral, rather than treated as an actor within ethnic politics (Cederman, Wimmer and Min, 2010). Thus, ELF (like similar measures, such as polarization) arguably does not capture motivations in the first place, and the derived conclusions are therefore questionable. Strikingly, however, political economists have no difficulty accepting the statistical significance of an effect of ethnic diversity on the duration of conflict, arguing that ethnicity serves as an organizing principle that enhances collective action once rebellion has started (e.g., Collier, Hoeffler and Söderbom, 2004, see also Chapter 5 of this dissertation for a detailed discussion). Leaving aside the issue of motivations, it remains unclear why enhanced collective action should only display this effect in studies of duration, but not in those addressing the onset of civil conflict.

In sum, many countries that do exhibit the above-listed difficult conditions do not experience civil war, and, among those that do, there exists great variation in the duration and rate of recurrence (Walter, 2009*a*). Political economy approaches cannot explain this variation, mainly because they fail to theorize about dynamics, ethno-politics, and actors and agency.

2.1.2 Bargaining Approaches

Recently, elements of bargaining approaches have been exported from interstate conflict studies to the field of civil war studies. In general, bargaining models are built on the assumption that coordination between two or more actors with conflicting preferences allows for higher returns than if those actors do not coordinate their actions (Wagner, 1994, 595). In other words, the focus of this approach lies on strategic interaction (Schelling, 1960, for a review, see Reiter 2003). Political economy and bargaining approaches are frequently conflated, in part because both assume rational actors. However, a fundamental difference arises from the fact that interaction between actors is central to bargaining approaches but absent from political economy approaches. Moreover, whereas the political economy approach focuses on individual-level incentives, most bargaining approaches presuppose unitary actors, such as states, who fight against one another. Until very recently

such data was hardly available for units within states. Therefore, empirical applications of bargaining theories to civil war problems are less frequent (for a review, see Walter, 2009a). Moreover, unlike political economy approaches, the actors are not opportunistic by definition. Indeed, the two core concepts, capabilities and resolve, are merely synonyms for opportunity and motives.

According to the bargaining approach, the central puzzle of war is its ex-post inefficiency: “war is costly and risky, so rational states should have incentives to locate negotiated settlements that all would prefer to the gamble of war” (Fearon, 1995b, 380). In short, the question is what prevents the parties from pursuing an *ex ante* bargain so as to avoid costly conflict. Bargaining theory offers three “solutions” to this puzzle: information asymmetry, indivisible stakes and commitment problems.

In explanations based on information asymmetries, the focus is on the strategic incentives each party may have not to reveal its true strength. Doing so compromises the party’s position at the bargaining table, and so actors may have incentives to misrepresent their resolve or capabilities. Bargains may then fail because of symmetry: neither party knows the other party’s true strength, and they resort to fighting as a way of revealing this information (Slantchev, 2003). With a few exceptions, explanations of this type have generally not received much attention (see Beardsley 2008 and Mattes and Savun 2010 for exceptions). I contribute to filling this gap in Chapter 4, which links insights from grievance-based approaches to strategic behavior between groups.

Significantly more attention has been paid to issues of indivisibility. Here, bargaining failure arises because the stakes over which the parties fight cannot be apportioned. In the context of civil war, this argument has been presented prominently with regard to territory, which often carries symbolic or strategic value (as in the case of Jerusalem) that makes it difficult or impossible for the parties to accept any partial division of the stakes (Hassner, 2003; Goddard, 2006; Toft, 2002, 2003). If this is the case, bargained solutions are especially difficult, and so parties may have no choice but to resort to war.

The third “solution” to war’s ex-post inefficiency is a commitment problem. This type of problem arises when parties cannot credibly guarantee to adhere to agreements over time. This explanation is also known as time inconsistency and leaves at least one party vulnerable to renegeing at some point in the future. When a commitment problem is acute, military victory

may therefore appear a safer option.² The commitment problem points to the role of necessary institutional guarantees and has been used widely, including as an explanation for the onset of ethnic violence (Fearon, 1995*a*, 1998) and the duration of conflict (Walter, 2002; Fearon, 2004)). Moreover, the commitment problem has also been used to explain the role of peace-keeping operations as a means by which to provide credible guarantees that ensure the survival of peace agreements (Fortna, 2004; Mattes and Savun, 2009), or problems of rebel demobilization (Glassmyer and Sambanis, 2008).

2.2 Grievance-Based Approaches

Grievance-based approaches to civil conflict emphasize motivations for fighting. Whereas early work on this subject focused on individual-level psychological mechanisms, later work focused on the collective aspects of grievances. More generally, in large part owing to the fact that grievances are inherently different to measure, researchers had great difficulty connecting theory to empirical data and testing.

2.2.1 Structural Grievance-Based Approaches

Early work on grievances was motivated by psychological theories of conflict. Gurr's (1970) famous theory of relative deprivation saw frustrations - conceptualized as the deviance between individual aspirations and reality - at the root of internal strife. This theory focuses especially on those frustrations related to economic well-being: individuals that feel deprived of something to which they feel they are entitled are considered most likely to resort to violence. However, the empirical evidence in favor of relative deprivation theory was at best mixed (Brush, 1996; Oberschall, 1978). Consequently, today the theory is widely considered obsolete. One reason for this lack of success resulted from the fact that relative deprivation theory failed to establish the necessary linkage between individual-level grievances and collective violence; as Tilly (1978) and Skocpol (1979) argued, aggrieved and frustrated individuals can be found in any society.

²Although not the same, the argument bears some resemblance to Posen's (1993) security dilemma explanation, which explains ethnic conflict as the result of "emerging anarchy" when states can no longer guarantee security. By increasing their own security, each party then also reduces the security of others.

In 1985 Horowitz published a seminal study that redirected attention from individuals to groups. Horowitz recognized important variability in group identities and argued that ethnic groups, tied heavily by kinship, experience different degrees of salience across societies. In ethnically divided societies, kinship constitutes an important part of organizational life and results in practices such as ethnic nepotism. Thus, whereas Gurr's theory only indirectly considered relative comparisons at the level of individuals, Horowitz argued that groups evaluate their worth relative to other groups. Here, groups compete for claims to legitimacy, resulting in the dynamics of ethnic politics. Combined with intergroup comparison, this can ultimately lead to conflict.

To Horowitz, group boundaries and salience are malleable and not only the cause but also the result of ethnic politics. Thus, Horowitz advises against politics organized along ethnic lines, including ethnic power sharing (see Chapter 7), because it reinforces inter-group comparisons. Although his aim is primarily to explain the onset of violence, implications for duration and recurrence include the fact that ethnic salience should result in more protracted conflicts, as well as a higher rate of recurrence. However, Horowitz' approach also carries a strong structural/demographic component: groups most prone to conflict are minorities that face an ethnic majority (c.f. Montalvo and Reynal-Querol, 2005).

2.2.2 Institutional Grievance-Based Approaches

Building on Horowitz and on his own earlier work, Gurr (1993*a*, 1994, 2000) and his colleagues began to explore more systematically the conditions under which minorities mobilize for violence. Borrowing from the social movements and resource mobilization literature (e.g., Tilly, 1978; McCarthy and Zald, 1977), Gurr (2000, 94-5) explains that

“Ethnopolitical action presupposes an identity group that shares valued cultural traits and some common grievances or aspirations. These sentiments and interests provide the essential bases for mobilization and shape the kinds of claims made by group leaders.[...] The timing of action and the choice of strategies of participation, protest, or rebellion depend largely on political opportunities external to the group, principally its relationship to the state and external actors.”

Thus, in contrast to the earlier work on this topic (including his own), Gurr argues that grievances are linked to identities and have a strong institutional component, i.e. the state. Moreover, in addition to these grievances, political opportunities are also at the core of this theory. To test these propositions, Gurr (1993*a*) and his colleagues assembled a large, worldwide dataset on these *Minorities at Risk* (MAR). These data signified a “quantum leap in the study of ethnic politics” (Wimmer, Cederman and Min, 2009, 319), and have since been used in a host of empirical studies (e.g., Saideman and Ayres, 2008; Toft, 2003; Walter, 2006*a,b*; Jenne, Saideman and Lowe, 2007). However, to the best of my knowledge, they have yet to be used in studies of duration or recurrence.

MAR is not free from problems, however. Fearon (2003) and Hug (2003) point out that because MAR focuses exclusively on minorities, problems of selection bias may arise for certain types of analyses (see Hug, 2011). In any case, the linkage between ethnicity and civil violence - by equating diversity in ethnicity with grievances - has been challenged by political economy approaches, as discussed above. Yet, from a conceptual point of view, work focusing on grievances has traditionally done so at the cost of factors of opportunity, instead of considering the two jointly.

Despite the fact that MAR triggered advancement in terms of theory and data, the database features one important shortcoming because relations with the state are used as a criterion for selection (discrimination). Put differently, ethnicity and grievances are “hard-wired” in MAR, rather than treated as variables. Moreover, the state itself is never fully characterized, including the possibility that other groups (majorities) are at the political center. Thus, the conceptualization of ethno-politics is incomplete, because the state is assumed to be ethnically neutral, not an actor itself.

Based on these insights, Cederman, Wimmer and Min (2010) have recently broken ground by introducing new data that also captures groups at the political center. This allows researchers to draw a more complete picture of ethno-politics and provides them with the opportunity to analyze variation in ethno-political constellations at the country-level (Wimmer, Cederman and Min, 2009), as well as disaggregated political relations between groups and the state (Cederman, Wimmer and Min, 2010). This work brought about a much closer fit between the empirical data and theories of nationalism. Nationalism can be defined as the political principle that demands that the unit of governance and the nation should to be congruent (Gellner,

1983). Here, the nation signifies an imagined community of common descent (Anderson, 1991), where the unit of governance is commonly the nation state. Based on such a conceptualization, Cederman, Wimmer and Min (2010) show that ethnic groups excluded from state power are more likely to raise arms against the state. In other words, the authors introduce empirically an institutional component of grievances and present the strongest quantitative evidence to date that grievances can increase the probability of conflict.³ Moreover, linking group motivations (instead of those at the level of individuals) to conflict is evidence in favor of the proposition that interactions between states and ethno-political movements go beyond merely fixed characteristics of ethnic groups, such as kin or language. Furthermore, this linkage between group motivations and conflict also challenges the notion that ethnic diversity *per se* leads to conflict.

Unlike other lists of ethnic groups (such as those in Fearon, 2003; Bruk and Apenchenko, 1964), Cederman, Wimmer and Min's (2010) data explicitly consider the fact that not all ethnic groups are relevant at all times and that the relevant constellations can change. This is in line with constructivist arguments, thus overcoming much of the criticisms that have been raised against standard data underlying the ELF (Chandra and Wilkinson, 2008; Posner, 2004). Theoretically, Cederman, Wimmer and Min's (2010) approach builds on the resource mobilization school and postulates monotonic effects of both opportunities and motives on conflict. I show in Chapter 4 that this is at odds with a more strategic logic. Cederman, Wimmer and Min (2010) also incorporate the notion of history by providing some evidence that prior conflict begets future conflict because it evokes emotions like revenge and resentment through, for example, cultural narratives. Moreover, violence obtains a cultural standing because it is no longer "unthinkable" (p. 97). As such, Cederman, Wimmer and Min (2010) implicitly reject the notion of rationality. Moreover, their analyses focus on constellations as "snapshots" (even if they incorporate some measures of history), rather than analyzing or incorporating directly the interactions that generate conflict processes. The full potential of the data thus remains theoretically and empirically unexhausted, in part because it is difficult to conceptualize such interaction in the absence of an assumption of rationality.

³For a qualitative approach, see e.g., Petersen (2002).

2.3 Summary

In sum, existing approaches to civil conflict are not entirely satisfactory. Whereas political economy approaches theorize actors indirectly while rejecting collective motivations altogether, bargaining approaches have only sporadically been employed, largely because of unmet data requirements. However, with a few exceptions, the political component of intra-state violence has been ignored. By contrast, grievance-based approaches have a long-standing tradition of integrating opportunities and motives and of placing these within a political context. However, grievance-based approaches also suffer from an underdeveloped characterization of the dynamic interactions between relevant actors.

Having described the state of the literature, I will now lay out my own approach. As will become clear, my theory borrows from both bargaining and grievance-based approaches, in particular those focusing on institutions.

Chapter 3

From Ethno-Politics to Conflict and Back Again

3.1 Introduction and Definitions

Ethnicity is an important aspect of political life in many countries across the globe and hence occupies a prominent place in the literature on political violence. However, as was outlined in the previous chapter, its precise role in conflict remains disputed. In this chapter I lay out a theoretical approach that borrows from both bargaining theory and grievance-based institutional approaches, yielding a number of interesting hypotheses and insights. The remainder of the dissertation then subjects the particular implications of this approach to empirical testing. My main argument is that, by focusing on relevant actors as well as their aims and capabilities, it is possible to gain a more complete understanding of conflict processes and dynamics at the sub-national level. In particular, I argue that the ethno-political context in which relevant actors operate is informative about their driving motivations when interacting with one another through politics. Clausewitz famously stated that “war is merely the continuation of politics by other means” (Clausewitz, 1984, 87). Along the same lines, I argue that governments and non-state challengers alike are motivated by underlying political aims. These provide the driving motivations of both governments and non-state challengers when engaging in combat. Conceptualizing the actors as part of a bargaining process yields valuable information with regard to several important questions: whether and under which circumstances peaceful politics are substituted (i.e., “continued”) by fighting; when fighting is no longer necessary; and when a return to violence is conceivable.

I begin with a discussion of actors and agency. Following the Weberian tradition, I define ethnicity as a subjective and shared sense of communality and culture based on common descent (Weber, 1978; Cederman, Wimmer and Min, 2010; Chandra, 2010, for an overview, see Cederman, 2011). Qualifying descent-based attributes include language and religion, as well as similar phenotypical features. This definition implies that ethnic groups and the boundaries between them are socially constructed, rather than primordial,⁴ and is in line with what Anderson (1991) famously termed “imagined communities”.

Collective identities are thus central to the definition of ethnic groups. But from where do these identities come in the first place? Here, I follow an institutionalist view that emphasizes the role of the state. In line with the Weberian tradition, I broadly conceptualize the state as a political organization with a centralized government that maintains a monopoly of the legitimate use of force within a certain territory (Weber, 1978). Modern nation-states, unlike empires or city-states, rely directly on the legitimacy granted to them by their people. It follows that rulers and elites should care for their own people. Nations and nationhood are therefore intricately linked to state institutions (Weber, 1978; Anderson, 1991; Wimmer, Cederman and Min, 2009). To paraphrase Tilly, nations make the state, and the state makes nations.

Nations and states as two “basic social units” (Cederman, 2011, 2) are interconnected through the notion of nationalism. Following Gellner (1983, 1), nationalism can be defined as the political principle that demands that the nation to be congruent with the state. In other words, if people perceive themselves through the lens of politicized ethnicity, ethnic likes should govern ethnic likes, that is, people should be governed by leaders who share their ethnic identity. However, such congruence is not always present: ethnic groups often transcend national boundaries, and can exist in a world without modern states. Moreover, not all ethnic groups are nations, since other, overarching, hierarchical identities at times take precedence (Cederman, 2011). This implies that not all ethnic groups are politically relevant. Thus, I confine my approach to those ethnic groups which are meaningful in the political realm. Politically relevant groups are those whose interests are claimed to be represented by at least one political organization,

⁴Note the difference between ethnic groups and ethnic categories, which are also differentiated by outside observers on the basis of cultural markers. However, these characteristics are not necessarily deemed important by the members themselves.

or, alternatively, are systematically hindered from organizing politically on the grounds of ethnicity. As such, political relevance may even change over time, both for particular groups as well as entire countries.

In this view, ethnic groups can be understood broadly as unitary actors in the political domain. While some have argued against the unitary actor assumption (Brubaker, 2004; Kalyvas, 2008), the concept of nationalism implies that political organizations operating on behalf of ethnic groups rely on the legitimacy and support of the associated ethnic groups. This makes agency conceivable. Following the Olsonian tradition (Olson, 1965), several authors have asked why rational individuals would contribute to public goods in political organizations (including rebel organizations) (e.g., Lichbach, 1995, for overviews, see Hechter and Okamoto, 2001; Varshney, 2004). Here, nationalism provides strong group-level norms, as is illustrated by the famous Serbian nationalist slogan “Only Unity Saves the Serbs.” Hardin (1995) states that group identification is rational if the community offers economic benefits to its members and that “self-interest can often be matched with group interest” (p. 5). Kalyvas and Kocher (2007) argue that the problem of free-riding may be overstated: “If an individual’s chances of being victimized depend on a profile [such as ethnicity] rather than on his or her behavior, then shunning participation in the rebellion and free riding may actually prove deadlier than joining it, since the rebels may be able to offer a degree of protection” (p. 186). More pragmatically, from an empiricist point of view, global data at the level of political organizations remains unavailable, and so ethnic groups represent the closest approximation to collective agency in studies of conflict onset (see Wucherpfennig et al., 2011).⁵

In sum, while being aware of the critics, I join other scholars and build on the assumption that ethnic groups - through their linkages with political organizations - are meaningful actors in the domain of politics (e.g., Lake and Rothchild, 1996; Fearon, 1998; Walter, 2006*a*). Moreover, unless noted otherwise, I generally treat ethnic groups as rational, unitary actors. Thus, I take a perspective that is rooted in a more rationalist view, but recognizes the importance of ethno-nationalist dynamics and ethno-politics. This allows me to focus on actor aims, capabilities, motivations and interactions, including strategic behavior, in the domain of ethno-politics.

⁵However, this is not so for rebel organizations within conflicts, and so Chapters 5 and 6 analyze the linkage between organizations and ethnic groups more closely.

3.2 Ethnic Groups, Ethno-Politics, and the State

Lasswell (1936) famously defined politics as “who gets what, when, how.” Not surprisingly, this classical definition also provides considerable leverage for understanding the role of ethnicity in the domain of politics, i.e., ethno-politics. In the broadest sense, I conceptualize ethnicity as an *organizing principle* within the institutional context of the state. What makes ethnicity attractive as an organizing principle in politics? Rothchild (1981) and Fearon (1999) suggest that ethnic groups are generally more serviceable than other societal groups, precisely because ethnic attributes are more “sticky” and difficult to transcend, and thus provide categorical boundaries (cf. Tilly, 1999). This makes ethnicity an ideal criterion for the *selective* provision of those types of goods that are divisible and broadly desired, yet finite in supply (i.e., “political pork”, cf. Fearon, 1999).⁶

Moreover, the principle of nationalism suggests that competing claims to state power are then at the core of ethno-politics. State institutions determine the allocation and distribution of valuable goods, and controlling the state is therefore of central importance. Since elites in control of the state critically depend on the legitimacy of their people (i.e., ethnic likes), state institutions provide the possibility to serve favorably one’s own group members. Indeed, to the elites, nepotism and clientelism along ethnic lines can secure a strong base of support, and thereby secure leaders’ political survival. Combined with the principle of nationalism, such practices frequently extend to include recruitment into sensitive state agencies, like the police or armed forces, which in turn secures the group’s survival in the long run (Rothchild, 1981; Wimmer, 1997).

Given the principle of nationalism, control of the state is thus both a means and an end: since group identities are closely linked to congruence with the state, being in control of the state is inherently valuable, not only for material, but also for political and symbolic reasons. Following Cederman, Wimmer and Min (2010), who draw on Tilly’s (1978) polity model, this suggests a configurational logic. When the state is ethnically tinted, a fundamental distinction arises between ethnic groups in- and outside the state. In other words, not all groups enjoy access to the state’s institution,

⁶For example, horizontal redistribution across ethnic groups implies that one group is better off at the cost of the other. This provides an incentive to change group membership, which, with fluid boundaries (and no transaction costs), would make redistribution void.

but *ceteris paribus* would prefer to do so. Because state institutions are thus occupied by particular groups, this implies that the state is not ethnically neutral, but better conceptualized as an actor pursuing a distinct set of interests, which can be characterized through ethnicity and ethnic relations vis-à-vis other groups. Here, the fundamental dynamic is the logic of ethno-political exclusion.

Those in power aim to secure their political, cultural and economic interests by selectively excluding parts of the population from access to valuable political and economic goods on ethnic grounds.⁷ It aims to secure their political, cultural and economic interests by selectively excluding parts of the population from access to valuable political and economic goods on ethnic grounds. But such exclusion comes at a substantial cost, as it often invites strong reactions from potential challengers, and those affected may even resort to violent challenges against the state. This will be shown below, where I discuss the costs and benefits of ethnic exclusion, both from the perspective of the state and from the perspective of those affected. This enables me to show how the motivations, preferences and constraints of these actors lead to unique predictions when played out through violent, ethno-political struggle.

Excluding particular ethnic groups from access to state power has symbolic, material and political advantages for incumbent governments. First, the most obvious benefit is that exclusion allows leaders to consolidate state power, hence increasing the included groups' political power. Political representation and power status thus reinforce the subjective worth of one's group vis-à-vis other groups and legitimize the group's striving for power and representation. Indeed, control over statehood ensures the group's ability to govern its "homeland", as well as the freedom to speak its preferred language and to practice its religion.

Second, in addition to cultural benefits, control over the state bureaucracy implies that co-ethnics can be positively discriminated in material terms, through taxation or other forms of extraction, and the (regional) allocation of public goods (Cederman, Weidmann and Gleditsch, 2011). As is argued above, ethnicity's relatively clear boundaries make it a difficult category to transcend, and thus an ideal criterion for the selective allocation of goods (Rothchild, 1981; Fearon, 1999; Tilly, 2007).

Third, exclusion can also originate from direct security concerns. Roessler

⁷This discussion is taken from Wucherpfennig et al. (2012).

(2011) argues that ethnic exclusion can act as a strategy of threat displacement when there is a high probability of leadership turnover from within the state, i.e. coups. In this case, rulers attempt to safeguard their regimes against coups by excluding co-conspirators. This can help avoid the commitment problem that arises when divided elites jointly control a state's coercive apparatus, but cannot guarantee that co-rulers will refrain from resorting to violence. Finally, in democracies and semi-democracies, governing elites may feel tempted to secure their position by engaging in ethnic outbidding and diversionary war against a domestic minority (Rabushka and Shepsle, 1972; Horowitz, 1985; Tir and Jasinski, 2008).

The main cost of ethnic exclusion arises from the risk that it may backfire against the regime. This can happen for a number of reasons. First, by its very nature, exclusion generates benefits for some at the costs of others. As a consequence, it is likely to generate grievances, and excluded groups are likely to be particularly fertile breeding grounds for rebellion (Gurr, 1993*b*). Violations against norms of justice and equality will typically arouse feelings of anger and resentment in members of the disadvantaged group (Petersen, 2002). Where exclusion is enduring and indiscriminate, it is likely to breed collective grievances and “reinforce the plausibility and justifiability of a radical political orientation or collective identity” (Goodwin, 1997, 16). In the words of John F. Kennedy (1962, 232): “Those who make peaceful revolution impossible will make violent revolution inevitable.” As institutional channels for conflict resolution are perceived to be blocked, a lack of meaningful access to state institutions then gives rise to the politically induced radicalization of grievance-based claims (Hafez, 2003).

Moreover, where exclusion is already in place, its beneficiaries tend to take it for granted and legitimize it. Rothchild (1981, 217) states that “favored ethnic groups come to take proprietary view of their traditional overrepresentation, or even monopoly position.” However, precisely because exclusion generates feelings of resentment and fosters radicalism, it raises the costs of turning the tables. A future loss of the benefits derived from exclusion implies a high price to pay, since groups that recently came to power are likely to seek revenge or otherwise exploit their newly acquired power. This commitment problem is likely to be particularly severe under minority rule. Even if governments try to acquiesce to their challengers, a further commitment problem arises if past experiences make challengers unlikely to consider such an offer credible. A powerful illustration of these

dynamics is Liberia, where the 1980 coup headed by Master Sergeant Doe put an end to 133 years of minority rule by the Americo-Liberians and resulted in the murder or replacement of Americo-Liberian elites (Ballah and Abrokwa, 2003). This period of active discrimination against Americo-Liberians lasted until Charles Taylor gained the presidency in 1997.

Second, compared to inclusive policies, exclusion publicly demonstrates a lack of willingness to compromise. By contrast, where political power is shared, the government has demonstrated at least minimal willingness to compromise, even if the actual arrangements are not always fully satisfactory in practice. Burundi, where conflict occurred despite power sharing, provides an example. Still, the mere fact that ethnic groups are not categorically excluded from public goods or even openly discriminated against demonstrates that compromise is possible and “discourages the sense that the state is unreformable [...] and needs to be fundamentally overhauled” (Goodwin, 1997, 12).

Finally, due to reputation concerns, ethnic groups that are in power and have implemented exclusionary policies may find themselves unable to grant partial concessions to challengers. Walter (2006*a*, 2009*b*) argues that governments have incentives to deny favorable settlements to early challengers if other potential challengers are present in order to avoid demonstration effects and to signal strength, since concessions could ultimately lead to state erosion (Walter, 2009*b*). Thus, ethnic exclusion is potentially very risky, and incumbent governments are, as a rule, aware of this. I therefore conclude that the benefits must outweigh such costs in order for exclusion strategies to be enacted. This simple analysis thereby provides leverage with which to determine the motivations and preferences of incumbent governments.

In sum, the logic of exclusion suggests that ethnic groups pursue a distinct set of interests. In other words, through the lens of ethno-nationalism, it is possible to observe ethnic groups’ driving motivations and political preferences. These preferences are made manifest in whether or not a given group is included or excluded from access to state institutions. In general, exclusive strategies are applied vis-à-vis other groups, either because they are feasible if the given group hardly represents a credible threat, or because they are necessary if there exists a strong, lock-in risk resulting from prior exclusion, or a future coup-risk from potential challengers in the government.

3.3 The Logic of Ethno-Political Change

Members of ethnic groups that are systematically and categorically denied access to valuable state benefits are likely to perceive a strong and subjective feeling of injustice. Yet, perceptions of injustice are one thing; it is another to politicize them into collective grievances. Here, the role of political organizations and political entrepreneurs comes into play. Since politically relevant ethnic groups manifest themselves through political activity, there will be some form of elite representation. Moreover, the elites rely directly on the group members' support, and thus legitimacy is critical. The elites can then capitalize on the political circumstances and politicize the perception of injustice for the nationalist cause, precisely because their audiences are receptive. Thus, efforts of politicization resonate well with group members that experience exclusion. In short, when linked to collective identities, the main consequence of exclusion is that it triggers collective grievances.

The main reason that it is possible to politicize ethnic exclusion effectively into grievances stems from the fact that ethnic exclusion can be attributed directly to its source of origin. Political grievances do not exist in a political vacuum. Rather, the underlying cause is inflicted by those in control of the state, and directly and observably so. In other words, because the “perpetrator” of the undesirable conditions is known, there exists a sense that the grievances can be rectified and resolved by means of *political change*. This change must occur at the level of the state, since ethnic exclusion by definition operates along categorical lines. Put simply, ethno-nationalist claims are manifestations of collective motives for political change. These claims come in different degrees, ranging from demands to stop discrimination, to group-autonomy, to full access or control over the state's governing institutions.

This situation is complicated by the fact that political exclusion by definition impedes or limits institutional mechanisms of peaceful conflict resolution, since excluded actors are systematically excluded from political participation in the first place. In other words, it is difficult for these actors to engage in “regular” politics, and so fighting becomes a plausible substitute. In the Clausewitzian sense, fighting is a viable continuation of politics by other means. From a rationalist point of view, this is not a sufficient explanation of conflict, as I will detail below. Indeed, fighting is of course not inevitable, and fortunately remains the exception in many places, rather than the norm. However, this is not the case in conflict-ridden societies.

For the time being, it suffices to assume that there exists a plausible linkage between collective grievances and conflict. An important implication from this conceptualization follows immediately. If (i) collective grievances are a key ingredient to ethno-political conflict because they represent the necessary motive that, when paired with opportunities, can lead to conflict; and if (ii) these grievances can be rectified through political change; then, at least in principle, it should be possible to break the cycle of violence by means of politics.⁸ However, doing so requires a detailed understanding of the way in which such conflict dynamics play out over the course of conflict processes. Vis-à-vis structural explanations, which emphasize factors that are difficult or impossible to change (such as large populations, poverty, or rough terrain), this approach offers a powerful toolbox for policymakers who want to prevent and contain the dynamics of ethno-nationalist civil war, both in the short and the long run.

3.3.1 Political Change Through Fighting: Onset

Having identified ethnic exclusion as a key motivation for political change, the question that follows logically, from the viewpoint of conflict researchers, pertains to the linkage between motivations and conflict. Contrary to existing research on civil conflict, which has largely championed motivations at the cost of opportunities (Lichbach, 1995; Collier and Hoeffler, 2004; Fearon and Laitin, 2003), I argue that it is their combination that can lead to violent conflict. In other words, where political change is desired, it must also be deemed possible and plausible.

However, incumbents are, of course, also aware of this. Since they prefer to maintain and/or maximize state power, the situation is characterized by diametrically opposing interests vis-à-vis excluded ethnic groups. This suggests that the situation follows a strategic logic, and that the actors strategize in anticipation of the strategies to which they believe the other actors will resort. Indeed, relative to the stakes and depending on the strength of the opposition, groups in power will be required to invest heavily in repressive means in order to repress challengers. For excluded groups, one possible strategy for countering political exclusion is to resort to violence and fight the state. However, according to rationalist logic, doing so is costly and risky, and, at least in principle, rational actors should have incentives

⁸Relying on a political economy perspective, Collier et al. (2003) have referred to this phenomenon as a conflict trap.

to avoid conflict by finding agreements that both will prefer over the violent and costly alternative. Thus, explaining conflict is equivalent to explaining what leads to bargaining failure.

Quite clearly, ethno-political exclusion can serve as a justification for violence among members of affected groups. Under particular circumstances bargaining may fail, ethno-political disputes escalate to large-scale conflicts, as was the case in Sudan, Chechnya, Georgia, Rwanda and elsewhere. In these cases we observed violence at least in part because ethnic groups felt discriminated against in the political arena on the grounds of ethnicity, and they failed to reach peaceful agreements that would guarantee sufficient political change. More specifically, the affected groups posed ethno-political claims concerning stakes that were believed to be attainable, such that the group stood a reasonable chance of successfully obtaining a favorable outcome. In some cases, like in Chechnya or Southern Sudan, the stakes concerned territorial autonomy, while in other cases the stakes were the state's central institutions, as was the case in Rwanda.

The very fact that competing claims generate a scenario that fosters strategic behavior implies that one should act accordingly. This includes various strategies, including bluffing, i.e., misrepresenting the group's true resolve and capabilities. For example, it is often difficult for central governments to determine how willing challengers are to take the risk of raising arms against the state. This means that governments can underestimate what it takes to make challengers acquiesce, either in terms of concessions or repression. Similarly, governmental incumbents have incentives to bluff when their political survival is at stake. As a result, information failure may occur, which (in line with the rationalist paradigm) can lead to conflict. However, bluffs by either side may be revealed through fighting. If one side turns out to be vastly superior (contrary to prior beliefs), the situation is unlikely to escalate because the inferior side has incentives to give in before engaging in full-fledged war so as to avoid further costs. Contrary to previous research on civil war, this implies a curvilinear relationship between opportunities and conflict; bluffing is most effective when both sides are roughly equal in strength, while vastly superior groups can obtain political change without fighting, since the weaker side is more likely to give in. In Chapter 4 I demonstrate empirically that such logic receives tentative support from empirical data.

An explicit strategic logic of this kind is new to the field of civil war.

Within rationalist explanations, scholars have focused mainly on problems of commitment or indivisibility. While considerable merit is owed to this scholarship, the explanatory scope is not universal. In particular, one limitation of the commitment-based explanation is that it necessitates the potential to renege in the future (“future power shifts”, see Powell, 2006).⁹ Fearon (1998, 108) writes that “ethnic majorities are unable to commit themselves not to exploit ethnic minorities.” However, majorities are not necessarily those groups which control the state, as is exemplified by, for instance, the South African apartheid regime or the 133 years of minority rule in Liberia. Thus it is unclear why *minority* governments would have difficulty committing in the future. Furthermore, it remains unclear what is “preventive” about conflict in such cases. Moreover, it is also difficult to see how endogenous aims, that is, ethno-nationalist claims (selecting stakes) based on relative power vis-à-vis the government can be explained by the commitment problem.

3.3.2 Political Change While Fighting: Duration

More generally, previous research on political and ethnic violence has typically focused on the initial causes of such violence, but placed less emphasis on aspects of duration, termination and recurrence. Yet, there are good reasons to believe that the striving for ethno-political change also has strong repercussions for the manner in which such conflicts are fought. These can be considered additional plausibility tests for the logic of political change. Thus, I derive a series of additional empirical implications, most of which question the predominant structuralist approaches to conflict.

Structuralist accounts imply that conflict will continue as long as it remains profitable for those who have the means to do so (e.g., Fearon, 2004; Collier, Hoeffler and Söderbom, 2004). Likewise, previous research has suggested that ethnicity affects conflict mainly because it facilitates collective action, and thus ethnicity is merely added to the list of structural factors that produce a favorable opportunity structure. By contrast, the logic of ethno-political change yields specific implications for how and when conflicts can be ended *politically*. Returning to the classics, Clausewitz (1984, 92) explains,

⁹Indeed, configurations of relative power between groups exhibit remarkable stability, and yet ethno-political exclusion prevails over long periods of time in many countries around the globe. It is therefore not clear what constitutes a power shift.

“war is not an act of senseless passion but is controlled by its political object, the value of this object must determine the sacrifices to be made for it in magnitude and also in duration. Once the expenditure of effort exceeds the value of the political object, the object must be renounced and peace must follow.”

This quote contains several insightful aspects that are central to the arguments laid out here. First, Clausewitz suggests that sacrifices are made in direct relation to the stakes. Thus, if the potential fighters exhibit strong grievances because they collectively suffer from political exclusion that motivates them to seek political change, it follows that these fighters are more cost-tolerant compared to fully opportunistic fighters, who fight for private rather than collective gains. As a result, *ceteris paribus*, grievances should have a conflict-prolonging effect. Moreover, the same mechanism also suggests that governments will have a harder time defeating or acquiescing to aggrieved groups that have resorted to arms. However, costlier concessions are of course more difficult to accept, and so negotiated settlements may become more difficult as well.

Second, Clausewitz implies that once the objective of political change has been obtained, fighting will stop. This is directly at odds with the notion of “doing well out of war” (Collier, 2000), which suggests that there is no real interest in conflict termination to begin with. Rather, conflict endures as long as doing so is profitable. In other words, motivations should not display a systematic effect on conflict duration or outcome. Why then are negotiated settlements so difficult to achieve? The logic of political change can assist in understanding this phenomenon, too. Political exclusion can increase the costs of turning the tables, because grievances by definition contain an emotional component. The realization of political change implies that ethnic groups in power concede (at least in part) to claims put forward by another group that feels disadvantaged and deprived of something to which they are entitled. Thus, by ceding power and accepting ethno-political change, the previously dominant group risks being inflicted upon by the type of exclusionary policies that the group itself previously imposed on others. In other words, the likelihood of revenge is immanent.

Once fighting breaks out, blocking regular channels of political participation by categorically excluding parts of the population on the grounds of ethnicity can also lead to additional, undesirable consequences. Ethno-political exclusion diverts political competition between the group’s rivaling

elites from moderate to more radical channels. This occurs because political competition between rivaling elites is denied an institutional platform. Just as fighting can substitute regular politics vis-à-vis the government, fighting the government can then become a platform for political intra-group competition. Again, the reason is grounded in nationalist claims: grievances directed against the state can justify the use of violence, especially when bolstered by ethno-nationalist claims. Fighting the state thus resonates well with groups who suffer from grievances. Competition between rivaling factions is thus likely to be played out by fighting the government, rather than through conventional politics. These dynamics are known as spoiler dynamics, and they imply that strategic competition between factions impedes settlement, since each faction engages in the competition by means of fighting the government. As a result, an additional complication arises with regard to reaching a settlement. However, it is important to note that these dynamics emerge as the result of denied political change.

3.3.3 Political Change After Fighting: Recurrence

What explains political change as the result of conflict? And what explains why such change leads to enduring peace in some cases, while resulting in renewed violence in other cases? Above I argued that conflicts between governments and ethnic groups are most likely to escalate to large-scale violence when both sides stand a chance of being victorious in the event of war. When, then, do governments give in to ethno-political claims and settle for a bargain that makes the challenger better off? On the one hand, I argued that governmental incumbents face a serious risk of revenge in the form of exclusive policies if the tables turn and the challenger is brought to power. On the other hand, the mere fact that fighting is costly poses an incentive to appease the challenger in an effort to keep peace. This implies that, from the viewpoint of governments, if necessary, it is possible to rectify grievances and concede to ethno-political claims under exactly those constellations in which the future risk of conflict is highest.

The most prominent policy strategy that governments have at their disposal with which to appease challengers is power sharing. Indeed, the logic of political change suggests that, to contain future violence, concessions are key. However, power sharing - despite its intuitive appeals for peacemaking - has received harsh criticism in recent years. Scholars have argued that power sharing impedes democratization, fosters spoiler dynamics and radicalization,

increases international dependence and, above all, that it appears to break down easily and leads to renewed conflict (Jarstad, 2008; Rothchild and Roeder, 2005). As a consequence, many have advocated for fighting until victory (Wagner, 1995; Toft, 2010*a*; Luttwak, 1999), or partition (Chapman and Roeder, 2007; Kaufmann, 1996, but see, Sambanis and Schulhofer-Wohl 2009) as preferred alternatives.

The logic of political change suggests that these conclusions are premature and misleading because they omit the circumstances under which power sharing is likely to be implemented in the first place. Vastly superior governments have no incentive to share power for the simple reason that the challenger does not pose a credible threat: these challengers can either be defeated or are unable to inflict serious costs. By contrast, minority governments must fear revenge from those groups that previously experienced political exclusion and discrimination. If such groups are potentially strong, they may overthrow the government in a coup d'état or through governmental infighting, which, from the viewpoint of the current office holders, would constitute the worst possible consequences. Therefore, conceding and sharing power becomes less attractive than the gamble of war. Similarly, groups that challenge the government and are potentially superior in terms of fighting capacity have little reason to accept a settlement unless that settlement offers a division that implements the group's most favorable outcome. Consequently, power sharing is only a viable alternative in the "middle" region, in which neither side is vastly superior.

Moreover, power-sharing concessions are not static, but can be altered in the future. Walter (2002) was among the first to alert us of the fact that power-sharing arrangements are generally subject to reneging if "favorable" circumstances arise in the future. When this risk is high, challengers have little reason to accept settlements, since these are likely to become void. In this situation institutional guarantees, including peacekeepers or institutional constraints, can lend credence to a concession. Paradoxically, for governmental incumbents, potentially void concessions are desirable, since they allow for the possibility of returning to a more favorable power configuration. Thus, when the prospects for maintaining a stable arrangement are positive, governments will be less inclined to share power.

In sum, when placing the logic of political change and the balance of power in an institutional context with strategic actors, it follows that power-sharing concessions are directly endogenous to the prospects of future peace.

More specifically, the strategic logic of power sharing implies that power sharing will be implemented when peace is most fragile to begin with. Failure to acknowledge the fact that systematic prescription of the power sharing treatment occurs in the most ill-fated cases is thus likely to compromise the validity of conclusions concerning power sharing's effectiveness and ability to secure peace. Indeed, the logic laid out here implies that previous research systematically underestimates the effect of power sharing strategies.

3.4 Summary

In this chapter I laid out the logic of ethno-political change. Identifying groups as key actors in ethno-politics, I argued that a group's relation vis-à-vis the state informs about their motivations to seek political change. In particular, groups that are subject to exclusionary policies are likely to exhibit strong collective grievances, commonly expressed through ethno-nationalist claims. These claims are likely to drive their behavior in the domain of politics. Groups represented by governments in power are, however, driven by diametrically opposing interests, and so an ethno-nationalist struggle emerges.

Theorizing the relevant actors as strategic actors then allows for interesting theoretical predictions to be made regarding when ethno-political interaction between groups is likely to manifest itself in specific claims as well as when this leads to war. In addition, the logic of political change also explains particular dynamics that affect the duration and outcome of conflict once the actors have resorted to fighting, as well as political arrangements in the aftermath of conflict. In the chapters that follow I elaborate on each of these aspects in greater detail and provide relevant empirical tests. The theoretical and empirical evidence thus suggests that these types of state-enacted policies can have considerable effects on the dynamics and prospects of violence between states and ethnic groups.

Chapter 4

Bargaining, Power, and Ethnic War

4.1 Introduction

What is the relation between war aims, the distribution of power, and fighting? With power and conflict constituting perhaps the two core concepts in international politics, this is a familiar question that has been the subject of a long and important debate (for a recent review, see Reed et al., 2008). Yet, the theoretical and empirical insights derived from interstate conflict are rarely linked to civil conflict, despite there being no inherent reason for this analytical divide (Lake, 2003; Wagner, 1995; Cunningham and Lemke, 2010). To bridge this gap, in this chapter I examine the relationship between demands for political change, the distribution of power and the likelihood of ethnic conflict at the intrastate level.

More specifically, this chapter seeks to answer theoretically and empirically three related questions. First, which groups put forward demands for political change that lead to fighting? Second, what determines the scope of their demands? And third, what prevents governments and groups from reaching an agreement, so that inefficient war occurs?

In answering these questions, I build on the bargaining model of war (for a review, see Reiter, 2003) and explore its applicability in the context of ethnic politics. I contribute to the literature in two important ways. First, I theorize about the way in which the distribution of power between ethnic groups and the state affects the scope of the demands put forward by ethnic groups. I demonstrate that relative capabilities create a substitution effect between disputes over limited territory and disputes over full control of the

state. Second, whereas scholars commonly approach the problem of civil conflict through the lens of commitment problems (e.g. Fearon, 1998; Walter, 2002), I argue that information asymmetries may also help explain the onset of such violence, thus presenting one of the first systematic empirical evidence to this effect. While it has been found difficult to operationalize the commitment problem for the onset of conflict,¹⁰ I provide an empirical test of specific causal mechanisms suggested by information problems that arise from strategic incentives to misrepresent information under particular circumstances. In a nutshell, I demonstrate a conditional curvilinear effect: ethnic groups are most likely to escalate conflict against their governments when they are *both* disadvantaged by the political status quo *and* roughly at power parity with the central government. While these results are generally in-line with bargaining theory and evidence from interstate behavior, they also emphasize the role of the state and identify the specific type of actor constellations that are prone to particular types of conflict at the intrastate level.

The chapter proceeds as follows: I begin by briefly reviewing the literatures on the relationship between power and conflict at the intra- and at the interstate level. The theoretical section draws upon logic derived from interstate conflict and extends it to ethnic conflict. This generates specific empirical implications that predict functional forms that differ from existing approaches. I then turn to empirical testing and analyze a large- n dataset of all politically relevant ethnic groups worldwide. In addition to using the standard generalized linear model (GLM) estimation, I introduce generalized additive models (GAMs) as a suitable technique by which to assess competing functional forms without a priori parametric assumptions. The findings lend support to the substitution logic between territorial and governmental conflicts. I also find evidence for a curvilinear relationship between bargaining power and the escalation to ethnic war, conditional on status quo evaluations. The final section summarizes the results, discusses limitations and suggests future research.

¹⁰For an application of the commitment issue to the problem of civil war recurrence, see Mattes and Savun (2010) and Chiba and Reed (2011) for the case of interstate conflict.

4.2 Power and War

4.2.1 Power and Intrastate War

Few empirical studies address the relationship between the distribution of power and civil conflict, arguably due to a lack of suitable data. A rare exception can be found in Benson and Kugler (1998), who focus on the capacity for fiscal extraction by governments and oppositions in a sample of just 26 countries for a period of five years. They find that relative parity between government and opposition is associated with higher levels of violence.

Many studies analyzing power and conflict in the context of ethnic politics do so by relying on the minorities at risk (MAR) dataset. For example Gurr (1993*b*) and Cohen (1997) fail to find a relationship between group size and rebellion, whereas Fearon and Laitin (1999) show that minorities are more likely to experience conflict if they are relatively large and have a regional base. However, since these studies focus entirely on monadic analyses of minority groups, they ignore the dyadic definition of civil wars: civil wars are violent attacks *on the state*, such that one of the actors is by necessity the state (for a review of operational definitions of civil war, see Sambanis, 2004). Thus, these findings, cannot speak directly to the causal effect of the *relative* distribution of power between challengers (here: minorities) and the state. Likewise, demographic measures, such as “ethnic fractionalization” (e.g. Fearon and Laitin, 2003; Collier and Hoeffler, 2004), “polarization” (e.g., Montalvo and Reynal-Querol, 2005) or “the largest ethnic minority” (e.g., Ellingsen, 2000), also fail to capture the type of dyadic actor constellations that would describe the relative distribution of power between the state and non-state actors.

Recent work by Cederman and colleagues (Buhaug, Cederman and Rød, 2008; Cederman, Wimmer and Min, 2010) has made significant progress toward overcoming these deficiencies and furthering our understanding. These authors postulate a monotonic relationship between the distribution of power (proxied through the demographic share of population or the demographic balance vis-à-vis the state) and the probability of conflict. The argument comprises two aspects. First, following resource mobilization theory (e.g., McCarthy and Zald, 1977), Cederman and his colleagues argue that large groups are more *able* to challenge the government, as they can draw on a larger pool of potential fighters and resources to sustain fighting

(Cederman, Wimmer and Min, 2010, 14). Second, large excluded groups enjoy stronger *legitimacy* for their political claims, which in turn translates into “frustrations of being excluded and, correspondingly, motivations to engage in rebellious collective action” (Buhaug, Cederman and Rød, 2008, 533), thus postulating a conditional, but monotonic effect. In brief, this line of research hypothesizes that the probability of conflict for excluded ethnic groups increases monotonically with the size of a group vis-à-vis the government.

I build directly on this work. However, I argue that this perspective does not do justice to the strategic nature that is characteristic of ethnic politics, and thus conceals interesting dynamics. To develop this argument, I draw on the literature on the distribution of power and interstate conflict.

4.2.2 Power and Interstate War

Contrary to the case of interstate conflict, there exists a rich literature on the relation between power and conflict. Summarizing this debate Wagner (1994, 593) points out that “every possible relation between the distribution of power and the likelihood of conflict has been defended somewhere in the literature on international politics.” Whereas early work from the *balance of power* school suggested that the probability of conflict is highest when the distribution of power between states is unequal (Morgenthau, 1948; Claude, 1962), the empirical record of dyadic interaction between states suggests that this is in fact not the case: most conflict we observe occurs at *power parity* (e.g., Bremer, 1992; Hegre, 2008). Blainey (1988) provides an early explanation when arguing that disagreement over relative strength is amongst the root cause of violent conflict. If the power balance between two actors is extremely unequal, the outcome of violent conflict is nearly certain, and war therefore becomes unnecessary. By contrast, when states are roughly at parity, it is more difficult to anticipate which side would be victorious in the event of war. This uncertainty is said to increase the likelihood of conflict, thus yielding the exact opposite prediction than the one suggested by the balance of power school. Despite this fundamental disagreement, however, both theories are centered around the role of uncertainty.

Bargaining theory goes one step further by being explicit not only about the effect of uncertainty, but also its origins (for a review, see Reiter, 2003). As explained in greater detail in Chapter 2, bargaining models are built on the assumption that coordination between two or more actors with conflicting

preferences allows for higher returns than if those actors do not coordinate their actions (Wagner, 1994, 595). The central puzzle of war is its ex-post inefficiency: if fighting implies risks and costs, then why don't states seek agreements so as to avoid these risks and costs?

One prominent solution to this puzzle is private or incomplete information. This explanation holds that, because leaders want to gain better bargaining outcomes vis-à-vis other states, they have strategic incentives to misrepresent or refrain from credibly revealing information about their true capabilities and resolve. This private information can lead to war, because leaders optimistically choose to fight wars from which they anticipate to benefit (Blainey, 1988). Thus, from the viewpoint of bargaining theory, earlier work is not fully satisfactory, because it treats uncertainty as fixed and cannot speak to the question as to why states do not fully reveal their strength in order to avoid the costs of war.

Because the scenario is symmetrical in the sense that both states have incentives to misrepresent, both states are left uncertain about the true balance of power (Blainey, 1988; Morrow, 1989). This perspective suggests that the balance of power consists of two components: observables and unobservables. It is obviously the latter that are subject to uncertainty. Wagner (2007, 164) states that “the more evenly matched two states are with respect to the military capabilities that can be observed and measured, the greater the significance of the factors that cannot be so easily observed.”¹¹

In terms of empirical findings, earlier analyses revealed no direct relationship between the distribution of power and conflict (e.g., Fearon, 1994). However, recent bargaining models of power and war suggest that the way in which states evaluate the dyadic distribution of power is conditional on the distribution of benefits, i.e., the status quo (Powell, 1996, 1999; Werner, 1999). If the two are not evenly matched, disadvantaged states are likely to make demands about revising the distribution of benefits. The argument is intuitive: when states receive less of the benefits than are warranted by their observable capabilities, they are likely to be dissatisfied with the status quo and thus advance demands.

This argument suggests that the relative distribution of power between actors has a systematic effect on the *scope* of the demands they put forward. Because the distribution of power places *a priori* limitations on the types

¹¹From this viewpoint, it is thus not surprising that Cetinyan (2002)—who studies a game theoretic model that assumes *full and complete information* and thus omits uncertainty—argues against any relationship between the distribution of power and fighting.

of outcomes that are feasible, weaker states will generally advance more limited claims. Put differently, the strategic logic suggests that war aims are endogenous to relative capabilities. Recall Clausewitz' (1984, 92) explanation that "war is not an act of senseless passion but is controlled by its political object, the value of this object must determine the sacrifices to be made for it in magnitude." This implies that weaker actors will select the types of stakes that their more powerful opponents value less, precisely because these stakes will be defended with less effort in the event of war. Indeed, states frequently engage in disputes over a particular piece of territory when, at least in theory, they could instead aim to annex the other state entirely. In other words, the less valuable the stakes, the less a defender will be willing to invest in defending them (see Mack, 1975).

Demands are credible when favored by the (observable) distribution of power, and conflicts become unnecessary when their outcomes are certain. In this light it is not surprising that large groups are less likely to suffer from political exclusion in the first place. However, demands are not necessarily credible at rough power parity. Equally distributed power provides an opportunity to modify the status quo, precisely because the odds of a favorable outcome are balanced. However, dissatisfaction with the distribution of benefits serves as a motivation to "tolerate the risk of defeat in light of the possibility of victory, which offers the opportunity to modify the status quo to suit their tastes" (Reed, 2003, 634). In other words, the causal mechanism suggests that both willingness and opportunity are jointly (but not individually) causal to conflict.¹²

In sum, students of international politics agree on the significance of the distribution of power between actor with potentially conflicting preferences. The basic ingredients are as follows: (1) the scope of the demands, (2) the observable balance of power, (3) uncertainty about the true balance of power, and (4) the distribution of benefits, i.e. satisfaction with the status quo. Bargaining theory links these ingredients by arguing that relative power broadly determines the scope of the demands (i.e., the stakes), and that uncertainty about the true balance of power relative to the stakes arises from strategic concerns that are most pronounced under an equal distribution of observable power. If the distribution of benefits does not match the (observable) balance of power, conflicting preferences can lead

¹²While in line with power transition theory (Organski and Kugler, 1980) as a variant of the power parity school, an important difference lies in the fact that this result is derived from strategic behavior.

states to fight inefficient wars as a means of realigning power and benefits. This theoretical treatment is straightforward and offers a framework that is readily transferable. Thus, rather than delving into detail with the specifics of its original intent (i.e., interstate conflict), in the next section I discuss the way in which the logic outlined above fits the case of ethno-politics. This allows me to generate hypotheses that are subsequently subjected to empirical testing in the remainder of the dissertation.

4.3 Ethnic Bargaining

Acknowledging the associated caveats outlined in the previous chapter, I contend that conceptualizing ethnic groups as strategic actors is useful. Under these assumptions it is possible to transfer bargaining logic, which was originally crafted to understand wars between states, to wars within states. The primary requirement for doing so effectively is identifying the relevant actors, their capabilities, and their motivations. Given this list, bargaining theory transfers well and allows for a conceptual focus on ethno-politics as the interaction between ethnic groups with competing claims to statehood.

4.3.1 Power, Dissatisfaction, and Stakes

Intuitively, ethnic groups that are content with the status quo should have little reason to fight in the first place, regardless of the balance of power. In terms of ethno-politics, this implies that ethnic groups enjoying a privileged position (in terms of access to state benefits, including matters of representation, redistribution, etc.) should be less likely to get involved in violent confrontations with other groups that also enjoy privileged positions in the state. Indeed, Cederman, Wimmer and Min (2010) show that this fact is supported by empirical data; exclusion is a strong and significant predictor of conflict at the level of ethnic groups. Thus, the theoretical rationale of grievance-based approaches is in agreement with bargaining theory. Accordingly, I state the following hypothesis:

Hypothesis 4.1 *Included groups are less likely to fight at all levels of relative power.*

However, there is less agreement for the case of excluded groups., If ethnic groups are rational actors, then the type of claims they advance

should be conditioned by their power position relative to the government. Put simply, rational groups anticipate their chances of getting a favorable outcome, i.e., achieving political change. This should be reflected in the stakes they choose. Ethnic groups that are dissatisfied with the status quo face two basic alternatives: they can either seek political change at the political center by becoming part of the central government, or they can pursue change locally by gaining control over the limited region they inhabit. In other words, they choose between either taking over the existing state or installing their own state via regional autonomy or secession. Rationality here suggests that stronger groups are more likely to seek political change by gaining control over the state, whereas weaker groups, precisely because they are aware of their power position, realize that control of the political center is out of their reach. As a consequence they limit themselves to achieving political change within the territory they inhabit.

For ethnic groups, this is a sensible strategy for several reasons. First, by fighting in their territorial base, the group benefits from a home-field advantage. Indeed, it has long been recognized that power suffers a “loss of strength” as a function of distance (Boulding, 1962; Hegre, 2008), and it is widely accepted that governments are typically weaker in the periphery than in the capital. Second, because territorial conflicts by definition pertain to limited territory rather than the full state, the government can remain in power—even if this requires them to exercise less authority over a particular region or even accept a smaller territory in case of a successful secession. By contrast, inherent in governmental conflict is the risk that the government may potentially lose all of its power. This also includes the risk of turning the tables, that is, a future scenario in which the group suffers exclusion, while elites can be even worse off when violently removed from power. Consequently, the stakes of territorial conflict are arguably of lesser value to governments, and so governments will be less inclined to defend them (though see Walter, 2009*b*). This has unique implications for conflict behavior and is reflected in the types of conflict in which weak and strong groups engage. Buhaug (2006, 705) states that

“capturing the state will ... require more strength than exerting authority over a limited area. What determines the objective of a rebel group, then, is not as much the nature of the motivation as the rebels’ ability to inflict serious damage on governmental forces and pose a threat to the regime at large.”

Theorizing about the scope of demands that ethnic groups can advance, I therefore suggest a *substitution effect* between territorial and governmental conflicts. In other words relative group strength leads groups to replace one choice alternative at the expense of another. Thus, I state the following two hypotheses:

Hypothesis 4.2a *The stronger an excluded ethnic group, the less likely it is to demand control over limited territory.*

Hypothesis 4.2b *The stronger an excluded ethnic group, the more likely it is to demand full control of the state.*

Although these hypotheses propose a monotonic effect, they are at odds with grievance-based approaches, which do not recognize this substitution logic. Instead, grievance based approaches generally postulate a monotonically *increasing* effect of relative power on the probability of conflict, since larger groups are more ‘able’ to recruit, and feel more ‘legitimized’ (cf. Buhaug, Cederman and Rød, 2008; Cederman, Wimmer and Min, 2010). In other words, war aims are treated as being given exogenously, and there is no explanation for why some groups fight for territory while other groups aspire to take control of the state’s central institutions. By contrast, the bargaining perspective suggests that ethnic groups anticipate their chances of obtaining political change and act accordingly.

4.3.2 Power and Information Problems

Although the above argument informs indirectly about the types of stakes that will be pursued depending on the distribution of power, from the rationalist point of view, it is insufficient as an explanation of war. This is because it does not explain why ethnic groups and governments are unable to reach settlements that prevent them from incurring the costs of war. In an attempt to offer a solution to the puzzle, I focus on the strategic incentives that governments and excluded groups encounter when engaging in ethno-political bargaining.

Groups have reason to fight when the distribution of benefits does not match the distribution of power. In turn, matching the distribution of benefits with the distribution of power begs the question of how to conceptualize a domestic balance of power. As stated above, this entails both an observable as well as an unobservable component. War as the

result of information problems then becomes more probable as uncertainty about the unobservable part increases. In short, we need to understand why and under what conditions groups reveal or conceal their true strength (cf. Gartzke, 1999). In the context of ethnic conflict, Lake and Rothchild (1998, 12) define private information as

“anything known by one group but not the other, including how intense their preferences are about specific policy objectives, how cohesive the group would be if challenged, or how military leaders would use their forces should fighting break out.”

Although these authors claim that information failures are “ubiquitous in ethnic relations” (Lake and Rothchild, 1998, 12), information based theories have not featured prominently in research on the causes of civil wars. This is surprising and can only in part be attributed to the fact that it has proven difficult to operationalize information problems empirically. Indeed, even among proponents of rationalist arguments, there seems to be an unspoken consensus that interstate conflicts usually result from information problems, whereas civil conflicts are mostly caused by commitment problems (e.g., Posen, 1993; Fearon, 1995*a*, 1998, though see Mattes and Savun, 2010) or problems of issue indivisibility (e.g., Toft, 2003, 2002; Goddard, 2006).

Nevertheless, as Walter (2009*a*, 245-6) rightfully points out, information problems are likely to be particularly severe in intrastate disputes. Indeed, going to war is particularly risky for rebels because defeat almost certainly implies severe punishment or even death. Moreover, the rate of decisive victories is four times as large in civil conflict (Kreutz, 2010) compared to interstate conflicts, and two-thirds of these victories are achieved by governments. Thus, the decision to fight the state is linked to the risk of humiliation and punishment and constitutes an all-or-nothing gamble. Similarly, governments face the risk of losing credibility or even ejection from office if forced to back down.

Both rebels and governments have incentives to misrepresent their true strengths; Governments are uncertain about rebel financing and support (e.g., from diasporas), and at times cannot even be sure of a rebel group’s existence, whereas governments themselves rely on uncertain popular support and the ability to extract resources in order to finance a war. Walter (2009*a*, 34) adds that “a host of additional factors [...] determine how strong and resolute players are likely to be, such as how much pain each side is willing to bear, the quality of each side’s leadership, the potential alliances that

may emerge, the ability of players to innovate and collect intelligence, and each side's courage." More generally, the decision to fight instead of seeking a non-violent bargain always induces costs and risks. As both rebels and governments are aware of this, their decisions about whether or not to fight are likely to be best guesses, conditional on the available, albeit incomplete, information.

Clearly, weak non-state actors are easily identified as such and stand little chance against states to begin with. Knowing that they will be disarmed quickly, these non-state actors are likely to refrain from violence altogether. Especially strong non-state actors, by contrast, pose a credible threat to the state and are therefore likely to obtain a beneficial outcome without paying the price for fighting. If not granted access to state power, these groups must either be appeased via side payments or suppressed at great costs to the state, especially if the striving group does not enjoy access to state power already, an argument I return to below. Thus, we are left with the middle category. As Walter (2009*a*, 250) explains:

"Uncertainty is highest in countries where capabilities of the rebel group are neither so great that the government knows war will be costly, nor so meager that the government knows that rebellion is unlikely. Governments that face challengers in the middle range of capabilities are most likely to use war to reveal this information."

While I subscribe to this point of view, this leaves several issues open. If power parity alone is a sufficient condition for war, then we should expect the same mechanism to hold true for groups that are part of a power-sharing agreement—that is, we should expect to observe actors attempting to push their partners out of executive power in their struggle to maximize their own access to state power. But this neglects the fact that most power-sharing agreements reflect the distribution of bargaining power through a proportional distribution of benefits, i.e., state power. In brief, compared to their excluded counterparts, groups in power-sharing agreements that reflect the distribution of power should be more content with the status quo and therefore lack the motivation to fight, even if they are at bargaining power parity with their power-sharing partners. Moreover, partners in a power-sharing agreement are likely to be better informed about their mutual bargaining power. This is the case for structural reasons (the partners are close bedfellows, after all) as well as historical reasons (the partners

must have previously revealed most of their strength in order to reach the agreement). My argument is therefore conditional: I expect groups that are excluded from state power and roughly equal in terms of bargaining power with the state to be most conflict prone.

Furthermore, power parity functions differently in disputes over territory than in governmental conflicts. This is the result of geography. Governmental conflicts are usually fought in the periphery, but a government's force generally decays as a function of distance. As a result, any given government will enjoy less force in a territorial conflict. In addition, I argued above that limited territory signifies less valuable stakes, so governments will be less willing to invest into defending them. This, too, reduces the amount of power that governments will be able (or willing) to exert locally in territorial conflicts. In sum, this suggests the following two hypothesis:

Hypothesis 4.3a *Civil war over territory is more likely to occur when excluded ethnic groups are at local power parity with the government.*

Hypothesis 4.3b *Civil war over control of the state is more likely to occur when excluded ethnic groups are at power parity with the government.*

4.4 Empirical Strategy

Having outlined my theoretical arguments, I now turn to my empirical strategy. Here, a key challenge arises from the fact that complete data about the type of demands that groups advance is generally unavailable. For example, Walter (2009b) and Cunningham (2011) study how states respond to separatist demands, basing their analysis on a list of groups that put forward such demands. However, in this sampling strategy making demands is part of the rule for case selection, thus leading to potential selection bias, since groups without demands are absent by construction.¹³ Thus, as an alternative strategy by which to disentangle the scope of demands that ethnic groups advance from the strategic calculus that can lead to war, I propose an empirical strategy based on conflict intensity, for which the relevant data is fortunately available.

Conflicts differ in terms of their intensity. While some conflicts result in only a limited number of killings, others escalate to full-fledged war and cause

¹³Cunningham (2011) includes a measure of the number of demands, but this does not necessarily capture their scope.

thousands of deaths (Lacina, 2006). What determines whether a conflict escalates to high-intensity war? From a bargaining perspective, at least three factors can be identified. First, low-intensity conflict suggests that the stakes are limited, and so the parties are less willing to bear the related costs. For example, Walter (2009*b*) argues that secessionist conflicts turn violent if governments fear that, by conceding to early challengers, they set a precedent that could encourage potential, subsequent challengers to make similar demands. Second, low-intensity conflicts can occur if governments prefer to avoid settlement altogether. This scenario can arise if negotiations are difficult but the damage resulting from conflict is limited. This is often the case for peripheral rebellions, in which the fallout from war has less of an effect on the government's daily business. Finally, escalation to high-intensity war can be prevented if a settlement is reached quickly. In this case, additional fighting simply becomes unnecessary.

As a common denominator, all three scenarios suggest that the difference between low- and high-intensity conflict is related to the magnitude of the underlying bargaining problem. Thus, the more difficult it is to reach a peaceful agreement, the higher the probability that a dispute will escalate to high intensity. I therefore argue that a distinction between low- and high-intensity conflict is a useful empirical strategy that allows us to separate the scope of the demands that groups put forward from the conditions that can lead to war. Conflicts that do not escalate to war should therefore be indicative of the scope of demands for political change that particular groups are likely to pursue, whereas high intensity conflicts inform us about the causes of bargaining failure, that is the causes of war. In other words, because the causal mechanisms that determine the scope differ from those that determine the causes of war, distinguishing low- and high intensity conflicts is a reasonable strategy with which to identify the conditions under which the respective "signal" in the data prevails, when these are otherwise conflictive.¹⁴

This argument yields a more nuanced picture of which groups are likely to engage and in which type of conflict they participate. While Hypothesis 4.1

¹⁴Some authors attempt to model these two processes jointly for the case of interstate conflict (e.g., Reed, 2000; Braithwaite and Lemke, 2011) by means of selection estimators. However, this estimation strategy poses significant requirements in terms of the underlying data and theory, including the number of uncensored observations, an exclusion restriction that is theoretically difficult to find, or strong (distributional) assumptions about the linkage between the two processes (see Sartori, 2003). All of these are unlikely to be met by civil war data.

suggests that included groups are generally less likely to fight, the remaining hypotheses, which are concerned with excluded ethnic groups, relate conflict engagement to the group’s relative balance of power vis-à-vis the government. This is summarized in Table 4.1, which relates conflict scope (territorial vs. governmental) with conflict intensity (low vs. high) to relative power by groups most likely to engage in the respective type of conflict. The upper row captures the substitution effect given by Hyptheses 4.2b and 4.2a. The lower row denotes the parabolic effect (which is implied by arguments about war) as the result of information problems as stated in Hypotheses 4.3b and 4.3a.

Table 4.1: Relative Group Strength and Conflict Engagement

		Conflict Scope	
		<i>territorial</i>	<i>governmental</i>
Intensity	<i>low</i>	inferiority	superiority
	<i>high</i>	local parity	capital parity

The distinction between low- and high-intensity conflicts thus reflects the difference between conflicts that exhibit only a limited number of casualties and those that escalate into full-fledged war, costing thousands of lives. If this distinction is meaningful, then it is plausible to conclude that the two categories are driven by distinct causal mechanisms that are not necessarily entirely identical. Although one apparent limitation lies in the fact that a conflict’s level of intensity can only be determined ex post, an advantage of my empirical strategy is that it allows us to delineate between the conditions under which minor conflict emerges and those that are likely to result in full-fledged war.

4.5 Data

Having outlined the empirical strategy, I now turn to the empirical data. Here, I rely on a new dataset at the level of ethnic groups. The data from Ethnic Power Relations (EPR) (Cederman, Wimmer and Min, 2010) overcomes several of its competitors’ deficiencies (see Chapter 3) and is arguably the most suitable for my purposes. More specifically, I rely on an updated and revised version named EPR-ETH, which identifies *all* politically relevant ethnic groups around the world in all years from 1946 to 2009 and

measures their access to state power.¹⁵ Thus, unlike alternative sources, EPR's main advantage is that it does not focus exclusively on mobilized minorities, but also provides the *complete* ethnic constellation of power in the political center.

4.5.1 Ethno-Political Exclusion: Access to Central Power

In terms of operationalization the first step is to identify ethnic groups' potential motivations for demanding political change. In the theoretical Chapter 3, I argued that such motivations are related to the logic of ethno-political exclusion, that is, the degree to which an ethnic groups has access to state power. Fortunately, EPR captures exactly this. More specifically, EPR is an expert survey that focuses exclusively on executive power. Depending on the country, executive power lies in either the presidency, the cabinet or senior posts in the administration, including the army. Additionally, it is worth noting that EPR's coding is time-variant, so that it captures major shifts in the power constellation over time.

EPR distinguishes between three major types of access to power: absolute power, power sharing regimes, and exclusion from political power. Each of these comes with a number of subcategories.

1. **Absolute Power:** no significant sharing of power
 - *Monopoly:* complete exclusion of other ethnic groups
 - *Dominance:* only limited inclusion of “token” members from other groups
2. **Inclusion:** any division of power (formal or informal) among elites from multiple ethnic groups
 - *Senior Partner:* superior partner in a power-sharing agreement
 - *Junior Partner:* inferior partner in a power-sharing agreement
3. **Exclusion from Central Power:** elites claiming to represent particular ethnic groups are denied access to central power
 - *Regional Autonomy:* elites claiming to represent particular ethnic groups are denied access to central power but receive some limited autonomy at the sub-state level, e.g., in provinces

¹⁵EPR-ETH can be found at <http://www.icr.ethz.ch/research/epr>.

- *Separatist Autonomy*: local authority due to self-declaration of independence from territory
- *Powerless*: group members hold neither central nor sub-state power
- *Discrimination*: group members do not have access to central power because of active, intentional and targeted discrimination (formal or informal)

In sum, these classifications allow me to capture a given group’s satisfaction and dissatisfaction with the political status quo. It follows that groups coded as types (1) and (2) are ethnic groups in power (EGIPs), while groups coded as type (3) are marginalized ethnic groups (MEGs). Note also that by operational definition, groups holding absolute power (type 1) cannot engage in civil conflict, since these groups consist exclusively of the state.¹⁶

4.5.2 Bargaining Power

EPR provides estimates of the demographic size of a country’s politically relevant ethnic groups as a proportion of the total population. As is standard practice in the social sciences (De Soysa, Oneal and Park, 1997), I employ population size as a measure of capabilities (for recent examples see, e.g., Forsberg, 2008; Bhavnani and Miodownik, 2009). Compared to other possible measures, this indicator has several advantages. First, unlike measures of military capabilities (number of troops, expenditures, etc.), population size is likely to be exogenous to conflict.¹⁷ Second, whereas accurate numbers on rebel military capabilities are unavailable for most rebel organizations, population size is widely available for my conceptualization of ethnic groups as the relevant actors. Indeed, given the informal nature of ethnic conflicts and the role of civilian support, it is intrinsically difficult, if not inadequate, to measure the true size of a rebel military. As Kalyvas and Kocher (2007, 212) put it: “the size of a rebel army is a misleading indicator [...] of its overall military quality”. Third, given the crucial role of civilian support (outlined above), population shares are arguably closer to my theory than more materialistic indicators of military capabilities. This is important because compared with interstate conflicts, civil conflicts, even today, are typically

¹⁶Consequently, I exclude these groups from my analyses.

¹⁷Genocide and ethnic cleansing are exceptions, but, as a general rule, these are also different types of violence.

fought as insurgencies with light arms rather than with technologically advanced military technology (Fearon and Laitin, 2003; Kalyvas and Balcells, 2010). Finally, population shares allow me to pit governments against challengers on the same scale, which in turn permits me to calculate *relative* dyadic strength on a meaningful and readily interpretable scale.

Following Buhaug, Cederman and Rød (2008) I therefore proceed by computing dyadic balance, r , of bargaining power as follows:

$$r_{MEGi} = \frac{\text{size}_{MEGi}}{\text{size}_{MEGi} + \sum \text{size}_{EGIP}} \quad (4.1)$$

where size_{MEGi} is the demographic share of the excluded group i , while $\sum \text{size}_{EGIP}$ represents the sum of the demographic shares of all groups currently in the political center. Thus the range of r is the interval (0,1): values close to 0 denote weak bargaining power of the excluded group i vis-à-vis EGIPs from the political center, values close to 1 characterize minority rule (i.e., exclusion of large parts of the population), and values close to 0.5 characterize bargaining power parity.

In addition, given the theoretical actor constellation, I create a measure of the balance of power for EGIPs, that is, bargaining power *within* the political center for groups within a power-sharing agreement. Accordingly,

$$r_{EGIPi} = \frac{\text{size}_{EGIPi}}{\sum \text{size}_{EGIP}} \quad (4.2)$$

denotes the demographic share of EGIP i among all groups in power.

4.5.3 Control Variables

I follow Cederman, Wimmer and Min (2010) in their choice of model specification. I therefore also include the following variables with the expected effects in parentheses¹⁸:

- Downgraded: a dummy variable indicating whether the group has experienced a decrease in access to power during the past two years. (positive)
- War History: a count of the number of previous conflicts a given group has fought since 1946 or entering the dataset. (positive)

¹⁸I refer to Cederman, Wimmer and Min (2010) for the theoretical reasoning behind the expected signs.

- GDP per capita: drawn from the Penn World Tables
- logged Country Population Size: drawn from the World Development Indicators. (negative)
- Peace Years (cubic polynomial): following Carter and Signorino (2010) to account for duration dependence in binary time-series–cross-section analyses equivalent to Beck, Katz and Tucker (1998). (negative)

4.5.4 Dependent Variable

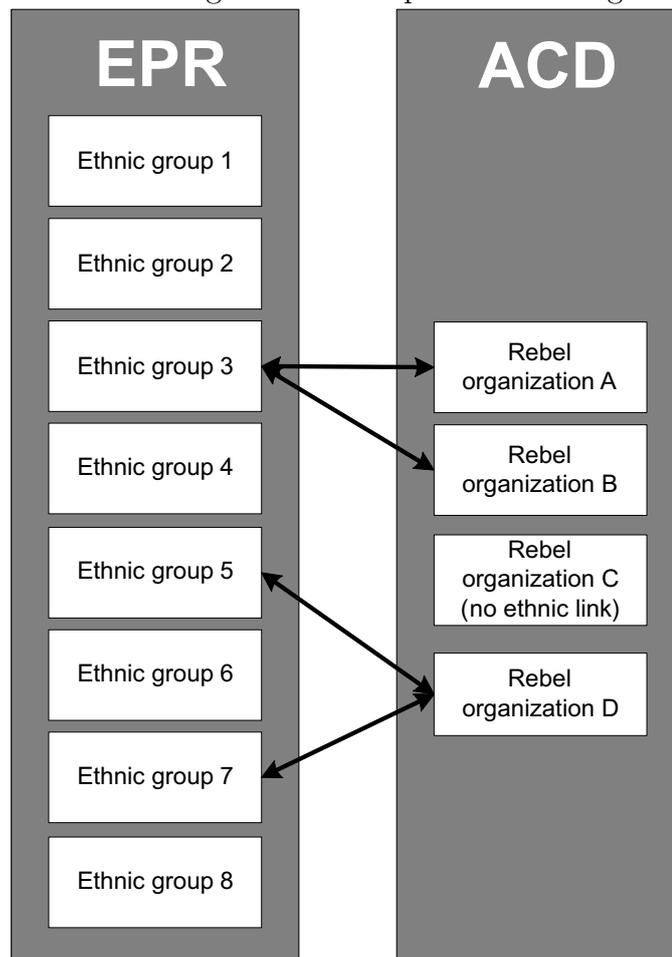
To capture a given group’s involvement, I draw on a new data project that systematically codes the linkage between ethnic groups and rebel organizations. This project links two existing datasets: the Non-State Actor (NSA) dataset (Cunningham, Gleditsch and Salehyan, 2009), which builds directly on the UCDP/PRIO Armed Conflict Dataset (Gleditsch et al., 2002), and the Ethnic Power Relations (EPR) dataset on politically relevant ethnic groups worldwide. Thus, by examining the explicit linkage between rebel organizations and ethnic groups, I avoid some of the problems that occur in previous subjective assessments of whether or not a given conflict is ethnic. Figure 4.1 outlines the structure of the dataset labeled ACD2EPR.

I focus on two necessary criteria with regards to the linkage between ethnic groups and rebel organizations. The first criterion assesses the ethnicity of the fighters. I code the ethnic groups, if any, from which a particular rebel organization recruits fighters. I require that a significant number of the group members actively participate in the organization’s combat operations in order to assert such a linkage. Recruitment along ethnic lines is by itself insufficient because it may be merely the result of local availability, and may not be a deliberate strategy or be related to an organization’s actual agenda. Therefore the second necessary criterion is whether a given rebel organization publicly announces that it operates on behalf of the relevant ethnic group, i.e., pursues an objective that is directly linked to the group’s fate. I label this an exclusive claim, because the stated objective is to provide selective benefits for groups. If recruitment occurs jointly with such claims, then the underlying ethnic group is coded as a conflict actor.¹⁹

In addition, the linkage to the Uppsala/PRIO data allows for the extraction of information about both conflict scope and intensity. Here, a conflict is coded either as territorial or governmental in nature. Moreover,

¹⁹In order to avoid event dependence, I introduce a five year intermittency rule.

Figure 4.1: Relating Ethnic Groups to Rebel Organizations



the data distinguish between low intensity conflicts that exceed a threshold of 25 battle deaths and those that exceed a high-intensity threshold of more than 1000 battle deaths (for an overview of different definitions of civil war, see Sambanis, 2004). Taken together, this yields four types of conflict: low-intensity territorial, low-intensity governmental, high-intensity territorial, and high-intensity governmental.

4.6 Method

In testing my theory, the key purpose of the empirical part of this paper is to assess the functional form of the relationship between relative power and different types of conflict. Specifically, the challenge is to distinguish between competing functional forms as empirical implications of rivaling theoretical models. Indeed, the hypotheses formulated suggest functional forms ranging from no relationship (H4.1), to monotonic (H4.2a, H4.2b), to curvi-

linear (H4.3a, H4.3b). Employing standard logit models, the corresponding specifications look as follows:²⁰

$$y_k^* = \Lambda(\beta_0 + \beta_1 \log r + \mathbf{X}\beta) \quad \text{for } MEG = \{0, 1\} \quad (4.3)$$

$$y_k^* = \Lambda(\beta_0 + \beta_1 r + \beta_2 r^2 + \mathbf{X}\beta) \quad \text{for } MEG = \{0, 1\} \quad (4.4)$$

where y_k^* is the probability of conflict of type k , Λ is the inverse logit link function, r is the measure of bargaining power, $\mathbf{X}\beta$ is the vector of controls listed above, and MEG indicates whether the group is included or excluded from central power.

The methodological challenge is that these specifications are not nested, and therefore cannot easily be discriminated (at least within a frequentist framework) in terms of fit. As a more flexible method for determining the functional form without strong parametric assumptions I therefore use generalized additive models (GAMs), also known as semiparametric spline regression. The basic idea behind this method is that my preferred model can be written as:

$$y_k^* = \Lambda(\beta_0 + f(r) + \mathbf{X}\beta) \quad \text{for } MEG = \{0, 1\}. \quad (4.5)$$

Thus, rather than estimating a coefficient for r , I am interested in the function f , which maps r to the onset of conflict. Since my focus is on the functional form of r exclusively, I add the covariates \mathbf{X} in the standard GLM manner and estimate corresponding coefficients.

To estimate f , I assume that f is a twice-differentiable, smooth function of r , i.e., that f'' is continuous, and that f is not too “wiggly” in terms of the relationship between r and y . Obviously, more “bumps” will fit the data better, while more smoothness means more of a summary. Here, one frequently raised concern against the usage of such smoothing techniques is the risk of over-fitting, i.e., fitting noise instead of an underlying relationship. This objection is not generally warranted, as it is possible to explicitly characterize the trade-off between fit and summary. The function $D(h)$ allows me to do so:

$$\min_{f(\cdot)} D(h) = \sum_{i=1}^n (y_k^* - [\beta_0 + f(r) + \mathbf{X}\beta])^2 + h \int_{r_{min}}^{r_{max}} |f''(r)|^2 dx \quad (4.6)$$

²⁰For simplicity, I omit subscripts i and t , as it is clear that we are dealing with btscs data.

where h is the smoothing parameter. In Equation 4.6, the first part minimizes the squared distances between predicted and observed data, thus rewarding candidate functions that provide good fit with the data. The second part rewards candidate functions for smoothness (instead of volatility) by integrating the square of the second derivative of the candidate function over the range or r . As there exists a host of techniques with which to estimate the function of interest in the method describe above, I rely on commonly used thin-plate regression splines, since they tend to yield the smallest MSE (Wood, 2006, see Ramsay (2008) for a similar application).²¹

In sum, my methodological strategy is to estimate sets of three models: the logarithmic specification, the quadratic specification, and the semi-parametric GAM. The latter then serves as a “tie-breaker” that estimates functional form without *a priori* parametric assumptions.²²

4.7 Empirical Results

I begin with an assessment of all groups coded in EPR. Models 1 and 2 in Table 4.2 replicate the results by Cederman, Wimmer and Min (2010) and show that exclusion is a strong and significant predictor of for both low- and high-intensity conflict. Hypothesis 4.1 states that included groups are less likely to fight, regardless of their relative power position. Thus, the remaining models 3 through 8 in Table 4.2 focus on ethnic groups in power.²³ Models 3 through 6 consider low intensity conflicts, while models 7 through 10 consider high levels of conflict intensity.

Since the results of the control variables are of less importance, I turn

²¹The GAM estimations were performed using the `mgcv` library (version 1.7-4) in R (version 2.12.0). I estimate the models via maximum likelihood (ML), as this estimation method is less sensitive to local minima than, for example, generalized cross-validation (gcv). It is therefore preferable when estimating limited dependent variable models (see Wood, 2006). I allow for an extra penalty to each term so that it can be penalized to zero, i.e., complete removal of the term from the model if appropriate. While computationally expensive, this approach has the advantage that it does not require the researcher to determine the effective degrees of freedom at which to declare a term negligible.

²²One might think that that the Akaike Information Criterion (AIC) as a measure of nonnested model fit constitutes an alternative technique. However, using simulated data Keele (2008, 8) demonstrates that for even the simplest power transformations, the AIC may lead to the wrong choice for power transformations.

²³In principle, there are two ways of addressing this conditionality, either by specifying multiplicative (three-way) interaction terms or by splitting the sample into a sample of EGIPs and a sample MEGs. However, three-way interaction terms are demanding of the data, especially if the dependent variable is a rare event. Additionally, interpretation is also less straightforward. For simplicity, I therefore chose the split-sample method.

immediately to interpreting the main variable of interest, the measure of relative power r . This is most effectively achieved visually. Figures 4.2 and 4.3 thus display the effects of r on the probability of conflict. The figures display the predicted probabilities of conflict at given levels of bargaining power under the different model specifications, with all other independent variables held at their medians. The dashed lines represent 95 percent confidence intervals of the prediction, obtained via simulation. To aid understanding, the figures also contain rug-plots of the distribution of bargaining power r along the bottom x-axis, and occurrences of conflict onsets at respective levels of r at the top x-axis.

Although the logarithmic and the quadratic specification yield monotonic and curvilinear functional forms, the GAM estimation shows that these are an artifact of parametric assumptions. Indeed, the parametric specifications are not statistically significant, while the GAM estimates a zero-relationship.²⁴ Thus, although it is potentially problematic to test a (null-)hypothesis of no effect, the empirical evidence here is in line with Hypothesis 4.1, which argues that included ethnic groups are less likely to fight all levels of relative power precisely because these groups typically do not exhibit a driving motivation in the first place. By contrast, a purely opportunistic logic would imply a monotonic relationship, since strong groups could potentially capitalize on their position of power and attempt monopoly rule.²⁵

Next, I turn to the analyses of excluded groups, beginning with low-intensity conflicts. As I argued earlier in this dissertation, in low-intensity conflicts the underlying bargaining problems is less pronounced. This has the advantage that in this case the scope of the demands that ethnic groups put forward should be the strongest signal in these data. Recall that Hypotheses 4.2a and 4.2b suggest a substitution logic: the stronger a group is relative to the government, the less likely that group will be to put forward claims about limited territory, and the more likely that group will be to demand direct control of the state instead. In other words, groups strategically anticipate their chances of obtaining a favorable outcome and select the most favorable outcome they believe to be possible.

This logic is put to an empirical test in Table 4.3. If correct, we should observe a negative effect of relative power for territorial low intensity conflicts

²⁴This finding does not change when lumping together low and high intensity conflicts (not shown). A distinction between governmental and territorial conflicts is not possible, due to a lack of cases.

²⁵Note that monopoly and dominant groups are not included in the analyses.

Table 4.2: Explaining Group-Level Conflict: All Groups and Included Groups

Model	1		2		3		4		5		6		7		8	
Groups	all		all		included		included		included		included		included		included	
Conflict Intensity	low	high	low	high	low	high	low	high	low	high	low	high	low	high	low	high
(Intercept)	-3.62*** (0.93)	-1.98† (1.15)	-1.50 (2.39)	-1.98† (1.15)	-0.75 (2.55)	-1.53 (2.38)	-0.75 (2.55)	-1.53 (2.38)	-6.06* (2.77)	-7.99* (3.14)	-6.06* (2.77)	-7.99* (3.14)	-6.14* (2.84)	-6.14* (2.84)		
Downgraded	1.08* (0.43)	2.19*** (0.34)	1.82* (0.80)	2.19*** (0.34)	1.75* (0.81)	1.75* (0.79)	1.75* (0.81)	1.75* (0.79)	-13.66 (1321.07)	-13.64 (1318.03)	-13.66 (1321.07)	-13.64 (1318.03)	-1.29×10 ² (5.20×10 ⁶)	-1.29×10 ² (5.20×10 ⁶)		
log GDP p.c.t-1	-0.26** (0.09)	-0.44*** (0.12)	-0.44† (0.24)	-0.44*** (0.12)	-0.45† (0.24)	-0.43† (0.23)	-0.45† (0.24)	-0.43† (0.23)	-0.04 (0.25)	-0.02 (0.26)	-0.04 (0.25)	-0.02 (0.26)	-0.02 (0.26)	-0.02 (0.26)		
log Population	-0.03 (0.06)	-0.11 (0.07)	-0.10 (0.17)	-0.11 (0.07)	-0.10 (0.17)	-0.07 (0.17)	-0.10 (0.17)	-0.07 (0.17)	0.22 (0.19)	0.23 (0.20)	0.22 (0.19)	0.23 (0.20)	0.23 (0.20)	0.23 (0.20)		
War History	1.65*** (0.28)	1.44*** (0.35)	0.88 (0.81)	1.44*** (0.35)	0.87 (0.82)	0.90 (0.81)	0.87 (0.82)	0.90 (0.81)	2.05* (0.90)	2.01* (0.90)	2.05* (0.90)	2.01* (0.90)	2.01* (0.90)	2.01* (0.90)		
Peaceyears	-0.13* (0.05)	-0.19** (0.06)	-0.28† (0.15)	-0.19** (0.06)	-0.28† (0.15)	-0.28† (0.15)	-0.28† (0.15)	-0.28† (0.15)	-0.44** (0.17)	-0.44** (0.17)	-0.44** (0.17)	-0.44** (0.17)	-0.44** (0.17)	-0.44** (0.17)		
Peaceyears ²	0.00* (0.00)	0.01** (0.00)	0.01† (0.01)	0.01** (0.00)	0.01† (0.01)	0.01† (0.01)	0.01† (0.01)	0.01† (0.01)	0.02* (0.01)	0.02* (0.01)	0.02* (0.01)	0.02* (0.01)	0.02* (0.01)	0.02* (0.01)		
Peaceyears ³	-0.00 (0.00)	-0.00** (0.00)	-0.00† (0.00)	-0.00** (0.00)	-0.00† (0.00)	-0.00† (0.00)	-0.00† (0.00)	-0.00† (0.00)	-0.00* (0.00)	-0.00* (0.00)	-0.00* (0.00)	-0.00* (0.00)	-0.00* (0.00)	-0.00* (0.00)		
Excluded	0.93*** (0.28)	1.17*** (0.35)	(0.00)	1.17*** (0.35)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)		
log(<i>r</i>)			-0.16 (0.25)		-3.41 (3.52)				0.38 (0.34)							
<i>r</i>														6.44 (5.03)		
<i>r</i> ²														-6.41 (5.82)		
<i>s</i> (<i>r</i>)									0.00 (0.00)							0.00 (0.00)
<i>N</i>	27591	27591	8654	27591	8654	8654	8654	8654	8654	8654	8654	8654	8654	8654	8654	8654
log <i>L</i> / <i>ML</i> -score	-593.78	-388.27	-82.20	-388.27	-78.85	109.40	-78.85	-44.39	-44.39	-41.09	-44.39	-41.09	-41.09	-41.09	-41.09	72.07

Standard errors in parentheses

For the smooth term, I report the estimated degrees of freedom, along with a χ^2 -statistic, which tests the Null of no effect.

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

Figure 4.2: Bargaining Power and Low Intensity Conflict (Groups in Power)

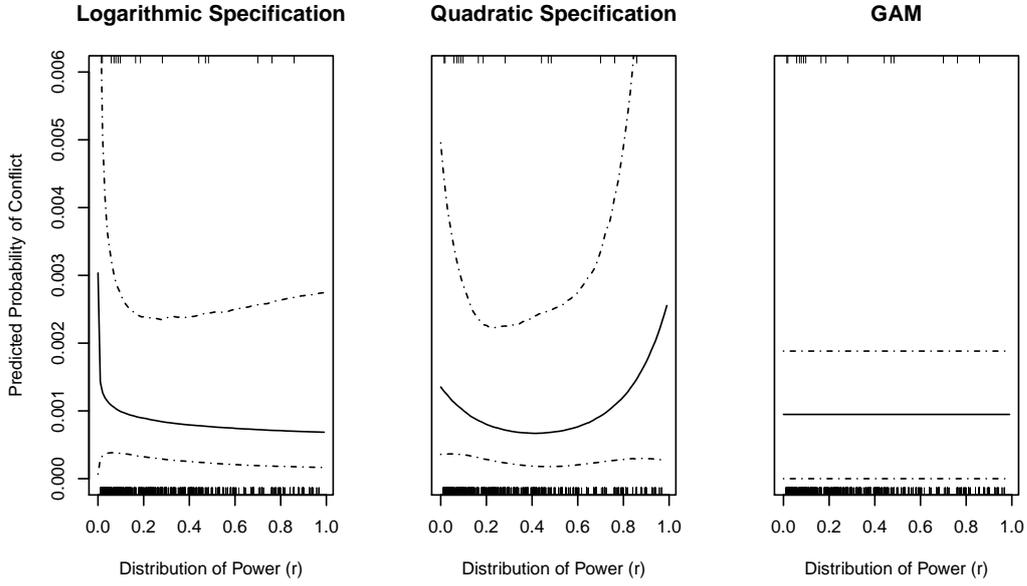
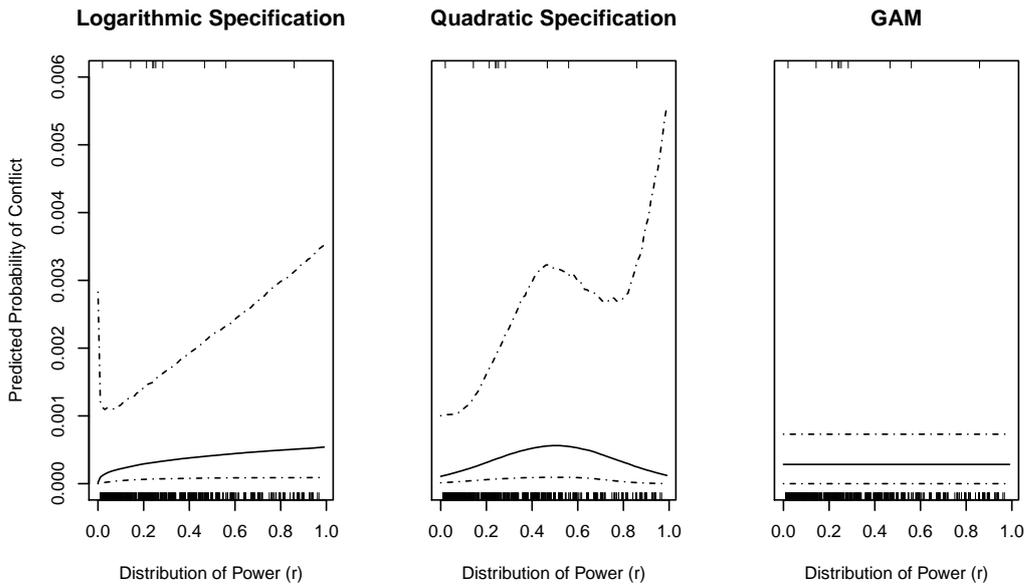


Figure 4.3: Bargaining Power and High Intensity Conflict (Groups in Power)



and a positive one for governmental, low-intensity conflicts. The table compares all three specifications, first for territorial conflicts (Models 9 through 11) and then for governmental conflicts (Models 12 through 14). Once again, visual inspection is most informative. Figure 4.4 shows that the effect of relative power is indeed *negative* for territorial conflict, albeit not significant for the parametric specifications. However, the spline estimated by the GAM is highly significant. Figure 4.5 follows the same logic for governmental conflicts and shows that, in this case, the measure of relative power goes in the opposite direction, i.e., is positive. All three specifications are statistically significant and “agree” unanimously in terms of the direction of the effect.

Taken together, the opposing functional forms for the different types of conflict yield strong support for the substitution effect that is suggested when conceptualizing ethnic groups as strategic actors (H4.2a and H4.2b).²⁶ Moreover, the finding is at odds with theoretical arguments that explain conflict behavior as a function of recruitment ability and as a function of increasing subjective entitlement to state power, resulting in a positive prediction throughout.

Having established a better understanding of the scope of demands advanced by different ethnic groups, the logical follow-up question pertains to the mechanisms that can lead to full-fledged war. Here, the existing civil war literature does not distinguish between mechanisms that drive the scope of political demands and the causes of war, and thus postulates a monotonic and positive effect that should be best reflected empirically by the logarithmic term of bargaining power r . By contrast, the strategic logic laid out earlier in this chapter suggests that war can occur when groups have reason to misrepresent information in order to obtain better deals at the bargaining table. Information asymmetries should then be most pronounced when both parties are roughly equal in power, since vast differences would render any attempts at strategic misrepresentation void and less credible to begin with. This line of argument instead suggests a quadratic specification resulting in an inverted U-shape.

If groups make demands strategically based the government’s likely reaction, then groups will also have some idea of the government’s willingness

²⁶One shortcoming is that the method assumes the choice alternatives (incompatibilities) to be independent in errors (IIA). In principle, a multinomial probit could solve this problem through an expected negative correlation in errors, but this solution is inefficient for rare events, since “correlated zeros” will drive the results.

Table 4.3: Explaining Group-Level Conflict: Excluded Groups

Model	1	2	3	4	5	6	7	8	9	10	11	12
Conflict Scope	terr.	terr.	terr.	gov.	gov.	gov.	terr.	terr.	terr.	gov.	gov.	gov.
Conflict Intensity	low	low	low	low	low	low	high	high	high	high	high	high
(Intercept)	-4.38*** (1.31)	-3.47* (1.44)	-3.48* (1.31)	-5.38* (2.33)	-6.88** (2.59)	-5.77*** (2.37)	-5.78*** (1.95)	-6.26*** (2.18)	-5.56*** (2.05)	-1.57 (2.36)	-3.11 (2.62)	-1.88 (2.45)
Downgraded	0.98 (0.61)	1.03† (0.62)	1.08† (0.62)	0.31 (1.04)	0.42 (1.04)	0.46 (1.04)	1.50* (0.63)	1.44* (0.64)	1.49* (0.64)	2.44*** (0.43)	2.51*** (0.44)	2.52*** (0.44)
log GDP p.c. _{t-1}	-0.22† (0.12)	-0.26* (0.12)	-0.27* (0.02)	0.14 (0.21)	0.03 (0.22)	0.00 (0.21)	-0.11 (0.18)	-0.15 (0.17)	-0.16 (0.17)	-0.60*** (0.21)	-0.65*** (0.21)	-0.68*** (0.21)
log Population	0.07 (0.09)	0.03 (0.08)	0.02 (0.07)	-0.03 (0.17)	-0.14 (0.16)	-0.17 (0.15)	0.27* (0.13)	0.16 (0.13)	0.15 (0.12)	-0.11 (0.15)	-0.17 (0.14)	-0.20 (0.14)
War History	2.03*** (0.34)	2.02*** (0.33)	2.05*** (0.33)	0.94 (0.80)	1.01 (0.80)	1.02 (0.80)	0.99† (0.52)	1.13* (0.52)	1.13* (0.52)	1.51*** (0.55)	1.62*** (0.55)	1.62*** (0.55)
Peaceyears	-0.12† (0.07)	-0.12† (0.07)	-0.12† (0.07)	-0.12 (0.13)	-0.11 (0.13)	-0.11 (0.13)	-0.19* (0.09)	-0.18* (0.09)	-0.19* (0.09)	0.07 (0.14)	0.07 (0.14)	0.07 (0.14)
Peaceyears ²	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.00)	0.01 (0.00)	0.01 (0.00)	0.00 (0.01)	-0.00 (0.01)	0.00 (0.01)
Peaceyears ³	-0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)
log(r)	-0.04 (0.08)			0.98*** (0.23)			0.38** (0.13)			0.57*** (0.18)		
r		0.60 (4.09)			5.35* (2.73)					13.31** (4.50)		7.50** (2.84)
r^2		-9.31 (10.11)			-1.59 (2.90)					-24.32* (9.54)		-6.56† (3.56)
s(r)			0.84 (4.77)*			0.95 (20.55)***			2.28 (10.37)*			2.22 (8.75)*
N	18936	18936	18936	18936	18936	18936	18936	18936	18936	18936	18936	18936
log L/ML-score	-366.17	-358.99	391.10	-102.27	-102.98	135.62	-170.45	-166.85	200.50	-126.27	-123.85	157.13

Figure 4.4: Bargaining Power and Low Intensity Territorial Conflict (Excluded Groups)

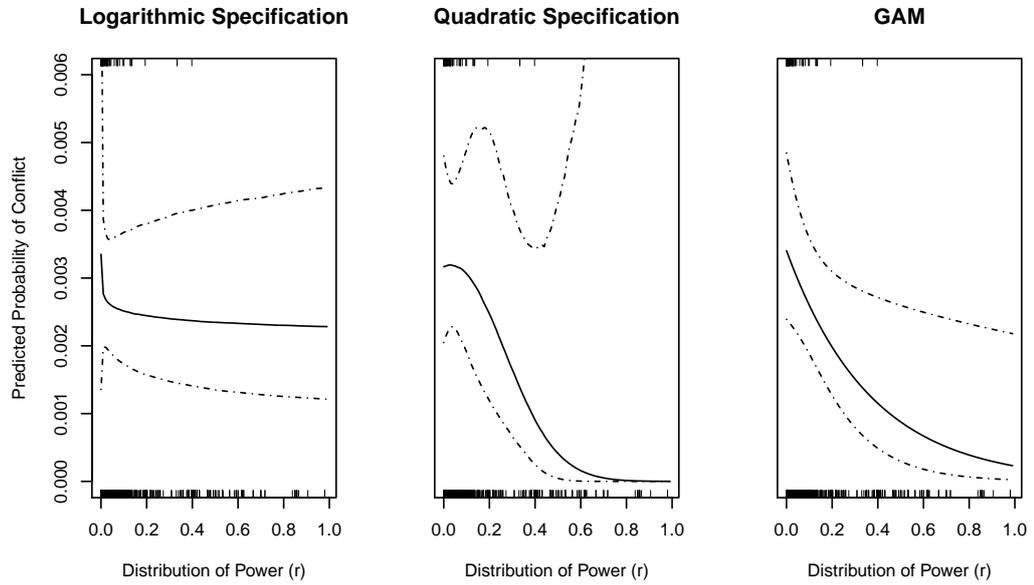
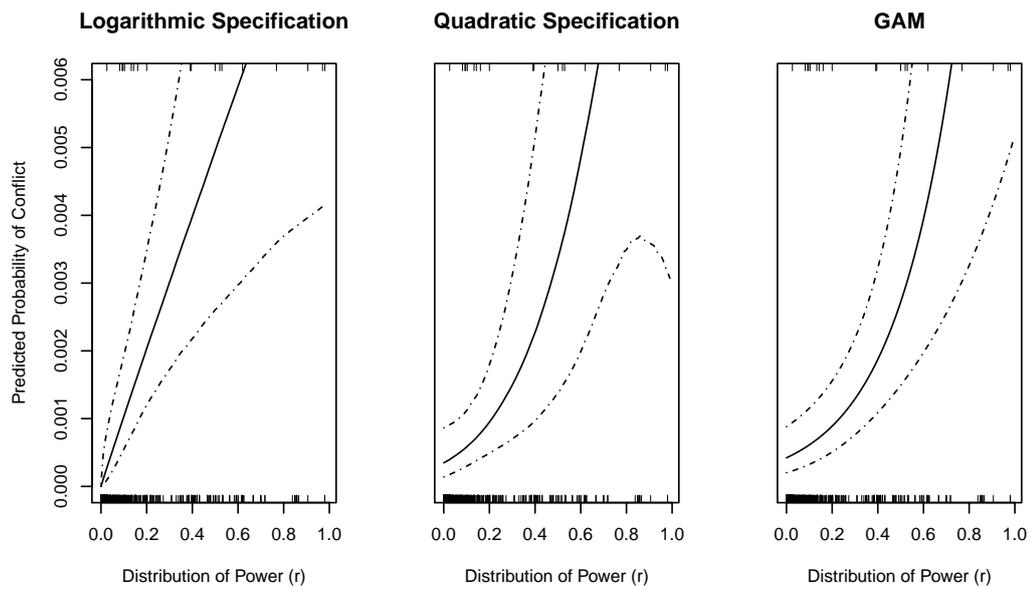


Figure 4.5: Bargaining Power and Low Intensity Governmental Conflict (Excluded Groups)



to use force. From the government’s point of view, limited demands that concern a piece of territory, rather than the full state, can imply a lower level of resolve, which in turn translates into lower levels of effective power. Relatedly, claims regarding limited territory commonly imply a dispute over peripheral regions that can be difficult to control, especially as distance from the capital increases (Boulding, 1962; Hegre, 2008). Hypothesis 4.3a therefore suggests that territorial, high-intensity conflicts are most likely to be fought at local parity, while Hypothesis 4.3a predicts capital parity as the most prone constellation.

These considerations are tested in Models 15 through 20 of Table 4.3, which considers the logarithmic, quadratic and the GAM specifications, first for territorial and then for governmental conflicts. The predictions generated by exclusion theory, as well as by my strategic account, both suggest an increasing relationship for small groups, but only the strategic logic predicts a tipping point. Thus, the theoretical debate yields divergent predictions for groups favored by the distribution of power, either locally or “in the capital.”

As before, visualization proves helpful. Figures 4.6 and 4.7 show the results from Models 15 through 20. Although the logarithmic specifications yields positive and statistically significant estimates, the GAM informs us that these results are driven by the disproportionately high number of weak groups at the low end. Thus, whereas the logarithmic and the quadratic specifications impose global fit, the advantage of the GAM method is that it makes few assumptions about functional form: “[t]he logarithmic transformation is [...] problematic [as is the quadratic] in that it is fit globally, not locally” (Beck and Jackman, 1998, 612).

The results lend considerable support to the hypothesis that bargaining power is not monotonically related to high-intensity conflict. Instead, I find tentative support for a curvilinear relationship with a close resemblance between the quadratic specification and the GAM. This is in line with a decline in governmental power and interest as distance increases. The inversion point for territorial conflicts is found at roughly $r = .3$. Beyond this point, very few conflicts occur. Indeed, the Bengali in Pakistan in 1971 ($r = .59$) are the only majority group in the dataset that fought territorial conflict. Remarkably, the quadratic specification yields an extreme point slightly above $r = .5$, suggesting that governmental conflicts are most likely to originate in groups that, in terms of power, are on par with the government. This effect is less pronounced and subject to a large standard error, though

Figure 4.6: Bargaining Power and High Intensity Territorial Conflict (Excluded Groups)

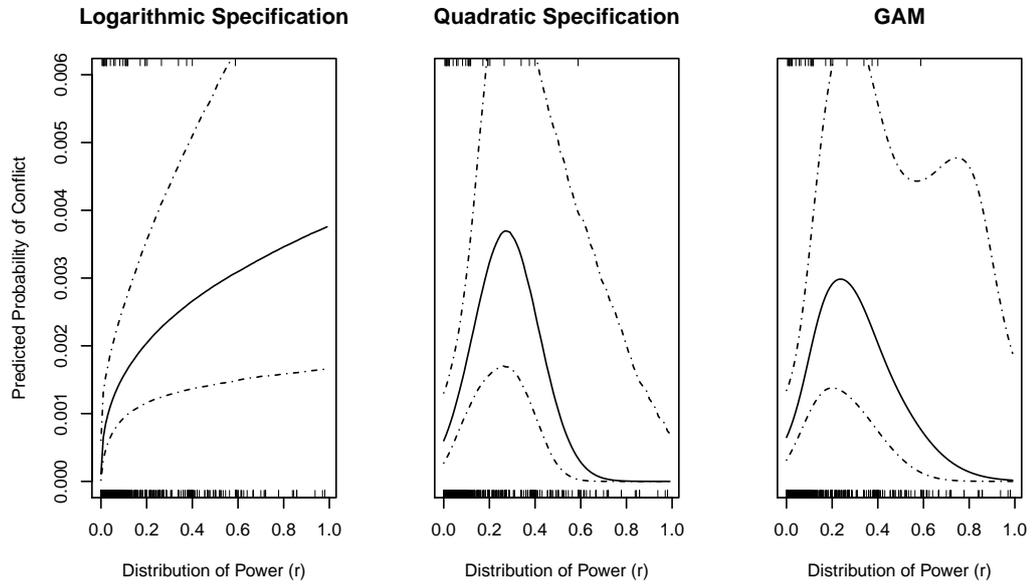
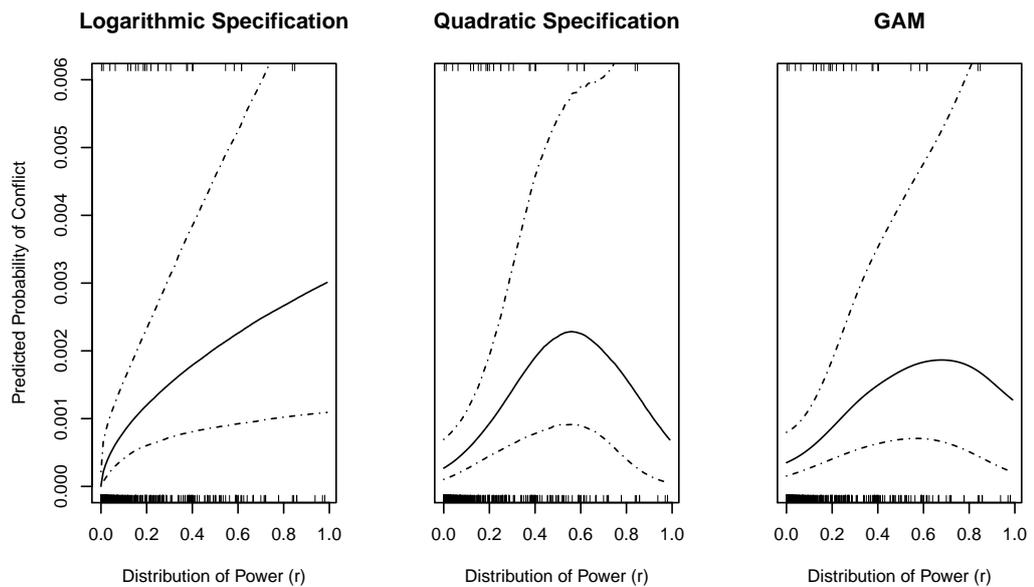


Figure 4.7: Bargaining Power and High Intensity Governmental Conflict (Excluded Groups)



this may be due to the fact that there are few large, excluded groups to begin with, and so little information is available from which to estimate the relationship with precision.

In sum, the GAM results tentatively reinforce the logic of a strategic, curvilinear relationship: ethnic groups are most likely to engage in full-fledged war when they are at parity with their government, either locally or in the capital. Beyond this point, information problems become less acute, which in turn reduces the need for fighting.

4.8 Discussion and Conclusion

In this chapter, I have examined the relationship between bargaining power, the scope of demands for political change, and the probability of ethnic conflict. While the overall question is well established in international politics for the case of interstate conflict, applications for domestic politics and internal conflict have been rare. In other words, following the logic of King, Keohane and Verba (1994), this chapter employed existing theory so as to study an old question in a novel way. Drawing on bargaining theory, I argued that more powerful groups are more likely to articulate claims concerning control over the state's central institutions, whereas weaker groups substitute exceedingly ambitious aims for demands that are more limited in scope, i.e., confined to limited territory. Moreover, I found preliminary evidence that the probability of war is highest when the distribution of power is roughly equal, on the condition that one of the actors is dissatisfied with the status quo.

More generally, this chapter demonstrated that the question of why to fight should not be divorced from the question of what to fight over. Therefore, the results suggest that a one-size-fits-all approach to the relationship between relative power and civil conflict is difficult to justify. Rather, the findings presented here call attention to the fact that not only are different types of conflict objectives driven by specific causal mechanisms, but so are different dynamics. Moreover, the findings pose a challenge to applied research because the same variable (relative power) exhibits different effects on related outcomes (territorial/governmental conflict, low/high intensity conflicts). For this reason, there exist conflicting signals in the data. Further research must pay increased attention to disentangling these relationships. Thus, it is not surprising that the UCDP/PRIO data program on armed

conflict (Gleditsch et al., 2002) distinguishes between “minor conflict” and “war”. In this light, researchers wanting to include relative power as a control variable should therefore carefully theorize its relationship with other explanatory variables.

Nevertheless, this simple framework offers considerable explanatory power. Consider the example of the Nigerian-Biafran War in 1967, in which more than two million people lost their lives. Although the Igbo of Eastern Nigeria had been part of the central government until 1964, after a series of coups and counter-coups, the group declared independence on May 30, 1967. Thus, the Igbo realized that they had little chance of taking over the Nigerian state of which they were once an integral part, and thus the Igbo resorted to establishing their own state. The breakaway came as no surprise to the central government, and the Nigerian forces had a plan ready in the drawer. However, they “envisaged a brief ‘police action’ and were surprised when the fighting lasted longer than 30 months” (Rothchild, 1997, 45), thus lending support to the information-based logic.

Why are excluded majorities less likely to raise arms? I have argued that, as the distribution of power diverges from parity, information asymmetries resulting from strategic incentives to misrepresent become less likely. Since the imbalance of power is observable, governments must either appease these groups via side payments or suppress them at great cost. While the rug plots have already shown that such groups are rare in the first place, a closer examination of these cases reveals that they are predominantly African, and that the cost mechanism seems to apply.

The equivalence finding between international conflict and ethnic, intrastate conflict in terms of a dyadic, group (actor) relationship is far from trivial. In fact, the most widely cited scholarship in the quantitative literature on civil wars not only claims that factors of ethnicity are irrelevant altogether (Fearon and Laitin, 2003; Collier and Hoeffler, 2004), but also implicitly discounts the role of motivations. I showed that neither of these conclusions is warranted. Against the alleged irrelevance of ethnicity, this chapter demonstrated that bargaining theory is consistent with the empirical data on ethnic groups and civil conflict. If, by contrast, the concept of ethnic groups was truly irrelevant, we would hardly find the observed patterns.²⁷

Finally, the findings also draw attention to the linkage between rebels

²⁷This is not to say that other dimensions are irrelevant. Rather, my point is that the ethnic dimension is not irrelevant.

and ethnic populations. While civil conflict is usually conceived of as highly asymmetrical, this is not always the case for governmental conflicts. Indeed, although rebel armed forces may be smaller in size, this chapter demonstrated that ethnic groups -through the agency of rebel organizations -are most conflict prone when they are on par with the state in terms of bargaining power, overt military capacities being only one component thereof. By omitting the civilian base of rebel organizations, then, important aspects of strength and bargaining power are therefore likely to be neglected as well (cf., Butler and Gates, 2009). The next chapter therefore investigates the exact nature of this rebel-population nexus in greater detail.

Chapter 5

Ethnicity, the State, and the Duration of Civil Wars

*This chapter is based on collaborative work with Nils W. Metternich, Lars-Erik Cederman, and Kristian Skrede Gleditsch, and is forthcoming in **World Politics** as Wucherpfennig et al. (2012).*

5.1 Introduction

Having established a better understanding of the processes that can lead ethnic groups to fight for political change, I now turn to the dynamics of such violence once fighting has begun. While this chapter analyzes the interaction between ethnic groups and rebel organizations vis-à-vis the state, Chapter 6 addresses a particular set of dynamics that are characteristic of the opposition side. Taken together, these two chapters help explain the way in which the striving for political change unfolds after the initial trigger has been pulled, affecting the duration and outcome of the fighting in a systematic way.

One striking characteristic of civil wars is the immense variation in their duration, especially when compared to interstate wars. Whereas some civil wars terminate within a few days, others endure for decades, as is the case in countries like Myanmar or Palestine, where civil wars that have persisted for years remain unresolved. What accounts for these differences in duration? A key hypothesis in the literature points to the role of ethnicity, suggesting that ethnic conflicts last longer and are more difficult to settle than other civil wars. However, the theoretical and empirical support for this proposition remains disputed.

This chapter reconsiders the debate over the impact of ethnicity on civil war duration. Because ethnic civil wars are shaped by an ethnic rather than an ideological or economic agenda, scholars often argue that these kinds of civil wars exhibit unique causes and dynamics (for an overview, see Sambanis, 2001), including the hypothesis that ethnic civil wars exhibit longer durations. The standard argument points to descent-based attributes of ethnicity, that cannot be transcended and are reinforced through fighting, and thus create a unique sense of belonging that in turn facilitates collective action. According to this view, ethnic conflicts quickly become intractable (due to the rigid nature of ethnic identities), are inherently difficult to resolve, and thus tend to last longer than other civil conflicts (Kaufmann, 1996, 1998; Kaufman, 2001, 2006; Horowitz, 1985). An alternative view, however, disputes the validity of the ethnic/non-ethnic distinction. Proponents of this view either suggest that ethnic identities merely provide a cover story for underlying economic or private interests and do not affect conflict dynamics (Mueller, 2004; King, 2001; Gilley, 2004), or they highlight the fact that ethnic identities can be - and frequently are - transcended during civil wars (Kalyvas, 2006). From this perspective, ethnicity as such should not have a clear or consistent effect on the dynamics of fighting. This more skeptical view has far-reaching repercussions, since it ultimately questions the distinction between ethnic and non-ethnic conflicts and challenges the conceptualization of ethnic groups as meaningful actors in civil wars. This chapter counters that view, arguing that much of the controversy in the existing literature stems from the untested assumption that ethnic identities primarily influence conflict dynamics by facilitating collective action through common networks, language, and “sticky” markers. Indeed, most studies either fully adopt or reject this assumption, without considering the possibility that a more complex relationship exists between political processes and ethnic identities.

This chapter contributes to the current literature by stressing the political aspects of ethnicity. Rather than treating conflict as a direct consequence of ethnic cleavages, it is argued that ethnicity *per se* does not affect civil war duration. Instead, whether ethnicity prolongs conflict depends on its relationship to political institutions. This chapter provides a dyadic approach, emphasizing the *political* context in which both government leaders and non-state challengers can capitalize on the ascriptive nature of ethnicity. It is shown that although states can benefit from politicizing ethnic relations by *selectively* providing political or economic goods for parts of the population

while excluding others, once violent conflict breaks out, such policies may backfire on the government and induce severe consequences. In particular, past discriminatory policies reduce the likelihood that incumbent governments will be able or willing to accept conflict-terminating settlements. Past policies of ethnic exclusion also benefit rebel organizations that fight the government, since members of politically excluded ethnic groups experience grievances that increase collective group solidarity and render individual fighters more cost-tolerant. This, in turn, facilitates the durability of rebel organizations.

Thus, rather than focusing exclusively on cognitive aspects of ethnic identities - e.g., information, trust, or common language - that are assumed to help overcome collective action problems, the account presented here emphasizes the effects of ethnicity in conjunction with politically induced grievances. In contrast to previous research, emphasis is given to the ethno-political context of civil wars. In short, causal depth is added to the link between ethnicity and conflict duration by focusing on state-induced ethnic policies.

These theoretical arguments are tested empirically by drawing on a new dataset that systematically links rebel organizations to politically relevant ethnic groups, allowing us to capture the dyadic dynamics implied by the theory. The analysis identifies the conditions under which ethnicity prolongs civil wars and distinguishes between underlying ethnic identities and politicized grievances. The results suggest that ethnicity matters primarily when charged through exclusionary ethno-nationalist state policies. Thus, contrary to what many scholars assume, there is little evidence that ethnicity *per se* has inherent effects on conflict dynamics.

The chapter is organized as follows. After a brief review of the relevant literature on civil war dynamics, the logic of ethno-political exclusion that was introduced broadly in Chapter 3 and that lies at the core of the argument is revisited. This allows to articulate a theory of civil war duration. The subsequent section introduces the data, followed by the main results, including a brief discussion of sensitivity analyses. The final section concludes.

5.2 Existing Approaches to Civil War Duration

Existing approaches to the study of civil war duration fall into two categories. First, many of the efforts to understand the dramatic upsurge of civil wars that occurred during the early 1990s suggested that these conflicts were fought between distinct ethnic groups. Much of this research referred to the conflicts in Yugoslavia, the former Soviet Union, Burundi, and Rwanda as paradigmatic cases. Drawing on international relations theory, Posen (1993) explains these conflicts as the result of an ethnic security dilemma caused by state breakdown and the absence of a functioning government. According to this perspective, ethnic groups engage in preemptive violence in weak state environments because they fear for their own survival. The particular history of intergroup relations, as well as the physical and ethnic geography in which groups exist, are considered to be core determinants of the severity of the security dilemma (Posen, 1993; Toft, 2003; Snyder and Jervis, 1999). The hypothesized dynamics of this approach have important implications for the duration of such conflicts. Although not all civil wars are ethnic, civil wars fought between ethnic groups are thought to become intractable more quickly than non-ethnic civil wars and therefore persist much longer (Kaufmann, 1996, 1998; Rose, 2000; Kaufman, 2001, 2006; Horowitz, 1985; van Evera, 2001). This perspective is based on the assumption that ethnic identities are fixed. According to Kaufmann (1996, 138):

“Ethnic conflicts are disputes between communities which see themselves as having distinct heritages, over the power relationship between the communities, while ideological civil wars are contests between factions within the same community over how that community should be governed. The key difference is the flexibility of individual loyalties, which are quite fluid in ideological conflicts, but almost completely rigid in ethnic wars.”

Moreover, battles, massacres and other forms of violence are expected to harden these identities to the point that compromises become delegitimized (Kaufman, 2006, 205). As a consequence, continued fighting is characterized as nearly inevitable, leading to a “spiral of escalation” that makes conflict resolution difficult, if not impossible, without third party intervention (Kaufman, 2006). Indeed, proponents of this view go so far as to claim that partition is the only possible solution to such conflicts (Kaufmann, 1996).

The second, opposing view argues against the theoretical distinction between ethnic and non-ethnic civil wars, since most quantitative studies indicate no significant relationship between conflict and common indicators of ethnic diversity such as ethno-linguistic fractionalization or ethnic polarization (Collier, 2000; Fearon, 2004; Cunningham, 2006, 2010; Brandt et al., 2008; Cunningham, Gleditsch and Salehyan, 2009, Collier, Hoeffler and Söderbom 2004; Montalvo and Reynal-Querol 2010). Rebel organizations, rather than ethnic groups, are deemed the appropriate unit of analysis (Sinno, 2008; Kalyvas, 2008; Brubaker, 2004).²⁸ Within this approach many scholars highlight the way in which fighting during civil war is driven by incentives to secure private gains. Such insurgencies are most likely to emerge and endure under conditions of state weakness, which allow rebel organizations to sustain successful operations similar to firms (Fearon and Laitin, 2003; Collier and Hoeffler, 2004). While some researchers opt for the more neutral “rebel organizations” label (e.g., Kalyvas, 2006), others are more subjective, referring to the rebels as “greedy bandits” (Collier and Hoeffler, 2004) or equating insurgents with “criminals,” “thugs,” or “warlord gangs” (Mueller, 2004). The underlying nature of rebel organizations has important theoretical implications for how quickly conflicts can be resolved. For example, Collier, Hoeffler and Söderbom (2004) argue that the presence of looting opportunities prolongs conflicts, since looting allows rebels to raise revenues and to lower recruitment costs (see also Buhaug, Gates and Lujala, 2009; Fearon, 2004).

While approaches rooted in the logic of security dilemmas between fixed groups tend to claim that ethnic wars will last longer, little systematic evidence has been provided in support of this assertion. Indeed, the claim rests on the untested assumption that facilitating collective action is the causal mechanism by which ethnic identities can influence conflict. Although these conclusions have been bolstered by case studies that appear consistent with this argument, they have also been challenged by more systematic quantitative research, which indicates that no significant relationship exists between ethnic diversity and conflict. Thus, this chapter seeks to reconcile these divergent findings, both theoretically and empirically.

Although both the group-based and the rebel-groups-as-firms perspectives have generated important insights, they share a theoretical shortcoming:

²⁸An important argument in favor of this view is that rebel organizations are always present in civil war, whether they are linked to ethnic groups or not.

the alleged passivity or absence of the state as an actor (for exceptions, see Weiner, 1978; Fearon, 2004; Fearon and Laitin, 2011). Indeed, because both explanations emphasize state breakdown and state weakness, the state is largely absent by assumption (Cederman, Wimmer and Min, 2010). Such monadic approaches are problematic for at least two reasons. First, they stand in stark contrast to the underlying definition of civil war, since fighting in civil wars involves the state by necessity (Sambanis, 2004). Second, as is argued below, the omission is critical because it neglects the political context of many conflicts, including the state itself as an active actor pursuing a set of distinct objectives and motivations.

In sum, the theoretical effect of ethnicity is disputed, and is the subject of an ongoing debate. Broadly speaking, many scholars either treat ethnic identities as irrelevant to conflict, or they assume that conflict occurs between fixed identities. However, the role of ethnicity is theoretically and empirically underspecified, mainly because the political context within which ethnic mobilization occurs, is ignored. This chapter draws on previous chapters and seeks to address the crucial question of the specific causal mechanisms through which ethnicity may have an effect. I do so highlighting the way in which the combination of state-induced grievances and ascriptive ethnicity, which arises from particular ethno-political configurations, leads to longer conflicts. This insight is subsequently used to develop a political and dyadic approach that theorizes both non-state challengers and the state in the context of ethnic politics.

5.3 Ethno-Political Exclusion and Civil War Duration

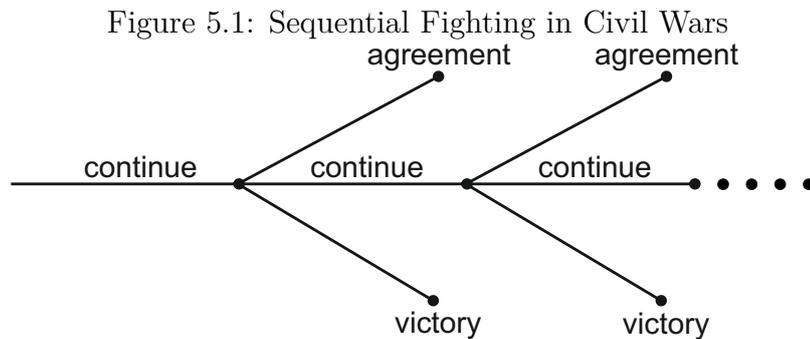
In the previous chapters, I presented theoretical and empirical evidence bolstering the argument that the striving for ethno-political change is a systematic motivation that can lead some ethnic groups to raise arms against their government. A key reason for this is that members of ethnic groups that are categorically excluded from valuable political, economic, and symbolic state benefits on the grounds of ethnicity feel entitled to rectify these grievances, and thus they strive for political change. However, ethno-political exclusion also blocks access to conventional channels of achieving political change, including access to state-level representation. Given this obstacle, the use of arms is sometimes regarded a viable alternative strategy. Clausewitz

(1984, 87) famously argued that “war is merely the continuation of politics by other means.” In other words, when conventional politics are unavailable to a group, then fighting substitutes regular politics.

In general, the underlying political aims that can lead to conflict also provide the driving motivations for both governments and non-state challengers while in combat. Put simply, because of its categorical nature, exclusion has far-reaching consequences that affect more than just a few people, thus manifesting itself in *collective* grievances. As such, exclusion exerts a strong and systematic effect on the political context within which fighting occurs. Once sufficient political change has been credibly implemented, it is in the challenging group’s best interest for fighting to stop immediately. However, this tends to go against the interests of incumbent governments, which fear for their own survival. This is because turning the tables can imply future exclusion of groups that have come to feel proprietary about their current benefits, including those acquired by imposing exclusionary policies on others. Furthermore, exclusionary policies demonstrate a lack of willingness to compromise, which can stem from a perceived coup risk (Roessler, 2011) or reputation concerns (Walter, 2009*b*), to name but a few. Above all, however, exclusion is risky, because it can lead to costly and risky fighting. This suggests that, when exclusion is in place, its benefits must outweigh the potential costs. In sum, the logic of ethno-political change therefore systematically shapes the context in which fighting between governments and challengers occurs.

However, as a general rule, conflicts involving ethnic groups are rarely Hobbesian, all-against-all wars. Instead, like other civil wars, these conflicts occur between non-state organizations and the state. Existing theories tend to be monadic in that they only consider the actions of non-state challengers. The approach presented here, however, is explicit about the dyadic interaction between the state and non-state actors and casts them as the main protagonists, each of which is pursuing a distinct set of objectives. The logic is similar to a two-level game; incumbent governments and non-state challengers also interact with their followers as they depend on their respective bases of support. The core argument is that the combination of ascriptive ethnicity and political exclusion makes it difficult for both rebel groups fighting on behalf of excluded ethnic groups, as well as incumbent governments, to reach settlements that would allow for effective conflict resolution, thus leading to protracted conflicts with long durations.

This theoretical rationale is based on a per-period logic visualized in Figure 5.1. The figure conceptualizes the dynamics of civil war as sequential rounds of bargaining and fighting. During each round, three outcomes are possible: (1) the belligerents reach a mutually acceptable agreement that terminates the fighting; (2) either side capitulates and accepts defeat, resulting in a winner and a loser; or (3) fighting continues if neither (1) nor (2) is possible. Scenarios (1) and (2) both entail conflict settlements, although they obviously represent different distributions of the underlying incompatibility between the belligerents. Wittman (1979) and Goemans (2000) therefore argue that conflict termination - short of complete eradication of the opponent, which is extremely rare - necessarily requires that both parties agree on a settlement, including losses as implicit settlements, since the other party would otherwise continue to fight.



Following this logic, explaining duration is thus tantamount to accounting for what prevents the belligerents from reaching a settlement during each round. In other words, if both victories and agreements are less likely, this implies a larger probability that conflict continues, and longer durations must follow.

The approach presented here focuses explicitly on the actors. In contrast to most existing work, it conceptualizes the state as an active agent with distinct preferences and motivations. The primary interests of the state are to maintain, secure and maximize power. Rather than focusing on either rebel organizations or ethnic groups as the challengers, this account analyzes their connection directly. The theoretical point of departure follows Kalyvas’s (2008, 1063) concern that the “relation [of rebel organizations] to underlying populations must be the object of systematic theoretical and empirical investigation as opposed to mere assumption.” Thus, whereas many authors simply assert the putative irrelevance of ethnicity based on the varying connection to ethnicity in rebel organizations, this approach

takes this concern seriously, focusing systematically on variation in the nexus between rebel organizations, ethnic groups and conflict duration. In brief, conceptualizing fighting in civil wars as violence between the state and non-state actors, both of which may or may not be explicitly linked to ethnic groups, allows for a broad range of actor constellations.

This approach operates on the assumption that rebel organizations are political entrepreneurs seeking to mobilize and sustain sufficient capacity to overthrow the government and to challenge the government's force monopoly, either in the entire country or locally, in limited territory (Buhaug, 2006). Rebel organizations face two key challenges. On the one hand, they need to recruit a sufficient number of people to challenge the government effectively (Gates, 2002). On the other hand, initial recruitment is insufficient to sustain armed conflict, and rebel organizations must in equal measure provide incentives to retain recruits for longer periods of time in order to fulfill the goals of the rebellion. In other words, rebel organizations need to create incentives to ensure that fighters do not abandon the rebellion.

The analysis builds on two mechanisms that contribute to retaining fighters: greater cost-tolerance and commitment, as well as increased group solidarity. These mechanisms are closely interrelated under the particular ethno-political configurations that are highlighted by the logic of ethno-political exclusion. Mobilizing and retaining fighters requires individual-level compensation. Here, variation in the reward structure - time horizons in particular - helps to explain why some organizations endure longer than others (Weinstein, 2007). This argument extends the literature by emphasizing how this reward structure is not only shaped by economic opportunities or fixed social structures and networks (cf. Weinstein, 2007), but also by state-imposed ethno-political power configurations. It also entails specific empirical implications and increases the causal depth in comparison with conventional approaches to war duration by identifying the conditions under which ethnicity matters.

In essence, the argument holds that state-induced ethno-nationalist policies that exclude and discriminate against specific ethnic groups generate grievances within the affected groups. When rebel groups claim to operate on behalf of such ethnic groups, fighters are initially attracted by the prospect of acquiring political representation or better economic access once the government is defeated. However, unlike immediate material payoffs, such a reward structure is characterized by a great deal of uncertainty

because it is conditional on the future success of the rebel organization. If recruitment and sustained combat are intricately linked to uncertain future rewards, then conflicts are more likely to be persistent when opportunity costs are low. More specifically, whereas conventional approaches champion arguments about opportunity structure and generally downplay the actors (Fearon and Laitin, 2003; Collier and Hoeffler, 2004, e.g.), the approach presented here argues that the socioeconomic and ethno-political context from which potential recruits come itself shapes individual and collective motivations to fight (Horowitz, 1985).²⁹ Due to greater cost tolerance, claims about uncertain future benefits resonate particularly well in the presence of grievances. Although such grievances can arise in many scenarios, this chapter focuses on the ethno-nationalist policies of the state. Challengers that are blocked from access to state institutions seek to escape the rule of dominant ethnic groups by either seizing control of the government or seceding from the state (Cederman, Wimmer and Min, 2010).

Ethnic groups excluded from state power are deprived of political representation and are likely to be disadvantaged in their access to government benefits. Such ethnic exclusion manifests itself in everyday life, and members of excluded groups are often subject to humiliation and treated as second-class citizens. There is a strong linkage between the individual and the collective, insofar as ethnic exclusion operates along categorical lines that are difficult to overcome at the level of the individual. “Wrongs” perpetrated by dominant groups, such as the above mentioned everyday humiliation or the systematic denial of state benefits (which may consist of excluding individuals from public goods and/or of injuries and human losses suffered by fellow group members) are likely to be perceived collectively by members of the group. Oberschall (2007) has termed this the “multiplier effect.” Such dynamics are likely to result in reinforced group solidarity and collective grievances, which in turn affect the extent to which individuals experience grievances. Fighters from excluded ethnic groups are therefore generally more cost-tolerant and more committed to the rebel cause. Moreover, precisely because ethnic exclusion operates along categorical boundaries, increased group solidarity is likely to raise the cost of free-riding as group policing gains legitimacy (Hechter and Okamoto, 2001). At the same time, these dynamics can also feed into the hands of extremists, who can exploit them

²⁹In other words, aggrieved individuals are more likely to engage in and sustain fighting, independently of opportunity structures.

to gain momentum and reinforce grievances (Hafez, 2003).

At a more systemic level, such variation in the reward structure also implies systematic differences with respect to the group's vulnerability to exogenous shocks (cf. Fearon and Laitin, 2007). Since rebel organizations composed of opportunistic fighters are heavily dependent on a steady cash flow, factors that impact their financial sources are likely to undermine the rebellion. For example, where rebellion is financed by lootable resources, losing control over relevant sites, such as diamond mines, can severely detract from the viability of the movement. By contrast, rebel organizations that rely on the hearts and minds of broader populations are less likely to be affected by such shocks.

In sum, members of excluded ethnic groups are more likely to continue fighting than those who have not suffered from exclusion, which in turn allows such rebel organizations to endure for longer periods. Hence, it is no surprise that the African National Congress's (ANC) efforts resonated well within the non-white ethnic groups during the Apartheid era in South Africa. By contrast, members of groups that are included in the political process enjoy political rights and the benefits of state provision. Moreover, since non-excluded populations are not categorically disadvantaged, the grievance multiplier effect is less pronounced. As a consequence, organizations associated with ethnic groups in power are less inclined to endure very long periods of fighting, as are rebellions organized around classes or ideologies that do not benefit from categorical boundaries.

Thus far, this chapter has outlined why rebel organizations recruiting from excluded ethnic groups are better able to sustain long-term fighting. By itself, however, this is not a sufficient explanation for long durations, since it does not tell us why such organizations are less likely to reach any type of conflict-ending settlement, be it implicit through victory or defeat, or explicit in the form of a negotiated agreement. In other words, what remains to be shown is why rebel organizations associated with excluded ethnic groups are associated with lower probabilities for incumbent and challenger victories, as well as lower probabilities of negotiated agreements. Below, three such options are addressed.

The features that enable rebel organizations to recruit from excluded ethnic groups also render them more difficult for the government to defeat. Given the typically asymmetric nature of warfare in civil wars, there is often a possibility for spoiler violence (Stedman, 1997), a topic I revisit in

greater detail in the next chapter. Indeed, ethnic exclusion plants the seeds for extremism and polarization. Moreover, governments may find it very difficult to achieve decisive victory over groups that have experienced deeply entrenched collective grievances and that benefit from a steady supply of fighters, drawing from a large pool that is characterized by strong group solidarity and high cost-tolerance. For example, it took the Sri Lankan military forces nearly 26 years to finally defeat the Tamil Tigers in 2009, and conflicts in Palestine and Burma remain ongoing. By contrast, rebel organizations that draw from included ethnic groups, or that do not recruit and do not justify their activities along ethnic lines in any way, cannot benefit from the same extent of individual and collective grievances, since they lack the categorical division and solidarity that results from politicized ethnicity. As an example consider the Eritrean Islamic Jihad Movement (EIJM), in which the Muslim base is not excluded from central power along categorical lines. The same also holds for the various rebellions in Latin America, such as El Salvador, Venezuela or Colombia, where conflicts involved mainly military factions that did not display explicit ethnic linkages.

Why are governments unable to reach peace agreements with their challengers? As explained in greater detail in the theoretical Chapter 3, accepting a settlement that will be perceived as a defeat is particularly risky when politically induced grievances are present. Resentment and other residual emotions raise the costs of turning the tables, since those that were previously in power may become excluded and discriminated against in the future. Ethnicity's ascriptive nature bolsters this argument, since members of the formerly powerful group are easily detected and hence may be excluded. Thus, ethnicity's categorical dividing line provides a structure that allows for ethnic exclusion in the first place. Such arguments are generally less applicable for cases in which exclusion occurs on the grounds of class membership or ideology, since such definitions of group membership are less rigid and easier to establish (Rothchild, 1981; Fearon, 1999; Tilly, 1999, 2007).

More generally, as Walter (2009*b*) has forcefully argued, governments may face reputation costs when giving in to challengers' demands, since doing so signals weakness and invites other potential challengers to make similar demands. Even when a rebel victory does not cause a change in the central government but is instead confined to granting territorial autonomy or secession, incumbent governments have compelling reasons to

refrain from meeting challengers' demands. Furthermore, governments may have difficulty convincing their constituencies that concessions are legitimate, since members of power-wielding ethnic groups frequently view their superior power status as just and legitimate (Rothchild, 1981).

Finally, negotiated agreements are less likely to occur when states engage in ethno-political exclusion or when rebel organizations recruit from and claim to operate on behalf of ethnic groups. As argued above, ethnic exclusion is not only likely to breed polarization and extremism, but also powerfully reinforces the subjective value of power status, territory and statehood, both among incumbent governments and ethno-nationalist challengers. The subjective characteristics of nationalist exclusion, then, suggest that the state is not easily shared under competing nationalist claims, and is rendered indivisible at times. In other words, exclusion leads to a small (or perhaps even nonexistent) bargaining range that makes compromise difficult. Hassner (2003), Toft (2003, 2002) and Goddard (2006) present similar arguments about indivisible territory, but the same logic also applies to issues of statehood, representation and redistribution, to name but a few. In addition, Roessler (2011) argues that an incumbent government may fear a power-sharing arrangement, since co-conspirators may abuse their access to state forces and stage a coup d'état. Thus, agreements are particularly difficult to achieve between governments and rebel organizations that are linked to systematically excluded ethnic groups.

In sum, this yields a dyadic approach to the duration of civil war that emphasizes the ethno-nationalist context. By putting together the individual components, it becomes possible to derive the main proposition: namely, that rebel organizations fighting on behalf of excluded groups are less likely to achieve any type of settlement, whether in the form of decisive victories and losses or negotiated agreements. They are therefore more likely to continue fighting, and the conflicts in which they engage will tend to be longer than conflicts fought by organizations associated with groups that do not face exclusion on the basis of ethnic identity:

Hypothesis 5.1a *Rebel organizations recruiting from and fighting on behalf of excluded ethnic groups fight longer than rebel organizations that do not maintain an explicit ethnic linkage.*

Hypothesis 5.1b *Rebel organizations recruiting from and fighting on behalf of excluded ethnic groups fight longer than rebel organizations that recruit from and fight on behalf of included ethnic groups.*

On the one hand, this argument implies that governments engaging in risky exclusion find themselves trapped in a dilemma that makes it very difficult for them to grant concessions to challengers. As a consequence, governments have strong reasons to defend their positions in what becomes framed as all-or-nothing conflicts. On the other hand, rebel organizations can benefit from a pool of potential recruits that have experienced grievances, thus causing them to become more durable fighters. A government's inability to compromise in conjunction with a challenger's ability to continue fighting explains why conflicts occurring in the name of excluded ethnic groups tend to be particularly durable. The politics of ethnic exclusion thus imply that governments have incentives to prevent particular conflicts from terminating and instead allow them to linger (possibly at low levels of intensity) so as to avoid making settlements. This theoretical argument yields additional testable implications, formulated in the following set of hypotheses:

Hypothesis 5.2a *Rebel organizations recruiting from and fighting on behalf of excluded ethnic groups are less likely to achieve victory than rebel organizations that do not maintain an explicit ethnic linkage.*

Hypothesis 5.2b *Rebel organizations recruiting from and fighting on behalf of excluded ethnic groups are less likely to achieve victory than rebel organizations that recruit from and fight on behalf of included ethnic groups.*

Hypothesis 5.3a *Rebel organizations recruiting from and fighting on behalf of excluded ethnic groups are less likely to be defeated than rebel organizations that do not maintain an explicit ethnic linkage.*

Hypothesis 5.3b *Rebel organizations recruiting from and fighting on behalf of excluded ethnic groups are less likely to be defeated than rebel organizations that recruit from and fight on behalf of included ethnic groups.*

Hypothesis 5.4a *Rebel organizations recruiting from and fighting on behalf of excluded ethnic groups are less likely to obtain negotiated agreements than rebel organizations that do not maintain an explicit ethnic linkage.*

Hypothesis 5.4b *Rebel organizations recruiting from and fighting on behalf of excluded ethnic groups are less likely to obtain negotiated agreements than rebel organizations that recruit from and fight on behalf of included ethnic groups.*

5.4 Data and Empirical Strategy

5.4.1 Coding the Group-Organization Nexus

In order to test the propositions, the same data project employed in the previous chapter is used. To reiterate, this project links two existing datasets: the Non-State Actor (NSA) dataset (Cunningham, Gleditsch and Salehyan, 2009), which builds directly on the UCDP/PRIO Armed Conflict Dataset (ACD) (Gleditsch et al., 2002), and the Ethnic Power Relations (EPR) dataset on politically relevant ethnic groups worldwide (Cederman, Wimmer and Min, 2010) (see Figure 4.1). However, unlike the previous set of analyses, the theoretical approach features rebel organizations as the unit of analysis, rather than ethnic groups. This strategy avoids some of the problems found in previous subjective assessments of whether or not a given conflict is ethnic and does so by examining the explicit linkage between rebel organizations and ethnic groups.

Focusing on rebel organizations as the unit of analysis, rather than ethnic groups, has the advantage of seamlessly relating the theoretical considerations to the empirical analysis. Moreover, since some conflicts involve more than one rebel organization, it becomes possible to differentiate between organizations in the same conflict that pursue an ethnic agenda versus those that do not (Cunningham, 2006; Cunningham, Gleditsch and Salehyan, 2009; Metternich and Wucherpfennig, 2010).

By drawing on information in EPR, it is possible to determine whether or not the ethnic groups within a rebel organization are subject to state-induced exclusionary policies. This, in turn, establishes the ethno-political context of particular rebel organizations. Finally, note that the resulting mapping is many-to-many, as a given rebel organization can share linkages with multiple ethnic groups, and a single ethnic group can be connected to multiple rebel organizations (see Figure 4.1).

Based on the theory, two necessary criteria define the linkage between ethnic groups and rebel organizations. The first criterion assesses the ethnicity of the fighters. Put differently, the data code from which ethnic groups, if any, a particular rebel organization recruits fighters. In order to assert such a linkage, a significant number of the group members must actively participate in the organization's combat operations.³⁰ Recruitment

³⁰A fixed threshold is deliberately not imposed, because it is difficult to impossible to obtain reliable recruitment numbers, especially for conflicts that are long past and not

along ethnic lines is by itself insufficient, because it may be merely result of local availability and not a deliberate strategy or related to an organization's actual agenda. Therefore the second necessary criterion is whether a given rebel organization publicly announces that it operates on behalf of the relevant ethnic group, i.e., pursues an objective that is directly linked to the group's fate. This is labeled an exclusive claim, because the stated objective is to provide selective benefits for groups.³¹ If recruitment and claim occur jointly, a rebel organization is coded as "ethnic". As an illustration, consider the case of Liberia. Whereas rebel organizations fighting in the first Liberian civil war (1989-1996), for example the National Patriotic Front of Liberia (NPFL) and the Independent National Patriotic Front of Liberia (INPFL), meet both criteria of ethnic recruitment and claim involving the Gio, Mano, and other indigenous groups (Bøås, 2001; Harris, 2006), this does not hold for the second Liberian civil war (2000-2003). Although fighters by the LURD were predominantly recruited from the Mandingo and Krahn (Guere), the organization's sole stated purpose was to remove Charles Taylor from office. This rebel organization is therefore coded as non-ethnic.³²

5.4.2 Coding Ethno-Nationalist Politics

Much of the current literature equates ethnicity in civil wars with rigid identities, while disregarding more variable political motivations as well as consequences linked to ethno-nationalist policies. By contrast, the argument presented here suggests that ethno-nationalist policies of ethnic exclusion signal particular motivations that governments may pursue when confronted with violent challengers. Moreover, as an externality, such policies are likely to systematically produce grievances within excluded ethnic groups. Members of such groups are more likely to experience strong grievances than other individuals. It is this macro-political context that reinforces collective solidarity and alters individual-level costs tolerance of the fighters in rebel organizations linked to ethnic groups.

The EPR dataset contains information about the ethno-political power

well documented. Nevertheless, in the absence of a "rebel census" the data constitute an imperfect yet reasonable attempt to capture the main patterns of recruitment.

³¹By contrast, inclusive claims would pertain to the country's entire population, as would be the case with incompatibilities over ideologies.

³²The National Union for the Total Independence of Angola (UNITA) is another example. Although its fighters were predominantly from the Ovimbundu-Ovambu, the organization's stated goals were explicitly multi-ethnic and encompassing, and thus not exclusive.

status of ethnic groups. The ACD2EPR mapping makes it possible to integrate this information at the level of rebel organizations. Since the theoretical argument relates directly to issues of nationalism, such as ethnic representation and statehood, a limitation to the realm of politics to the set of policies under the direct influence of a country's executive branch appears reasonable. This can amount to control over the presidency, the cabinet, and senior posts in the administration, depending on a given country's power constellations. Thus, where an explicit ethnic linkage between an ethnic group and a rebel organization exists, the data strategy assesses whether the group was excluded or included from state power and allows for a distinction between ethnic rebel organizations with and without mobilized fighters along ethno-nationalist lines against a common baseline of rebel organizations with no ethnic linkage. Examples of the latter type of rebel organization include the Revolutionary Armed Forces of Colombia (FARC). Prominent examples of rebel organizations drawing from included groups are the Palipehutu and Ubumwe of Burundi in early 1990s, drawing from the Hutu population, as well as the Slovenes and the Croats in former Yugoslavia, all of which were then represented in power-sharing arrangements. By contrast, the Kurdistan Workers' Party (PKK) in Turkey, and the Sudan People's Liberation Movement (SPLM) and Anya Nya in Sudan (linked to various southern Christian/animist groups) are examples of long-lasting rebel organizations that maintain linkages to excluded ethnic groups.³³

5.4.3 Control Variables

The analyses also consider a set of control variables that are plausibly related to both exclusion and conflict duration. Much of the literature on civil war duration emphasizes the importance of *Lootable Resources* in the conflict zone for financing rebellion. Suitable data that indicate the presence of three types of resources in the area where the conflict takes places, namely gemstones, petroleum and drugs, all coded as dummy variables, are taken from Buhaug, Gates and Lujala (2009). Additionally, the NSA data set provides a series of relevant variables on rebel organizations. The variable *Territorial Control* indicates whether or not rebel organizations have actual territorial control over some area in the country (see Buhaug, 2006). *Strong Central Command*

³³It is worth emphasizing that ethnic exclusion is relatively orthogonal to measures of democracy: the first order Pearson correlations with a measure of Polity and a binary democracy indicator are .10 and .09, respectively.

is a variable that indicates whether a rebel organization has a coherent command structure. Additionally, the dummy variable *Legal Political Wing* provides information about whether a potential rebel organization has a political wing and its legal status. *Territorial Conflict* codes whether the incompatibility was over territory, rather than the government. At the country level, a *Democracy* dummy indicates whether a country has a Polity score equal or greater than 6. Furthermore, the “usual suspects” *GDP per capita* and *Population* of a country are included as additional controls (Hegre and Sambanis, 2006). Other control variables are introduced below.

5.5 Method and Empirical Results

To test the main hypotheses, a series of semi-parametric models for the hazard of conflict termination for specific rebel organizations were estimated. The dyadic data set includes 290 rebel organizations in 198 conflicts between 1946 and 2005, with information coded potentially down to the individual dyad-day.³⁴ Thus, the data include 637,585 dyad-days, which aggregate to 1941 unique spells that represent actual changes in any of the time-varying covariates. Out of the 290 rebel-government dyads 18 are right-censored. The average fighting duration of a rebel organization is 2207 days (about 6 years) with the median duration being 758 days (about 2.1 years).

Cox proportional hazards models are the appropriate estimator since the theoretical considerations do not predict a specific functional form of the underlying baseline hazard.³⁵ This leaves the duration dependence unspecified and focuses the empirical analysis on how the covariates shift the baseline hazard. All models are estimated using clustered standard errors to account for possible interdependence between dyads within the same conflict. Preliminary analysis revealed that coups differ in their baseline hazard to other conflicts. To allow for different underlying baseline hazards of coups and non-coups, all models are therefore stratified by coups.

A series of Cox-proportional hazards models tests the main Hypotheses

³⁴The NSA data build on the UCDP/PRIO conflict data (Gleditsch et al. 2002), a 25 battledeaths per year threshold and a conventional rule to ignore gaps in fighting of less than two years to determine whether a conflict is ongoing. Moreover, because EPR only covers independent states, wars of independence are excluded from the sample.

³⁵Coefficients rather than hazard ratios are reported. All models and the included variables were also tested for a possible violation of the proportionality assumption. The tests suggest that the proportionality assumption is not violated in any of the models. The Efron method is used for ties.

5.1a and 5.1b that rebel organizations which recruit from, and claim to operate on behalf of, excluded ethnic groups fight longer than rebel organizations linked to included ethnic groups or organizations without an explicit ethnic linkage. The estimation results can be found in Table 5.1. The coefficients denote the (multiplicative) impact of the explanatory variables on the underlying baseline hazards. Positive coefficients imply an increase in the hazard of a conflict dyad ending, and thus shorter conflicts.

Model 1 is a standard model that includes characteristics of the rebel organization, resources in the conflict area, and country level controls. Before turning to the main results, the findings in regard to the control variables are discussed briefly. Rebel organizations with territorial control are able to fight longer, while strong central command structures and a legal political wing are associated with shorter conflict durations. The findings related to the country-level controls are mostly in line with the expectations of the existing literature. Rebel organizations fighting in democratic countries tend to be enduring.³⁶ While this result is possibly driven by particular cases like Israel, India and Indonesia (see Cunningham, Gleditsch and Salehyan, 2009), it should be added that democracies are constrained from fighting as ruthlessly against insurgencies by domestic audiences. GDP per capita and population size do not significantly impact conflict dyad termination (see, e.g., Fearon, 2004). These results are consistent across all estimated models.

Turning to the main results, Model 1 includes the first key independent variable, which indicates whether a rebel organization claims to fight on behalf of a politically relevant ethnic group and recruits from its members. Hence, a first step is to examine whether ethnic linkages as such increase conflict duration. The results indicate some support that rebel organizations linked to at least one politically relevant ethnic group fight longer than rebel organizations without such a link. The hazard of a conflict dyad ending decreases by 22 percent if a rebel organization is linked to a politically relevant ethnic group. However, in line with most previous studies, this general ethnic effect is only marginally significant and is not robust when particular cases are excluded from the analysis (results not shown).

In order to test the core hypotheses (H5.1a and H5.1b), Model 2 focuses on rebel organizations with an explicit ethnic linkage and differentiates between organizations linked to excluded, politically relevant ethnic groups and those

³⁶This result holds regardless of whether a dummy variable or a continuous polity scale is included. Note that the endogeneity concerns about polity to conflict highlighted by (Vreeland, 2008) do not apply here, as only polities in conflict are included in the analyses.

Table 5.1: Cox Proportional Hazard Estimates

Model	1	2	3	4	5
	Ethnic Conflict	Baseline Model	Sons of the Soil	Ethnic Defection	Veto Players
Ethnic Linkage	-0.262* (0.153)			0.222 (0.225)	
Ethnic Linkage with Included Group (β_1)		0.307 (0.215)	0.319 (0.215)		0.324 (0.224)
Ethnic Linkage with Excluded Group (β_2)		-0.419** (0.170)	-0.410** (0.172)	-0.737*** (0.249)	-0.392** (0.176)
Territorial Conflict	0.014 (0.193)	0.061 (0.194)	0.076 (0.203)	0.028 (0.194)	-0.025 (0.203)
Strong Central Command	0.409*** (0.145)	0.453*** (0.151)	0.444*** (0.155)	0.441*** (0.151)	0.456*** (0.150)
Legal Political Wing	0.358* (0.199)	0.356* (0.183)	0.351* (0.183)	0.386** (0.183)	0.333* (0.183)
Territorial Control	-0.335** (0.166)	-0.350** (0.170)	-0.354** (0.170)	-0.515** (0.239)	-0.392** (0.170)
Democracy	-0.834*** (0.195)	-0.849*** (0.196)	-0.838*** (0.202)	-0.820*** (0.194)	-0.925*** (0.211)
ln GDP p.c.	0.078 (0.081)	0.086 (0.081)	0.090 (0.083)	0.099 (0.079)	0.108 (0.082)
ln Population	-0.040 (0.053)	-0.044 (0.052)	-0.045 (0.052)	-0.044 (0.053)	-0.043 (0.052)
Natural Resources	-0.382** (0.164)	-0.354** (0.159)	-0.350** (0.159)	-0.366** (0.162)	-0.343** (0.160)
Sons-of-the-Soil			-0.093 (0.257)		
Ethnic Linkage \times Territorial Control				0.354 (0.291)	
Veto Players					-0.183* (0.110)
Wald test: $\Pr(\beta_1 = \beta_2)$		0.003***	0.003***		0.003***
N	1,941	1,941	1,941	1,941	1,941
Days at Risk	637585	637585	637585	637585	637585
Number of Failures	272	272	272	272	272
Log-Likelihood	-1147	-1143	-1143	-1142	-1141

Robust standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

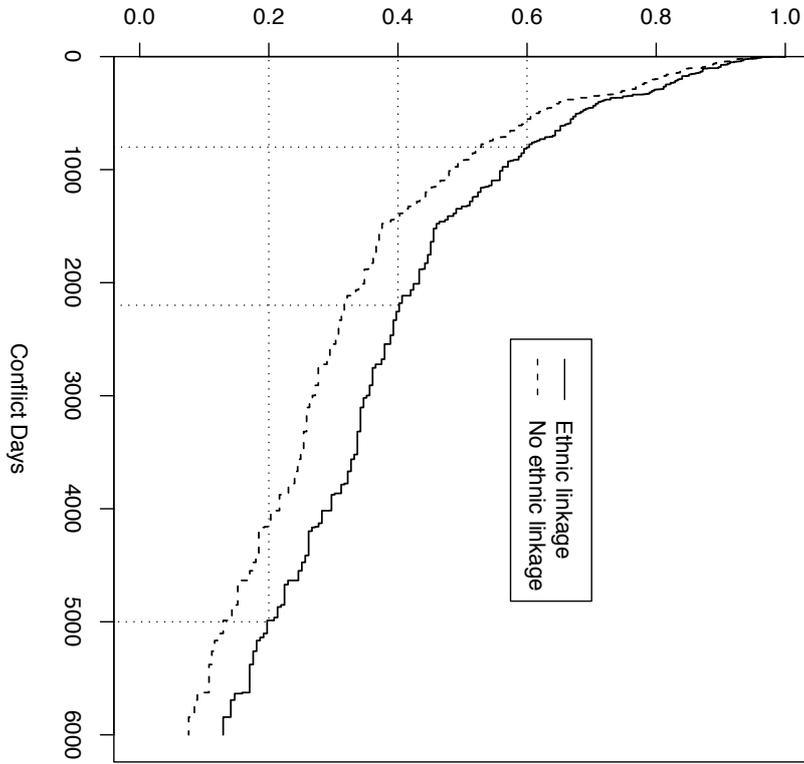
linked to included groups. The baseline category contains rebel organizations that do not have an ethnic link. The estimates suggest strong support for the main hypothesis. While rebel organizations related to included ethnic groups are not associated with longer conflict durations, organizations fight for a notably longer period of time if they claim to fight on behalf of and recruit from excluded ethnic groups. Compared to the reference category, these rebel organizations decrease the underlying baseline hazard by 32 percent, thus significantly prolonging conflict dyad duration. This effect is even more pronounced when considering the difference between rebel organizations with different ethnic linkages. Rebel organizations with a linkage to excluded groups have a hazard rate that is on average 50 percent lower than that of organizations that are affiliated with included ethnic groups. A Wald test indicates that this difference is highly statistically significant. However, the negative, i.e., conflict-shortening effect for rebels linked to included ethnic groups is not statistically significant at conventional levels. These findings suggest that the effect of ethnicity reported in Model 1 is entirely driven by the subset of rebel organizations that are linked to excluded ethnic groups, an insight that provides strong support for Hypothesis 5.1b.

Figure 5.5 provides a graphical interpretation of the main results. The left panel plots the predicted survival functions from Model 1 for rebel organizations with and without an ethnic linkage.³⁷ The y-axis displays the predicted survival percentage at a given conflict day (x-axis). The solid line represents the predicted values for rebel organizations with an ethnic linkage, while the dashed line refers to rebel organizations that are not associated with an ethnic group. The left panel reiterates the previous insight that Model 1 demonstrates, predicting longer conflicts. For example, Model 1 predicts that 50 percent of rebel organizations without an ethnic linkage cease to fight after about 950 days (2.6 years), whereas 50 percent of rebel organizations that are affiliated with an ethnic group are expected to end their activities after 1300 days (3.6 years). However, even though the difference is quite substantial in absolute terms, it is only marginally significant at conventional levels.

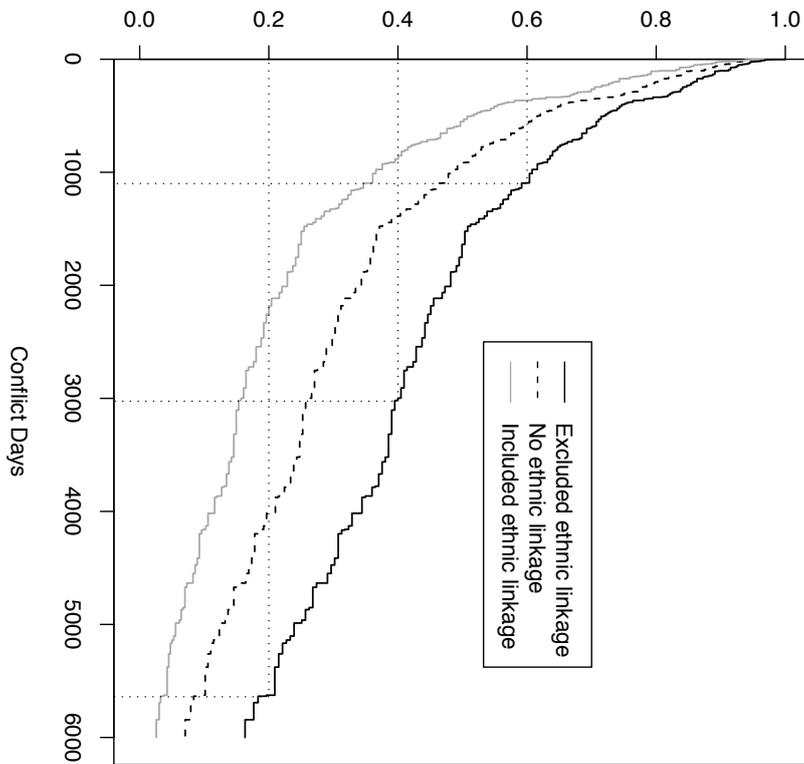
The right panel in Figure 5.5 plots the predicted survival functions from Model 2, which allows us to differentiate between rebel organizations that are linked to included (solid grey line) and excluded (solid black line) ethnic

³⁷All other variables were held at their mean, respectively at their mode for dichotomous variables.

Figure 5.2: Predicted Survival Functions



Model 1



Model 2

groups. Recall that rebel organizations linked to excluded ethnic groups fight significantly longer than organizations linked to included groups or organizations without an ethnic linkage. Model 2 predicts that 50 percent of rebel organizations with a link to excluded ethnic groups cease fighting after 1650 days (4.5 years), while the half-life of organizations that are affiliated with included ethnic groups is 550 days (1.5 years). Again, rebel organizations without an ethnic linkage cease fighting after about 950 days (2.6 years).

5.5.1 Alternative Explanations

An important question remains as to whether or not alternative explanations may underlie the finding that rebel organizations linked to excluded ethnic groups are associated with longer conflicts. In particular, this section considers two theoretical accounts, both of which treat the state as an active-conflict party (Fearon, 2004; Kalyvas, 2008), as well as a theory that addresses the difficulty of reaching an agreement (Cunningham, 2006). First, the empirical explanations put forward in this chapter could be driven by “sons of the soil” dynamics that (Fearon, 2004) identifies to explain civil war duration. Following Weiner’s (1978) original conceptualization, these conflicts occur between a peripheral, geographically concentrated ethnic minority (i.e., the sons of the soil) and a dominant ethnic group from the center. In this kind of conflict, the minority faces state-initiated migration to the minority’s perceived homelands. Scarce resources, such as land or jobs, result in strong grievances and local struggles. Importantly, these grievances are primarily state-induced, since the migration is assumed to be, at least in part, orchestrated by the government. Such conflicts are likely to escalate into situations in which the state sides with migrants in an attempt to appease its support base. Because migration is path-dependent and the government has an interest in maintaining such policies, the state is unable to credibly commit to a peace agreement. Fearon and Laitin (2011) argue that this makes sons-of-the-soil conflicts especially difficult to resolve, thus prolonging the armed struggle. Relying on Weiner’s original definition, a binary indicator for such conflicts was coded. However, Model 3 suggests that adding the measure for sons-of-the-soil dynamics does not noticeably change the main results. Moreover, the sons-of-the-soil variable does not significantly influence rebel organization duration. Given the definition of such wars as conflicts involving “disadvantaged minorities”, such wars are

best seen as a subset of ethnic conflicts typically involving ethnic groups excluded from state power. Indeed, it turns out that 28 out of 30 dyads coded as sons-of-the-soil are linked to ethnic groups that are excluded from state power.³⁸

Second, it is also possible that the results may capture ethnic defection, which Kalyvas (2008) puts forward as the prime argument for why ethnic identities should be treated as fluid rather than fixed. He describes the situation as follows: “(a) the incumbent state is willing and able to recruit members of the rebellious ethnic minority, (b) a substantial number of individuals collaborate with a political actor explicitly opposed to their own ethnic group, and (c) fighters and sympathizers switch sides from ethnic rebels to the state” (Kalyvas, 2008, 1050). Although the theory postulates a variable effect of ethnicity, this effect is not random but rather the result of systematic state action. As Kalyvas (2008, 1045) explains, “the behavioral potential of ethnicity is empirically variable . . . [and] a key determinant . . . is the willingness of incumbent states facing ethnic rebellion to recruit ethnic defectors, which in turn depends on their resources.” Put differently, state strength, and territorial control in particular, is regarded as a systematic modifier of ethnic identities. In an attempt to partially operationalize this logic, ethnic defection should be less likely when rebel organizations enjoy territorial control, thus prolonging conflict. Therefore, the effect of ethnicity should be stronger when rebels exercise territorial control and weaker or absent during conflicts in which the rebels lack such control. To assess this implication, Ethnic Linkage with Excluded Group was interacted with Territorial Control (Model 4). The results reveal no significant interaction effect, suggesting that the effect of ethnic nationalism is not an artifact of ethnic defection.³⁹

Finally, since the theoretical explanation for why ethnic nationalism prolongs civil wars rests on the argument that such conflicts are more difficult to resolve, it makes sense to also consider the effect of veto players. In an application of the veto player framework, Cunningham (2006) argues that the presence of multiple rebel organizations in the same conflict leads to narrower bargaining ranges, a higher risk of information asymmetries, last mover advantages, and shifting alliances. As a consequence, as more

³⁸The only exceptions are the MFDC in Senegal, linked to the Diola, and the UFLA in India, linked to the Assamese.

³⁹A more direct test of the defection mechanism would require more fine-grained data on territorial control.

veto players exist in a given conflict, that conflict becomes more difficult to resolve and, as a consequence, endures for a longer period of time. Model 5 therefore controls for the number of veto players, which is measured as the number of rebel organizations active at the start of the conflict. Despite a negative effect for this variable, the coefficient is not statistically significant. Moreover, it does not affect the previous findings: rebel organizations linked to excluded ethnic groups fight significantly longer than those linked to included groups, as well as those without an explicit ethnic linkage. In sum, there is substantial support for the core Hypotheses 5.1a and 5.1b.

Having demonstrated strong empirical evidence for the argument that ethnic exclusion is related to longer conflicts, it is now time to consider secondary evidence and extend the analysis by examining whether or not the effect of exclusion is conditional on the conflict outcome (Hypotheses 5.2a, 5.2b, 5.3a, 5.3b). The theoretical section argued that longer conflicts result from exclusive policies that (a) constrain the state's willingness to accept settlements and (b) increases the ability of rebel organizations to recruit from ethnic group members with strong grievances. Thus, five further models were estimated to account for different conflict outcomes: victories (by either party), government victories, rebel victories, agreements, and low activity. The results can be found in Table 5.2. Models 6 through 8 address decisive victories. There exists some evidence for Hypotheses 5.2a, 5.2b, 5.3a, 5.3b; conflict dyads involving rebel organizations that are linked to excluded groups appear to be less likely to end in victories, either by the government or the rebels, than conflict dyads featuring rebel groups that are linked to included ethnic groups or those without an explicit ethnic linkage (albeit not always with statistical significance).⁴⁰ Model 9 shows that rebel organizations linked to included groups are more likely to obtain negotiated agreements (Wald test). However, there is no evidence that this also holds for non-ethnic rebel organizations. One possible reason is that this category potentially conflates various types of conflicts, including ceasefires. For completeness, Model 10 considers the residual category of conflicts that fade out. While there seems to be some indication that ethnicity makes this outcome less likely, there appears to be no difference in this type of conflict in terms of political status. However, since there exist only three cases of such infighting on behalf of included groups, this result must be taken with a grain of salt.

⁴⁰The lack of statistical significance can possibly be attributed to a low number of positive cases. For example, out of only 15 victories by rebel organizations, just four were achieved by organizations linked to excluded ethnic groups.

In sum, the results suggest that ethnic exclusion is significantly related to longer conflicts because parties cannot agree on a negotiated settlement, including victories as implicit settlements and negotiated agreements as more explicit settlements. These results yield strong support for the theoretical conjecture that rebel organizations fighting on behalf of excluded ethnic groups are generally more willing to accept longer periods of fighting until a decisive outcome is reached and, furthermore, that governments may be prevented from accepting any type of settlement. In short, the findings further disaggregate the theoretical mechanisms that link ethno-political exclusion to long durations.

5.6 Robustness Checks

A number of alternative models were estimated to assess the robustness of the main results. In principle, the results could be affected by problems of selection, since excluded ethnic groups are more likely to fight to begin with. However, in this case the selection mechanism is driven by an observable factor - exclusion - for which the analyses do control, thus avoiding omitted variable bias. However, such bias will arise if an omitted variable is correlated with both exclusion and duration. In an attempt to address this problem, a set of robustness checks briefly consider some possible candidates.⁴¹ The core specification is the same as Model 2 in Table 1.

The robustness checks are given in Table 5.3. Model 11 includes a set of geographic variables, namely the distance from the conflict zone to the capital and to border locations, that have been previously associated with prolonged conflict (Buhaug, Gates and Lujala, 2009). If ethnic exclusion affects mainly peripheral groups, then this could drive the results. The estimates demonstrate, however, that the main results do not change by

⁴¹Two other strategies exist to tackle this problem. First, in principle, matching could provide a solution to the problem, but this is highly problematic here due to the small sample size of just 198 rebel organizations. Second, estimation techniques that address selection on unobservables require instrumental variables that are difficult to find, and that the units of observation can be observed in the selection processes. By definition, however, rebel organizations are only observed once they engage in conflict, and it is difficult to set up a super sample of “potential groups” to consider selection to conflict. Moreover, there exists no global dataset on political organizations of which rebel organizations would be a subset, and the only available estimator (Boehmke, Morey and Shannon, 2006) does not allow for time-varying covariates and is restricted to a correlation coefficient ρ between $-.25$ and $.25$.

Table 5.2: Competing Risk Estimates

Model	6	7	8	9	10
	Victories	Government Victories	Rebel Victories	Agreements	Low Activity
Ethnic Linkage with Included Group (β_1)	-0.061 (0.315)	-0.133 (0.378)	0.073 (0.678)	1.210** (0.529)	-0.523 (0.696)
Ethnic Linkage with Excluded Group (β_2)	-0.713** (0.283)	-0.794** (0.367)	-0.680 (0.452)	0.172 (0.316)	-0.519 (0.361)
Territorial Conflict	-0.176 (0.305)	0.576 (0.377)	-2.090*** (0.594)	0.147 (0.428)	0.018 (0.386)
Strong Central Command	1.069*** (0.205)	0.536* (0.295)	1.571*** (0.361)	0.092 (0.322)	-0.275 (0.414)
Legal Political Wing	0.492** (0.234)	0.540* (0.310)	0.421 (0.395)	-0.060 (0.531)	0.330 (0.320)
Territorial Control	-0.313 (0.261)	-0.141 (0.320)	-0.282 (0.358)	0.137 (0.333)	-0.503 (0.425)
Democracy	-1.099*** (0.352)	-0.827** (0.393)	-1.598** (0.686)	-0.853 (0.521)	-0.654* (0.353)
ln GDP p.c.	-0.077 (0.138)	0.083 (0.173)	-0.270 (0.202)	0.003 (0.228)	0.025 (0.165)
ln Population	-0.092 (0.082)	-0.040 (0.108)	-0.178 (0.122)	-0.317** (0.153)	0.210* (0.113)
Natural Resources	-0.361 (0.244)	-0.286 (0.327)	-0.482 (0.416)	-0.613 (0.380)	0.154 (0.394)
Wald test: $\Pr(\beta_1 = \beta_2)$	0.094*	0.154	0.357	0.073*	0.995
N	1,941	1,941	1,941	1,941	1,941
Days at Risk	637585	637585	637585	637585	637585
Number of Failures	115	67	48	56	68
Log-Likelihood	-447.7	-275.3	-165.1	-232.7	-296.7

Robust standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 5.3: Robustness Checks

Model	11		12		13		14		15		16		17		18		19		20		21		
	Location	Resources	Capacity	Strength	Cold War	Polity	Frailty	Frailty	Jackknife	Jackknife	Jackknife	Bootstrap											
Ethnic Linkage with Included Group (β_1)	0.325 (0.217)	0.317 (0.217)	0.316 (0.208)	0.344* (0.197)	0.068 (0.214)	0.354* (0.212)	0.392 (0.309)	0.374 (0.271)	0.308 (0.241)	0.346 (0.270)	0.325 (0.252)												
Ethnic Linkage with Excluded Group (β_2)	-0.408** (0.165)	-0.447*** (0.164)	-0.429*** (0.169)	-0.414** (0.173)	-0.453*** (0.162)	-0.422*** (0.161)	-0.605*** (0.219)	-0.537*** (0.188)	-0.417** (0.197)	-0.417** (0.172)	-0.429*** (0.202)												
Territorial Conflict	0.090 (0.192)	-0.034 (0.204)	0.079 (0.196)	0.084 (0.194)	0.031 (0.185)	-0.084 (0.199)	-0.209 (0.265)	-0.209 (0.215)	0.084 (0.228)	0.055 (0.190)	0.055 (0.225)												
Strong Central Command	0.439 (0.149)	0.467*** (0.146)	0.372*** (0.146)	0.351** (0.150)	0.432*** (0.152)	0.460*** (0.155)	0.609*** (0.206)	0.540*** (0.183)	0.445*** (0.172)	0.455*** (0.179)	0.462*** (0.194)												
Legal Political Wing	0.358* (0.183)	0.317* (0.190)	0.364** (0.185)	0.333* (0.187)	0.333* (0.176)	0.242 (0.182)	0.182 (0.214)	0.256 (0.187)	0.370* (0.208)	0.366* (0.213)	0.359* (0.209)												
Territorial Control	-0.354** (0.178)	-0.328* (0.174)	-0.352*** (0.172)	-0.444** (0.179)	-0.323* (0.169)	-0.326* (0.170)	-0.723*** (0.193)	-0.741*** (0.174)	-0.370* (0.191)	-0.384 (0.218)	-0.359* (0.197)												
Democracy	-0.832*** (0.193)	-0.806*** (0.194)	-0.811*** (0.202)	-0.825*** (0.197)	-0.806*** (0.195)	-0.806*** (0.195)	-0.849*** (0.256)	-0.789*** (0.253)	-0.845*** (0.231)	-0.811*** (0.232)	-0.851*** (0.214)												
In GDP p.c.	0.077 (0.079)	0.065 (0.084)	0.081 (0.080)	0.090 (0.081)	0.054 (0.080)	0.074 (0.079)	0.250** (0.118)	0.172 (0.117)	0.077 (0.093)	0.089 (0.113)	0.098 (0.096)												
In Population	-0.058 (0.062)	-0.043 (0.054)	-0.053 (0.052)	-0.029 (0.050)	-0.048 (0.052)	-0.064 (0.053)	-0.030 (0.072)	-0.007 (0.076)	-0.049 (0.060)	-0.04 (0.074)	-0.051 (0.060)												
Natural Resources	-0.321* (0.173)	-0.315** (0.157)	-0.328*** (0.157)	-0.315** (0.149)	-0.411*** (0.148)	-0.193** (0.081)	-0.703*** (0.211)	-0.759*** (0.188)	-0.339** (0.180)	-0.324* (0.193)	-0.351*** (0.180)												
log Conflict-Capital Distance	-0.024 (0.066)	-0.246 (0.200)																					
Conflict Zone at Border																							
Narcotics		-0.196 (0.239)																					
Oil		-0.178 (0.167)																					
Genstones		-0.207 (0.189)																					
Mobilization Capacity			0.217 (0.248)																				
Fighting Capacity			0.375 (0.313)																				
Rebels stronger than Government				0.972*** (0.288)																			
Rebels at Parity with Government				0.415* (0.213)																			
Post Cold War					0.572*** (0.174)																		
Polity						-0.035*** (0.011)																	
theta							0.549*** (0.197)																
Wald test: $\text{Pr}(\beta_1 = \beta_2)$	0.003***	0.002***	0.002***	0.001***	0.037**	0.001***	0.002***	0.001***	0.001***	0.002***	0.001***	0.002***	0.001***	0.009***	0.019***	0.010***							
N	1,941	1,941	1,941	1,941	1,941	1,941	1,941	1,941	1,941	1,941	1,941	1,941	1,941	1,941	1,941	1,941	1,941	1,941	1,941	1,941	1,941	1,941	1,941
Days at Risk	637585	637585	637585	637585	637585	637585	637585	637585	637585	637585	637585	637585	637585	637585	637585	637585	637585	637585	637585	637585	637585	637585	637585
Number of Failures	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272
Log-Likelihood	-1142	-1143	-1142	-1137	-1134	-1149	-1235	-1233	-1143	-1143	-1143	-1143	-1143	-1143	-1143	-1143	-1143	-1143	-1143	-1143	-1143	-1143	-1143

Robust standard errors in parentheses
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

including variables that measure the distance between conflict and capital or whether the conflict area intersects with state borders.

As argued in the theoretical Chapter 3, states may engage in exclusion in order to maximize resource extraction and ingroup redistribution. While lootable resources are a prime cause of state-initiated exclusion, these resources can also benefit rebel organizations if they manage to control the necessary territory. To further investigate the effect of natural resources, Model 12 tests whether any particular type of resource drives the compound effect of natural resources in the conflict area, and identifies whether disaggregating this variable has any effect on the main estimates. Although all three types yield negative coefficients, these are not significant and do not affect the magnitude nor significance of the coefficients for ethno-political linkages.

A further explanation attributes exclusion to capacity and strength, since it is less difficult and less risky for states to exclude weak groups than to exclude strong ones. Model 13, therefore, tests whether mobilization and fighting capacity or the balance of power vis-à-vis the government (Model 14) could diminish the findings related to ethno-political linkages. While the capacity variables do not significantly affect the length of conflict, compound measures of rebel strength show that weak rebel organizations (reference category in Model 14) fight the longest. Additionally, Model 15 controls for whether the conflict takes place after the end of the Cold War, i.e., post 1989. Kalyvas and Balcells (2010, 416) argue that the international system “shapes the military dimension of civil wars through its impact on the relative power of the contestants.” In particular, the Cold War period is characterized by “robust rebellion” that benefits rebel organizations, which in turn is associated with long durations (see also Hironaka, 2005). The results of Model 15 suggest that rebel organizations are associated with shorter conflict durations during the post-Cold War period. Most importantly, the main finding, which indicates that rebel organizations associated with politically excluded ethnic groups fight the longest, is robust to the inclusion of capacity, strength, and post-Cold War controls.

Model 16 considers the effect of democratic institutions, this time employing the full polity scale. Since inclusiveness is a core principle of democracy, one should expect to find lower levels of exclusion in democracies, while responsiveness (domestic audiences) and other democratic norms, such as concerns for human rights, may impose restrictions on governments’ ability

to fight rebel organizations. Again, this model yields a negative effect, suggesting that democratic governments tend to fight longer. However, this does not affect the results associated with ethnic exclusion.

Models 17 and 18 also examine the effect of potential unobserved heterogeneity, both between conflicts and countries. In other words, these models check whether the results are an artifact of unmeasured country- or conflict-constant variation. In order to do this within a Cox proportional hazards framework, a gamma frailty term as a random effect is included (see Box-Steffensmeier and Jones, 2004, Chapter 9). Although the variance for this term is statistically significant in both cases, it does not attenuate the core results. On the contrary, across all model specifications, the frailty models yield the largest coefficients for rebel organizations linked to excluded ethnic groups. In addition, the results are robust with respect to alternative estimation approaches by estimating several parametric hazards models (Weibull, log-normal and log-logistic), all of which yielded similar and significant results (not shown). To assess whether the findings are driven by particular conflicts or countries, Model 3 was re-estimated with group-wise jackknifing of the sample by (a) conflicts and (b) countries, as well as bootstrapping it (Models 19 through 21). The estimated coefficients do not change and the standard errors remain small. Finally, variance inflation factors were also estimated to check for potential multicollinearity, but found to be well below critical thresholds for all the independent variables.

5.7 Conclusion

This chapter examined the role of ethnicity in the context of civil war duration. Focusing on actors and agency in civil wars, it presents a theoretical account that links rebel organizations and ethnic groups while including the state as an actor. The main argument is that exclusionary policies enacted by the state are likely to influence the salience of ethno-nationalist grievances. More specifically, exclusionary politics not only reveal that state preferences impact the ability and willingness of incumbent governments to accept settlements, but also induce members of ethnic groups who are systematically excluded from state power to develop stronger group solidarity and to become more cost-tolerant. Such rebel organizations are therefore more likely to fight longer conflicts. It is these grievances that allow rebel organizations to recruit and fight on behalf of such groups to maintain their fighting base for

longer periods of time.

Thus, contrary to what is assumed by many scholars, this chapter finds that ethnic conflicts last longer not because ethnic loyalties are rigid and difficult to transcend, nor do they last longer because ethnic identities *per se* help rebels to overcome collective action problems within their ranks. Rather, it is the unique combination of ascriptive ethnicity and state-enacted exclusion along categorical lines that impacts conflict duration. Hence, conflicts last longer when ethnicity is charged with ethno-nationalist grievances. The results thus point directly to institutions and policies that make such conflicts less likely to begin with, but also help to bring about their resolution, namely ethnic power-sharing through inclusion. In contrast to the essentialist view that deeply held ethnic identities drive such violence, the argument presented here holds that grievances are by no means fixed. Indeed, the analysis shows that grievances result from policies of ethno-nationalist exclusion. Although the literature on power sharing highlights a number of pitfalls in such arrangements, representation at the political center could therefore, at least in principle, be a powerful tool for alleviating grievances and thereby shortening armed conflicts (e.g., Rothchild and Roeder, 2005). I return to this issue in Chapter 7 and present evidence that such a strategy does indeed help prevent conflicts from flaring up repeatedly.

More generally, the approach presented here is not only more complete, since it covers a more extensive set of actors, but also offers more causal depth. By theoretically and empirically disaggregating the political effect of ethnicity, it goes beyond the current literature by explaining variation in the level of grievances as the result of state action. The empirical results provide strong support for the argument that ethnicity affects conflict duration when states exclude large parts of the population along categorical lines. If rebel organizations are linked to these excluded ethnic groups, then fighting persists for a significantly longer period of time. Therefore, it is not ethnicity but rather ethno-nationalist policies that drive conflict duration.

Chapter 6

Modeling Spoiler Dynamics in Civil Wars

6.1 Introduction

Analysts often describe conflicts in the Middle East, Burma, Sri Lanka, and elsewhere as frozen, protracted or intractable. Why do many civil conflicts last for years or even decades, and what prevents some conflicts from reaching effective resolutions? While the previous chapter laid out an explanation that focuses on the interaction between governments and non-state challengers in the context of ethno-politics, another dimension concerns the dynamics that exist *within* each side, thus relaxing the unitary actor assumption. Here, a prominent explanation in the literature is the logic of spoilers, who actively undermine peace processes and prevent conflicts from reaching effective resolution (Stedman, 1997).

Despite its prominence, however, the spoiler concept is insufficiently theorized, let alone tested empirically. Indeed, it rests largely upon anecdotal and case-study evidence, and tends to be used descriptively or as a *post-hoc* explanation, rather than as the object of study. In short, we lack a deeper understanding of its theoretical underpinnings, as well as a systematic empirical validation across a large number of cases.

Building on the previous chapter (Wucherpfennig et al., 2012), this chapter presents an argument that characterizes *spoiler dynamics as a negative externality, occurring when rivaling rebel factions compete over a critical yet finite resource by means of fighting the government*. More specifically, I attribute such competition to ethno-nationalist politics, which drive rebel organizations to fight the state as a means by which to gain public

support vis-à-vis other rebel organizations. Thus, I show that competition is linked to extremism and polarization. However, unlike many studies, I do not attribute extremism and polarization to ethnic diversity *per se* (Rabushka and Shepsle, 1972). Rather, they are the result of variability in state policies directed at particular ethnic groups that are associated with rebel factions: where ethnic groups are categorically denied institutional channels of political participation, despair emerges and provides a fertile breeding ground for extremism, polarization and ultimately violence against the state. Intuitively, this logic is well illustrated by the Israeli-Palestinian conflict, which (at least in part) has been protracted due to strong competition between Hamas and Fatah.

The fact that the spoiler argument has not yet been scrutinized in a systematic analysis across a large number of cases is not surprising for at least two reasons. First, it is theoretically impossible to identify spoilers *ex ante*, that is, to code them exogenously (Greenhill and Major, 2007). Second, as I explain in detail below, the very logic of the spoiler argument implies a type of interaction between units (here: rebel factions) that is fundamentally at odds with conventional statistical techniques, which assume that units are independent of one another. Building on earlier work by Metternich and Wucherpfennig (2010), I develop an approach based on spatial econometrics that attempts to overcome both problems and is seamlessly derived from the formal model. Whereas existing quantitative studies focus on the interaction between governments and rebel organizations, the spoiler argument implies systematic and strategic, albeit conditional, interaction between particular rebel organizations. This allows me to demonstrate that spoiler dynamics are real; the phenomenon does exist as a systematic pattern across a large number of cases.

The chapter is organized as follows. The next section briefly reviews the literature on spoiler dynamics and discusses problems related to empirical operationalization. In section 6.3 I lay out the theoretical approach, including a formalization of the argument. Section 6.4 introduces the statistical estimator and explains the way in which interdependence between rebel organizations is captured. The next section introduces the data, and the results are given in the section that follows. The final section concludes.

6.2 Identifying Spoiler Dynamics

Practitioners and analysts frequently attribute protracted and frozen civil conflicts to spoiler problems. Typical examples include Hamas, which is often discussed as a paradigmatic case and accused of sabotaging the Israeli-Palestinian peace process, or various SPLA/M (Sudan People's Liberation Army/Movement) factions that were active during the second Sudanese civil war. Before laying out my own approach to spoiler dynamics, this section discusses the spoiler concept in detail, pointing out a number of conceptual deficiencies to which I will respond in the remainder of the chapter.

Typology. I begin with a simple question: how would we recognize a spoiler if we saw one? Despite the prominence of the subject, the spoiler literature suffers from a lack of conceptual precision. Stedman (1997, 5) originally defines spoilers as “leaders and parties who believe that peace emerging from negotiations threatens their power, worldview, and interests, and use violence to undermine attempts to achieve it.” He then develops a typology identifying different types of spoilers (limited, greedy or total), suggesting that a subset of actors in conflict can be classified as particular types of spoilers.

Recent work convincingly argues that spoiler are “made” rather than “born” (Greenhill and Major, 2007, see also Zahar 2010), pointing at the importance of particular structural factors that foster the emergence of spoilers. As a result, spoiler type cannot be treated as an independent variable, but is at best “an intervening variable that is subject to deeper causal processes” (Greenhill and Major, 2007, 36). Rather, what matters are the types of possible outcomes, which in turn determine the types of spoilers that may emerge. Zahar (2010, 268-269) adds that

“[i]f profiling does not work in identifying would-be spoilers ex ante, it is because most parties to a conflict, no matter how extremist their views, both desire peace (because war is costly) and want to get away with much as much as they can in the event of an agreement.”

Accordingly, the spoiler typology merely differentiates between moderates and extremists (Zahar, 2010, 269). But this is of course unsatisfactory, precisely because the labels of “moderates” and “extremists” gain significance mainly from direct comparison. Ultimately, then, what makes a spoiler can

only be determined endogenously, rendering any typology void for analytical purposes that aim to explain actions.

Locus. A further distinction is made between “inside” and “outside” spoilers, relating to the actor’s position with regard to the peace process. However, as Stedman (1997, 49) admits himself, one must not blithely assume that “parties are acting in good faith when they sign a peace agreement.” Indeed, parties may enter negotiations as a strategy in order to buy time, achieve recognition, rearm, etc. without any real interest in settlement. Thus, an observational focus on agreements is likely to miss critical motivations driving the actors’ behavior. Importantly, it will also miss the most severe spoiler problems: those which prevent negotiations altogether.

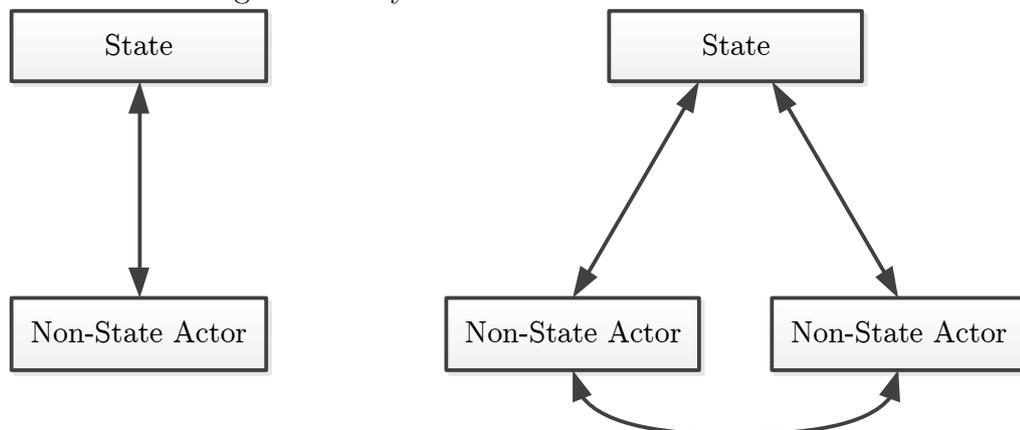
Analytical Distinction. Imprecision also arises from ambiguity about the postulated *consequences* of spoilers. On the one hand, the use of violence is a key component of Stedman’s (1997) operational definition. On the other hand, violence is also a necessary condition in the operational definition of conflict. In the limit, then, *all* parties resorting to violence in a conflict must be classified as spoilers, since they were unwilling to concede to the arrangement given by the status quo prior to the war. Indeed, through the lens of bargaining theory (Fearon, 1995*b*; Walter, 2009*a*), it is not clear what constitutes the difference between spoilers and bargaining failure. Zahar (2003, 162) summarizes this succinctly as a “conflation between violence, spoiling and opposition to peace.”

Targets. Perhaps most critically, the spoiler literature is insufficiently clear about the “victims” of spoiling. Although there appears to be agreement that spoiled peace is the consequence of spoiler dynamics, it is not always clear *for whom*. Pearlman (2009, 79) rightfully criticizes that it is commonly assumed that “spoilers act primarily to achieve objectives vis-à-vis their external opponent.” In this context, for example, Greenhill and Major (2007, 12) discuss “how two or more parties decide how to divide the gains from joint action.” Against this conception, I contend that spoilers can never exist in isolation, but require at least *three* actors with divergent interests. In short, one side must be fragmented rather than unitary (cf. Fearon, 1995*b*).

Such fragmentation can emerge through fragmentation within either the government or the opposition, although the latter, in the form of rebel factions is more empirically more likely.⁴² In other words, spoilers must spoil

⁴²Governments sometimes even provoke fragmentation as part of divide-and-rule-strategies.

Figure 6.1: Dyadic and Triadic Constellations



peace for someone else. Spoiler dynamics, then, constitute the bargaining complication that arises when more than two parties with partially divergent interests are involved in conflict with a common opponent. By contrast, if these could occur in strictly dyadic conflicts, the inability to reach a settlement between two warring parties - despite the fact that conflict incurs costs - would immediately qualify as spoiler dynamics. But again, this would result in the conflation of the concepts spoiler, violence and conflict. Pearlman’s (2009) focus on spoiler problems as “internal political contestation” is therefore appropriate.

If we accept the proposition that spoilers cannot be “profiled” (to paraphrase Greenhill and Major 2007, 12), it follows that *spoiler problems* or *spoiler dynamics*, rather than *spoilers*, should be the object of study. Critically, these are not an inherent characteristic of actors, but a specific type of interaction that occurs *between* them. As such, fragmentation is a necessary condition. This simple point is conveyed in Figure 6.1, which illustrates the difference between a dyadic constellation (left), in which no spoiler dynamics can occur, contrasted with a triadic setup, which involves two non-state actors fighting the same government (right). Here, spoiler dynamics, depicted by the curved arrow, can emerge from the interaction between the two non-state actors; however, even in a triadic constellation, this need not be the case.

In sum, the essence of spoiler dynamics is about the type of interaction that prevents effective conflict resolution. The conditions with the broadest scope for such dynamics are given by constellations in which at least one side exhibits some kind of fragmentation. If we accept the proposition that parties generally prefer peace to war, but that they wish to maximize

concessions through fighting, it becomes clear that spoiler dynamics cause parties to incur additional costs that, in theory, they wish to avoid. Thus, I broadly define spoiler dynamics as *a form of bargaining difficulty that arises when the interactive relationship between two or more parties with a common external opponent induces the parties to employ higher levels of fighting*. This broad definition also hints at observable consequences of spoiler dynamics. Two alternatives are conceivable: spoiler dynamics can lead to more violence, or they can lead to prolonged conflict duration. In both cases, “more” must be conceptualized relative to a baseline that is given by the hypothetical scenario in which actor fragmentation is not present. Given that non-violent sabotaging of negotiations is also a feasible strategy (Zahar, 2010), the latter is arguably preferable, and thus the focus of the empirical analysis presented below.

6.3 A Theoretical Model of Spoiler Dynamics

Having clarified some of the conceptual issues regarding the definition of spoiler dynamics, my next step is to develop a theoretical explanation in which causes are related to consequences. Indeed, with few exceptions (e.g., Pearlman, 2009), the existing literature on the topic is largely descriptive, and offers little systematic guidance that goes beyond “explaining” spoiler problems by “naming and shaming the bad guys.” What prevents conflict parties from avoiding the costs associated with spoiler dynamics? In a nutshell, the theory presented here explains spoiler dynamics as a negative externality that emerges as the result of strategic competition over a resource that is critical for the existence and survival of a rebel organization but is finite in supply. The quintessential resource that fulfills these criteria is public support, which is likely to be crucial for rebel organizations operating on behalf of populations holding strong grievances at the hands of the state.

6.3.1 Intuition and Illustration of the Argument

Before laying out my argument formally, I illustrate the main intuition based on an episode of the Israeli-Palestinian conflict. Ever since the founding of the Israeli state in 1948, Palestinian Arabs have been excluded from state power. When in 1993 Israel and the Fatah-PLO publicly announced the

ratification of the Oslo Accords, Hamas, which had been left out of the secret negotiations, feared for its political survival. Indeed, it is often argued that a key objective in the negotiation process pursued by the PLO leadership (i.e., Yasser Arafat) was to gain sole international recognition. In order to accomplish this goal, the PLO hoped to eliminate the Fatah competition, which had recently gained momentum, in part because it benefited from Gulf funding after condemning Iraq's 1990 invasion of Kuwait (Pearlman, 2009).

What followed the announcement of the accords was a series of suicide attacks by Hamas (and Islamic Jihad) that served two purposes. First, Hamas used violence when it helped them secure public approval (see Clauset et al., 2010; Braithwaite, Foster and Sobek, 2010). Fighting thus kept Hamas alive and relevant while posing a series of problem for the designated peace process laid out in the Oslo Accords by the more moderate PLO-Fatah. Yet, intra-ethnic competition by way of fighting the external opponent emerged as a feasible strategy because it resonated reasonably well with the Palestinian public, which had suffered from political and economic exclusion for decades. Second, this violence was of course directed against the Israeli state and the Israeli public. Indeed, public distrust of the peace process culminated in the election of the right-wing Likud and Prime Minister Benjamin Netanyahu in 1996, "which became another nail in the coffin of the peace process" (102 Pearlman, 2009, see also Kydd and Walter 2002, 2006). As a result, the Oslo Accords failed, and the conflict endured.

In sum, factionalization between Hamas and Fatah, combined with their respective striving for public support, political relevance and political survival, drew them into a competition in which spoiler dynamics impeded the peace process. Indeed, the two factions eventually fought each other militarily, mainly in 2006 and 2007, and it was only very recently that Hamas and Fatah signed a reconciliation agreement in May of 2011.

6.3.2 Heterogeneity among Rebel Organizations

By definition, fighting in civil wars occurs between rebel organizations (non-state actors) and governments. Broadly speaking, the objective pursued by rebel organizations is to secure political and/or economic survival. This leads to two related, overall goals that comprise the rebel organizations' utilities: (1) to maximize political concessions vis-à-vis the external opponent, i.e., the government, and/or (2) to maximize the material spoils that can be

distributed among those taking part in the conflict (Fjelde and Nilsson, 2012). Rebel organizations work towards these goals by means of fighting. In other words, they decide for how long to fight, as well as when to stop and settle for a bargain.

However, not all rebel organizations are the same in terms of their operational structure (Weinstein, 2007; Wucherpfennig et al., 2012). Whereas political economist approaches emphasize the looting and criminal activity that characterize, for instance, the conflict in Sierra Leone, the previous chapters of this dissertation focused primarily on the type of organizations that operate in an ethno-political context characterized by ethnic nationalism and exclusionary state policies. When state governments enact policies that systematically exclude members of specific ethnic groups from valuable economic and political goods, such as representation and access to state power, strong grievances and resentment are likely to emerge (Petersen, 2002). As conventional channels of political participation are categorically blocked for parts of the population, grievances among the affected populations can facilitate mobilization and lead to conflict (Gurr, 1993*b*; Cederman, Wimmer and Min, 2010). Thus, dissatisfaction with the political status quo paired with systematic exclusion from conventional modes of political input leads groups excluded from state power to employ violence as a substitute for regular politics.

Grievances can then play into the hands of rebel organizations because they benefit from the availability of fighters with higher levels of commitment and greater cost-tolerance (Wucherpfennig et al., 2012). Moreover, the indiscriminate nature of exclusion fosters strong group solidarity because individual “wrongs” perpetrated by the state are perceived *collectively* by members of the group (Oberschall, 2007). As a result, rebel organizations that operate on behalf of excluded ethnic groups are critically reliant on the support of underlying populations, since public support secures recruitment, legitimacy and even access to other resources, such as hideouts (Horowitz, 1985). In short, public support is critical to the sustenance of rebel organizations that fight on behalf of excluded ethnic groups.

These considerations can be formalized. Whether and to what degree a given rebel organization i manages to achieve its goals can then be represented by an objective function:

$$U(y_i, s_i \cdot z_i; X_i), \tag{6.1}$$

where y_i is the decision variable (i.e., the level of fighting), s_i is the amount

of a critical resource (i.e., public support) that is enjoyed by i , z_i is a variable that denotes the degree to which the rebel organization is dependent on s , and X_i is a vector of i 's characteristics that also affect the success or failure of the rebellion. In other words, for a rebel organization which does not rely on s , the modifying variable $z_i = 0$. The objective function is then simply $U(y_i; X_i)$.

Finally, the fact that rebel organizations differ in their reliance on public support suggests that heterogeneity exists terms of the responsiveness towards the actions of other rebel organizations. Thus, whereas fragmentation merely implies that rebel organizations differ in their exposure to other rebel organizations, this context only has an effect to the degree that a given organization is actually responsive to these actions (Neumeyer and Plümper, 2011).

6.3.3 Competition for Public Support

As is argued above, public support is particularly critical in rebellions that are framed as representing the interests of particular groups, not least because the resulting agency mechanisms (recruitment, support, etc.) is usually directly dependent on public support. While the previous chapters showed that such linkages complicate the bargaining process between incumbent governments and rebel organizations, many civil conflicts involve more than one rebel organization fighting against a common government (Cunningham, 2006). In other words, a rebel organizations may not be the sole actor challenging the government, which in turn implies fragmentation and divergent preferences exist among the opposition along a moderate-extremist continuum.

The categorical nature of ethnic exclusion then benefits extremists because state exclusion readily provides a justification for their hardened positions, but of course moderates usually also prevail. Moreover, as exclusion sows the seeds for radicalization, the perceived illegitimacy of the state invites competition for legitimate representation of the group between moderates and extremists.

How do rebel organizations gain public support? I argue that fighting an incumbent government is a suitable strategy that can be used to gain public support when fighting occurs on behalf of excluded ethnic groups. This is the case for at least three reasons.

First, the logic of ethno-political exclusion largely precludes members of excluded groups from engaging in regular politics. This problem becomes

all the more acute in times of conflict. As a consequence, rebel factions must rely on fighting the government as an “showcase” by which to signal their commitment to the cause of the rebellion, not least because their bargaining leverage depends on the subjective legitimacy granted by the associated populations. In short, fighting the government provides an arena for quasi-political competition.

Second, by fighting the government, rebel organizations display their relative strength, thereby guaranteeing their internal and external bargaining positions. Indeed, fighting signals that other factions are not the sole voice of excluded populations, both to the government and the excluded population. For instance, acts of terrorism are commonly associated with spoiler dynamics. Bloom (2004, 71) argues that “[i]n the absence of monopoly of force, groups competed and outbid each other with more spectacular bombing operations and competition over claiming responsibility.” Cunningham, Bakke and Seymour (2011, 5) call this a “dual contest” in which “individual factions must struggle simultaneously in two competitions: first against the state, and second, with co-ethnic factions.” Public support therefore also guarantees political survival in two ways: internally vis-à-vis the ethnic group that an organization claims to represent, and externally, as it establishes fighting capacity and thus secures the bargaining position vis-à-vis the government, which in turn determines the distribution of the spoils.

Third, Kydd and Walter (2002, 264) point out that “extremists succeed in destroying a peace settlement if they are able to foster mistrust between more moderate groups that must implement the deal; they fail if the moderate groups retain an adequate level of mutual trust in each other’s willingness to fulfill the deal.” Thus, if the government is unable (or unwilling) to discriminate between rivaling factions, the potential for (partial) peace will be low. For this reason, spoiler dynamics can at times even lead to hardened grievances among *included* populations, which in turn makes it more difficult for governments to reach acceptable settlements with rebel organizations.

In sum, for rebel organizations fighting on behalf of excluded ethnic groups, fighting the government may, for many reasons, appear to be a viable strategy with which to gain public support. This is especially true when public support is in short supply, because it must be shared between different rebel organizations. In formal terms, rebel organizations compete over s by means of fighting, and so its distribution depends on the level of fighting by the entire vector of y . The level of s that i enjoys can thus be

represented by a resource-distribution function:

$$s_i = D(y_i, y_{-i}), \quad (6.2)$$

where y_{-i} is the level of fighting by all other rebel organizations.

This gives rise to strategic interaction, since a “competitive environment between the different factions implies that one group’s optimal response or action to increase its support [...] is partially a function of other groups’ actions and responses” (Clauset et al., 2010, 11-12, see also Lake and Powell 1999; Franzese and Hays 2008). Thus, the resource-distribution function does not imply a spiral of violence; it simply states that, when choosing an *optimal* level of violence at which to gain public support, rebel organizations take into account the level chosen by their competitors.

6.3.4 Conditional Spatial Reaction Functions

Having theorized the flow of public support as a resource, the final step is to derive the reduced form of the model. A suitable way of doing so is to conceptualize context as space. Thus, I extend the concept of spatial reaction functions (Brueckner, 2003, see also Franzese and Hays 2008) in order to model the interaction and conditional competition between multiple rebel organizations. As I will show subsequently, the theoretical model seamlessly motivates a particular statistical estimator, which is then applied in the empirical section of the paper.

The reduced form of this resource-flow model can be derived by substituting equation 6.2 into equation 6.1:

$$U(y_i, D(y_i, y_{-i}) \cdot z_i; X_i) \equiv \tilde{U}(y_i, y_{-i} \cdot z_i; X_i) \quad (6.3)$$

Rebel organization i now optimizes its objective function \tilde{U} by choosing an optimal level of fighting:

$$\frac{\partial \tilde{U}}{\partial y_i} \equiv \tilde{U}_{y_i} = 0. \quad (6.4)$$

Clearly, this derivative depends not only on i ’s characteristics, but also on the level at which other organizations fight. This can be expressed as a spatial reaction function:

$$y_i = R(y_{-i} \cdot z_i; X_i). \quad (6.5)$$

As a result, if y_{-i} and z_i are positive, then spoiler dynamics emerge as an indirect negative externality. This is because rebel organizations' actions induce a cost that is partially incurred by a third party. Moreover, the externality is indirect, because the actions by the initiator lead to indirect competition via the government.

Now consider the case in which a rebel organization does not depend on s , i.e. $z_i = 0$. In this case the objective function is simply

$$U'(y_i; X_i), \tag{6.6}$$

whereas the reaction function is no longer spatial:

$$y_i = R'(X_i). \tag{6.7}$$

Thus, whereas y is endogenous in equation 6.5, this does not apply to equation 6.7. More specifically, the endogeneity in equation 6.5 arises from simultaneity, because y appears on both sides of the equation; it is at this point that conventional regression models fail. Fortunately, it is possible to derive an econometric implementation of conditional spatial reaction functions: the conditional spatial-autoregressive model. The empirical section therefore introduces this estimator in some detail.

6.4 An Empirical Model of Spoiler Dynamics

Because this study aims at a disaggregated level of understanding strategic dynamics, the major methodological challenge stems from the simultaneity that is suggested in equation 6.5: where rebel organizations compete for the same resource, the level of fighting is partially dependent on the level of fighting by all other rebel organizations. This clearly suggests that rebel organizations are strategically interdependent, rather than being independent of one another.

It turns out that strategic interdependence is incompatible with many conventional statistical techniques, including regression analysis (Signorino, 1999; Signorino and Yilmaz, 2003). The main reason for this is that conventional methods assume the units to be sampled independently from one another. If spoiler dynamics prolong the duration of a conflict until a rebel

organization settles with the government, then strategic interdependence due to competition implies that how long rebel organization A fights has a systematic effect on how long its competitor B will fight. However, the duration of B's fighting also affects that of A. Thus, duration is both a dependent and an independent variable. As is well known, such a setup leads to biased estimates resulting from simultaneity as a type of endogeneity. Modeling spoiler dynamics therefore requires an alternative approach.

Whereas several existing empirical studies find that fragmentation affects duration, none of them does justice to strategic interdependence. Indeed, these analyses are either conducted at the conflict level (e.g. Cunningham, 2006), which effectively black-boxes the interaction, or at the level of rebel organizations, but on the problematic assumption that interdependence is exogenous⁴³ (e.g., Cunningham, Gleditsch and Salehyan, 2009; Nilsson, 2010; Cunningham, 2011; Cunningham, Bakke and Seymour, 2011; Wucherpfennig et al., 2012). Drawing on the theoretical model presented above, the empirical model derived here attempts to overcome these deficiencies and to model directly the type of interaction that is likely to generate spoiler dynamics.

6.4.1 Spatial Event History

In section 6.2 I argued that spoiler dynamics as obstacles to settlement cause individual rebel organizations to fight for longer periods of time than they otherwise would. Thus, duration is the dependent variable, which is commonly modeled by means of event history analysis (see, e.g., Box-Steffensmeier and Jones, 2004).

Consider a standard parametric event history model, such as a Weibull or log-normal event history model. These can be written in accelerated failure time (AFT) form as follows:

$$y = \mathbf{X}\beta + \frac{1}{\lambda}u, \quad (6.8)$$

where y is the logged time until failure (i.e. duration), X is a vector of covariates, and u is the stochastic error, scaled by a shape parameter λ that denotes the shape of the baseline hazard. Since u is assumed to be i.i.d. according to a distribution chosen by the analyst, it follows that such a model will lead to biased estimates when the observations are not sampled independently of one another.

⁴³By its very nature, simultaneous interaction is never exogenous.

Fortunately, as shown by Hays and Kachi (2009), if information about the structure of the interdependence is available to analyst, it is possible to overcome the independence assumption also for event history models by introducing a spatial lag,

$$y = \rho \mathbf{W}y + \mathbf{X}\beta + \frac{1}{\lambda}u, \quad (6.9)$$

where \mathbf{W} is an $n \times n$ connectivity matrix that contains information on the spatial relationship between observations. Put differently, \mathbf{W} connects observations that are plausibly dependent. Assuming that the interdependence follows a monotonic functional form, ρ then gives an estimate of the interdependence between observations. Due to its analogy in the time-series analysis, this type of model is referred to as a spatial lag or spatially autoregressive model (SAR).

Whereas most applications specify \mathbf{W} as a function of geography (typically distance), Beck, Gleditsch and Beardsley (2006) argue that “space is more than geography.” I therefore follow Metternich and Wucherpfennig (2010), who argue that interdependence between rebel organizations should exist between those rebel organizations that fight in the same conflict. The exact setup of this connectivity matrix \mathbf{W} is described in Appendix B.

In order to derive the likelihood function, we require the reduced form, which is attained by solving for the dependent variable. This is achieved through the “Leontief inverse”, also known as a spatial multiplier, which shows that the spatial lag is not simply an additional independent variable, but requires a different estimator:

$$y = (\mathbf{I} - \rho \mathbf{W})^{-1}(\mathbf{X}\beta + \frac{1}{\lambda}u). \quad (6.10)$$

Brueckner (2003) points out that the spatial autoregressive model is a representation of the spatial reaction function presented in equation 6.5, because it represents the optimal level of y chosen by unit i , taking into account the choices made by the “connected” units. Thus, the term $(\mathbf{I} - \rho \mathbf{W})^{-1}$ links the dependent variable y_i to all explanatory variables X_i in the system. Equation 6.10 also shows that the stochastic component u_i of y_i depends on the u ’s of all other units in the system, that is, the two are correlated. Conventional methods that omit this interdependence are therefore inconsistent, and specialized estimation techniques, such as maximum likelihood estimation (MLE), required. Appendix A illustrates

the derivation for a Weibull event history model. Note that the model allows for neither time-varying covariates, nor right censoring.

The setup given by equation 6.9 and 6.10 does not fully capture the conditional nature that is implied by z , because the interdependence is assumed to be the same for all units. To overcome this limitation, I therefore introduce the concept of conditional spatial lags as a suitable way to represent a conditional, spatial, autoregressive model.

6.4.2 Conditional Spatial Lags

In the theoretical section of this chapter, I suggested that spatial interdependence between rebel organizations fighting in civil wars is conditional in the sense that rebel organizations primarily exhibit interdependence when they compete for the same resources. This implies conditional interdependence. To summarize and reiterate, I argued that public support is a critical resource upon which the political survival of rebel organizations hinges, and that the political context of constituencies mediates the optimal level of fighting. Where ethnic constituencies are excluded from political power and economic goods, strong grievances foster radical positions in the political domain, which leads to competition between rebel factions. Under these circumstances violence can be a manifestation of competition between rebel factions. By contrast, where ethnic constituencies do not suffer from exclusion, competitive violence will not resonate, and thus will not spur competition for public support. Put differently, rebel organization i 's reaction function depends on the actions by other organizations and is conditional on the political status of the associated public.

Econometrically, this implies a conditional spatial lag. If z is the modifying variable, we can express this conditionality by means of a multiplicative interaction effect similar to conventional interaction effects (Braumoeller, 2004; Brambor, Clark and Golder, 2006):

$$y = \rho_1 \mathbf{W}y + \rho_2 \mathbf{W}yz + \gamma z + \mathbf{X}\beta + \frac{1}{\lambda} u \quad (6.11)$$

After estimation, the short-run effect for the spatial lag is:

$$\frac{\partial \hat{y}}{\partial \mathbf{W}y} = \rho_1 + \rho_2 z. \quad (6.12)$$

Thus, ρ_1 captures a baseline level of interdependence that is present among

all (interdependent) units, while ρ_2 represents the additional effect that is driven by z . In other words, if $z = 0$, the marginal effect is simply ρ_1 .

As a general class of models, it is not clear how to derive the maximum likelihood estimator.⁴⁴ However, for the present purposes I exploit the fact that the modifying variable is categorical. Let d_k be a dummy variable for category $k = 1, \dots, K$. For each category k , I then construct a separate connectivity matrix, i.e., $\mathbf{W}_k = \mathbf{D}_k \mathbf{W}$, where \mathbf{D}_k is a diagonal matrix with the elements of the respective dummy variable on the diagonal for each group. In short, \mathbf{W}_k is multiplied row-wise by the respective element of d_k . Thus,

$$\sum_{k=1}^K \mathbf{D}_k = \mathbf{I} \quad (6.13)$$

and

$$\sum_{k=1}^K \mathbf{W}_k = \mathbf{W}. \quad (6.14)$$

We can then express the interdependence for each group k by means of a separate spatial lag (see Brandsma and Ketellapper, 1979; Beck, Gleditsch and Beardsley, 2006). Thus, I estimate the following model:

$$y = \rho \mathbf{W}y + \sum_{k=2}^K \rho_k \mathbf{W}_k y + \sum_{k=2}^K \gamma_k d_k + \mathbf{X}\beta + \frac{1}{\lambda} u. \quad (6.15)$$

Note that this specification excludes one spatial lag \mathbf{W}_k and one dummy variable d_k , since these are absorbed in the constant and the baseline spatial lag ρ . Thus, ρ is the baseline spatial interdependence, and ρ_k are the discernible residual effect for the $K - 1$ categories. Finally, in line with my theory - but against common practice - I refrain from row-standardizing the connectivity matrices. This means that the spatial lags are weighted sums rather than weighted averages (Plümer and Neumayer, 2010). Specifically, the logic of competition indicates that the influence of individual “enduring” rebel organizations should not become proportionally smaller the more competitors a given organization is confronted with. In other words, the competition between two long-lasting rebel organizations should not be lowered by the presence of a rebel organization that is quickly eliminated. For this reason I deliberately do not row-standardize the connectivity matrices. Finally, several parameterizations for the error term are possible, including

⁴⁴The difficulty includes deriving the reduced form, as in equation 6.10, and the fact that Ord’s (1975) method to calculate $\ln |\det(\mathbf{J})|$ cannot be applied in a straightforward manner (see Appendix A).

a Weibull and a log-normal model.⁴⁵

6.5 Data

I rely on the same data that was used in the previous chapter (Wucherpfennig et al., 2012), i.e., the unit of analysis is rebel organization. Since the estimator requires time-constant covariates and non-censored observations, I aggregate the data and keep the first values, i.e. those at conflict entry, and drop right-censored observations. As a suitable dependent variable, the data for a given rebel organization include a measure of the length of fighting. Out of 334 rebel organizations, 134 are “not alone” while fighting. In other words, they are possibly affected by or interdependent with other rebel organizations.

Recall that Wucherpfennig et al. (2012) link these data to the EPR dataset in order to determine whether a rebel organization is linked to an ethnic group. Wucherpfennig et al. (2012) use two criteria for this: first, the fighters’ ethnicity and second, whether a given rebel organization publicly announces that it operates on behalf of the relevant ethnic group, i.e., pursues an objective that is directly linked to the group’s fate. If both criteria are fulfilled, then an organization is coded as ethnic. Drawing on information included in EPR, they further determine whether an ethnic group within a rebel organization is subject to state-induced exclusionary policies, which allows the ethno-political context of particular rebel organizations to be identified. This gives rise to three types of rebel organizations: non-ethnic, ethnic-included and ethnic-excluded. These three types are used to construct connectivity matrices as described in section 6.7. As in the previous chapter, I use rebel organizations that do not maintain an ethnic linkage as the base category. Thus, I include the following covariates:

- territorial conflict (dummy)
- territorial control
- strong central command
- legal political wing
- per capita GDP (logged)

⁴⁵See Appendix A.

- population (logged)
- democracy (1 if Polity ≥ 6 , 0 otherwise)
- coup d'état (dummy)
- coup d'état $\times \ln(\text{duration})$ ⁴⁶
- natural resources (oil, narcotics, gemstones; dummy; source: Lujala 2010)
- ethnic linkage with included group
- ethnic linkage with excluded group
- veto players: the number of active rebel organizations

Having described data and methods, we are now ready to turn to the empirical results.

6.6 Results

Table 6.6 contains the main results. Model 1 is a standard Weibull event history regression and replicates the main specification from the previous chapter. Since the results for control variables are similar, I refer the reader to the discussion in that chapter. Model 1 effectively assumes that all rebel organizations in the dataset are independent of one another, except through the *veto players* variable, which denotes the number of active rebel organizations. As before, I find a positive and significant effect for this variable. Moreover, the fact that the indicator is a “normal” explanatory variable implies that it is assumed to be exogenous. Recognizing this fact, Metternich and Wucherpfennig (2010) show that this assumption holds for structural constraints that are not affected by the actors’ decision (outcome) variable. As such, the *veto players* variable captures exogenous constraints, including the important resource constraint, which results from the fact that governments must potentially allocate a finite number of troops across multiple rebel organizations. Similarly, if profiling and identifying “ideal points” of rebel organizations were possible *ex ante* - which it is not - then

⁴⁶Recall from the previous chapter that coups were found to have a different baseline hazard. For parametric models, this implies a non-proportional hazard, which is captured by an interaction term with the natural log of time.

the veto player count would capture the structural difficulties caused by a smaller bargaining range between the actors. In any case, this specification effectively black-boxes the interaction between rebel organizations, since any mutually interdependent decision-making (via the outcome variable) is absent. In this view, Model 1 is a naïve specification that omits simultaneity and erroneously treats interdependence as exogenous.

To overcome these limitations, Model 2 introduces the spatial lag estimator, which explicitly models interdependence, assuming that interdependence is possible between rebel organizations that are simultaneously active within the same conflict (Metternich and Wucherpfennig, 2010). I find that the parameter ρ_{all} is positive and statistically significant. This suggests that there is positive interdependence between rebel organizations, i.e., *ceteris paribus*, rebel organizations fight longer the more enduring other rebel organizations in the same conflict are. In other words, whereas negative interdependence would suggest free-riding behavior, positive interdependence generally implies competition between the units (Franzese and Hays, 2008).

Generally, the coefficients for the independent variables are not comparable between the spatial and non-spatial specification. Why this is the case can be seen in equation 6.10, which shows that the spatial lag effectively operates as a multiplier on the vector of covariates. As such, their effect is conditional on spatial connectivity, i.e. \mathbf{W} . Still, in terms of statistical significance, there is little difference between Models 1 and 2, suggesting that interdependence does not correlate strongly with the relevant explanatory variables, and so the general findings from Chapter 5 are reinforced. Indeed, the only variable which loses significance is the veto player indicator, suggesting that any effect of interdependence operates mainly endogenously through the spatial lag, rather than through an exogenous constraint.

Having found evidence for competition, I now turn to testing the main proposition of the Chapter, namely that competition is more pronounced when rebel organizations fight on behalf of excluded ethnic groups. This is tested in Model 3, which implements the specification given in equation 6.15 by adding two conditional spatial lags for rebel organizations operating on behalf of excluded and included ethnic groups, respectively. Thus, while ρ_{all} now denotes a baseline interdependence, $\rho_{excluded}$ and $\rho_{included}$ denote the spatial effect that is conditional on the rebel group's linkage. In line with the theory, I find that $\rho_{excluded}$ is positive and statistically significant, while $\rho_{included}$ is virtually zero and not statistically significant. Substantially,

Table 6.1: Estimates of Fighting Durations

Model	1	2	3
Interdependence	naïve	spatial lag	spatial lag
Error Parameterization	Weibull	Weibull	Weibull
Territorial Conflict	0.043 (0.196)	0.170 (0.195)	0.207 (0.191)
Strong Central Command	-0.348** (0.164)	-0.373** (0.161)	-0.375*** (0.143)
Legal Political Wing	-0.458** (0.186)	-0.514*** (0.182)	-0.534*** (0.154)
Territorial Control	0.156 (0.163)	0.0824 (0.161)	0.127 (0.154)
ln GDP p.c.	-0.140* (0.080)	-0.143* (0.078)	-0.128* (0.072)
ln Population	-0.023 (0.053)	-0.017 (0.052)	-0.017 (0.046)
Democracy	0.721*** (0.189)	0.727*** (0.186)	0.712*** (0.170)
Ethnic Linkage with Included Group	0.384** (0.179)	0.312* (0.177)	0.233 (0.171)
Ethnic Linkage with Excluded Group	-0.773*** (0.263)	-0.791*** (0.256)	-0.661*** (0.254)
Natural Resources	0.293** (0.144)	0.219 (0.142)	0.221* (0.130)
Coups	-6.725*** (0.264)	-6.606*** (0.258)	-6.615*** (0.175)
Coups \times log(Duration)	0.950*** (0.088)	0.949*** (0.086)	0.949*** (0.033)
Veto Players	0.131* (0.071)	0.090 (0.068)	0.091 (0.060)
ρ_{all}		0.078*** (0.020)	0.078*** (0.018)
ρ_{excluded}			0.044* (0.027)
ρ_{included}			-0.089 (0.109)
Constant	8.239*** (0.859)	8.146*** (0.843)	8.030*** (0.785)
λ	0.817*** (0.044)	0.838*** (0.037)	0.843*** (0.043)
Observations	338	338	338
Log Likelihood	-612.13	-604.77	-603.27

Robust Standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

this suggests that rebel organizations that operate on behalf of excluded groups are significantly more responsive towards competition than rebel organizations that either maintain no ethnic linkage or are linked to an included group.

In order to ensure the robustness of this finding, I also conduct a series of additional checks. The results are shown in Table 6.6. Model 4 takes seriously an important proposition in the spoiler literature, namely that peace negotiations can lead to spoiler dynamics. To test this proposition, Model 4 controls for prior peace agreements. Although I find that prior peace agreements exert a positive effect on the duration of subsequent rebel organizations, this effect is neither statistically significant, nor does it affect the main finding that rebel organizations linked to excluded ethnic groups are more responsive towards competition. In this context, several scholars have argued that negotiations have generally become more likely since the end of the Cold War (e.g., Hartzell and Hoddie, 2007). If negotiations encouraged spoiler dynamics, this should compromise my competition argument. Model 5 therefore controls for whether a conflict began before or after the end of the Cold War. In line with several other scholars (e.g., Kalyvas and Balcells, 2010; Hironaka, 2005; Wucherpfennig et al., 2012), I find that post Cold War conflicts are shorter. However, this does not affect the competition finding.

Like the dependent variable, independent variables can also be lagged spatially. This is achieved by multiplying the connectivity matrix by the respective variables. Because of the time-series analogy, this specification is known as a spatial Durbin model (Anselin, 1988). This model has several advantages, including that it produces consistent and unbiased estimates if the true data generating process is spatial error or spatial lag (LeSage and Dominguez, 2010; Elhorst, 2010). This means that the estimates will be unbiased even in the “presence of an omitted variable that exhibits spatial dependence and is correlated with variables in the model” (LeSage and Dominguez, 2010, 19). In other words, other sources of spatial dependence should not compromise the results. Model 6 is an implementation of a spatial Durbin model, and it includes exogenous spatial lags of all variables in the model that are measured at the level of organizations.⁴⁷ The logic of the spatial Durbin model is that not only the actions (i.e. the fighting behavior y) of other rebel organizations, but also the vector of their characteristics

⁴⁷Naturally, spatial lags of variables that do not differ between organizations within the same conflict are perfectly collinear with their non-spatial counterparts.

Table 6.2: Estimates of Fighting Durations: Robustness Checks

Model	4	5	6	7
Interdependence		spatial lag	spatial lag	spatial lag
Error Parameterization	Weibull	Weibull	Weibull	Log-Normal
Territorial Conflict	0.207 (0.191)	0.231 (0.171)	0.227 (0.188)	-0.064 (0.299)
Strong Central Command	-0.375*** (0.143)	-0.307** (0.132)	-0.357** (0.140)	-0.308 (0.215)
Legal Political Wing	-0.532*** (0.155)	-0.348** (0.164)	-0.474*** (0.157)	-0.558** (0.254)
Territorial Control	0.130 (0.155)	0.078 (0.143)	0.133 (0.149)	0.362 (0.230)
ln GDP p.c.	-0.126* (0.072)	-0.121* (0.065)	-0.131* (0.073)	-0.310** (0.124)
ln Population	-0.016 (0.047)	-0.019 (0.042)	-0.012 (0.045)	-0.037 (0.084)
Democracy	0.711*** (0.169)	0.589*** (0.155)	0.685*** (0.175)	1.037*** (0.265)
Ethnic Linkage with Included Group	0.235 (0.172)	0.274* (0.156)	0.286 (0.178)	0.399 (0.262)
Ethnic Linkage with Excluded Group	-0.664*** (0.254)	-0.569** (0.227)	-0.664*** (0.248)	-0.688** (0.343)
Natural Resources	0.217* (0.132)	0.245** (0.122)	0.267** (0.128)	0.314 (0.211)
Coups	-6.611*** (0.178)	-6.858*** (0.161)	-6.594*** (0.174)	-5.640*** (0.245)
Coups \times log(Duration)	0.949*** (0.033)	0.976*** (0.032)	0.951*** (0.032)	0.932*** (0.049)
Veto Players	0.0919 (0.060)	0.109** (0.053)	0.112* (0.062)	0.253*** (0.074)
Prior Agreements	0.035 (0.122)			
Post Cold War		-0.826*** (0.124)		
W \times Territorial Control			-0.133 (0.311)	
W \times Strong Central Command			-1.020*** (0.307)	
W \times Legal Political Wing			-0.409 (0.408)	
ρ_{all}	0.077*** (0.018)	0.070*** (0.016)	0.099*** (0.021)	0.103*** (0.031)
$\rho_{excluded}$	0.044* (0.027)	0.043* (0.023)	0.057** (0.027)	0.065* (0.037)
$\rho_{included}$	-0.089 (0.109)	-0.079 (0.087)	-0.015 (0.107)	-0.049 (0.100)
Constant	8.000*** (0.799)	8.207*** (0.703)	7.953*** (0.791)	8.424*** (1.377)
λ	0.843*** (0.042)	0.894*** (0.048)	0.857*** (0.045)	0.625*** (0.096)
Observations	338	338	338	338
Log Likelihood	-603.25	-587.55	-599.44	-655.59

Robust Standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

affect fellow rebel organizations in their fighting durations. For example, Pearlman (2009) and Bakke, Cunningham and Seymour (2011) argue internal contestation is affected by whether or not parties in a conflict enjoy an institutionalized system of legitimate representation. This is captured in the spatial lag of the legal political wing variable. This should be captured in the spatial lag of the legal political wing variable. I find that more institutionalized conflict settings tend to shorten individual durations, but this is not statistically significant. In addition, I find that when other organizations enjoy strong leadership, duration shortens, as does territorial control. Critically, however, these additional controls do not affect the logic of conditional competition. Indeed, if anything, the spatial Durbin model strengthens the general results, since it results in larger values for ρ_{all} and ρ_{excluded} .

Finally, I show that the results are not dependent on the parameterization of the error term. The spatial event history estimator has been derived as a Weibull and a log-normal estimator. Since both are one parameter distributions, we can compare the log-likelihood values so as to determine the best fit. Doing so reveals that the Weibull yields a better fit for all models presented here. Nevertheless, Model 7, which is the log-normal estimator, demonstrates that the main result is not contingent on this choice of estimator.

6.7 Conclusion

This chapter goes beyond the standard unitary actor assumption by opening the black box for interactions that occur between factions within the opposition. Doing so allows me to show that, in addition to disaggregation at the level of relevant actors, it is also important to theorize those actors' interactions directly. Specifically, I lay out a theoretical and an empirical model of spoiler dynamics. I argue these dynamics should be conceptualized as competition between rebel organizations, in which the government as the external opponent becomes the "scene" of the competition. This competition occurs over critical resources that are in short supply, in particular public support, by means of fighting the government. In doing so, rebel organizations demonstrate their commitment to the public while maintaining and securing their political relevance. Because of competition, rebel organizations are therefore prevented from negotiating peace with

the government, and thus fight longer than they would in the absence of competition. Moreover, fragmentation and competition on the rebels' side also makes it difficult to accept settlements from the government. In short, spoiler dynamics constitute a negative, indirect externality that arises from competition between rebel factions.

However, this fighting does not resonate uniformly. Rather, the proposed mechanism is most pronounced when an organization's public—that is, the key resource between rebel factions—has suffered from strong grievances, which in turn justify violence against the government. In line with previous work (Cederman, Wimmer and Min, 2010; Wucherpfennig et al., 2012) I argued that such grievances are most likely to be present where large part of the population are systematically and categorically excluded from access to valuable benefits, including political representation or economic redistribution, on the basis of ethnicity.

Formalizing these ideas as a conditional spatial reaction function seamlessly motivated a particular estimator: the conditional spatial lag model. Applying this estimator to data at the level of rebel organizations generated considerable support for the theory; interdependence, interpreted here as competition, between rebel organizations is most pronounced when rebel organizations are linked to ethnic groups which are excluded from state benefits.

Importantly, although my argument contains an ethnic component, this chapter adds to the growing literature that emphasizes the variability of ethnic grievances and points to the role of the state. Contrary to the outdated belief that ethnic identities are either fixed (e.g., Rabushka and Shepsle, 1972; Kaufmann, 1996) or entirely irrelevant (e.g., Fearon and Laitin, 2003; Mueller, 2000) in civil wars, ethnic identities are the product of particular institutional contexts that politicize ethnicity (e.g., Cederman, Wimmer and Min, 2010; Chandra and Wilkinson, 2008). The role of the state is therefore central in containing what is sometimes described as ethnic violence, because it not only determines the likelihood such violence beginning, but exerts a strong and systematic effect on the dynamics once ethnic violence is underway.

Appendix A: Maximum Likelihood Estimation

I require to estimate the following model:

$$y = \sum_{k=1}^K \rho_k \mathbf{W}_k y + \mathbf{X}\beta + \frac{1}{\lambda} u \quad (6.16)$$

where y is the log of duration y^* , i.e. $y = \ln y^*$. As shown by Hays and Kachi (2009), in order to derive the likelihood via change of variables, we solve for u :

$$g^{-1}(y) = u = \lambda(y - \sum_{k=1}^K \rho_k \mathbf{W}_k y - \mathbf{X}\beta) \quad (6.17)$$

$$u = y\lambda(\mathbf{I} - \sum_{k=1}^K \rho_k \mathbf{W}_k) - \lambda \mathbf{X}\beta. \quad (6.18)$$

The likelihood is thus given by

$$L = |\det(\mathbf{J})| \times \prod_{i=1}^n f(u_i) \quad (6.19)$$

where \mathbf{J} is the Jacobian matrix of $g^{-1}(y)$.

Different parameterizations are now possible, depending on the analyst's choice for the distribution for u . Because the log-normal is the same as the widely known SAR for normally distributed errors for a logged dependent variable, I here focus on the Weibull parameterization. For a Weibull model, u is distributed type-I-extreme-value:

$$f(u) = e^u e^{-e^u}. \quad (6.20)$$

The likelihood function is then

$$L = |\det(\mathbf{J})| e^u e^{-e^u}, \quad (6.21)$$

i.e.,

$$L = |\det(\mathbf{J})| \times \exp[\lambda(y - \sum_{k=1}^K \rho_k \mathbf{W}_k y - \mathbf{X}\beta)] \times \exp[-\exp(\lambda(y - \sum_{k=1}^K \rho_k \mathbf{W}_k y - \mathbf{X}\beta))] \quad (6.22)$$

with the corresponding log-likelihood function

$$LL = \ln |\det(\mathbf{J})| + \lambda(y - \sum_{k=1}^K \rho_k \mathbf{W}_k y - \mathbf{X}\beta) - \exp[\lambda(y - \sum_{k=1}^K \rho_k \mathbf{W}_k y - \mathbf{X}\beta)]. \quad (6.23)$$

Using eq. 6.18 and Ord's (1975) insight, the log-Jacobian term can be calculated as follows:

$$\ln |\det(\mathbf{J})| = \sum_{i=1}^n \ln(1 - \sum_{k=1}^K \rho_k \omega_j) + \ln \lambda, \quad (6.24)$$

where $\omega_j, j = 1, \dots, n$ are eigenvalues of \mathbf{W}_k . These can be calculated at the outset.

Appendix B: Locating Interdependence: W_i

Metternich and Wucherpfennig (2010) show that, in the context of civil wars, an additional complication arises from the fact that not all rebel organizations enter a conflict on the same day; indeed, on average the number of active rebel organizations peaks towards the “middle” of a given conflict. In addressing this complication, I follow Metternich and Wucherpfennig (2010), who employ a setup similar to simultaneous equations. The basic intuition is best explained graphically.

Figure 6.2: Asynchronous Fighting Durations

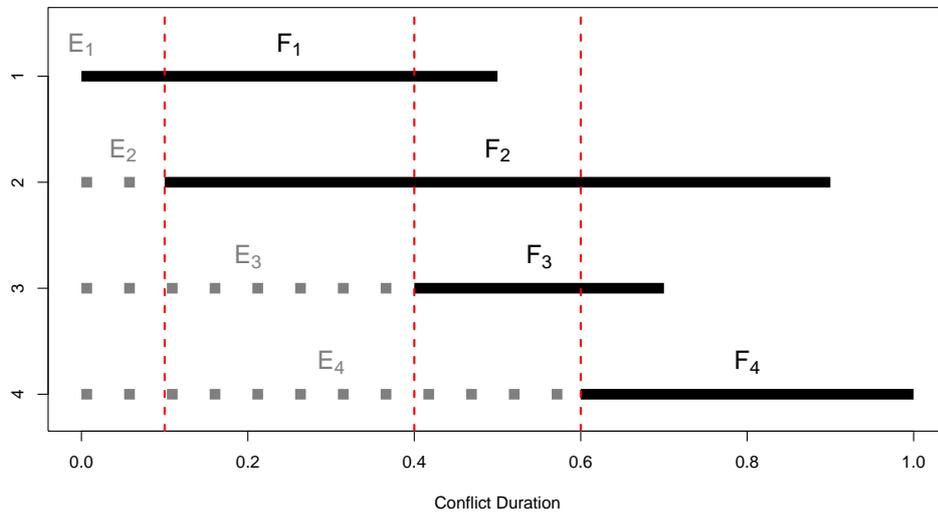


Figure 6.2 illustrates a hypothetical example of four rebel organizations. Their durations of active fighting are denoted as F_i , depicted as dark bars in the figure. In addition, the dotted gray bars denote enter durations E_i , i.e. the durations until a given organization enters a conflict, measured from the first day of fighting in the overall conflict. Consider rebel organizations R_3 , which enters the conflict at $t = .4$. The key, then, is to isolate the parts of the fighting durations by the other rebel organizations that can reasonably affect R_3 's own fighting duration. Because R_1 and R_2 entered the conflict prior to R_3 , Metternich and Wucherpfennig (2010) suggest that count the parts of F_1 and F_2 that occur past R_3 's entry duration should be counted. These can be calculated as $E_1 + F_1 - E_3 + E_2 + F_2 - E_3 = F_1 + E_2 + F_2 - 2 \times E_3$. Because F_4 lies in the “future”, several possibilities exist: count it in full, discount it entirely, or weigh it through a transformation of $E_4 - E_3$. Here, I resort to the latter and weigh such observations using a halflife function of

$\frac{1}{2} \frac{T}{180}$. Effectively, this means that “future,” observations are weighted with factor of .5 after half a year, .25 after one year, etc.⁴⁸ The spatial lag for F_3 is then $F_1 + E_2 + F_2 - 2 \times E_3 + \frac{1}{2} \frac{1}{180}$.

Metternich and Wucherpfennig (2010) then show that these calculations can be systematically organized by a setup resembling simultaneous equations. To do this, they stack the vector of entering durations E on top of the vector of fighting durations F :

$$\mathbf{Y}_{2N \times 1} = \begin{bmatrix} E_1 \\ \vdots \\ E_n \\ F_1 \\ \vdots \\ F_n \end{bmatrix} \quad (6.25)$$

The estimated model then looks as follows:

$$\begin{bmatrix} E \\ F \end{bmatrix} = \rho \mathbf{W} \times \begin{bmatrix} E \\ F \end{bmatrix} + \begin{bmatrix} X \end{bmatrix} \beta + \begin{bmatrix} u \end{bmatrix}. \quad (6.26)$$

Note that there are no covariates (not even a constant) for \mathbf{E} . Indeed, this particular setup results in the fact that, after the spatial lag is multiplied out (which involves \mathbf{E}), the upper half of the equation drops out. Specifically, this is achieved by dividing \mathbf{W} into four component matrices:

$$\begin{bmatrix} E \\ F \end{bmatrix} = \rho \begin{bmatrix} 0 & 0 \\ L & R \end{bmatrix} \times \begin{bmatrix} E \\ F \end{bmatrix} + \begin{bmatrix} X \end{bmatrix} \beta + \begin{bmatrix} u \end{bmatrix}. \quad (6.27)$$

The upper left and upper right quadrant of the \mathbf{W} matrix are filled with zeros. Matrix multiplication then results in the fact that the entering durations merely make their way into the model as part of the spatial lag. The lower parts, \mathbf{L} and \mathbf{R} , are both block-diagonal by conflict $1, \dots, Z$.

$$L = \begin{bmatrix} L_1 & 0 & \cdots & 0 \\ 0 & L_2 & \ddots & \vdots \\ \vdots & \ddots & \ddots & 0 \\ 0 & \cdots & 0 & L_Z \end{bmatrix} \quad (6.28)$$

⁴⁸Testing other decay functions, it turns out that the results do not hinge on this choice.

and

$$R = \begin{bmatrix} R_1 & 0 & \cdots & 0 \\ 0 & R_2 & \ddots & \vdots \\ \vdots & \ddots & \ddots & 0 \\ 0 & \cdots & 0 & R_Z \end{bmatrix} \quad (6.29)$$

Every block on the diagonal describes the suggested relationship between the waiting and fighting times. Here, n_z indexes the n rebel organizations active in conflict z . \mathbf{R}_z is the part that is multiplied with the fighting durations \mathbf{F} and simply connects rebel organizations that fight simultaneously, that is, those groups whose durations overlap. For the example in given in Figure 6.2, this looks as follows:

$$R_z = \begin{bmatrix} 0 & .92 & .95 & 0 \\ 1 & 0 & .91 & .93 \\ 1 & 1 & 0 & .95 \\ 0 & 1 & 1 & 0 \end{bmatrix} \quad (6.30)$$

Because fighting durations are non-reflexive, the diagonal is zero.

The \mathbf{L}_z applies the correction necessary when a given organization is preceded by others.

$$L_z = \begin{bmatrix} 0 & 0 & 0 & 0 \\ 1 & -1 & 0 & 0 \\ 1 & 1 & -2 & 0 \\ 0 & 1 & 1 & -2 \end{bmatrix} \quad (6.31)$$

The simultaneous equations setup to accommodate different entry timings requires us to perform transformations (via the connectivity matrix) on the raw durations (rather than the their logarithms). Thus, I create $\mathbf{W} = \mathbf{M}\mathbf{W}^*$, where \mathbf{W}^* denotes the “raw” connectivities, such that

$$\ln(\mathbf{W}^*y^*) = \mathbf{M}\mathbf{W}^* \ln(y^*) = \mathbf{W}y \quad (6.32)$$

Thus, I solve for \mathbf{M} , which is a diagonal matrix for which the elements on the diagonal are given by $\frac{\ln(\mathbf{W}^*y^*)}{\mathbf{W}^* \ln(y^*)}$ (element-wise division).

Chapter 7

The Logic of Power Sharing after Civil War

7.1 Introduction

Sri Lanka, Israel, Sudan are all examples of the fact that conflicts fought in the name of ethnic groups are frequently among the longest, most violent and most difficult to resolve in the long run (Wucherpfennig et al., 2012; Lacina, 2006; Chapman and Roeder, 2007). Indeed, nearly one in two ethnic groups involved in ethno-nationalist conflict will experience renewed violence following the settlement of a previous episode of conflict. This raises an important question: under which conditions can the recurrence of civil war can be contained effectively? In particular, can political arrangements help to mitigate the risk of recurrence of such conflicts? Recent scholarship is skeptical.

In this chapter I revisit the role of such political arrangements in the post-war environment. My focus lies on power sharing in particular. Power sharing has recently been criticized severely, suggesting that its disadvantages outweigh its benefits (Rothchild and Roeder, 2005), and that conflicts ending in decisive victory tend to yield more stable peace (Toft, 2010*b*). I challenge these conclusions on the grounds of theory and empirical evidence, and argue that previously held conclusions are premature for two reasons.

First, the literature suffers from a lack of conceptual precision as regards the precise definition of power-sharing. This ambiguity has significant repercussions for the operationalization of the concept. On the one hand, a prominent criticism of power sharing is that it impedes democracy (Rothchild and Roeder, 2005; Jarstad, 2008). On the other hand, many scholars

equate power sharing with consociationalism—which is of course simply one form of democracy. In this light it is ironic that measures of proportional representation are frequently used as operationalizations for power sharing (Saideman et al., 2002; Schneider and Wiesehomeier, 2008). Moreover, the vast majority of the existing conflict literature disregards the fact that power sharing is by no means limited to democracies, but is also a frequent mechanism in authoritarian regimes (Magaloni, 2008; Svobik, 2009)

Second, I argue that when power sharing occurs in a post-conflict environment, it is generated endogenously as the result of strategic interaction in response to recurrent conflict. Indeed, whereas current research treats such power sharing as purely exogenous, little theoretical and empirical work has addressed the question as to which conditions or circumstances that make power-sharing arrangements more likely to be enacted. If the causes of power sharing are systematically related to the prospects of war and peace, the effect of power sharing on the stability of peace cannot be treated independently of the origins of such arrangements.

Relying on an intuitive theoretical model, this chapter demonstrates that power sharing is a strategy that is likely to be enacted under conditions in which peace is especially difficult to attain. To show this, I develop an intuitive theoretical model that captures why and when post-conflict power sharing occurs. The model demonstrates that power sharing has a pacifying effect that is revealed only once the strategic interdependence between governments and challengers is properly accounted for. Empirical estimations are derived directly from the theoretical model and support these conjectures. In response to critics of power sharing, these estimates show that, once strategic interdependence is taken into account, power sharing has a strong pacifying effect that holds for a wide range of scenarios. As such, my findings lend strong support to the logic of political change and show that grievances can be rectified; indeed, if anything, increased access to state benefits should render ethnic groups more satisfied and, hence, less conflict-prone.

This chapter is organized as follows. I begin in Section 7.2 by briefly reviewing the literature on power sharing and conflict, pointing out a number of conceptual ambiguities. This discussion motivates my own, minimalist definition of power sharing and motivates the need to consider the effect of power sharing on the risk of recurrent conflict jointly with the strategic causes of such arrangements. To capture this strategic logic of post-conflict

power sharing, Section 7.3 introduces a simple formal model. Section 7.4 then introduces the statistical model that is derived from the underlying game. Section 7.5 describes data and measurement, while Section 7.6 presents the estimation results. Importantly, I consistently find power sharing to be peace-inducing. Section 7.7 concludes.

7.2 Towards A Minimalist Definition of Power Sharing

Despite its scholarly prominence, the literature on power sharing suffers from a lack of conceptual clarity. Indeed, at least three, largely separate bodies of literature employ the term: (1) the literature on power sharing in democracies, (2) the literature on power sharing in authoritarian regimes, and (3) the literature on power sharing in peace agreements. In what follows, I discuss each body of literature at some length, pointing out both strengths and weaknesses. I then synthesize by proposing a minimalist definition of power sharing in post-conflict settings and a critique that points to the endogenous and strategic nature of post-conflict power sharing.

7.2.1 Power Sharing in Democracies

First, the term power sharing is often used synonymously for Lijphart's (1969) theory of consociational democracy (Bogaards, 2000). Consociational democracy comprises four components: (1) a grand coalition of elites from different groups, (2) a veto for each group in important policy areas, (3) proportional representation in key institutions and (4) group autonomy (Lijphart, 1977, see Bormann 2010 for a review). Thus, consociational power sharing constitutes one particular (ideal) type of democracy. Consociationalism stands in stark contrast to Horowitz's (1985) claim that majoritarian systems perform better in divided societies, since they motivate the creation of coalitions. However, the complex consociationalist view of power sharing is frequently reduced to proportional representation and/or federalism alone (Bormann, 2011). Conflict researchers have adopted the concept and assessed whether consociationalism can reduce the risk of conflict. Indeed, studies like Reynal-Querol (2002), Schneider and Wiesehomeier (2008), Mukherjee (2006) and Brancati (2009) all rely on measures of the electoral system or decentralization. The problem with these indicators is that they show

variation only *within* democracies (either through case selection or variance of the relevant variables) while lumping together non-democratic regimes.

7.2.2 Power Sharing in Authoritarian Regimes

Second, another strand of literature has recently begun to unpack this category of authoritarian regimes, arguing that important within-variation exists here as well (Svolik, 2009; Magaloni, 2008; Przeworski and Gandhi, 2006; Gandhi, 2008). These authors show that power-sharing mechanisms are a key component of many authoritarian regimes around the globe. A central claim by these authors is that power sharing is a strategy designed to prevent a regime from popular uprising when full repression is not possible (see also Acemoglu and Robinson, 2006). In this case, the ruler co-opts or distributes state benefits and power positions to selected groups or cliques. Here, a central commitment problem lies in the fact that the ruler must commit to abstaining from abusing his “friends”, while powerful “friends” need to be prevented from the temptation to overthrow the ruler (cf. Roessler, 2011). As is shown by empirical analyses, this dilemma can be overcome, in part, by credible institutions such as legislatures, parties and even elections (Boix and Svolik, 2010; Przeworski and Gandhi, 2006). Thus, unlike the literature on consociationalism, the strength of the authoritarian power sharing literature lies in the fact that power sharing (at least theoretically) is actually explained as an outcome.

7.2.3 Power Sharing in Peace Agreements

Finally, a third body of literature studies power sharing in negotiated settlements to peace, and their effects on the durability of post-conflict peace (e.g., Hartzell, Hoddie and Rothchild, 2001; Hartzell and Hoddie, 2007; Jarstad, 2008; Licklider, 1995; Walter, 2002; Toft, 2010*b*). To these authors, power sharing signifies a particular form of war termination that explicitly articulates (in writing) the provision of guaranteed divisions for the post-conflict period. Thus, in contrast to the other two camps, the power sharing-in-peace-agreements conceptualization focuses *de jure* power sharing rather than its *de facto* implementation. As Hoddie and Hartzell (2003) and Jarstad and Sisk (2008) show, however, the fact that parties sign agreements does not mean that their content is actually implemented in practice. Moreover, as discussed in greater detail in Chapter 6, Stedman

(1997) points out that rebels not always enter negotiations in good faith.

Focusing on conflicts that ended exclusively in negotiated settlements, several studies find that power-sharing provisions tend to prolong the durability of post-conflict peace (Hartzell, Hoddie and Rothchild, 2001; Hartzell and Hoddie, 2007), especially when these provisions are guaranteed by third parties (Walter, 1997). However, considered against other modes of termination, especially victories, a number of studies conclude that longer lasting peace tends to result from victories, either by the rebels (Licklider, 1995; Toft, 2010a), or by the government (Quinn, Mason and Gurses, 2007; Kreutz, 2010). This finding has received significant attention, since it ultimately implies that to “give war a chance” (Luttwak, 1999) should be the preferred option in the long run.

In terms of theoretical underpinnings, Wagner (1995) was the first to articulate a possible mechanism for the empirical regularity, arguing that organization is the critical resource of civil war and that victory carries the advantage of ensuring the complete destruction of the opponent’s organization, thus removing the necessary means for mobilization. Although this argument is intuitively compelling, it is not without problems, especially in the case of ethno-nationalist conflicts. First, it is unclear whether or not it is possible to destroy a group’s organization to the point that it can no longer mobilize. Indeed, critical resources like human expertise in fighting or excess weapons, such as Kalashnikovs, are typically available long after the fighting has stopped. Thus, only genocide, which fortunately rarely occurs, can destroy the human capital component of mobilization capacity. Second, the Wagner hypothesis focuses entirely on the opportunities to fight but omits the role of grievances in driving conflicts altogether. When emotions are considered, losers should be inclined to seek revenge (Petersen, 2002). Indeed, defeat is unlikely to soothe ethno-nationalist grievances or to eliminate the striving for political change, especially when such grievances manifest themselves in everyday life. If conflict is considered a means to an end, then prevailing grievances can at best be suppressed temporarily.

Additionally, working from the overall evidence (and perhaps articulating her argument in less drastic terms) Jarstad (2008) points out some of the weaknesses of power sharing, including that it may invite spoiler-groups, foster radicalism, impede democratization and lead to international dependence (see also Rothchild and Roeder, 2005). Chapman and Roeder (2007) and Rothchild and Roeder (2005) also argue against power sharing as a

mechanism by which to contain recurrent conflict.⁴⁹ In sum, power sharing has recently been the subject of harsh criticism, and its pacifying effect is disputed.

7.2.4 Defining and Endogenizing Post-Conflict Power Sharing

Is this criticism warranted? Promoting the winner-takes-all perspective has obvious ethical implications in that fighting (killing) must endure until one party accepts defeat. Naturally, this has serious repercussions with regard to policy recommendations. I argue that two problems in particular plague the validity of these critics' claims. First, post-conflict power sharing is hardly measured adequately. Indeed, focusing on *either* declarations of mere intent *or* variation within democracies, *or* within autocracies, is unlikely to capture the effective meaning of power sharing in post-conflict environments and across a broad number of cases and settings. If the task is to evaluate broadly the effectiveness of power sharing and political change, this scope should be reflected in the underlying conceptualization. In this light, and in an attempt to formulate a common denominator across all schools of thought, I propose a minimalist definition of post-conflict power sharing. Following Rothchild (2008, 140), I argue that power sharing in post-civil war circumstances occurs when more powerful actor makes a (partial) concession to the demands of a less powerful actor. Justifying this position is straightforward: while the winner-takes-all view implies that the loser obtains nothing, the notion of power-*sharing* implies a division of the stakes (i.e., power). In the empirical section of the chapter, I construct a measure that follows this logic closely.

A second limitation of the current civil conflict literature is that all quantitative studies *assume* that power sharing is exogenous to conflict (regardless of the conceptual focus). In other words, they rely on the problematic assumption that power sharing is unrelated to the threat of future conflict. Against this conception, the authoritarian power sharing literature reminds us that power sharing is likely to be enacted when a significant threat exists. To reiterate, I once again use an analogy from medicine. Current research observes that patients who are hospitalized

⁴⁹Based on a limited number of cases Chapman and Roeder (2007) and Rothchild and Roeder (2005) advocate partition as the best option for protracted ethno-nationalist conflicts, (see also Kaufmann, 1996, 1998). However, reanalyzing Chapman and Roeder's (2007) dataset, Sambanis and Schulhofer-Wohl (2009) show that partition is actually no more effective than autonomy.

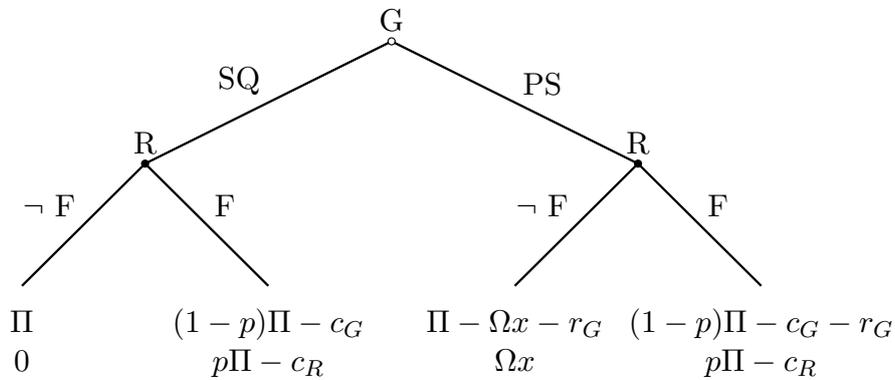
receive the power-sharing treatment and occasionally relapse. As a result, researchers conclude that hospitalization is detrimental. But this neglects the fact that merely the sick patients are the ones who are rushed to the hospital in the first place, and that the dose of the treatment is directly related to the severity of the diagnosis. From this viewpoint, power sharing is a policy that is prescribed when conflict is most probable to begin with. Put differently, because civil war processes are not controlled experiments, the treatment is not assigned randomly, but systematically. Thus, if power sharing is applied systematically in anticipation of the prospect for peace, then neglecting the reverse causality will induce bias. The consequence of such systematic assignment is that the pacifying effect of power sharing is underestimated.

More generally, though problems of reverse causality are increasingly recognized in civil war research (Blattman and Miguel, 2010), they are rarely addressed explicitly as part of the research design. An exception is the literature on peace-keeping operations (PKOs). If such operations are launched when they stand a chance of being successful, it is difficult to make causal inferences about their true effect (Fortna, 2008). Ideally researchers run controlled experiments in which one group of observations is randomly assigned a treatment while the other receives a placebo. However, in empirical research this is not always possible, because researchers cannot deploy PKOs at random, nor can they randomly assign the treatment of power sharing. Researchers must then develop a suitable strategy to overcome the problem of reverse causality so as to obtain unbiased estimates of causal effects. Gilligan and Sergenti (2008) and Melander (2009) address this problem in the context of PKOs, but similar attempts are largely absent from other aspects of civil war. Based on a strategic logic, this chapter therefore develops an approach that attempts to overcome problems of reverse causality and interdependent decision-making for the case of power sharing. My approach builds on the theoretical conjecture that power sharing is likely to be enacted strategically under some particular conditions, but not under others. The following section therefore introduces a theoretical model that examines these conditions in detail.

7.3 A Strategic Model of Post-Conflict Power Sharing

I rely on a simple game-theoretic model in order to demonstrate the strategic logic of power sharing as it occurs after civil war. The model shares some similarity with the work of Acemoglu and Robinson (2006) and assumes complete and perfect information. The extensive form of the model is displayed in Figure 7.1. The game features two actors: the government (denoted as G) and a challenger that I refer to as the rebels (denoted as R). These two actors fight over a metaphorical pie Π that symbolizes the incompatibility or stakes of the conflict. In the game the government moves first and can either maintain the status quo or concede to the rebel’s demands by granting them a share x of its power. Note that I assume a fixed value for x , such that there are three possible divisions of Π : $\{\Pi, 0\}$, $\{\Pi - x, x\}$, and $\{0, \Pi\}$. Subsequently, after both government actions, the rebels can either accept the government’s move or fight. Thus, the sets of possible actions are $\{SQ, PS\}$ for the government, and the $\{\neg F, F\}$ for the rebels.

Figure 7.1: Extensive Form



The payoffs are assigned as follows: if the government does not offer a concession, it keeps the full Π and the challenger receives a payoff of 0. Naturally, this is the preferred outcome for the government. However, the rebels may not accept the status quo and may instead challenge the incumbent by fighting, which is modeled as a costly lottery.⁵⁰ In this case

⁵⁰As Wagner (2000) points out, there are two interpretations of war as a costly lottery. It can either represent a military contest that is fought until one side is defeated in its entirety (“total war”, cf. Clausewitz 1984), or it can represent the prewar expectations about the final settlement (“limited war”). The latter position is intended here.

we observe a recurrence of conflict. If the challenger chooses to fight, with probability p the rebels gain the full Π , whereas G's probability of winning is $1 - p$. Moreover, both actors must bear a cost of fighting, denoted as $c_i > 0, i \in \{G, R\}$.

The right side of the tree captures scenarios under which the government gives up some of its control over the state and is willing to grant a power sharing concession to the rebels. I denote this concession as $x \in (0, \Pi)$, but assume that its value is fixed. If the rebels are not satisfied with this arrangement, they can resort to fighting $\{PS, F\}$. As under the status quo, this is modeled as a costly lottery. The payoffs for the challenger are the same as those that occur when fighting under the status quo, but the government must pay an additional reputation cost denoted by r_G . Here, the logic is that governments have an incentive not to give up their power because doing so may lead other potential challengers (third parties) to conclude that challenging the state could yield beneficial returns, which in turn could lead to state erosion (see Walter, 2009b). Moreover, renegeing on a previous agreement implies future reputation costs, since future agreements will enjoy less credibility. This compromises the government's negotiation position for the future.

In case the rebels choose not to fight after having been granted a concession, i.e., power sharing, they are faced with a potential commitment problem that their concession may be revoked, that is, that the government will be able to renege on the arrangement. Thus, the value of the concession x is conditioned by an institutional context, denoted as $\Omega \in [0, 1]$. This context captures a commitment problem (Acemoglu and Robinson, 2006). If $\Omega = 1$, the commitment problem is non-existent and the government's offer to share state power is entirely credible, so that the rebels have nothing to fear. However, if $\Omega = 0$, the government is entirely unable to commit to power sharing, and any arrangement is entirely void and effectively worthless. Higher values of Ω thus represent more credible institutional contexts. R's payoff from peaceful power sharing is therefore Ωx , whereas this value is subtracted from Π for G's payoff, minus the reputation cost, i.e. $\Pi - \Omega x - r_G$.

Given complete and perfect information, the model can be solved by means of backwards induction. Complete and perfect information is appropriate since I am primarily interested in the observable effect of powersharing, rather than information asymmetries or how powersharing signals (a lack of) resolve. The solution concept is therefore the subgame perfect equilibrium.

The key is to determine what keeps the rebels from fighting. The central intuition is that power sharing can prevent conflict, but only if neither side has a high chance of winning and conflict is sufficiently costly. Moreover, credible institutions that prevent the government from renegeing are attractive to the rebels, but the opposite is true for the government. As such, power sharing occurs when the rebels are neither particularly weak, nor overwhelmingly strong.

A summary of the equilibrium results is given in Table 7.1. The table considers the possible equilibrium paths that government and rebels can take following the logic of backwards induction. The far left column of the table lists the actions that the rebels can take, while the adjacent column shows the formal conditions for which this path is optimal. The remaining two columns list the optimal paths for the government, including the formal conditions, given that the rebels play the strategy denoted in the left column.

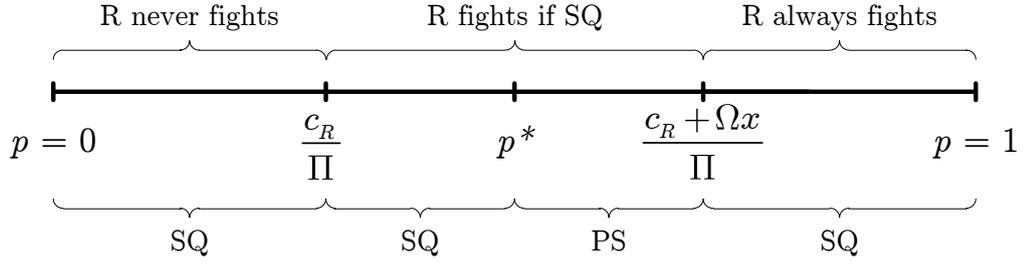
Table 7.1: Summary of Results

R never fights if	$p \leq \frac{c_R}{\Pi}$	\Rightarrow	G always maintains SQ	
R always fights if	$p > \frac{c_R + \Omega x}{\Pi}$	\Rightarrow	G always maintains SQ	
R fights if SQ if	$\frac{c_R + \Omega x}{\Pi} > p > \frac{c_R}{\Pi}$	\Rightarrow	G adopts PS if	$p > \frac{\Omega x + r_G - c_G}{\Pi}$

The top row of Table 7.1 lists the conditions under which the rebels will never fight. The rebel's threshold depends on the ratio of the costs relative to the stakes, which must be higher than the probability of winning.⁵¹ Intuitively, if the rebels never fight, then the government's preferred strategy is to maintain the status quo, since doing so avoids reputation costs. The second row considers the conditions under which the rebels will always fight, regardless of the government's action. Here, the rebels' threshold for fighting, p , depends on how large the costs of fighting c_R and expected value of power sharing Ωx are relative to the value of the incompatibility under dispute Π . If the condition is met that the rebels will always fight, then the government will always maintain the status quo (since $r_G \geq 0$ is always true). This equilibrium result is intuitive in the sense that powerful rebels will prefer the gamble of war over the gamble of power sharing, especially when the latter is associated with a high risk of losing the concession. In the words of Walter Sobchak, why settle for twenty grand if one can keep the entire million? Given complete and perfect information, the government of course

⁵¹In setting (strict) equalities, I assume that, ceteris paribus, R prefers $\neg F$ to F, and G prefers SQ to PS.

Figure 7.2: Visualization of Comparative Statics



anticipates that the rebels will behave this way. Knowing that the rebels will always fight, the government will be better off by maintaining the status quo. However, R's threshold for fighting is an increasing function of Ωx . The greater Ω , the more credible is the government's promise of power sharing, and the smaller the parameter space within which R resorts to fighting. In short, credible institutions can prevent the challenger from fighting.

These results are also displayed graphically as a summary in terms of the parameter p (rebel strength) in Figure 7.2. The figure shows that the government's strategy is particularly critical in the middle category, where the rebels are neither so weak that they do not pose a threat nor so strong that they prefer to obtain the full Π , rather than a power sharing division.

The bottom row in Table 7.1 lists the conditions under which the rebels will fight given the status quo. If the rebel's strength p lies between the threshold of never fighting, and the threshold of fighting, i.e., $\frac{c_R + \Omega x}{\Pi} > p > \frac{c_R}{\Pi}$, then the rebels will only fight if G maintains the status quo. In other words, power sharing can prevent the rebels from fighting. But will it be played? To analyze this question, I define a critical value of the relative strength p^* with strict equality:

$$p^* = \frac{\Omega x + r_G - c_G}{\Pi}. \quad (7.1)$$

At this critical value, the government is indifferent between maintaining the status quo and granting power sharing concessions. However, in this middle range of parameter space for p , the rebels will only fight if confronted with the status quo, rather than being granted a concession. Thus, at p^* the government's payoff for keeping the status quo is the same as the rebels' payoff for fighting. Then, if $p \leq p^*$, the government will prefer maintaining the status quo even though the rebels will resort to fighting. However, if governments want to prevent war with certainty, they must offer power-

sharing concessions. They will do so if $p > p^*$. Since p^* is increasing in Ωx , the government will be *less* willing to offer power sharing concessions under credible institutions. As such, power sharing appeals to the government under difficult circumstances. Furthermore, the model presented here implies that power sharing will not even be offered unless the government is likely to lose a violent conflict.

More generally, the fact that PS only occurs when both sides stand a chance of being victorious in the event of war suggests a non-monotonic relationship between p and PS in the form of an inverted-U shape. Interestingly enough, this is in line with the findings from Chapter 4, which also identify the middle regions as the most likely to induce conflict.

Having analyzed the conditions under which power sharing is the government's optimal strategy, it is also pertinent to determine the conditions under which power sharing is possible at all. From Figure 7.2 we can infer that that power sharing can occur if the critical value p^* lies to the left of the rebels' threshold for fighting. Formally,

$$\frac{\Omega x + r_G - c_G}{\Pi} \leq \frac{c_R + \Omega x}{\Pi} \quad (7.2)$$

$$r_G \leq c_R + c_G. \quad (7.3)$$

Thus, whether PS is possible at all depends entirely on costs; more specifically, the government's reputation cost must be smaller (or equal to) the combined costs of fighting. Thus, when conflict is particularly costly and reputation costs are not too high, power sharing represents an attractive cost-avoiding mechanism. Formally, the range of power sharing within the parameter space is:

$$\frac{c_R + \Omega x}{\Pi} - \frac{\Omega x + r_G - c_G}{\Pi} = \frac{c_R + c_G - r_G}{\Pi} \quad (7.4)$$

In other words, for power sharing to become possible, conflict must be associated with high costs relative to the stakes. As such, the existence of credible institutions does not make power sharing more likely *per se*, since the range is independent of Ωx . However, we have seen that when p is large and the rebels are strong, suitable institutions can prevent them from fighting. This is because a large Ωx reduces the range within which the rebels will always fight.

In sum, power sharing is a strategy that is acceptable to governments and rebels when fighting is particularly costly and victory for either side is difficult to attain. This suggests a curvilinear relationship between p and

PS. Whether or not this and other predictions, as well as the formal model at large, receive empirical support is addressed in the next section.

7.4 Statistical Analysis of the Game

At a basic level, the theoretical model suggests that the the decision to enact a post-conflict power-sharing arrangement and the decision to fight are strategically interdependent. In this case, conventional estimators can lead to serious bias (Signorino, 1999; Signorino and Yilmaz, 2003). To overcome these limitations, I test the model using a strategic estimator developed by Signorino (1999). The basic intuition of strategic estimation is that one derives a statistical estimator seamlessly from an underlying game-theoretic model, rather than fitting an off-the-shelf model by merely selecting a dependent variable and covariates. The major advantage then is that the statistical estimator directly incorporates the strategic interdependence between the players' decisions.

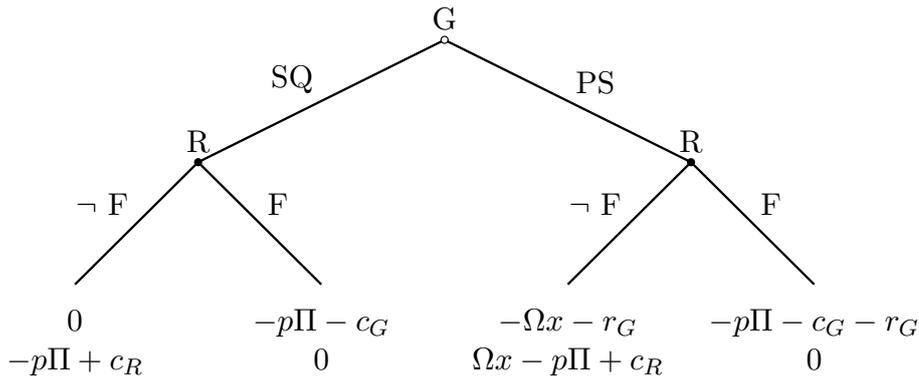
Whereas the game-theoretic model works deterministically according to the Nash best response logic, McKelvey and Palfrey (1995, 1998) derive the proposition that players make mistakes in their actions. The concept of *quantal response equilibrium* (QRE) then states that higher utilities simply increase the likelihood that a given strategy will be played. QRE is a generalization of the Nash equilibrium and converges to the Nash equilibrium as the quantal response functions discriminate sharply and approximate the best response function. Interestingly, this is in line with the notion of bounded rationality (Simon, 1955, see McKelvey and Palfrey (1995)).

Noting that this concept involves a stochastic element, Signorino (1999) shows that assuming a distribution of the extent of bounded rationality allows the analyst to construct a statistical estimator. Put simply, one assumes that the players make mistakes, and that large errors occur less frequently than small ones. Moreover, both players know that the other player makes mistakes, and they are aware of the distribution of such behavior, as is the analyst. The elegance of strategic estimation then lies in the fact that covariates can be used to estimate the utilities directly from empirical data. The task of the analyst is then to assume a particular distribution for the error term and to assign relevant covariates for the utilities.

The strategic estimator I employ thus mirrors the logic of the strategic power sharing game and is based on the same logic of backwards in-

duction. I use a package entitled “games” (Signorino and Kenkel, 2011; Kenkel and Signorino, 2012) for the statistical language *R*. In order to accommodate the software and to ensure identification of the statistical model, it is necessary to normalize certain payoffs to zero (see Lewis and Schultz, 2003). This is displayed in Figure 7.3. Accordingly, I estimate three utilities for the government, and two utilities for the rebels: $U_G(SQ, F)$, $U_G(PS, \neg F)$, $U_G(PS, F)$, $U_R(SQ, \neg F)$, and $U(PS, \neg F)$, while the remaining outcomes are set to zero and serve as baselines for a given player’s actions. The estimated utilities are therefore to be interpreted relative to these baselines. In testing the model empirically, I am then interested in whether the covariates assigned for with each payoff component and utility show an effect that is in the hypothesized direction, that is show the correct sign.

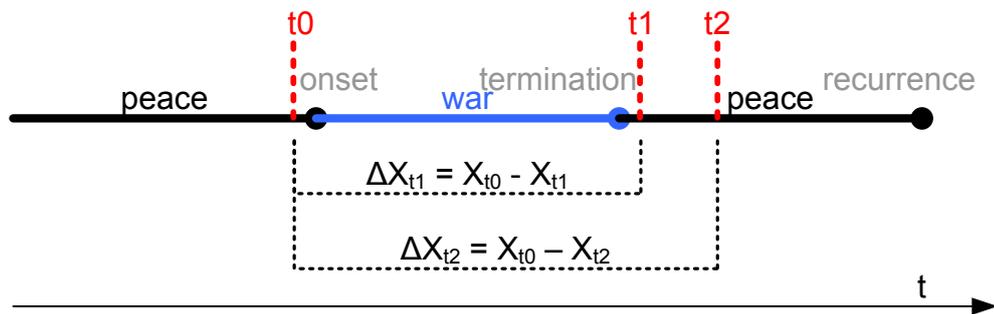
Figure 7.3: Normalized Payoffs



7.5 Data and Specification of the Model

Testing the theory requires disaggregated data that capture the interaction between governments and rebels, including information on power sharing and recurrent fighting in civil wars. Thus, whereas the theoretical model is formulated using the general terminology of rebels and government, I test the model by relying on data at the level of ethnic groups. As in Chapter 4, these data stem from EPR. This approach has the advantage that it allows for a disaggregated and actor-specific tracking of the fate of conflict belligerents also in the aftermath of conflict. Indeed, most analyses rely on aggregated data at the level of countries or conflicts, and are thus unable to

Figure 7.4: Measuring Power Sharing



capture strategic interaction. Moreover, while it is not generally possible to track rebel organizations when post-conflict peace endures, EPR does not share this limitation. Finally, as I will show below, the structure of EPR makes it possible to measure power sharing concessions relative to the pre-conflict baseline.

I rely again on data derived from ACD2EPR. In converting this dataset to the level of ethnic groups, I determined the earliest onset and the latest termination dates for a given group–active through rebel organizations as their agents–in a given conflict episode. Since the theoretical model addresses post-conflict power sharing, only the post-conflict period is included in the dataset. The format of the data is therefore post-conflict-episode-ethnic-group-government-dyad-year.

7.5.1 Measuring Power Sharing

In order to derive a measure of power sharing, I assume that the categories of power statuses in EPR are roughly ordinal, i.e. can be rank-ordered meaningfully (see p. 53 for a description of the categories). Since power sharing in the game-theoretic model implies an improvement in the status quo for the challenger, I use a group’s pre-war status as a baseline. This allows me to construct a binary measure indicating whether a group’s relative political status improved during the year following the termination of a conflict episode (t_1), with respect to the group’s status during the year preceding the onset (t_0). The procedure is visualized in Figure 7.4.

With regard to the ordinality of the scale, the logic is as follows: clearly, *discriminated* groups suffer the biggest disadvantage, since the state takes active measures to prevent discriminated groups from acquiring political representation and other state benefits. *Powerless* groups, by contrast, are

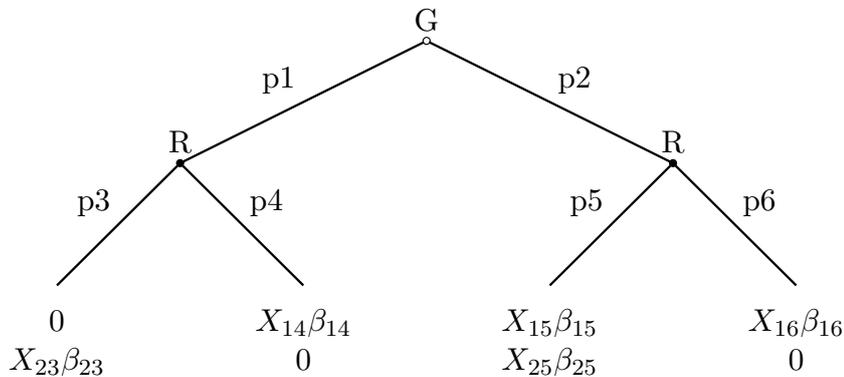
not actively excluded by the government. *Separatist* groups exert some local power, but compared to groups with *regional autonomy*, they do not enjoy political legitimacy from the political center. For the remaining categories, the rank-ordering is self-explanatory.

I then use this indicator of improved status to determine those groups for which improvement means (1) being newly included in the government, (2) being upgraded within an existing power sharing government, i.e., from *junior partner* to *senior partner*, and (3) being upgraded to *regional autonomy*. Although this last category strictly speaking does not indicate access to state power, it does address a demand made frequently by excluded groups: political, cultural and/or economic autonomy or decentralization. In sum, this strategy allows me to generate a binary indicator of post-conflict power-sharing concessions relative to the pre-conflict status.

7.5.2 Assigning Covariates

In this section I discuss the way in which the utilities from the game theoretic model are expressed in terms of covariates. Since strategic estimation adds considerable complexity through non-linearities and thus poses considerable demands towards the data, parsimony in terms of the covariates is warranted in order to save degrees of freedom and retain substantial interpretability. Following the logic of backwards induction, I begin with the rebels' utilities. Here, the utilities for fighting, $U_R(SQ, F)$ and $U_R(PS, F)$, were normalized to zero so as to accommodate the statistical software. Thus, I specify the regressors for $-F$ under both the status quo and power sharing. The model with regressors is depicted in Figure 7.5.

Figure 7.5: Specification of the Model with Regressors



For the government, I specify three regressor terms, since only $U_G(SQ, \neg F)$ has been set to zero. I begin with the utility of fighting under the status quo. To recall, the payoff components are shown in Figure 7.3. To operationalize p , I employ the outcome of the previous conflict using data from Kreutz (2010). I distinguish between four general types: rebel victories, agreements, low activity and government victories. Assuming cardinality, I create a four-value scale, ranging from 0 to 1. The rationale is that rebels that won a previous conflict become more likely to win a conflict in the future, while they are less likely to win if they were previously defeated. Agreements refer to a situation in which defeat is not possible for either side, but in which a process of active bargaining takes place, allowing some kind of compromise to be reached. Conflicts that terminated in low activity are placed in between agreements and government victories.⁵² According to the payoff structure, p scales Π . However, the measure of conflict outcomes is already coded relative to the incompatibility (from the rebels' perspective) (Kreutz, 2010). I measure the cost of fighting by the logged duration of the previous conflict episode, as well as by the logged GDP p.c. (lagged), as political economy approaches have famously argued that poverty reduces opportunity costs of fighting. Moreover, per capita GDP should also be related to Π , since it is a measure of the state's value. Thus, the government's utility of fighting under the status quo is:

$$\begin{aligned} U_G(SQ, F) &= X_{14}\beta_{14} + \epsilon_{14} \\ &= \beta_{14.1}outcome + \beta_{14.2} \log(duration) \\ &\quad + \beta_{14.3} \log(GDP\ p.c._{t-1}) + \epsilon_{14} \end{aligned}$$

The remaining utilities for the government to be specified in terms of regressors pertain to the case when a power sharing concession has been granted. In this case, the government incurs reputation costs, r , since it overtly demonstrates that concessions are possible. I measure these costs through a proxy of the share of the excluded population, i.e., the sum of the demographic shares of all excluded groups. Here, the rationale is that a larger share should capture greater reputation concerns by the government. Thus, the higher the share of the excluded population, the higher the potential reputation costs. In addition, I also include a dummy

⁵²Higher order separation problems lead to convergence failure when including the categories as (k-1) separate dummy variables. Moreover, the the simple scale has advantages with respect to graphical interpretation (see below).

for territorial (rather than governmental) conflict, since secessionist demands are mostly made by peripheral minorities, which are more numerous in many countries, and accommodating such demands can set a precedent. The term Ω is perhaps the most challenging parameter to operationalize. Here, I borrow conceptually from Chiba and Reed (2011) by building on a triadic logic that captures whether the existing (remaining) government is a power sharing coalition. Thus, for each group I code in a dummy variable that reflects whether the government consists of at least two *other* partners in the previous period.⁵³ Governments that have already formed a coalition are more credible because (i) they demonstrate the capacity and willingness to uphold such an arrangement and (ii), perhaps more importantly, a triadic constellation in the political center cannot unilaterally revoke a previous offer. Put differently, in order to renege on a power-sharing agreement with the rebels, a government coalition consisting of two (or more) parties faces the problem that doing so signals to the remaining partner that an arrangement is not necessarily binding, and so each partner will be less inclined to renege, and perhaps even be hindered from doing so by the remaining partner. Moreover, I also include a measure for time passed since the last fighting instance, since enduring peace under a power-sharing arrangement can itself signal credibility. Here, I employ an exponential decay function of the form $e^{-\text{peaceyears}/20}$ (Raknerud and Hegre, 1997).⁵⁴ Finally, to proxy x , the scope of a power sharing concession, I use the demographic share of the group relative to the government (see Chapter 4). This is a suitable measure, since it captures the relative price of power-sharing; from the viewpoint of the government granting concessions to large ethnic groups is more costly than accommodating small minorities. The government's utility of not fighting

⁵³In other words, if the group is excluded, the variable takes a value of 1 if there are at least two groups in power, while at least three groups in power are required for included groups.

⁵⁴As an alternative to the standard peaceyears and splines correction (Beck, Katz and Tucker, 1998), this approach has the advantage that it consumes fewer degrees of freedom and is more convenient for simulation purposes. Trial and error suggested that the denominator of 20 fits the data well, which results in a half-life of roughly 14 years. Other values between 5 and 30 yielded substantially similar results.

under power sharing is therefore specified as follows:

$$\begin{aligned}
U_G(PS, \neg F) &= X_{15}\beta_{15} + \epsilon_{15} \\
&= \beta_{15.1} \textit{territorial conflict} + \beta_{15.2} \textit{excluded population} \\
&\quad + \beta_{15.3} \textit{relative size} + \beta_{15.3} \textit{coalition government} \\
&\quad + \beta_{15.4} \textit{peaceyears} + \epsilon_{15}
\end{aligned}$$

The government's utility for fighting under power sharing is operationalized by means of the same variables as under the status quo, except that the reputation costs have been added. They are therefore as follows:

$$\begin{aligned}
U_G(SQ, F) &= X_{16}\beta_{16} + \epsilon_{16} \\
&= \beta_{16.1} \textit{outcome} + \beta_{16.2} \textit{territorial conflict} \\
&\quad + \beta_{16.3} \log(\textit{duration}) + \beta_{16.6} \log(\textit{GDP p.c.}_{t-1}) \\
&\quad + \beta_{16.7} \textit{excluded population} + \epsilon_{16}
\end{aligned}$$

Turning to the rebels, recall that the payoffs from fighting are set to zero and thus serve as a baseline. Differences then stem from the fact that their utilities differ depending on whether or not they were able to obtain a power sharing concession. Thus, I first operationalize the utility of not fighting under the status quo. Here, I again include the outcome of the previous episode of fighting as a measure of p , as well as the duration of the previous episode and per capita GDP as measures of costs.⁵⁵ The utility is then specified in the following way:

$$\begin{aligned}
U_R(SQ, \neg F) &= X_{23}\beta_{23} + \epsilon_{23} \\
&= \beta_{23.0} + \beta_{23.1} \textit{outcome} + \beta_{23.2} \log(\textit{duration}) \\
&\quad + \beta_{23.3} \log(\textit{GDP p.c.}_{t-1}) + \epsilon_{23}
\end{aligned}$$

Finally, I consider the rebels' utilities under power sharing. In this case, the only difference between the rebels' and the government's utilities is that I must operationalize the probability that power sharing is credible. As argued above, this is most likely to be the case in particular institutional contexts. In particular, constraints that prevent the government from reneging on

⁵⁵Note that I do not include the indicator for territorial conflicts, since it is not clear whether territory represents subjectively *less* valuable stakes for the rebels once fighting has started, given that territory is frequently charged with symbolic value (Hassner, 2003; Toft, 2002; Goddard, 2006).

its offers should signal credibility to the rebels. Thus, I again include the measure of coalition government, as well as the peaceyears indicator. To capture the scope of power sharing concession, I again include relative size. The utility is therefore as follows:

$$\begin{aligned}
 U_R(PS, \neg F) &= X_{25}\beta_{25} + \epsilon_{25} \\
 &= \beta_{25.1}outcome + \beta_{25.2}\log(duration) \\
 &\quad + \beta_{25.3}\log(GDPp.c.t-1) + \beta_{25.4}relative\ size \\
 &\quad + \beta_{25.5}coalition\ government + \beta_{25.6}peaceyears + \epsilon_{25}
 \end{aligned}$$

Finally, note that the constant terms have been dropped for $U_R(PS, \neg F)$ and $U_G(PS, \neg F)$, since no term can be included in every utility, including constants, in order for the model to be identified (Lewis and Schultz, 2003).

7.6 Results

I estimate the model using maximum likelihood as a probit parameterization, that is the error term is assumed to follow a normal distribution. The standard errors were obtained through bootstrapping (1000 replications), as recommended by Kenkel and Signorino (2012). The estimation results are given in Table 7.6, which shows coefficients along with standard errors in parentheses below. In general, for the statistical model to be consistent with the formal model, the coefficients associated with each payoff component should show the same sign as in Figure 7.3. This is the case for all but two coefficients,⁵⁶ and the vast majority of the coefficients is also statistically significant. Although the individual utilities inform about the match between the theoretical and the statistical model, I resort primarily to visual interpretation of the results, which allows for a more intuitive understanding. Thus, I generate predicted probabilities for the observed range of a given variable, holding all other variables constant at their mean (continuous variables) or mode (dummy variables). As before, following the logic of backwards induction, I begin with the rebels, i.e., the challenging ethnic group.

I first focus on the probability of winning and the costs of fighting. Figure 7.6 depicts the predicted probabilities that R will resort to fighting under the

⁵⁶The two exceptions are *territorial conflict* and *excluded population* for $U_G(PS, F)$. As is shown graphically below, this did not impact the overall results.

Table 7.2: Player Utilities for Statistical Strategic Model

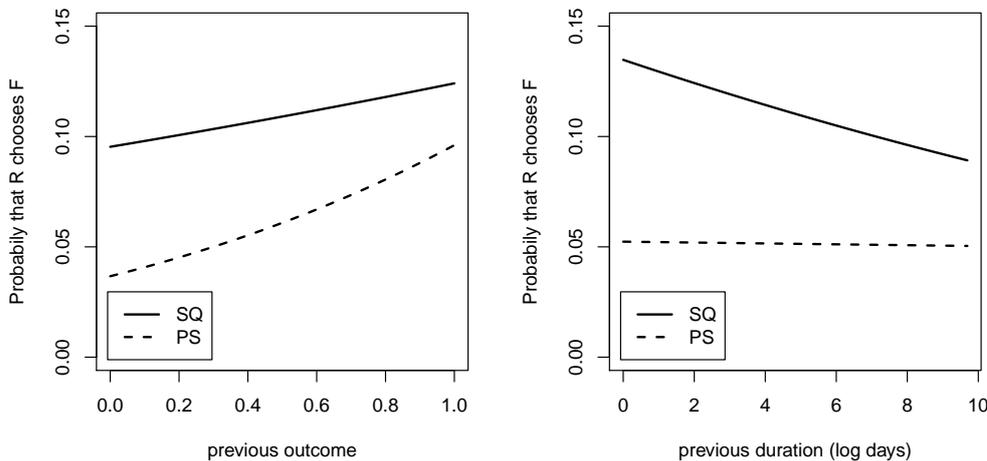
	$U_G(SQ, F)$	$U_G(PS, F)$	$U_G(PS, -F)$	$U_R(SQ, -F)$	$U_R(PS, -F)$
(Intercept)	-178.46*** (28.77)	-56.32 (15.79)		2.00*** (0.12)	
Previous Outcome	-24.22* (13.42)	-48.12*** (9.44)		-0.21* (0.09)	-0.68*** (0.12)
log Duration	-14.51*** (1.95)	-11.18*** (1.58)		0.03* (0.01)	0.00 (0.01)
log GDP p.c.	18.94*** (2.72)	4.59** (1.78)		-0.04** (0.02)	0.19*** (0.02)
Percent Excluded Population		1.02*** (0.11)	-0.08*** (0.01)		
Territorial Conflict		2.08 (9.06)	-1.02* (0.41)		
Relative Size			-6.09*** (0.88)		1.14*** (0.15)
Coalition Government			-4.36** (0.65)		0.85*** (0.08)
Peaceyears Decay			-7.31*** (0.81)		0.77*** (0.08)
Log-Likelihood	-1829.84				
Observations	2763				

Bootstrapped Standard errors in parentheses

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

status quo (bold line) and under power sharing (dashed line). The left panel considers the effect imposed by the previous episode of fighting. Clearly, rebels that were successful in a previous episode are more likely to raise arms against the government again, since they believe their chances of winning to be high. However, this probability is generally much smaller for groups that were granted a power sharing concession. The right panel of the figure shows the effect of the duration of the previous conflict episode. While ethnic groups under the status quo are more careful and fight less frequently if the previous fighting was long and costly, there is virtually no effect for groups under the status quo.

Figure 7.6: Predicted Probabilities of Fighting under PS and SQ (1)

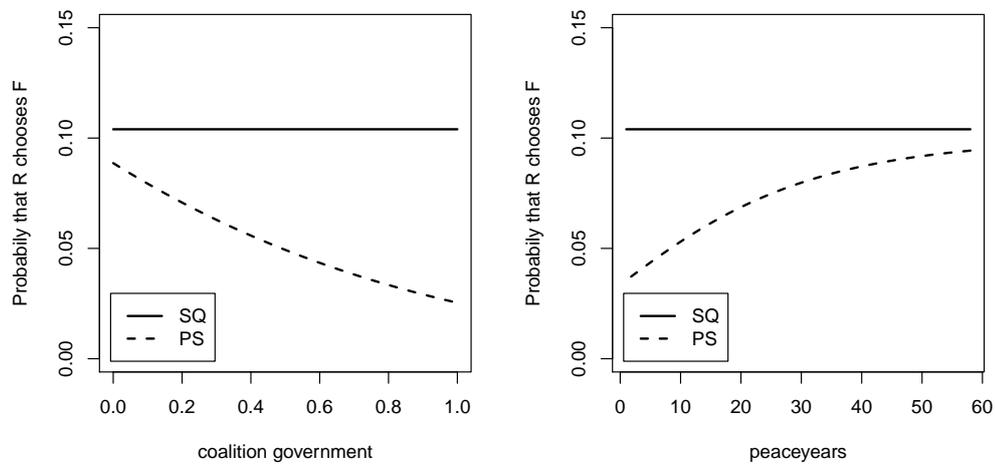


Next, I turn to the issue of commitment, visualized in Figure 7.7. The left panel considers the effect of a coalition government. In line with the commitment problem argument, I find that existing coalition governments have a pacifying effect when conflict leads to a power-sharing arrangement. Since this variable is only relevant for groups that were granted concessions, the probability of fighting is constant under the status quo (by construction of the model). This is not so for groups that gained access to power. In probability, the higher the level of credibility, the lower the risk of recurrent fighting.

For the effect of enduring peace, the model *estimates* a constant probability for the status quo and an increasing risk of conflict as power sharing endures. Although this result is in line with the conjecture that power

sharing works best in the short run (see Rothchild and Roeder, 2005), even after more than 40 years, the estimated risk of conflict under power sharing is still lower than under the status quo. Consequently, there is little reason to limit the merits of power sharing to the short run only. Indeed, a plausible interpretation for this occurrence is that governments are increasingly likely to renege on existing arrangements, thereby triggering conflict.

Figure 7.7: Predicted Probabilities of Fighting under PS and SQ (2)

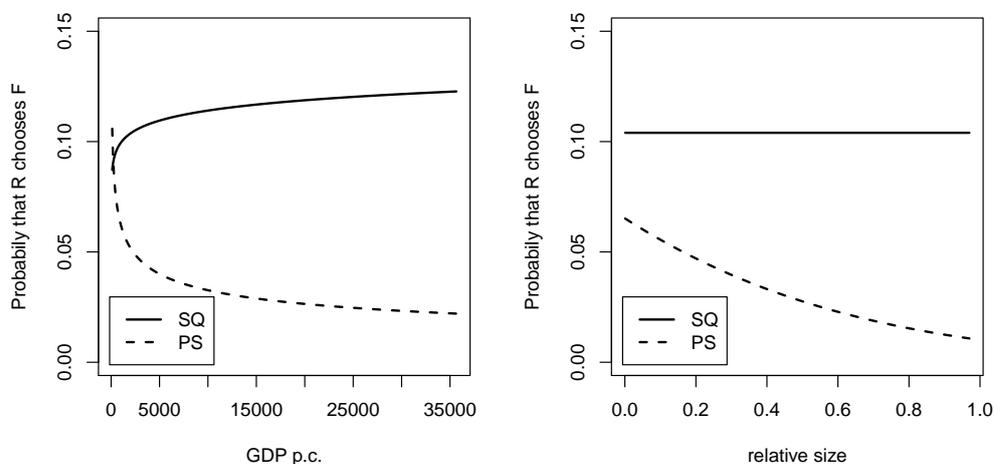


Finally, in Figure 7.8 I also consider the effects of per capita GDP (left panel) and the relative size of the beneficiary group (right panel). Interestingly enough, I find a positive effect for the status quo, implying that wealthier countries are more likely to experience recurrent conflict if groups are persistently excluded from valuable state benefits. By contrast, groups that were granted a power sharing concession are *less* likely to fight at higher levels of GDP. To the degree that GDP relates to the value of the stakes, these results are entirely in line with the theoretical model; Π is the denominator in eq. 7.4, implying that higher stakes reduce the range in the parameter space in which power sharing is played.

A similar result emerges for the group's size relative to the government. While relative size has no effect on recurrent conflict under the status quo, relatively large groups are likely to be proportionally large beneficiaries of state benefits, and are therefore less likely to fight.

Turning to the government, the question remains as to whether it anticipates the rebels' utility maximizing behavior. In this case, though one

Figure 7.8: Predicted Probabilities of Fighting under PS and SQ (3)

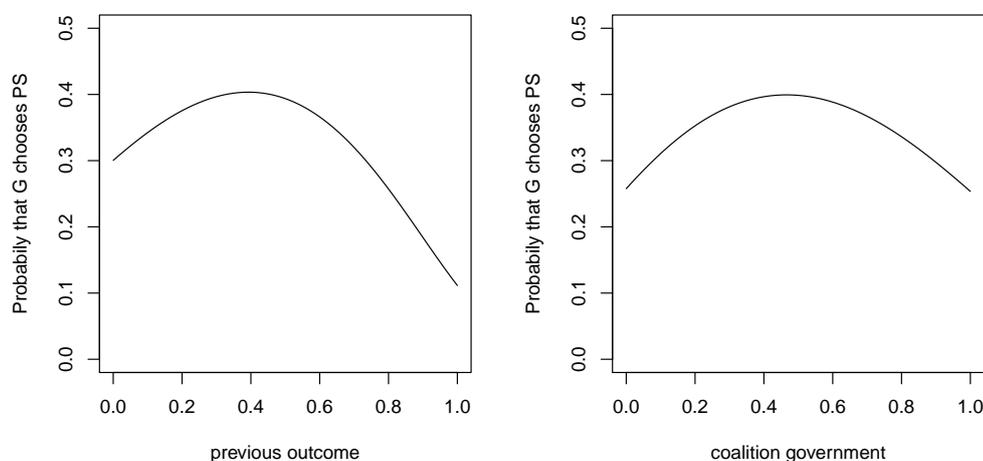


can compare the signs of the coefficients to the signs predicted by the theoretical model, the difficulty of interpretation hinges on the fact that the government’s decision-making is likely to be dependent on how it anticipates the rebels to respond to a given action. Thus, I again resort to visual interpretation. Figures 7.9 through 7.12 show the predicted probabilities that governments will choose power sharing for a series of covariates. These are strategic probabilities that factor in the decision that rebels are likely to make subsequent to the government’s initial move.

Assessing the effect of relative capabilities, the theoretical model suggests that neither particularly weak nor particularly strong rebels are likely to be granted power sharing concessions. This implies a curvilinear relationship between the probability of rebel victory and the government’s decision to play power sharing. This is assessed in the left panel of Figure 7.9. Using previous outcomes as a proxy, the estimates recover a relationship of the hypothesized form, suggesting that, *ceteris paribus*, power sharing concessions are most likely to be granted when neither side can achieve decisive victory.

A curvilinear relationship also holds for the probability that the promise of power sharing is binding (Figure 7.9, right panel). The respective parameter Ω was operationalized by an indicator of coalition governments, which are generally more credible when making power sharing offers. Although strictly speaking the result is not explained by the theoretical model, a possible interpretation is the following: knowing that powerful rebels will never accept

Figure 7.9: Predicted Probabilities for Government Actions (1)

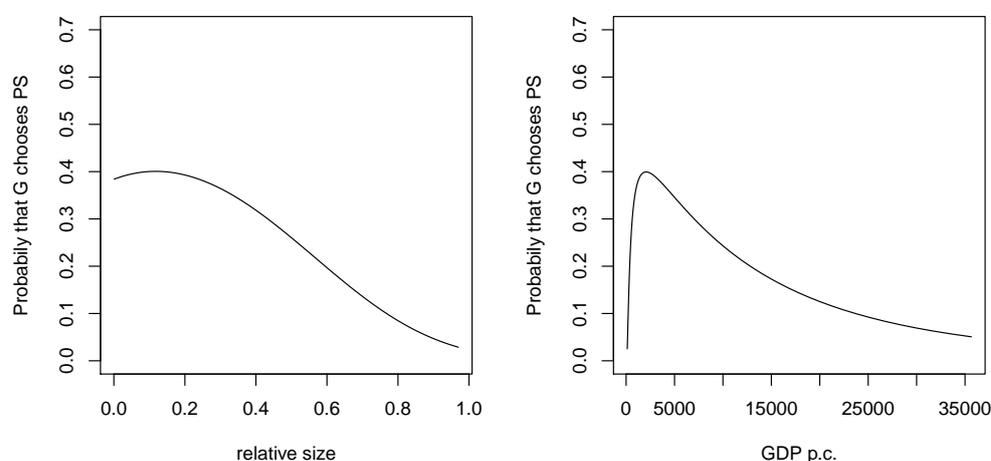


void offers, governments will refrain from offering them in the first place, since doing so induces reputation costs. At the same time, as suggested by the theoretical model, governments have incentives to offer power sharing precisely under those circumstances in which power sharing is a void promise, since they will benefit from being able to renege in the future. When the institutional context makes it less likely that the government will be able to renege, it has fewer incentives to make an offer, even though the rebels will be more likely to accept it. Consequently, at high levels of institutional credibility, governments will prefer to maintain the status quo and accept the risk of fighting. Owing to this diametrically opposing preference structure, a curvilinear result emerges.

The left panel of Figure 7.10 considers the effect of the size of a power sharing offer. Holding constant the probability that the rebels will be victorious on the battlefield, a power sharing concession implies that the government will be worse off than before making the concession. Since power sharing is strongly associated with the distribution of state benefits, it is far from surprising that I find governments to be less likely to accommodate relatively large challengers. Indeed, since the measure captures the group's relative size vis-à-vis the government, power sharing gets more "expensive" when granted to groups that will consume significant state resources and benefits. The right panel depicts the effect of per capita GDP. When specifying the regressors, I argued that this variable should be associated

with both the costs of fighting, since poverty is frequently argued to generate an opportunity structure conducive to fighting (Fearon and Laitin, 2003; Collier and Hoeffler, 2004), as well as the value of the incompatibility, since it also relates to the “prize” of the state. As can be seen in the figure, when per capita GDP is higher than \$2,000, governments are less willing to share power the more valuable the incompatibility. Put differently, the higher valued the incompatibility, the higher the chances the government will prefer the gamble of war to a division of the stakes.

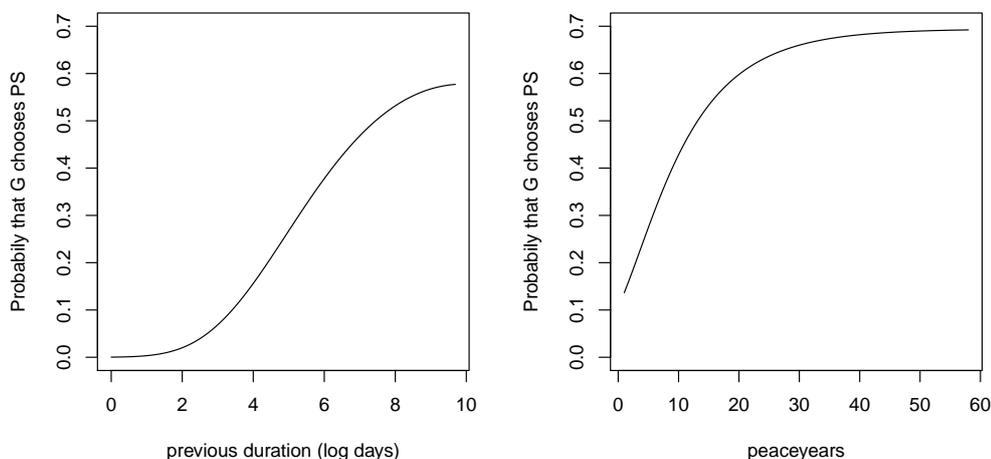
Figure 7.10: Predicted Probabilities for Government Actions (2)



In line with my theory, the left panel of Figure 7.11 suggests that the probability of the government choosing power sharing increases with the costs of the fighting, measured here as the duration of the previous episode of fighting. The right panel of the figure indicates that power sharing is more likely as peace endures. Here, one apparent limitation of the model is that it considers essentially a series of snapshots. A more intuitive interpretation of this result is that power sharing is likely to persist as peace endures.

Finally, Figure 7.12 considers crucial reputation costs. I find strong negative effects for both the percentage of the population that is excluded, as well in cases of conflicts over territory. This suggests that governments act strategically by considering the effects that power-sharing concessions will have on the future. If granting a concession to one group is likely to trigger demands by other groups, then governments are less likely to accommodate requests for concessions.

Figure 7.11: Predicted Probabilities for Government Actions (3)



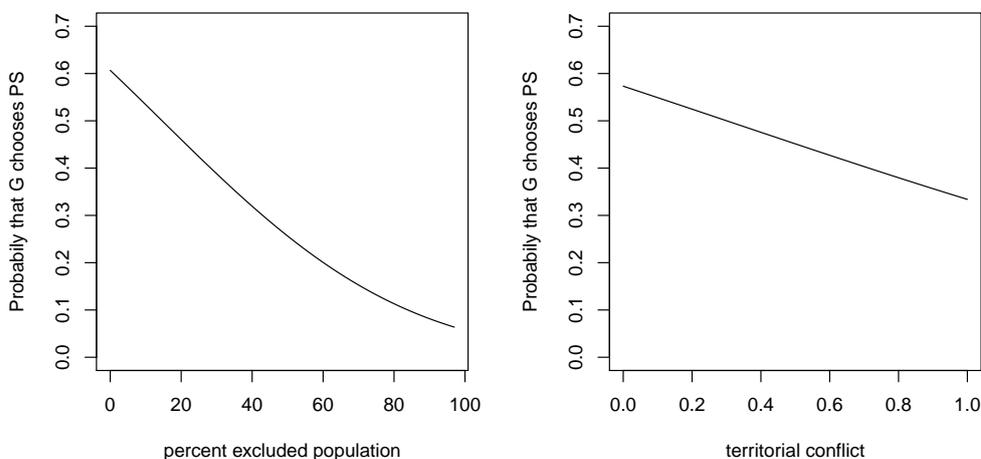
In sum, I find strong theoretical and empirical evidence for strategic interaction between governments' decisions to grant post-conflict power-sharing concessions, and rebels' decisions to raise arms. As such, the two should not be examined separately, but jointly.

7.7 Conclusion

This chapter presents an attempt to model formally and empirically the strategic logic of power sharing after civil war. Rather than assuming that power sharing after civil war occurs more or less randomly in some cases, but not others, I demonstrate that the prospect of recurrent conflict plays a systematic and important role in determining when and where power sharing occurs in the first place. My findings suggest that power sharing is more likely to be granted in poor countries; where neither side can easily defeat the other; when concessions are less costly; after long conflicts; after governmental (rather than territorial) conflicts; and when only a small part of the population is politically excluded. Indeed, these are factors and conditions commonly associated with conflict in general and recurrent conflict in particular. As such, power sharing is a strategy that is played in the difficult cases, not the easy ones. Power-sharing arrangements are therefore highly endogenous to the stability of post-conflict peace.

Given this strong and apparent endogeneity, critiques of power sharing

Figure 7.12: Predicted Probabilities for Government Actions (4)



as a strategy for maintaining and securing peace are likely to be premature and misled by the problematic assumption that power sharing is exogenous to post-conflict peace. Power sharing is a strategy that is likely to be chosen under the most difficult conditions. Neglecting this strategic logic is therefore likely to result in biased estimates which systematically underestimate its pacifying effect. Indeed, after having accounted for this endogeneity, I estimate consistently lower risks of renewed conflict for groups that are granted power-sharing than those that are not. In short, the empirical results from this study allow for one and only one conclusion: power sharing works.

In light of these findings, scholars that recommend that belligerents fight it out until reaching a decisive victory may be recommending that people suffer unnecessarily while inflicting needless economic, societal and human costs. Moreover, although prominent scholars suggest that power sharing may at best be a short-term solution, my results suggest that power sharing is the better alternative even decades after the fighting has stopped. In a nutshell, this chapter provides strong evidence in favor of the logic of political change.

Chapter 8

Conclusion

Civil wars kill people. According to one account, the civil war death toll from 1945 to 1999 totalled at least 16 million (Fearon and Laitin, 2003, but see Lacina 2006). This is five times the amount caused by interstate wars and does not include deaths resulting from the long-term consequences that continue after the shooting has stopped. Indeed, the number of indirect casualties - mainly among civilian populations - is estimated to equal the number of direct victims and tends to disproportionately affect women and children (Ghobarah, Huth and Russett, 2003). Thus, it is imperative that we understand the causes of such violence as well as what may be done to prevent or limit it, not least as a means by which to address prominent policy challenges, such as the UN millennium goals. In this final chapter I therefore summarize the main findings, discuss limitations, and point to directions for future research. Finally, I highlight the policy implications that follow from the overall findings.

8.1 Summary and Main Contributions

This dissertation develops an integrated perspective on ethnic civil wars. “Integrated” here carries a double meaning. First, whereas existing approaches tend to champion *either* explanations of opportunities *or* motivations, while largely discounting the other, this dissertation develops an integrated theoretical framework that systematically incorporates elements from grievance-based approaches into a rationalist framework. Although these two approaches are often considered diametrically opposed, I highlight their complementary nature. Indeed, opposing views sometimes stem merely from different terminologies. For example, even the term “grievances”

itself is relatively closely matched by what some rationalists refer to as “dissatisfaction with the status quo” (e.g., Powell, 1999). Thus, I show how grievances interact with opportunities (Chapter 4), or even impact factors of opportunity by raising levels of cost-tolerance towards costly fighting (Chapter 5). Second, current research rarely considers onset, duration, termination and recurrence of civil-war violence as part of an overarching process, neither in terms of theory nor analyses. In contrast, by articulating the logic of ethno-political change, I demonstrate the way in which trajectories of war and peace unfold systematically, in particular through the role of motivations.

Substantively, in Chapter 4 I analyze the conditions under which particular demands for change are likely to be made, and the conditions under which this can lead to full-fledged war. In line with previous research, I find that ethnic groups suffering from ethno-political exclusion are significantly more likely to demand political change. More specifically, I articulate a strategic logic that anticipates the prospects of success, which motivates a substitution effect between territorial and governmental conflict. Less powerful ethnic groups are likely to limit their demands to changes that affect the territory they inhabit, whereas more powerful groups are likely to aim for full control over the state’s institutions. In both cases, I find preliminary evidence suggesting that demands are most likely to escalate to war when the challenging group is roughly on par with the government. Whereas existing rationalist approaches commonly view civil war through the lens of a commitment problem mechanism, this finding is in line with a strategic conceptualization based on uncertainty and incentives for misrepresentation.

Chapter 5, which is based on Wucherpfennig et al. (2012), analyzes the conditions under which ethnicity can prolong civil conflicts. Contrary to existing accounts, ethnicity neither lacks an effect nor does it make conflicts more difficult to resolve per se. Rather, ethnicity can lead to prolonged fighting when charged with the demand for change. As such, the effect of ethnicity is not fixed, as is assumed by the current literature. Instead, the effect of ethnicity is variable and depends on state policies of categorical ethnic exclusion. Such policies are likely to yield a stock of cost-tolerant fighters, and are also likely to foster strong collective group solidarity. At the same time, because governments fear turning the tables, past discriminatory policies make it less likely that incumbent governments will be able or willing to accept settlements that could terminate conflicts. As a result, settlements

become difficult to obtain, which ultimately results in long durations.

Chapter 6 takes on the concept of spoiler problems, which has been a popular, yet under-theorized explanation for protracted conflicts. Relying on a simple formal model, I analyze the conditions under which rebel organizations benefit vis-à-vis other factions from fighting the government. Drawing on the previous chapter, I argue that such violence resonates best when rebel organizations operate on behalf of excluded populations. However, in the presence of multiple factions, this can lead to competition, which in turn prolongs conflicts. Thus, I characterize spoiler dynamics as a negative externality that arises when rivaling rebel factions compete over critical, yet finite public support by means of fighting the government. Using a new statistical estimator that closely mirrors the formal model, I find considerable evidence for these dynamics. These results call into question the effectiveness of divide-and-rule strategies while underlining the long-term consequences of previous exclusionary policies.

Chapter 7 analyzes the conditions under which grievances are likely to be accommodated and attempts to determine whether rectifying grievances can prevent future conflict. Relying on a simple formal model, I analyze the conditions under which governments are willing to meet challengers' demands by granting power-sharing concessions. I find that power sharing is likely to be enacted under difficult conditions in which conflict is already likely. Relying on a tailor-made statistical estimator that is derived seamlessly from the theoretical model, I find considerable support for the model. Moreover, factoring in the reverse causality that dictates that power sharing occurs when conflict is likely to begin with, the model also allows me to compare the probability of conflict under both the status quo and power-sharing arrangements. Against vocal critics in the recent literature, my results suggest that power sharing is peace-inducing. Therefore, the analyses provide perhaps the strongest empirical evidence to date for the proposition that rectifying grievances is possible, and that doing so reduces the probability of recurrent conflict compared to non-rectified grievances. The resulting conclusion is that grievances are neither ubiquitous nor static, thus contradicting established and currently dominant research (e.g., Rabushka and Shepsle, 1972; Fearon and Laitin, 2003).

Methodologically, this dissertation advances by emphasizing a disaggregated perspective that focuses on actors and agency. Chapters 5 and 6 in particular break new ground by analyzing directly the linkage between

rebel organizations and ethnic groups. One important conclusion reached in all chapters is that actors are generally interdependent in their decision calculus, since they consider other actors' expected responses. While ethnic groups select the scope of their war aims based on the prospects of success, governments base their actions on the prospects of survival, which can limit their willingness and ability to settle with challengers. Likewise, rebel organizations' actions are conditioned on the behavior of other actors. Effectively, this underlines a need for statistical techniques that are not limited by an independent sampling assumption. To this effect, the estimators derived in Chapters 6 and 7 break new ground, at least within the literature on civil war.

8.2 Limitations and Future Directions

Despite theoretical and empirical advances, like all research, this dissertation also features weaknesses and limitations. Thus, in this final section I discuss some major limitations and conclude by outlining directions for future research. In doing so, I again follow the theme-dimension that proved helpful throughout this dissertation. Thus, I address aspects related to (i) dynamics, (ii) politics, and (iii) disaggregation.

First, though this dissertation has highlighted the sequential and interdependent nature of ethnic civil war processes in an attempt to develop an integrated framework, we still lack models that explicitly account for such interdependence. For instance, if the decision to raise arms depends on the prospects of obtaining a favorable outcome from fighting, future research should not treat onset and duration in isolation, but as joint and interdependent processes. As exemplified by Chapter 7, this requires explicit theorizing about mechanisms of selection, endogeneity and strategically interdependent decision-making.

Second, with regard to politics, this dissertation does not do full justice to the role of formal institutions. For my purposes here, the focus on *de facto*, rather than *de jure*, institutions is a deliberate choice owing to the fact that the literature shows surprisingly little consensus, for example concerning the relationship between democratic institutions and civil war (e.g., Hegre et al., 2001; Vreeland, 2008; Gleditsch and Ruggeri, 2010) or the role of democratization (Mansfield and Snyder, 2002; Narang and Nelson, 2009; Cederman, Hug and Krebs, 2010; Metternich and Wucherpfennig, 2011). In

light of the findings from Chapter 7, however, an additional complication arises, namely that particular institutions are also likely to be endogenous to the prospects of peace. Future research therefore must address not only the way in which formal institutions interact with or mediate the logic of political change, but must also account for their endogenous nature.

Moreover, this dissertation pursues what is known as a “closed-polity” approach, despite the fact that civil wars frequently operate across borders (Salehyan, 2007; Gleditsch, 2007). Here, a particularly important mechanism pertains to the role of transborder ethnic kin (TEK) (King and Melvin, 2000; Cederman, Girardin and Gleditsch, 2009), which could complement the mechanisms laid out in this dissertation. Furthermore, in accounting for strategy choices made by rebel organizations, ethnic groups and governments, I focus on the politics of political change within countries. Here, partition that leads to new states, though rare, is an alternative strategy, at least in principle (Kaufmann, 1998; Chapman and Roeder, 2007; Sambanis and Schulhofer-Wohl, 2009). However, like power sharing, its theoretical and empirical underpinnings remain largely unexplored. Future research must close this gap and address the relationship or substitution effect that exists between power sharing and partition.

Finally, with regard to disaggregation, reaching the optimal level is not always possible. While Chapters 5 and 6 directly analyze the agency between ethnic populations and rebel organizations directly, Chapters 4 and 7 skip this step, since no suitable dataset of all political organizations worldwide is generally available. However, at least in principle, closing this gap would be desirable.

8.3 Policy Implications

What policy implications follow from the findings presented in this dissertation? As pointed out, current research emphasizes structural factors, primarily poverty and state reach, while discounting the role of motivations as explanations for civil war violence. This presents a rather grim outlook, because many of the factors linked to civil war are difficult or impossible to change, even in the long run. Against this view, the general conclusion reached in this thesis is more optimistic. By arguing and demonstrating, both theoretically and empirically, that motivations interact in systematic ways with factors of opportunity in the production of civil violence, I show

that trajectories of war and peace can unfold in systematically different ways. More specifically, I focused on the role of ethno-politics. Whereas the standard view holds that ethnic grievances are either ubiquitous, and thus do not add explanatory power (Laitin, 2007), or fixed and hard-wired into ethnically diverse countries, making conflict inevitable (Rabushka and Shepsle, 1972), the theoretical perspective advanced in this dissertation adds causal depth by relating ethnic grievances to particular state policies. Thus, ethnic grievances are a matter of degree, and this variation can be traced back to power-politics between ethnic groups in and without control of state institutions (Cederman, Wimmer and Min, 2010).

To reiterate, given suitable factors of structural opportunity, I show the way in which ethnic grievances can provide the necessary motivations that affect trajectories of violence in systematic ways. In a nutshell:

- grievances make demands for political change and conflict more likely (Chapter 4),
- grievances make termination more difficult (Chapter 5),
- grievances foster inter-factional competition, thereby prolonging conflicts (Chapter 6), and
- grievances make recurrence more likely (Chapter 7).

The main point of good news generated in this dissertation is contained in the last item of the above list. Although lasting grievances are shown to increase the risk of conflict recurrence, the logic of political change that is articulated in this dissertation also implies that *politicized grievances can be rectified*. This means that it is possible to break cycles of violence by removing the necessary motivational element. To this effect Chapter 7 provides perhaps the strongest empirical evidence to date.

This result is non-trivial, because it states that even in ethnically diverse countries civil violence is by no means inevitable, as is suggested by some scholars (e.g., Kaplan, 1993; Kaufmann, 1996). Moreover, it points directly to one root cause of civil war violence: state exclusion. To paraphrase Skocpol (1979), by bringing the state back in, this dissertation brings politics back into the equation of civil war. If politics is about “who gets, what, when, how” (Lasswell, 1936)), then control of the state can secure tremendous advantages for beneficiaries that control state institutions vis-à-vis excluded populations. However, exclusion is also associated with significant risks that

are not only limited to the short term. Indeed, as has been demonstrated, upholding categorical exclusion can be particularly costly, especially when rebellion is already underway.

Chapter 5 showed that one reason those in power are likely to fight in order to defend their position is a fear of turning the tables. Indeed, as exemplified by Shi'a-Sunni relations in Iraq or Hutu-Tutsi relations in Burundi and Rwanda, changes in power constellations often involve patterns of revenge (c.f., Petersen, 2002). From a policy point of view, the difficulty thus lies in encouraging and designing peaceful transitions. Such transitions must not only grant all significant actors access to institutions, but also provide credible guarantees for inclusion by limiting incentives and opportunities to seek a power monopoly, for example, coup-d'états or infighting. This can occur along several lines. First, politics of moderation should prove to be more sustainable, especially in the long run. Second, particular institutional engineering, possibly with guarantees from third parties, could play an important role. Indeed, whereas international actors like the UN or NATO tend to involve themselves primarily where violence has already begun, a stronger focus should be placed on providing *ex-ante* measures of political mediation within countries that are at risk for civil war.

Bibliography

Acemoglu, Daron and James A. Robinson. 2006. *Economic Origins of Democracy and Dictatorship*. Cambridge: Cambridge University Press.

Anderson, Benedict. 1991. *Imagined Communities: Reflections on the Origin and Spread of Nationalism*. Revised ed. London: Verso.

Anselin, Luc. 1988. *Spatial Econometric Analysis*. Dordrecht: Kluwer.

Bakke, Kristin M., Kathleen Gallagher Cunningham and Lee Seymour. 2011. "A Plague of Initials: Fragmentation, Cohesion, and Infighting in Civil Wars." *Typescript: UCL, Iowa State and Leiden University* .

Ballah, Heneryatta and Clemente Abrokwaa. 2003. "Ethnicity, Politics and Social Conflict: The Quest for Peace in Liberia." *Penn State McNair Journal* 10:52–69.

Beardsley, Kyle. 2008. "Agreement without Peace? International Mediation and Time Inconsistency Problems." *American Journal of Political Science* 52(4):723–740.

Beck, Nathaniel, Jonathan N. Katz and Richard Tucker. 1998. "Taking Time Seriously: Time-Series-Cross-Section Analysis with a Binary Dependent Variable." *American Journal of Political Science* 42(4):1260–1288.

Beck, Nathaniel, Kristian Skrede Gleditsch and Kyle Beardsley. 2006. "Space is More than Geography: Using Spatial Econometrics in the Study of Political Economy." *International Studies Quarterly* 50(1):27–44.

Beck, Nathaniel and Simon Jackman. 1998. "Beyond Linearity by Default: Generalized Additive Models." *American Journal of Political Science* 42(2):596–627.

- Benson, Michelle and Jacek Kugler. 1998. "Power Parity, Democracy, and the Severity of Internal Violence." *Journal of Conflict Resolution* 42(2):196–209.
- Bhavnani, Ravi and Dan Miodownik. 2009. "Ethnic Polarization, Ethnic Salience, and Civil War." *Journal of Conflict Resolution* 53(1):30–49.
- Blainey, Geoffrey. 1988. *The Causes of War*. 3rd ed. Houndmills: MacMillan Press.
- Blattman, Christopher and Edward Miguel. 2010. "Civil War." *Journal of Economic Literature* 48(1):3–57.
- Bloom, Mia M. 2004. "Palestinian Suicide Bombing: Public Support, Market Share, and Outbidding." *Political Science Quarterly* 119(1):61–88.
- Boehmke, Frederick J., Daniel S. Morey and Megan Shannon. 2006. "Selection Bias and Continuous-Time Duration Models: Consequences and a Proposed Solution." *American Journal of Political Science* 50(1):192–207.
- Bogaards, Matthijs. 2000. "The Uneasy Relationship Between Empirical and Normative Types in Consociational Theory." *Journal of Theoretical Politics* 12(4):395–423.
- Boix, Carles and Milan W. Svoboda. 2010. "The Foundations of Limited Authoritarian Government: Institutions and Power-Sharing in Dictatorships." *Typescript: Princeton University and University of Illinois at Urbana-Champaign* .
- Bøås, Morten. 2001. "Liberia and Sierra Leone - Dead Ringers? The Logic of Neopatrimonial Rule." *Third World Quarterly* 22(5):697–723.
- Bormann, Nils-Christian. 2010. "Patterns of Democracy and Its Critics." *Living Reviews in Democracy* 2:<http://www.livingreviews.org/lrd-2010-3>.
- Bormann, Nils-Christian. 2011. "Conditional Consociationalism: Electoral Coalitions and Grand Coalitions." *Paper presented at the ECPR Joint Sessions, St. Gallen, Switzerland, 12-17 April* .
- Boulding, Kenneth E. 1962. *Conflict and Defense: A General Theory*. New York: Harper and Row.

- Box-Steffensmeier, Janet M. and Bradford S. Jones. 2004. *Event History Modeling: A Guide for Social Scientists*. Cambridge: Cambridge University Press.
- Braithwaite, Alex, Dennis M. Foster and David A. Sobek. 2010. "Ballots, Bargains, and Bombs: Terrorist Targeting of Spoiler Opportunities." *International Interactions* 36(3):294–305.
- Braithwaite, Alex and Douglas Lemke. 2011. "Unpacking Escalation." *Conflict Management and Peace Science* 28(2):111–123.
- Brambor, Thomas, William Roberts Clark and Matt Golder. 2006. "Understanding Interaction Models: Improving Empirical Analyses." *Political Analysis* 14(1):63–82.
- Brancati, Dawn. 2009. *Peace by Design: Managing Intrastate Conflict through Decentralization*. Oxford: Oxford University Press.
- Brandsma, A. S. and R. H. Ketellapper. 1979. "A Biparametric Approach to Spatial Autocorrelation." *Environment and Planning A* 11(1):51–58.
- Brandt, Patrick T., T. David Mason, Mehmet Gurses, Nicolai Petrovsky and Dagmar Radin. 2008. "When and How the Fighting Stops: Explaining the Duration and Outcome of Civil Wars." *Defence and Peace Economics* 19(6):415–434.
- Braumoeller, Bear F. 2004. "Hypothesis Testing and Multiplicative Interaction Terms." *International Organization* 58(4):807–820.
- Bremer, Stuart A. 1992. "Dangerous Dyads: Conditions Affecting the Likelihood of Interstate War, 1816-1965." *Journal of Conflict Resolution* 36(2):309–341.
- Brubaker, R. 2003. "Ethnicity without groups." *European Journal of Sociology* 43(02):163–189.
- Brubaker, Rogers. 2004. *Ethnicity without Groups*. Cambridge: Harvard University Press.
- Brueckner, Jan K. 2003. "Strategic Interaction among Governments: An Overview of Empirical Studies." *International Regional Science Review* 26(2):175–188.

- Bruk, Solomon I. and V.S. Apenchenko. 1964. *Atlas Narodov Mira*. Moscow: Glavnoe upravlenie geodezii i kartografii gosudarstvennogo geologicheskogo komiteta SSSR and Institut etnografii im. H. H. Miklukho-Maklaia, Akademiia nauk SSSR.
- Brush, Stephen G. 1996. "Dynamics of Theory Change in the Social Sciences: Relative Deprivation and Collective Violence." *Journal of Conflict Resolution* 40(4):523–45.
- Buhaug, Halvard. 2006. "Relative Capability and Rebel Objective in Civil War." *Journal of Peace Research* 43(6):691–708.
- Buhaug, Halvard, Kristian Skrede Gleditsch, Helge Holtermann, Gudrun Østby and Andreas Forø Tollefsen. 2011. "It's the Local Economy, Stupid! Geographic Wealth Dispersion and Conflict Outbreak Location." *Journal of Conflict Resolution* .
- Buhaug, Halvard, Lars-Erik Cederman and Jan Ketil Rød. 2008. "Disaggregating Ethno-Nationalist Civil Wars: A Dyadic Test of Exclusion Theory." *International Organization* 62(3):531–551.
- Buhaug, Halvard, Scott Gates and Päivi Lujala. 2009. "Geography, Rebel Capability, and the Duration of Civil Conflict." *Journal of Conflict Resolution* 53(4):544–569.
- Butler, Christopher and Scott Gates. 2009. "Asymmetry, Parity, and (Civil) War: Can International Theories of Power Help Us Understand Civil War." *International Interactions* 35(3):330–340.
- Carter, David B. and Curtis S. Signorino. 2010. "Back to the Future: Modelling Time Dependence in Binary Data." *Political Analysis* 18(3):271–292.
- Cederman, Lars-Erik. 2011. Nationalism and Ethnicity in International Relations. In *The Handbook of International Relations*, ed. Walter Carlsnaes, Thomas Risse and Beth A. Simmons. 2nd, forthcoming ed. Thousand Oaks: Sage.
- Cederman, Lars-Erik, Andreas Wimmer and Brian Min. 2010. "Why Do Ethnic Groups Rebel? New Data and Analysis." *World Politics* 62(1):87–119.

- Cederman, Lars-Erik and Kristian Skrede Gleditsch. 2009. "Introduction to Special Issue on "Disaggregating Civil War"." *Journal of Conflict Resolution* 53(4):487–495.
- Cederman, Lars-Erik and Luc Girardin. 2007. "Beyond Fractionalization: Mapping Ethnicity onto Nationalist Insurgencies." *American Political Science Review* 101(1):173–185.
- Cederman, Lars-Erik, Luc Girardin and Kristian Skrede Gleditsch. 2009. "Ethnonationalist Triads: Assessing the Influence of Kin Groups on Civil Wars." *World Politics* 61(3):403–37.
- Cederman, Lars-Erik, Nils B. Weidmann and Kristian Skrede Gleditsch. 2011. "Horizontal Inequalities and Ethnonationalist Civil War: A Global Comparisson." *American Political Science Review* 105(3):1–18.
- Cederman, Lars-Erik, Simon Hug and Lutz F. Krebs. 2010. "Democratization and civil war: Empirical evidence." *Journal of Peace Research* 47(4):377–394.
- Cetinyan, Rupen. 2002. "Ethnic Bargaining in the Shadow." *International Organization* 56(3):645–677.
- Chandra, Kanchan. 2010. "What is Ethnic Identity and Does it Matter?" *Annual Review of Political Science* 9:397–424.
- Chandra, Kanchan and Steven Wilkinson. 2008. "Measuring the Effect of "Ethnicity"." *Comparative Political Studies* 41(4-5):515–563.
- Chapman, Thomas and Philip G. Roeder. 2007. "Partition as a Solution to Wars of Nationalism: The Importance of Institutions." *American Political Science Review* 101(4):2007.
- Chiba, Daina and William Reed. 2011. "Commitment Problems, War, and Territorial Claims." *Typescript: Rice University and University of Maryland* .
- Claude, Inis L. 1962. *Power and International Relations*. New York: Random House.
- Clauset, Aaron, Lindsay Heger, Maxwell Young and Kristian Skrede Gleditsch. 2010. "The Strategic Calculus of Terrorism: Substitution and

- Competition in the Isreal-Palestine Conflict.” *Cooperation and Conflict* 45(1):6–33.
- Clausewitz, Karl von. 1984. *On War*. Princeton: Princeton University Press.
- Cohen, Frank S. 1997. “Proportional versus Majoritarian Ethnic Conflict Management in Democracies.” *Comparative Political Studies* 30(5):607–630.
- Collier, Paul. 2000. Doing Well Out of War. In *Greed and Grievance: Economic Agendas in Civil Wars*, ed. Mats Berdal and David M. Malone. Boulder: Lynne Rienner pp. 91–101.
- Collier, Paul. 2007. *The Bottom Billion*. Oxford: Oxford University Press.
- Collier, Paul and Anke Hoeffler. 2004. “Greed and Grievance in Civil Wars.” *Oxford Economic Papers* 56:663–695.
- Collier, Paul, Anke Hoeffler and Måns Söderbom. 2004. “On the Duration of Civil War.” *Journal of Peace Research* 41(3):253–273.
- Collier, Paul, V. L. Elliott, Håvard Hegre, Anke Hoeffler, Marta Reynal-Querol and Nicholas Sambanis. 2003. *Breaking the Conflict Trap*. Oxford: Oxford University Press.
- Cunningham, David E. 2006. “Veto Players and Civil War Duration.” *American Journal of Political Science* 50(4):875–892.
- Cunningham, David E. 2010. “Blocking Resolution: How External States can Prolong Civil War.” *Journal of Peace Research* 47(2):115–127.
- Cunningham, David E. and Douglas Lemke. 2010. “Distinctions Without Differences?: Comparing Civil and Interstate Wars.” *Typescript: Iowa State University and Pennsylvania State University* .
- Cunningham, David E., Kristian Skrede Gleditsch and Idean Salehyan. 2009. “It Takes Two: A Dyadic Analysis of Civil War Duration and Outcome.” *Journal of Conflict Resolution* 53(4):570–597.
- Cunningham, Kathleen Gallagher. 2011. “Divide and Conquer or Divide and Concede: How Do States Respond to Internally Divided Separatists.” *American Political Science Review* 105(2):275–297.

- Cunningham, Kathleen Gallagher, Kristin M. Bakke and Lee Seymour. 2011. "Shirts Today, Skins Tomorrow: The Effects of Fragmentation on Conflict Processes in Self-Determination Disputes." *Journal of Conflict Resolution* Forthcoming.
- De Soysa, Indra, John R. Oneal and Yong-Hee Park. 1997. "Testing Power Transition Theory Using Alternative Measures of National Capabilities." *Journal of Conflict Resolution* 41(4):509–528.
- Elhorst, Paul J. 2010. "Applied Spatial Econometrics: Raising the Bar." *Spatial Economic Analysis* 5(1):1742–1780.
- Ellingsen, Tanja. 2000. "Colorful Community or Ethnic Witches' Brew? Multiethnicity and Domestic Conflict During and After the Cold War." *Journal of Conflict Resolution* 44(2):228–249.
- Fearon, James D. 1994. "Signaling versus the Balance of Power and Interests: An Empirical Test of a Crisis Bargaining Model." *Journal of Conflict Resolution* 38(236-269).
- Fearon, James D. 1995a. "Ethnic War as a Commitment Problem." *Annual Meeting of the American Political Science Association* .
- Fearon, James D. 1995b. "Rationalist Explanations for War." *International Organization* 49(3):379–414.
- Fearon, James D. 1998. Commitment Problems and the Spread of Ethnic Conflict. In *The International Spread of Ethnic Conflict: Fear, Diffusion, and Escalation*, ed. David A. Lake and Donald Rothchild. Princeton: Princeton University Press pp. 107–126.
- Fearon, James D. 1999. "Why Ethnic Politics and "Pork" Tend To Go Together." *Typescript: Stanford University* .
- Fearon, James D. 2003. "Ethnic and Cultural Diversity by Country*." *Journal of Economic Growth* 8(2):195–222.
- Fearon, James D. 2004. "Why Do Some Civil Wars Last So Much Longer Than Others?" *Journal of Peace Research* 41(3):275–301.
- Fearon, James D. and David D. Laitin. 1999. "Weak States, Rough Terrain, and Large-Scale Ethnic Violence Since 1945." *Annual Meeting of the American Political Science Association* .

- Fearon, James D. and David D. Laitin. 2003. "Ethnicity, Insurgency, and Civil War." *American Political Science Review* 97(1):75–89.
- Fearon, James D. and David D. Laitin. 2007. "Civil War Termination." *Typescript: Stanford University* .
- Fearon, James D. and David D. Laitin. 2011. "Sons of the Soil, Migrants, and Civil War." *World Development* 39(2):199–211.
- Fjelde, Hanne and Desirée Nilsson. 2012. "Rebels against Rebels: Explaining Violence Between Rebel Groups." *Journal of Conflict Resolution* Forthcoming.
- Forsberg, Erika. 2008. "Polarization and Ethnic Conflict in a Widened Strategic Setting." *Journal of Peace Research* 45(2):283–300.
- Fortna, Virginia Page. 2004. "Does Peacekeeping Keep Peace? International Intervention and the Duration of Peace After Civil War." *International Studies Quarterly* 48(2):269–292.
- Fortna, Virginia Page. 2008. *Does Peacekeeping Work? Shaping Belligerents' Choices after Civil War*. Princeton: Princeton University Press.
- Franzese, Robert J., Jr. and Jude C. Hays. 2008. "Interdependence in Comparative Politics: Substance, Theory, Empirics, Substance." *Comparative Political Studies* 41(4/5):742–780.
- Gandhi, Jennifer. 2008. *Political Institutions under Dictatorship*. Cambridge: Cambridge University Press.
- Gartzke, Erik. 1999. "War is the Error Term." *International Organization* 53(3):567–87.
- Gates, Scott. 2002. "Recruitment and Allegiance: The Microfoundations of Rebellion." *Journal of Conflict Resolution* 46(1):111–130.
- Gellner, Ernst. 1983. *Nations and Nationalism*. Ithaca: Cornell University Press.
- Ghobarah, Hazem Adam, Paul Huth and Bruce Russett. 2003. "Civil Wars Kill and Maim People—Long After the Shooting Stops." *American Political Science Review* 97(02):189–202.

- Gilley, Bruce. 2004. "Against the Concept of Ethnic Conflict." *Third World Quarterly* 25(6):1155–1166.
- Gilligan, Michael J. and Ernest J. Sergenti. 2008. "Do UN Interventions Cause Peace? Using Matching to Improve Causal Inference." *Quarterly Journal of Political Science* 3:89–122.
- Glassmyer, Katherine and Nicholas Sambanis. 2008. "Rebel-Military Integration and Civil War Termination." *Journal of Peace Research* 44(3):365–384.
- Gleditsch, Kristian Skrede. 2007. "Transnational Dimensions of Civil War." *Journal of Peace Research* 44(3):293–309.
- Gleditsch, Kristian Skrede and Andrea Ruggeri. 2010. "Political Opportunity Structures, Democracy, and Civil War." *Journal of Peace Research* 47(3):299–310.
- Gleditsch, Nils Petter, Peter Wallensteen, Mikael Eriksson, Margareta Solenberg and Håvard Strand. 2002. "Armed Conflict 1946-2001: A New Dataset." *Journal of Peace Research* 39(5):616–637.
- Goddard, Stacie E. 2006. "Uncommon Ground: Indivisible Territory and the Politics of Legitimacy." *International Organization* 60(1):35–68.
- Goemans, Henk E. 2000. *War and Punishment. The Causes of War Termination and the First World War*. Princeton: Princeton University Press.
- Goodwin, Jeff. 1997. State-Centered Approaches to Social Revolutions: Strength and Limitations of a Theoretical Tradition. In *Theorizing Revolutions*, ed. John Foran. London: Routledge pp. 9–35.
- Greenhill, Kelly M. and Solomon Major. 2007. "The Perils of Profiling: Civil War Spoilers and the Collapse of Intrastate Peace Accords." *International Security* 31(3):7–40.
- Gurr, Ted Robert. 1970. *Why Men Rebel*. Princeton: Princeton University Press.
- Gurr, Ted Robert. 1993a. *Minorities at Risk: A Global View of Ethnopolitical Conflict*. Washington: United States Institute of Peace Press.

- Gurr, Ted Robert. 1993b. "Why Minorities Rebel: A Global Analysis of Communal Mobilization and Conflict since 1945." *International Political Science Review* 14(2):161–201.
- Gurr, Ted Robert. 1994. "Peoples Against States: Ethnopolitical Conflict and the Changing World System: 1994 Presidential Address." *International Studies Quarterly* 38(3):347–377.
- Gurr, Ted Robert. 2000. *Peoples versus States: Minorities at Risk in the New Century*. Washington, D.C.: United States Institute of Peace.
- Hafez, Mohammed M. 2003. *Why Muslims Rebel*. Boulder: Lynne Rienner.
- Hardin, Russell. 1995. *One for All: The Logic of Group Conflict*. Princeton: Princeton University Press.
- Harris, David. 2006. "Liberia 2005: An Unusual African Post-Conflict Election." *Journal of Modern African Studies* 44(3):375–395.
- Hartzell, Caroline A. and Matthew Hoddie. 2007. *Crafting Peace: Power-Sharing Institutions and the Negotiated Settlement of Civil Wars*. University Park: Pennsylvania State University Press.
- Hartzell, Caroline, Matthew Hoddie and Donald Rothchild. 2001. "Stabilizing the Peace after Civil War: An Investigation of Some Key Variables." *International Organization* 55(1):183–208.
- Hassner, Ron E. 2003. "To Halve and to Hold: Conflicts over Sacred Space and the Problem of Indivisibility." *Security Studies* 12(4):1–33.
- Hays, Jude C. and Aya Kachi. 2009. "Interdependent Duration Models in Political Science." *Paper prepared for the Annual Meeting of the American Political Science Association* .
- Hechter, Michael and Dina G. Okamoto. 2001. "Political Consequences of Minority Group Formation." *Annual Review of Political Science* 4(1):189–215.
- Hegre, Havard. 2008. "Gravitating toward War: Preponderance May Pacify, but Power Kills." *Journal of Conflict Resolution* 52(4):566–589.
- Hegre, Håvard and Nicholas Sambanis. 2006. "Sensitivity Analysis of Empirical Results on Civil War Onset." *Journal of Conflict Resolution* 50(4):508–535.

- Hegre, Håvard, Tanja Ellingson, Scott Gates and Nils Petter Gleditsch. 2001. "Toward a Democratic Civil Peace? Democracy, Political Change, and Civil War, 1818-1992." *American Political Science Review* 95(1):33–48.
- Hironaka, Ann. 2005. *Neverending Wars: The International Community, Weak States, and the Perpetuation of Civil War*. Cambridge: Harvard University Press.
- Hoddie, Matthew and Caroline Hartzell. 2003. "Civil War Settlements and the Implementation of Military Power-Sharing Arrangements." *Journal of Peace Research* 40(3):303–320.
- Horowitz, Donald L. 1985. *Ethnic Groups in Conflict*. Berkeley: University of California Press.
- Hug, Simon. 2003. "Selection Bias in Comparative Research: The Case of Incomplete Data Sets." *Political Analysis* 11(3):255–274.
- Hug, Simon. 2011. "Use and misuse of MAR." *Paper prepared for the CSCW Workshop "Theory and Methods in the Study of Civil War", PRIO, Oslo June 9-10, 2011* .
- Jarstad, Anna K. 2008. Power Sharing: Former Enemies in Joint Government. In *From War to Democracy*, ed. Anna K. Jarstad and Timothy D. Sisk. Cambridge: Cambridge University Press.
- Jarstad, Anna K. and Timothy D. Sisk. 2008. *From War to Democracy: Dilemmas of Peacebuilding*. Cambridge: Cambridge University Press.
- Jenne, Erin K., Stephen M. Saideman and Will Lowe. 2007. "Separatism as a Bargaining Posture: The Role of Leverage in Minority Radicalization." *Journal of Peace Research* 44(5):539–558.
- Kalyvas, Stathis N. 2006. *The Logic of Violence in Civil War*. Cambridge: Cambridge University Press.
- Kalyvas, Stathis N. 2007. Civil Wars. In *The Oxford Handbook of Comparative Politics*, ed. Carles Boix and Susan C. Stokes. Oxford: Oxford University Press pp. 416–434.
- Kalyvas, Stathis N. 2008. "Ethnic Defection in Civil War." *Comparative Political Studies* 41(8):1043–1068.

- Kalyvas, Stathis N. and Laia Balcells. 2010. "International System and Technologies of Rebellion: How the End of the Cold War Shaped Internal Conflict." *American Political Science Review* 104(3):415–429.
- Kalyvas, Stathis N. and Matthew Adam Kocher. 2007. "How "Free" Is Free Riding in Civil Wars? Violence, Insurgency, and the Collective Action Problem." *World Politics* 59(2):177–216.
- Kalyvas, Stathis N. and Matthew Adam Kocher. 2009. "The Dynamics of Violence in the Vietnam War: An Analysis of the Hamlet Evaluation System (HES)." *Journal of Peace Research* 46(3):335–355.
- Kaplan, Robert. 1993. *Balkan Ghosts: A Journey Through History*. New York: St. Martin's Press.
- Kaufman, Stuart J. 2001. *Modern Hatreds: The Symbolic Politics of Ethnic War*. Ithaca: Cornell University Press.
- Kaufman, Stuart J. 2006. "Symbolic Politics or Rational Choice? Testing Theories of Extreme Violence." *International Security* 30(4):45–86.
- Kaufmann, Chaim. 1996. "Possible and Impossible Solutions to Ethnic Civil Wars." *International Security* 20(4):136–175.
- Kaufmann, Chaim. 1998. "When All Else Fails: Separation as a Remedy for Ethnic Conflicts, Ethnic Partitions and Population Transfers in the Twentieth Century." *International Security* 23(3):120–156.
- Keele, Luke. 2008. *Semiparametric Regression for the Social Sciences*. West Sussex, England: John Wiley and Sons.
- Kenkel, Brenton and Curtis S. Signorino. 2012. "Estimating Models of Strategic Interaction." *Journal of Statistical Software* Forthcoming.
- Kennedy, John F. 1962. Address on the First Anniversary of the Alliance for Progress, March 13, 1962. In *Public Papers of the Presidents*. Washington DC: U.S. Government Printing Office p. 223.
- King, Charles. 2001. "The Myth of Ethnic Warfare: Understanding Conflict in the Post-Cold War World." *Foreign Affairs* 80(6):165–171.
- King, Charles and Neil J. Melvin. 2000. "Diaspora Politics: Ethnic Linkages, Foreign Policy, and Security in Eurasia." *International Security* 24(3):108–138.

- King, Gary, Robert O. Keohane and Sidney Verba. 1994. *Designing Social Inquiry*. Princeton: Princeton University Press.
- Kreutz, Joakim. 2010. "How Armed Conflicts End." *Journal of Peace Research* 47(2):243–250.
- Kydd, Andrew H. and Barbara F. Walter. 2002. "Sabotaging the Peace: The Politics of Extremist Violence." *International Organization* 56(02):263–296.
- Kydd, Andrew H. and Barbara F. Walter. 2006. "The Strategies of Terrorism." *International Security* 31(1):49–80.
- Lacina, Bethany. 2006. "Explaining the Severity of Civil Wars." *Journal of Conflict Resolution* 50(2):276–289.
- Laitin, David D. 2007. *Nations, States, and Violence*. Oxford: Oxford University Press.
- Lake, David A. 2003. "International Relations Theory and Internal Conflict: Insights from the Interstices." *International Studies Review* 5(4):81–89.
- Lake, David A. and Donald Rothchild. 1996. "Containing Fear: The Origins and Management of Ethnic Conflict." *International Security* 21(2):41–75.
- Lake, David A. and Donald Rothchild. 1998. Spreading Fear: The Genesis of Transnational Ethnic Conflict. In *The International Spread of Ethnic Conflict*, ed. David A. Lake and Donald Rothchild. Princeton: Princeton University Press pp. 3–32.
- Lake, David A. and Robert Powell. 1999. *Strategic Choice and International Relations*. Princeton: Princeton University Press.
- Lasswell, Harold D. 1936. *Politics: Who gets What, When, How*. Whittlesey House.
- LeSage, James and Matthew Dominguez. 2010. "The Importance of Modeling Spatial Spillovers in Public Choice Analysis." *Public Choice* pp. 1–21.
- Lewis, Jeffrey B. and Kenneth A. Schultz. 2003. "Revealing Preferences: Empirical Estimation of a Crisis Bargaining Game with Incomplete Information." *Political Analysis* 11:345–367.
- Lichbach, Mark I. 1995. *The Rebel's Dilemma*. Ann Arbor: University of Michigan Press.

- Licklider, Roy. 1995. "The Consequences of Negotiated Settlements in Civil Wars, 1945-1993." *The American Political Science Review* 89(3):681-690.
- Lijphart, Arend. 1969. "Consociational Democracy." *World Politics* 21(2):207-225.
- Lijphart, Arend. 1977. *Democracy in Plural Societies: A Comparative Exploration*. New Haven: Yale University Press.
- Lujala, Päivi. 2010. "The Spoils of Nature: Armed Civil Conflict and Rebel Access to Natural Resources." *Journal of Peace Research* 47(1):15-28.
- Lujala, Päivi, Jan Ketil Rød and Nadja Thieme. 2007. "Fighting over Oil: Introducing a New Dataset." *Conflict Management and Peace Science* 24(3):239-256.
- Luttwak, Edward N. 1999. "Give War a Chance." *Foreign Affairs* 78(4):36-44.
- Mack, Andrew. 1975. "Why Big Nations Lose Small Wars: The Politics of Asymmetric Conflict." *World Politics* 27(2):175-200.
- Magaloni, Beatriz. 2008. "Credible Power-Sharing and the Longevity of Authoritarian Rule." *Comparative Political Studies* 41(4-5):715-741.
- Mansfield, Edward D. and Jack L. Snyder. 2002. "Democratic Transitions, Institutional Strength, and War." *International Organization* 56(2):297-337.
- Mattes, Michaela and Burcu Savun. 2009. "Fostering Peace After Civil War: Commitment Problems and Agreement Design." *International Studies Quarterly* 53(3):737-759.
- Mattes, Michaela and Burcu Savun. 2010. "Information, Agreement Design, and the Durability of Civil War Settlements." *American Journal of Political Science* 54(2):511-524.
- McCarthy, John and Mayer N. Zald. 1977. "Resource Mobilization and Social Movements: A Partial Theory." *American Journal of Sociology* 82(6):1212-1241.
- McKelvey, R.D. and T.R. Palfrey. 1995. "Quantal response equilibria for normal form games." *Games and Economic Behavior* 10(1):6-38.

- McKelvey, Richard D. and Thomas R. Palfrey. 1998. "Quantal response equilibria for extensive form games." *Experimental Economics* 1(1):9–41.
- Melander, Erik. 2009. "Selected To Go Where Murderers Lurk?" *Conflict Management and Peace Science* 26(4):389.
- Metternich, Nils and Julian Wucherpfennig. 2010. "Rebel Organization Interdependence and Civil War Duration." *Paper prepared for presentation at the International Studies Association Annual Convention, New Orleans, 17-20 February* .
- Metternich, Nils and Julian Wucherpfennig. 2011. "Institutional Change We Can Believe In: Democratization, Commitment, and Civil War Recurrence." *Typescript: Duke University and ETH Zurich* .
- Montalvo, Jose G. and Marta Reynal-Querol. 2005. "Ethnic Polarization, Potential Conflict, and Civil Wars." *American Economic Review* 95(3):796–816.
- Montalvo, Jose G. and Marta Reynal-Querol. 2010. "Ethnic polarization and the duration of civil wars." *Economics of Governance* 11:123–143.
- Morgenthau, Hans J. 1948. *Politics among Nations*. New York: Hans A. Knopf.
- Morrow, James D. 1989. "Capabilities, Uncertainty, and Resolve: A Limited Information Model of Crisis Bargaining." *American Journal of Political Science* 33(4):941–72.
- Mueller, John. 2000. "The Banality of Ethnic War." *International Security* 25(1):42–70.
- Mueller, John. 2004. *The Remnants of War*. Ithaca: Cornell University Press.
- Mukherjee, Bumba. 2006. "Does Third Party Enforcement or Domestic Institutions Promote Enduring Peace After Civil Wars? Policy Lessons From an Empirical Test." *Foreign Policy Analysis* 2(4):405–430.
- Narang, Vipin and Rebecca M. Nelson. 2009. "Who Are These Belligerent Democratizers? Reassessing the Impact of Democratization on War." *International Organization* 63(02):357–379.

- Neumeyer, Eric and Thomas Plümper. 2011. "Conditional Spatial Policy Dependence." *Typescript: London School of Economics and University of Essex* .
- Nilsson, Desirée. 2010. "Turning Weakness into Strength." *Conflict Management and Peace Science* 27(3):253–271.
- Oberschall, Anthony. 1978. "Theories of Social Conflict." *Annual Review of Sociology* 4:291–315.
- Oberschall, Anthony. 2007. *Conflict and Peace Building in Divided Societies: Responses to Ethnic Violence*. Oxon: Routledge.
- Olson, Mancur. 1965. *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge: Harvard University Press.
- Ord, Keith. 1975. "Estimation methods for models of spatial interaction." *Journal of the American Statistical Association* 70(349):120–126.
- Organski, A.F.K. and Jacek Kugler. 1980. *The War Ledger*. Chicago: University of Chicago Press.
- Pearlman, Wendy. 2009. "Spoiling Inside and Out: Internal Political Contestation and the Middle East Peace Process." *International Security* 33(3):79–109.
- Petersen, Roger D. 2002. *Understanding Ethnic Violence: Fear Hatred, and Resentment in Twentieth-Century Eastern Europe*. Cambridge: Cambridge University Press.
- Plümper, Thomas and Eric Neumayer. 2010. "Model Specification in the Analysis of Spatial Dependence." *European Journal of Political Research* 49(3):418–442.
- Posen, Barry R. 1993. "The Security Dilemma and Ethnic Conflict." *Survival* 35(1):27–47.
- Posner, Daniel N. 2004. "Measuring Ethnic Fractionalization in Africa." *American Journal of Political Science* 48(4):849–863.
- Powell, Robert. 1996. "Stability and the Distribution of Power." *World Politics* 48(2):239–267.

- Powell, Robert. 1999. *Bargaining in the Shadow of Power*. Princeton: Princeton University Press.
- Powell, Robert. 2006. "War as a Commitment Problem." *International Organization* 60(1):169–203.
- Przeworski, Adam and Jennifer Gandhi. 2006. "Cooperation, Cooptation, and Rebellion under Dictatorship." *Economics and Politics* 18(1):1–26.
- Quinn, Michael J., T. David Mason and Mehmet Gurses. 2007. "Sustaining the Peace: Determinants of Civil War Recurrence." *International Interactions* 33(2):167–193.
- Rabushka, Alvin and Kenneth A. Shepsle. 1972. *Politics in Plural Societies*. Stanford University Press.
- Raknerud, Arvid and Håvard Hegre. 1997. "The Hazard of War: Reassessing the Evidence for the Democratic Peace." *Journal of Peace Research* 34(4):385–404.
- Ramsay, Kristopher W. 2008. "Settling it on the Field: Battlefield Events and War Termination." *Journal of Conflict Resolution* 52(6):850–879.
- Reed, William. 2000. "A Unified Statistical Model of Conflict Onset and Escalation." *American Journal of Political Science* 44(1):84–93.
- Reed, William. 2003. "Information, Power, and War." *American Political Science Review* 97(4):633–641.
- Reed, William, David H. Clark, Timothy Nordstrom and Wonjae Hwang. 2008. "War, Power, and Bargaining." *The Journal of Politics* 70(4):1203–1216.
- Reiter, Dan. 2003. "Exploring the Bargaining Model of War." *Perspectives on Politics* 1(1):27–43.
- Reynal-Querol, Marta. 2002. "Ethnicity, Political Systems, and Civil Wars." *Journal of Conflict Resolution* 46(1):29.
- Roessler, Philip. 2011. "The Enemy Within: Personal Rule, Coups and Civil War." *World Politics* 63(2):300–346.
- Rose, William. 2000. "The security dilemma and ethnic conflict: Some new hypotheses." *Security Studies* 9(4):1–51.

- Ross, Michael. 2006. "A Closer Look at Oil, Diamonds and Civil War." *Annual Review of Political Science* 9(1):265–300.
- Ross, Michael L. 2004. "What Do We Know about Natural Resources and Civil War?" *Journal of Peace Research* 41(3):337–356.
- Rothchild, Donald. 1997. "Unofficial Mediation and the Nigeria-Biafra War." *Nationalism and Ethnic Politics* 3(3):37–65.
- Rothchild, Donald. 2008. Africa's Power Sharing Institutions as a Response to Insecurity: Assurance without Deterrence. In *Intra-State Conflict, Governments and Security*, ed. Stephen M. Saideman and Marie-Joëlle Zahar. London: Routledge pp. 138–160.
- Rothchild, Donald and Philip G. Roeder. 2005. Power Sharing as an Impediment to Peace and Democracy. In *Sustainable Peace: Power and Democracy After Civil War*, ed. Philip G. Roeder and Donald Rothchild. Ithaca: Cornell University Press.
- Rothchild, Joseph. 1981. *Ethnopolitics*. New York: Columbia University Press.
- Saideman, Stephen M., David J. Lanoue, Michael Campenni and Samuel Stanton. 2002. "Democratization, Political Institutions, and Ethnic Conflict." *Comparative Political Studies* 35(1):103–129.
- Saideman, Stephen M. and William R. Ayres. 2008. "Determining the Causes of Irredentism: Logit Analyses of Minorities at Risk Data from the 1980s and 1990s." *Journal of Politics* 62(4):1126–1144.
- Salehyan, Idean. 2007. "Transnational Rebels: Neighboring States as Sanctuary for Rebel Groups." *World Politics* 59(2):217–242.
- Sambanis, Nicholas. 2001. "Do Ethnic and Nonethnic Civil Wars Have the Same Causes? A Theoretical and Empirical Inquiry (Part 1)." *Journal of Conflict Resolution* 45(3):259–282.
- Sambanis, Nicholas. 2002. "A Review of Recent Advances and Future Directions in the Quantitative Literature on Civil War." *Defence and Peace Economics* 13(3):215–243.

- Sambanis, Nicholas. 2004. "What Is Civil War?: Conceptual and Empirical Complexities of an Operational Definition." *Journal of Conflict Resolution* 48(6):814–858.
- Sambanis, Nicholas and Jonah Schulhofer-Wohl. 2009. "What's in a Line? Is Partition a Solution to Civil War?" *International Security* 34(2):82–118.
- Sartori, Anne E. 2003. "An Estimator for Some Binary-Outcome Selection Models Without Exclusion Restrictions." *Political Analysis* 11(1):111–38.
- Schelling, Thomas C. 1960. *The Strategy of Conflict*. Cambridge: Harvard University Press.
- Schneider, Gerald and Nina Wiesehomeier. 2008. "Rules That Matter: Political Institutions and the Diversity-Conflict Nexus." *Journal of Peace Research* 45(2):183–203.
- Signorino, Curtis S. 1999. "Strategic interaction and the statistical analysis of international conflict." *The American Political Science Review* 93(2):279–297.
- Signorino, Curtis S. and Brenton Kenkel. 2011. "games: Statistical Estimation of Game-Theoretic Models." *R package* CRAN.
- Signorino, Curtis S. and Kuzey Yilmaz. 2003. "Strategic Misspecification in Regression Models." *American Journal of Political Science* 47(3):551–566.
- Simon, Herbert A. 1955. "A Behavioral Model of Rational Choice." *The Quarterly Journal of Economics* 69(1):99.
- Sinno, Abadulkader H. 2008. *Organizations at War in Afghanistan and beyond*. Ithaca: Cornell University Press.
- Skocpol, Theda. 1979. *States and Social Revolutions: A Comparative Analysis of France, Russia, and China*. Cambridge: Cambridge University Press.
- Slantchev, Branislav L. 2003. "The Principle of Convergence in Wartime Negotiations." *American Political Science Review* 97(4):621–632.
- Snyder, Jack and Robert Jervis. 1999. Civil War and the Security Dilemma. In *Civil Wars, Insecurity, and Intervention*, ed. Barbara F. Walter and Jack Snyder. New York: Columbia University Press pp. 15–37.

- Stedman, Stephen John. 1997. "Spoiler problems in peace processes." *International Security* 22(2):5–53.
- Svolik, Milan W. 2009. "Power Sharing and Leadership Dynamics in Authoritarian Regimes." *American Journal of Political Science* 53(2):477–494.
- Tilly, C. 1999. *Durable Inequality*. Los Angeles: University of California Press.
- Tilly, Charles. 1978. *From Mobilization to Revolution*. New York: McGraw-Hill.
- Tilly, Charles. 2007. Poverty and the Politics of Exclusion. In *Moving Out of Poverty: Cross-Disciplinary Perspectives on Mobility*, ed. Deepa Narayan and Patti Petesch. Vol. 1 Washington and New York: The World Bank and Palgrave Macmillan pp. 45–75.
- Tir, Jaroslav and Michael Jasinski. 2008. "Domestic-Level Diversionary Theory of War." *Journal of Conflict Resolution* 52(5):641–664.
- Toft, Monica Duffy. 2002. "Indivisible Territory, Geographic Concentration, and Ethnic War." *Security Studies* 12(2):82–119.
- Toft, Monica Duffy. 2003. *The Geography of Ethnic Violence*. Princeton: Princeton University Press.
- Toft, Monica Duffy. 2010a. "Ending Civil Wars: A Case for Rebel Victory?" *International Security* 34(4):7–36.
- Toft, Monica Duffy. 2010b. *Securing the Peace: The Durable Settlement of Civil Wars*. Princeton: Princeton University Press.
- van Evera, S. 2001. "Primordialism Lives!" *APSA-CP: Newsletter of the Organized Section in Comparative Politics of the American Political Science Association* 12(1):20–22.
- Varshney, Ashutosh. 2004. "Nationalism, ethnic conflict, and rationality." *Perspectives on Politics* 1(01):85–99.
- Vreeland, James Raymond. 2008. "The Effect of Political Regime on Civil War." *Journal of Conflict Resolution* 52(3):401–425.
- Wagner, R. Harrison. 1994. "Peace, War, and the Balance of Power." *American Political Science Review* 88(3):593–607.

- Wagner, R. Harrison. 1995. The Causes of Peace. In *Stopping the Killing: How Civil Wars End*, ed. Roy Licklider. New York: New York University Press pp. 235–268.
- Wagner, R. Harrison. 2000. “Bargaining and War.” *American Journal of Political Science* 44(3):469–484.
- Wagner, R. Harrison. 2007. *War and the State*. Ann Arbor: University of Michigan Press.
- Walter, Barbara F. 1997. “The Critical Barrier to Civil War Settlement.” *International Organization* 51(3):335–364.
- Walter, Barbara F. 2002. *Committing to Peace: The Successful Settlement of Civil Wars*. Princeton: Princeton University Press.
- Walter, Barbara F. 2004. “Does Conflict Beget Conflict? Explaining Recurring Civil War.” *Journal of Peace Research* 41(3):371–388.
- Walter, Barbara F. 2006a. “Building Reputation: Why Governments Fight Some Separatists but Not Others.” *American Journal of Political Science* 50(2):313–330.
- Walter, Barbara F. 2006b. “Information, Uncertainty, and the Decision to Secede.” *International Organization* 60(1):105–135.
- Walter, Barbara F. 2009a. “Bargaining Failures and Civil War.” *Annual Review of Political Science* 12:243–261.
- Walter, Barbara F. 2009b. *Reputation and Civil War: Why Some Separatist Conflicts Are So Violent*. Cambridge: Cambridge University Press.
- Weber, Max. 1978. *Economy and Society: An Outline of Interpretative Sociology*. Berkeley: University of California Press.
- Weiner, Myron. 1978. *Sons of the Soil*. Princeton: Princeton University Press.
- Weinstein, Jeremy M. 2007. *Inside Rebellion: The Politics of Insurgent Violence*. Cambridge: Cambridge University Press.
- Werner, Suzanne. 1999. “Choosing Demands Strategically: The Distribution of Power, the Distribution of Benefits, and the Risk of Conflict.” *Journal of Conflict Resolution* 43(6):705–726.

- Wimmer, Andreas. 1997. "Who Owns the State? Understanding Ethnic Conflict in Post-Colonial Societies." *Nations and Nationalism* 3(4):631–665.
- Wimmer, Andreas, Lars-Erik Cederman and Brian Min. 2009. "Ethnic Politics and Armed Conflict: A Configurational Analysis of a New Global Data Set." *American Sociological Review* 74(2):316–337.
- Wittman, Donald. 1979. "How War Ends: A Rational Model Approach." *Journal of Conflict Resolution* 23(4):743–63.
- Wood, Simon N. 2006. *Generalized Additive Models: An Introduction with R*. Boca Ranton: Chapman and Hall.
- Wucherpennig, Julian, Nils B. Weidmann, Luc Girardin, Lars-Erik Cederman and Andreas Wimmer. 2011. "Politically Relevant Ethnic Groups across Space and Time: Introducing the GeoEPR Dataset." *Conflict Management and Peace Science* 28(5):423–437.
- Wucherpennig, Julian, Nils W. Metternich, Lars-Erik Cederman and Kristian Skrede Gleditsch. 2012. "Ethnicity, the State, and the Duration of Civil Wars." *World Politics* 64(1):79–115.
- Zahar, Marie-Joëlle. 2003. Reframing the Spoiler Debate in Peace Processes. In *Contemporary Peacemaking: Conflict: Peace Processes and Post-War Reconstruction*, ed. John Darby and Roger Mac Ginty. Houndmills, UK: Palgrave Macmillan pp. 159–177.
- Zahar, Marie-Joëlle. 2010. "SRSG Mediation in Civil Wars: Revisiting the "Spoiler" Debate." *Global Governance* 16(2):265–280.