WHEN ETHNIC EXCLUSION IS GOOD POLITICS: ETHNIC EXCLUSION, ARMED CONFLICT, AND LEADERSHIP TENURE IN SMALL-COALITION SYSTEMS

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ABSTRACT

WHEN ETHNIC EXCLUSION IS GOOD POLITICS: ETHNIC EXCLUSION, ARMED CONFLICT, AND LEADERSHIP TENURE IN SMALL-COALITION SYSTEMS

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Why do some leaders deliberately foster ethnic hatred and exclusion even though such a policy increases the risk of ethnic conflict? Contrary to common belief, I find that ethnic exclusion is good politics (but not good policy) for non-democratic leaders with small winning coalitions, despite its positive impact on the risk of ethnic conflict. To explain this mechanism, I modify the selectorate theory of Bueno de Mesquita, et al. (2003) by explicitly accounting for the role of ethnic ties in the formation of the incumbent's coalition. Four hypotheses are deduced from my theory for explaining ethnic exclusion and leader survival. H1 maintains that, in small-coalition systems, leaders who employ ethnic exclusion are more likely to survive longer in office than those who do not employ it. H2 predicts that, if small-coalition leaders do not pursue an exclusive ethnic policy, they are more likely to be removed from office in an irregular manner. H3 suggests that small-coalition leaders are less likely to lose power during civil war if they employ ethnic exclusion. Lastly, if ethnic exclusion really is good politics for small-coalition leaders, H4 predicts, there should be higher levels of ethnic exclusion in small-coalition systems than in large-coalition systems.

These hypotheses are empirically tested and supported by Cox's proportional hazard regressions using data on the tenures of 982 leaders from 1946 to 2004. My results show that in small-coalition systems: (1) the hazard of deposition for leaders who implement a strong exclusion policy is about 80% lower than that of leaders who do not promote ethnic exclusion; (2) the risk of irregular turnover among leaders who employ ethnic exclusion is only about 1.3% of

the risk for those who do not employ such a policy; and (3) the risk of irregular removal from office virtually disappears even in times of civil war if a leader employs a strong exclusion policy. Case studies of Iraq, Burundi, and Rwanda further corroborate causal claims made by the exclusion theory. In all three cases, major ethnic groups had been excluded from participation in the incumbent's coalition until a small group of ethnic elites monopolizes key positions in the army and government. The cases of Burundi and Rwanda further demonstrate how small-coalition systems face large-scale violence when inclusive ethnic policy is implemented after years of exclusive rule. Overall, my findings lead to an "unwelcome" conclusion: ethnic exclusion is good politics in small-coalition systems even if it could increase the risk of ethnic conflict. This conclusion suggests that the crucial element in the prevention and resolution of ethnic conflict is the development of policies that can address leaders' incentives for ethnic exclusion.

To My Great Mom Chu Insook and Lovely Wife Jungeun

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CHAPTER 1

INTRODUCTION

1.1 The Puzzle

When British rule ended in 1961, Sierra Leone's domestic politics was largely dominated by the Mende people, then the largest ethnic group comprising 36 percent of the population. The ruling Sierra Leone People's Party (SLPP) led by Sir Milton Margai was widely perceived as promoting Mende interests with many of the important positions in civil service filled with Mendes (Allen, 1968, p. 309; Horowitz, 2000, p. 474). However, the election of Siaka Stevens, an ethnic Limba, as prime minister effected a drastic change in the composition of the governing coalition. After assuming office in 1968, Stevens began to eliminate his ethnic rivals from political power. First he purged Mende officers in the army and eliminated the SLPP from electoral competition; then he removed even the Temne—the second largest ethnic group that had allied with him during his rise to power—from key positions in the government, the party, and the army and filled these positions with members of the Limba community. By 1971, Stevens ended up ruling with the active support of Limbas that comprise less than 10 percent of the population. Although a group of soldiers and civilians, mostly Mende and Temne, plotted a coup d'état in 1974 (Cox, 1976, pp. 227-228), Stevens had survived in power for 18 years until he peacefully retired from office in November 1985.

Similar tendencies are observed in Michel Micombero's Burundi (1966-1976), Idi Amin's Uganda (1972-1979), Hafez al-Assad's Syria (1971-2000), and Saddam Hussein's Iraq (1979-2003). In each case, a leader continued to exclude his ethnic rivals from state power until only one or a small number of ethnic minorities came to dominate a much larger population.

Members of excluded ethnic groups attempted coups or rebellions against the state, but they were easily thwarted by dedicated soldiers who belong to the same ethnic group as the leader. Despite abounding ethnic grievances and internal military threats to their regimes, these leaders had survived relatively long in office.[1] We might naturally expect that leaders who promote integration and unity among ethnic groups and thus face lower risks of ethnic rebellion are more likely to survive longer in office than those who face violent oppositions within their countries. These examples, however, suggest that the opposite could in fact be true. Why is this so? Why do some leaders deliberately foster ethnic hatred and exclusion even to the point of excluding the majority of the population? Why do they continue to do so even though such a policy may increase the risk of ethnic conflict? Also, when and under what conditions will ethnic exclusion (or inclusion) be good politics for leaders, and when will it turn self-defeating?

In this dissertation, I develop a systemic model to explain the puzzling relationship between ethnic exclusion and leader survival. I consider the relevance of well-known selectorate theory (Bueno de Mesquita, Smith, Siverson, & Morrow, 2003) in exploring the underlying logic of this relationship. The selectorate theory posits that (1) political survival is a primary concern for all leaders, and (2) leaders attempt to attain this goal by allocating various mixes of private and public goods to members of their winning coalition. Employing these basic concepts, I develop a theory of ethnic exclusion (hereafter called the exclusion theory). The principal characteristic of the exclusion theory is its emphasis on the role of ethnic ties as a key determinant of membership in the leader's coalition.

My analysis yields four major findings. When the winning coalition is small: (1) ethnic groups outside of the leader's coalition are more likely to be subjected to formal political

[1] Idi Amin survived only 7 years in office, but he was overthrown not by domestic opposition but by invasion of a foreign power.

exclusion[2]; (2) leaders who promote ethnic exclusion are more likely to survive longer in office than those who do not promote such a policy; (3) leaders are more likely to be removed from office in an irregular manner when they fail to promote ethnic exclusion; and (4) political benefits from ethnic exclusion are large enough to offset the risk of being involved in domestic armed conflicts. Overall, my findings suggest that ethnic exclusion is *good politics* for small-coalition leaders even if it could increase the risk of civil war. The argument does not purport to suggest that ethnic exclusion is also good politics for the country and bringing peace. In fact, the practice of good governance without discrimination of any kind has been an important part in reducing both the onset and recurrence of conflict (Hegre & Nygard, 2012). However, the exclusion model does specify the conditions under which the promotion of such "good governance" can be less effective or even harmful—not just for the leader, but for the citizenry as a whole.

This dissertation is divided into four main chapters. In the first chapter, I construct a theory that explains how institutions for selecting leaders create different incentives for leaders to employ ethnic exclusion. Here I summarize the selectorate theory and then extend it by explicitly accounting for the role of ethnic ties in the formation of the leader's coalition before deducing hypotheses about ethnic exclusion and leader survival. The second chapter formally describes the exclusion model with an agent-based computational model (ABM). I use ABM to study the origin and evolution of ethnic exclusion in small-coalition systems, and to understand how random external shocks, such as major political and economic crises, and "mistaken" ethnic policy choices made by leaders affect the length of leadership tenure. In chapters 3 and 4, the

[2] I define ethnic exclusion as "intentional and targeted" exclusion of elites from particular ethnic categories from state power including key positions in the ruling party, the army, and the central government.

hypotheses generated in the first two chapters are put to empirical tests, using data on the tenures of 982 leaders from 1946 to 2004 and four illustrated examples that are chosen to illuminate the workings of the exclusion theory. In conclusion, I summarize the key findings of the preceding chapters and discuss the policy implications of the study.

The rest of this introductory chapter will review the literature on ethnic exclusion and conflict and describe how my dissertation contributes to existing debates on these topics.

1.2 Literature Review

Ethnic exclusion and inequality play a central role in the contemporary civil war literature. In his research on ethnic minorities, Gurr (1993, 2000) argued that a group's collective disadvantages vis-à-vis other social groups are indirect sources of rebellion that act through grievances and group mobilization. Adopting the concept of horizontal inequalities—defined as "inequalities in economic, social or political dimensions or cultural status between culturally defined groups"—Stewart (2008, p. 3) argued that both economically underprivileged and politically excluded groups are likely to be more easily mobilized for participation in rebellion. Similarly, based on geo-referenced survey data on welfare and socioeconomic inequalities in 22 Sub-Saharan African countries, Østby, Nordås, and Rød (2009) found that regional inequalities in terms of education and household assets are positively associated with civil war onset.

More recently, Cederman and his colleagues (Cederman, Wimmer, & Min, 2010) distinguished three categories of ethnic groups based on the new Ethnic Power Relations (EPR) data set: (1) those who hold full control of government without sharing power with other groups; (2) those who hold dominant control in a power-sharing government; and (3) those who are excluded from the executive power. They found that excluded groups (category 3) are about

three times more likely to challenge the state than those groups included in the executive branch (categories 1 and 2), and this effect is more pronounced when excluded groups have recently experienced a "downgrade" in their power status. By extending the empirical scope of research on horizontal inequalities and violent conflict, Cederman, Weidmann, and Gleditsch (2011) also found that ethnic groups that are wealthy or poor are more likely to experience civil war than those groups with average wealth in highly unequal societies.

In line with the above studies, a number of scholars proposed the removal of ethnic exclusion and inequality as a way to prevent future civil wars. After estimating an empirical model of civil war incidence in 161 countries between 1960 and 1999, Elbadawi and Sambanis (2000) claim that civil wars in ethnically diverse societies are due to the failure of inter-group cooperation. Based on this finding, they conclude that

> Taking the view that civil wars are the extreme case of non-cooperation among social groups, this paper has argued that, under the right conditions, Africa's ethnic diversity would actually enhance development efforts by promoting positive inter-group interactions. A pre-condition for this is the 'appropriate' political framework which focuses on participation, inclusion and consensus-building among social and especially ethnic groups (Elbadawi & Sambanis, 2000, pp. 265-266).

To contain conflict in the future, Gurr (2000) also calls for democratic governance directed at reducing discrimination, recognizing cultural pluralism, and promoting power sharing and political inclusion for minority groups. Noting that there is a positive association between the political exclusion of powerful ethnic groups and the onset of ethno-nationalist conflicts,

Vogt (2007, p. 3) suggests that policymakers need to "ensure that all relevant ethnic groups are included within the coalition of power and that a (more or less) equal distribution of the state's benefits and costs among the whole population is provided." In a similar vein, Hegre and Nygard (2012) find evidence that countries characterized by low quality governance have a higher risk of conflict recurrence. Thus, they suggest that any reform that improves governance in terms of less corruption, better bureaucracies, and less repression and political exclusion may reduce the risk of conflict.

While the scholarship discussed above identifies the broad condition—political exclusion (or inclusion)—under which we can expect ethnic conflict (or ethnic peace), other scholars have attempted to explain why some ethnic groups became subject to political exclusion in the first place. Several studies focused on the relation between ethnic exclusion and competition for political goods. Bates (1983) argues that ethnicity is a useful means of attaining the benefits of modernity. According to Bates, ethnicity serves as the basis of political coalitions in Africa by enabling group members to secure goods and services from the modern sector and by excluding others from these benefits. In other words, ethnicity provides "a form of minimum winning coalition (Riker, 1962), large enough to secure benefits in the competition for spoils but also small enough to maximize the per capita value of these benefits (Bates, 1983, p. 165)."

Fearon (1999) also suggests that ethnic exclusion is more likely to occur in pork-based politics—the rationale being that when pork is at issue, winners of the election have strong incentives to take the maximum share of the spoils by limiting the size of their coalition. Ethnicity serves this purpose, he argues, because it is hard to modify and convenient for excluding losers. Similarly, Caselli and Coleman (2006) formally demonstrate that political coalitions can be formed along ethnic lines in ethnically heterogeneous societies. Once the

winning coalition is formed, they note, members of the losing coalition will attempt to infiltrate the winning one in order to participate in the allocation of political goods. For this reason, members of the wining coalition have a strong incentive to use ethnic identity—race in particular—as a "visual marker" to exclude non-members from the winning coalition. Somewhat relatedly, Chandra (2004) suggests that ethnic political parties are more likely to succeed in "patronage democracies." Based on the study of ethnic politics in India, she shows that voters tend to support a party that represents the interests of their own ethnic group to the exclusion of others when this party has a favorable history of allocating jobs and services to co-ethnics and has a reasonable chance of winning.[3]

Taken together, the studies discussed above show that (1) ethnic exclusion increases the likelihood of civil conflict; (2) ethnic inclusion can decreases the likelihood of civil conflict; and (3) ethnic groups are more likely to be subject to political exclusion in pork-ridden political systems. However, these studies remain silent on the motivations and constraints that influence leaders' choices regarding ethnic exclusion. If policies of ethnic exclusion are simply a means to benefit members of specific ethnic groups, why do leaders care about the welfare of her co-ethnics instead of her own wellbeing (or personal political success), let alone the welfare of the broader public? Moreover, why do some leaders deliberately foster ethnic exclusion even if such a policy increases the risk of domestic armed opposition, which may put her tenure in danger? This dissertation attempts to fill this gap in understanding the strategic incentives faced by leaders who choose to employ ethnic exclusion rather than integration.

[3] Taking a more historical view of ethnic exclusion, Wimmer (2002, p. 5) shows that ethnic conflicts and racism are integral parts of political modernization because "modern institutions of inclusion (citizenship, democracy, welfare) are systemically tied to ethnic and national forms of exclusion."

1.3 My Contributions

Recently, an attempt to explain the strategic logic behind ethnic exclusion has been made by Roessler (2011). Based on original data on the ethnicity of coup leaders and insurgents in sub-Saharan Africa, he argues that in Africa a policy of ethnic exclusion reduces the risk of coup d'état at the cost of increasing the risk of rebellion. Roessler (2011, p. 302) describes this relationship in the following way:

> [E]thnic exclusion and subsequent group rebellion are the outcome of strategic interactions between elites incorporated in the central government, especially coconspirators, who collaborated to seize the state by force but find it difficult to sustain cooperation due to mutual fears that they may be ousted from power in the future. To resolve this commitment problem, African rulers tend to exclude their coconspirators from the central government, though at the cost of increasing the risk of civil war with their former allies.

In line with Roessler (2011), I analyze the relative risk of coups and rebellions associated with ethnic exclusion. Yet, in examining how domestic institutions shape the politics of exclusion, my analysis departs from previous scholarship in four important ways.

First, I consider leaders and domestic institutions as the centerpiece for understanding the logic of ethnic exclusion. By modifying the selectorate theory (Bueno de Mesquita et al., 2003) in a way that accounts for the role of ethnicity more directly, I examine how selection institutions influence the probability that leaders will remain in power and show that different institutions create different incentives for leaders to adopt ethnic exclusion as their survival strategy. This

approach not only subsumes existing explanations based on pork-based politics, but goes beyond them to derive novel implications for the relationship between ethnic exclusion and leadership tenure—that is, ethnic exclusion can be good politics for leaders despite its positive impact on the risk of armed conflict.

Second, while the literature on ethnic conflict focuses on the impact of ethnic exclusion and inequality on conflict onset, the literature on ethnic politics tends to focus on the underlying causes of discrimination and ethnic salience. This dissertation brings together these two literatures, which rarely speak to each other, by analyzing both ethnic politics and conflict within a coherent theoretical framework. It proposes that, in systems with small winning coalitions, promoting ethnic exclusion can enhance the probability that leaders will survive in office despite the increased risk of civil war, while failure to do so can put them at risk of being deposed in an irregular manner—such as coup, revolt, and assassination—despite the reduced risk of civil war. The exclusion model thus highlights more nuanced notions of ethnic exclusion and the interconnections between domestic institutions and ethnic conflict in a manner not easily addressed by previous conflict literature.

Third, I use ABM to specify micro-level mechanisms that link ethnic exclusion to leadership tenure. The flexibility provided by ABM is well suited for analyzing systems of "boundedly rational agents" who are able to make mistakes, learn and adapt their behavior based on past experience (Miller & Page, 2007, pp. 81-83). Hence, ABM allows me to demonstrate the evolution of ethnic exclusion in systems with different sizes of winning coalition, and to understand how random external shocks and mistaken ethnic policies interact with domestic institutions in determining the fate of leaders.

Fourth, the explanation I provide calls into question some of the policy recommendations that are designed to eliminate ethnic-based discrimination and oppression. This dissertation suggests that a fundamental problem of small-coalition systems is that there are no easy ways to simultaneously promote good governance and leaders' survival. In fact, reforms to improve governance could return the country to violence and instability if policymakers ignore the political incentives of leaders and thus fail to understand the risks associated with these reforms. This does not mean to rationalize the continuation of discrimination, but advise caution and preventive measures before attempting to abolish ethnic exclusion in small-coalition systems.

CHAPTER 2

A SELECTORATE THEORY OF ETHNIC EXCLUSION

This chapter provides the theoretical foundations of the arguments that I will make in this dissertation. I start with a summary of the selectorate theory (Bueno de Mesquita et al., 2003), from which I borrow a number of key concepts and assumptions. Building on the selectorate theory, I develop a model that shows why ethnic exclusion can be good politics in small-coalition systems. This chapter concludes with the derivation of four testable hypotheses on the likelihood of ethnic exclusion and leader survival.

2.1 Summary of Selectorate Theory

In *The Logic of Political Survival*, Bueno de Mesquita and his colleagues (2003) assume that all leaders have political survival as their primary goal. In order to stay in power, leaders must maintain the support of their winning coalition by providing a mix of private and public goods. Public goods, such as national defense and highway systems, are those which cannot be withheld from anyone without withholding them for everyone. Hence, public goods benefit all members of the society if they are provided. On the other hand, private goods, such as jobs in state-owned companies and luxuries for the ruling class, are both rival in consumption and excludable. Hence, leaders can restrict access to private goods to members of their winning coalition. The smaller the winning coalition, they suggest, the larger the share of private goods received by each coalition member and hence the greater the value of private goods to retain the support of their coalitions. Therefore, leaders in small-coalition systems are more likely to rely on private goods, rather than public goods, to reward their key supporters. When the winning coalition is

large, on the other hand, leaders have to dilute each member's share of private goods due to budget constraints. This decreases the value of private goods and makes public goods a more effective way to reward coalition members. Therefore, in large-coalition systems, leaders tend to shift the mix toward public goods.

In addition, Bueno de Mesquita et al. (2003) suggest that leaders with small winning coalitions are more likely to stay longer in office than their large-coalition counterparts due to the following reasons. First, the provision of private goods is central to small-coalition systems; hence small-coalition leaders can attract support by promising their supporters private benefits. Second, in small-coalition systems, members of the incumbent's coalition know that they have a low probability of being included in the winning coalition if the new leader comes to power. This makes the incumbent's supporters loyal to their present leader for fear of losing access to future private benefits. In contrast, supporters in large-coalition systems have a low risk of exclusion in future coalitions because new leaders will continue to provide them with high levels of public goods. This makes defection to the challenger less risky in large-coalition systems.

Third, when an individual decides whether to support the challenger or not, she must consider the probability of being excluded from the challenger's new winning coalition after the challenger comes to power. Such a probability increases as the size of the winning coalition decreases. So, in small-coalition systems, the challenger cannot credibly convince her potential supporters that they will receive private goods in the future, and therefore finds it harder to garner support. This commitment problem faced by the challenger provides a huge advantage for the incumbent leader in small-coalition systems. For all these reasons, leaders with small winning coalitions tend to be long-lived in office even if they promote bad public policy. In their

words, “good policy is bad politics and bad policy is good politics for small-coalition leaders (Bueno de Mesquita et al., 2003, p. 325).”

2.2 Concepts and Assumptions

In this dissertation, I extend the selectorate theory by explicitly accounting for the role of ethnic ties in the formation of the leader’s coalition. To do so, I borrow ideas from Chandra (2006), Caselli and Coleman (2006) and Fearon (1999) to make four assumptions that I use in building the exclusion theory. In this section, I provide detailed explanations of assumptions and definitions of related concepts.

2.2.1 Coalition Identity

I assume that every leader chooses to form his coalition on the basis of specific identity. Identities can be broadly divided into two different types: ethnic identities and non-ethnic identities. In line with Chandra (2006), I define ethnic identity as a subtype of identity categories whose membership is determined based on descent-based attributes. Descent-based attributes can be acquired genetically (e.g., skin color, eye color, and height), through culture and family history (e.g., language, accent, religion, last name, and parents’ place of birth), or through government action (e.g., ethnicity printed on identity card) (Chandra, 2006, p. 400). On the other hand, non-descent-based attributes include those acquired through personal history (e.g., age, education, and income), or through one’s voluntary choices (e.g., political ideology, party membership). Of course, this is not a hard and fast distinction, and in reality there is an area of overlap between the two types of identity. For example, a Labor Party membership in North Korea is not really a voluntary choice, but one of prestige inherited from parents. There is also

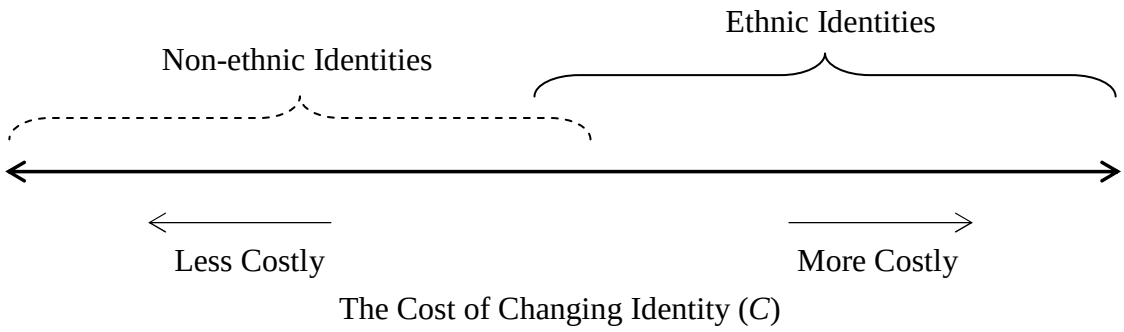


Figure 2.1: Changing Cost of Ethnic and Non-ethnic Identities

evidence that even political ideology is genetically transmitted by biological parents (Alford, Funk, & Hibbing, 2005). Nevertheless, for the sake of conceptual clarity, I will distinguish between ethnic and non-ethnic identities in the rest of this chapter.

Another key property that distinguishes ethnic identity from non-ethnic one is the cost of changing identity (hereafter denoted as ***C***). As a general rule, ethnic identities have higher *C* than non-ethnic identities (Chandra, 2006, pp. 414-416; Fearon, 1999, pp. 16-17). Simply put, it is more difficult to change one's ethnic identity than non-ethnic identity. For example, if a liberal ideology is used to determine who can be included in the leader's coalition, a conservative who wishes to become a coalition member can easily change his identity by simply declaring himself a liberal or by supporting a liberal political party. However, it would be extremely costly, if not impossible, to change one's skin color if the coalition is formed among individuals with particular racial characteristics. This argument is illustrated in Figure 2.1, which shows a hypothetical dimension in which all types of identities can be ordered according to their value of *C*. Ethnic identities are generally located on the right side of the line, and non-ethnic identities on the left.

It is important to note that ethnic identities, as defined here, are not necessarily equal to nominal ethnic categories—such as Shia Muslim, Sunni Muslim, Hutu, Tutsi, and Korean—that are commonly used in calculating the ethno-linguistic fractionalization (ELF) index (Roeder, 2001).[4] For instance, the ELF value of South Korea is 0 because Korea is considered by many as a homogenous society consisting of a single ethnic group and single language. However, ethno-regionalism has been a key factor in South Korean politics. Voters have been clearly divided between the southeastern (*Yongnam*) and southwestern (*Honam*) provinces of South Korea in almost every national election since 1971. Between 1968 and 1999, father's place of birth (*Bonjok*) had been printed on the national identity card, and it had been widely believed that *Honam* people were discriminated by the *Yongnam* government, and vice versa. Hence, based on the above definition of ethnicity, I regard *Honam* and *Yongnam* as ethnic identities because one must be *Honam* (or *Yongnam*) if his father was *Honam* (or *Yongnam*).

A similar example is found in Rwanda. It is often considered that Rwanda is composed of two major ethnic groups: Hutu and Tutsi. However, between 1962 and 1994, there had been significant regional divisions within the Hutu population, in which northerners and southerners were opposed to one another to the point where one group massacred members of the other group. In this case, I consider both northern Hutu and southern Hutu as ethnic identities (or sub-ethnic identities (Scarritt & Mozaffar, 1999) within the Hutu ethnic group) because they are based on descent-based attributes—the place of birth and ancestral origin. Generally, sub-ethnic identities are associated with higher values of $\boldsymbol{C}$ (thus are more difficult to change) than ethnic identities at the higher level. It should be more difficult to change both the place of birth and the origin of ancestors than to change only one.

[4] The ELF index is interpreted as the probability that two randomly selected individuals within a country will not belong to the same ethnic group.

Theoretically, the role of "coalition identity" in my model can be compared to the role of "affinity" in the selectorate theory (Bueno de Mesquita et al., 2003, pp. 60-65), in which "the incumbent chooses a coalition of those selectors from whom she expects the highest affinity" (p. 62). The selectorate theory regards affinity as "small idiosyncratic tastes" that play only secondary roles in the decision making process of leaders and members of the selectorate (Bueno de Mesquita et al., 2003, p. 61). They write, "For the purpose of the selectorate theory, affinities need not be large. Indeed in the mathematical model, affinities are only used to break ties when all other considerations are identical" (Bueno de Mesquita et al., 2003, p. 61). My concept of coalition identity can be understood as an expansion of affinity, with an emphasis on the nature of different types of affinity. By explicitly considering the changing costs associated with different kinds of coalition identity—with ethnic identities generally associated with higher changing costs—I am able to show that coalition identity not only plays a significant role in the decisions of leaders and selectors, but is also pivotal in determining which leaders survive in office. I defer the explanation of this relationship until I present the basic framework of the theory in Section 2.3.

2.2.2 Leader's Choice of Coalition Identity

Second, I assume that the leader chooses a specific coalition identity that she thinks best ensures her political survival. There are a multitude of historical examples where leaders choose their own ethnic identity to form their winning coalitions. Saddam Hussein created his coalition on the basis of "Sunni Arab north-west," which corresponds to his own ethno-regional identity (Tripp, 2007, p. 219). Before Idi Amin came to power in 1971, members of the Lango and Acholi ethnic groups dominated the government and military in Uganda. However, Amin was a

Kakwa, and once in power he filled his coalition with Kakwa officers to the exclusion of Langis and Acholis (Horowitz, 2000, pp. 487-492). Similarly, Juvénal Habyarimana, a Hutu, came from the northwest province of Rwanda, and his coalition was largely dominated by the Hutu north-west (Straus, 2006, p. 23). In Zambia, leaders utilized linguistic identities in national elections and tribal identities in local elections (Posner, 2004). Of course, not every leader uses ethnicity as their coalition identity. For instance, political coalitions in advanced industrialized democracies tend to form along non-ethnic lines such as political ideology (Wagner & Kritzinger, 2012), party identity (Richardson, 1991), or socio-economic status (Simmons, 1967). Regardless of whether they are ethnic or non-ethnic, my model assumes that every coalition identity is a deliberate choice made by the leader.

2.2.3 Selectorate's Choice

Third, I assume that selectors who are outside the leader's coalition are not able to enter the coalition unless they change their identity to the one chosen by the leader. For example, if the Tutsi minority comprises the winning coalition in Rwanda, members of the Hutu majority must change their ethnic identity to Tutsi before trying to enter the coalition. For this reason, becoming a coalition member entails a cost to those who are initially excluded from the incumbent's coalition. This distinguishes my approach from Bueno de Mesquita et al. (2003), in which selectors choose between the incumbent and the challenger by comparing the benefits they expect to receive from both sides (Bueno de Mesquita et al., 2003, pp. 85-86). In my model, selectors assess not only the benefits, but also the costs of joining rival coalitions. Especially, selectors attempt to enter the coalition *if and only if* the cost of changing their identity is less than the expected benefit of public and private goods received by each coalition member (Caselli &

Coleman, 2006, p. 1; Fearon, 1999, pp. 16-17). Therefore, it is not surprising in my model that a selector supports the challenger even if the incumbent provides a larger amount of benefits.

2.2.4 Coalition Size

Lastly, I treat the size of the winning coalition (W) as conceptually different from the "actual" number of supporters in the leader's coalition. Bueno de Mesquita et al. (2003, p. 51) defines the winning coalition as a "subset of the selectorate of sufficient size such that the subset's support endows the leadership with political power over the remainder of the selectorate as well as over the disenfranchised members of the society." In other words, the size of the winning coalition is the minimum number of supporters in the selectorate that a leader needs to stay in power (Bueno de Mesquita et al., 2003, p. 90; Riker, 1962), and it can be understood as one of the institutional characteristics of country. For instance, in many liberal democracies with simple majority voting, W is typically about half of the selectorate; while in autocratic systems with rigged elections, W can be much less than one-tenth of the selectorate.

However, I emphasize that the actual number of supporters in the leader's coalition is not necessarily equal to W. Simply put, it can be larger or smaller than W. I call the coalition "downsized" if the actual size of the leader's coalition is small in large-W systems. On the other hand, it is "oversized" if the actual coalition size is large in small-W systems. Domestic politics has seen many instances of this type of mistake, where leaders have failed to form a minimum winning coalition (Riker, 1962). Consider, for instance, Abd al-Karim Qasim who ruled Iraqi between 1958 and 1963. During his years in office, Iraq was a small-W system where political power resided exclusively in the army (Andrews & Ra'anan, 1969, p. 73). However, Qasim had an integrative vision for an Iraq, and thus tried to represent all Iraqis by including civilians with

diverse ethnic and ideological backgrounds in his government (Tripp, 2007, pp. 146-147).[5] In the next section, I offer reasons why failure to pursue an exclusive ethnic policy produces an oversized coalition in small-W systems, which in turn contributes to violent leadership turnover.

2.3 The Exclusion Model

In the previous section, I introduced the key concepts and assumptions that are needed to extend the selectorate theory. Here, I put these components together to explain how selection institutions encourage certain ethnic policies and punish leaders who fail to respond to the encouragement. In large-W systems, the demand for membership in the leader's coalition is generally low due to the low amount of private goods allocated to each coalition member. The tragedy of large-coalition leaders lies in the fact that in order to survive, they must be engaged in intense competition over who include more supporters in their coalition, despite the low demand for its membership. Thus, it is rational for them to decrease the cost of changing identity, so that more people are allowed to join their coalition. This can be done by forming a coalition based on non-ethnic identities such as ideological beliefs. It is also straightforward to see why large-coalition leaders do not want to exclude anyone from joining their coalition based on ethnicity. Doing so increases the hazard of losing office by allowing the challenger to include these excluded people in his coalition without needing to attract them away from the incumbent's coalition. Therefore, forming an exclusive coalition based on ethnic identity is political suicide in large-W systems.

In small-W systems, the demand for coalition membership is generally high due to the high amount of private goods provided to each coalition member. The tragedy of small-coalition

[5] A more detailed history of Iraq in this period will be discussed in Chapter 5, Section 5.1.

leaders is that in order to survive, they must exclude a large number of selectors from their coalition, even though these people want to become their coalition partners. Since survival in office depends upon the provision of private benefits to key supporters, leaders in small-W systems have a strong incentive to limit the size (or prevent the expansion) of their coalition by preventing the entry of outsiders. Forming a coalition based on ethnic identity serves this purpose well. If the coalition is formed by the leader's ethnic group, members of ethnic out-groups are not able to enter the coalition unless they change their ethnic identity. This strategy is most effective when the leader chooses an ethnic identity associated with high *C*. That is, when the ethnic identity of the leader's coalition is highly distinguishable from all other types, it reduces the transaction costs of enforcing coalition membership because it helps identify who is real and who is disguising his identity, making the coalition less subject to infiltration by ethnic others (Caselli & Coleman, 2006).

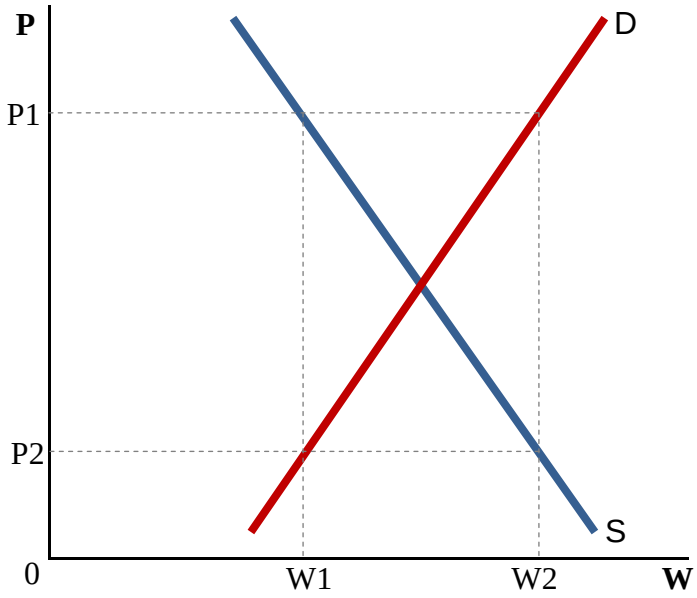
The theory also explains why small-coalition leaders do not want to pursue an inclusive ethnic policy by forming their coalition based on non-ethnic identity. Doing so increases the risk of losing office by producing an oversized coalition. When the leader's coalition is organized along non-ethnic lines in small-W systems, the size of the coalition will rapidly expand as large numbers of selectors will try to enter the coalition in order to participate in the distribution of private goods. Now, with additional members, the incumbent is forced to reduce the rewards she provides to each coalition member, thereby diminishing both the welfare and loyalty of existing coalition members. Thus, to protect their privilege, existing members of the leader's coalition may attempt to replace their current leader when their privilege is eroding. In addition, if the challenger has not reduced the private benefits promised to his coalition, members of the incumbent's coalition—both existing and new—are more likely to defect to the challenger when

they expect to receive a larger amount of benefits from the challenger than from the current leader, a situation highly unlikely in small-W systems without an oversized coalition. For these reasons, forming an inclusive coalition based on non-ethnic identity increases the risk of losing office in small-W systems.

Other than preventing the expansion of the coalition, "ethnicity" provides additional benefits to small-coalition leaders. First, ethnic coalition is favored in small-W systems because the leader finds it more effective to distribute benefits on the basis of bloc identity. Rather than distributing private goods to every individual in the winning coalition, it is more cost effective to buy support among a few important individuals who can deliver a bloc of votes through patron-client relationships (Bueno de Mesquita et al., 2003, pp. 63-64). Ethnicity can provide an attractive basis for a bloc of votes. Members of the ethnic group are likely to support the same candidate as their group leader because they can easily know who will be the beneficiaries of private goods once a candidate endorsed by their leader comes to power (Chandra, 2004).

Secondly, coalition formation based on ethnicity increase the loyalty of coalition members to the incumbent leader. Bueno de Mesquita et al. (2003, pp. 65-68) suggests that the loyalty norm is generated by the risk of exclusion from a successful challenger's future winning coalition. When political coalitions are organized along ethnic lines, access to private benefits is also structured along ethnic lines. Suppose that there are two rival ethnic groups, A and B, in a fictitious small-W system where the incumbent coalition represents group A and the challenger's coalition represents group B. In these circumstances, members of group A would fear that, if the incumbent is deposed and the challenger enters office, the probability would be high that members of group B would exclude them from access to private goods. Such a high risk of exclusion from the challenger's coalition drives group A's loyalty to the incumbent leader.

A



B

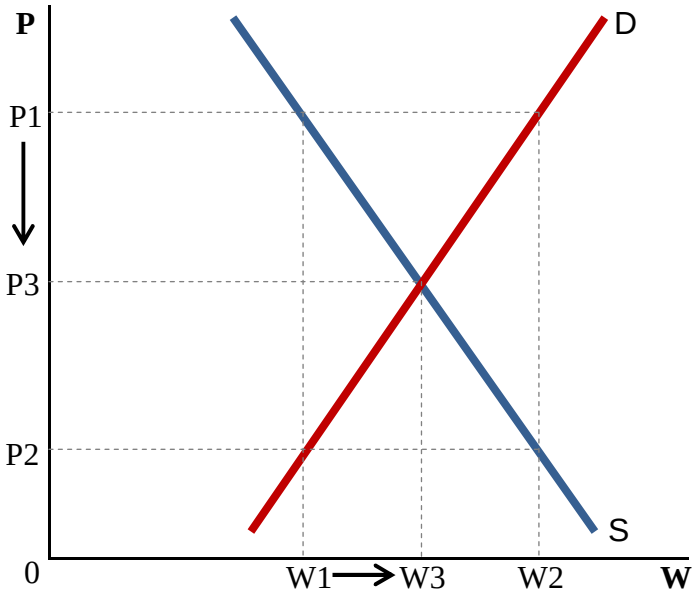
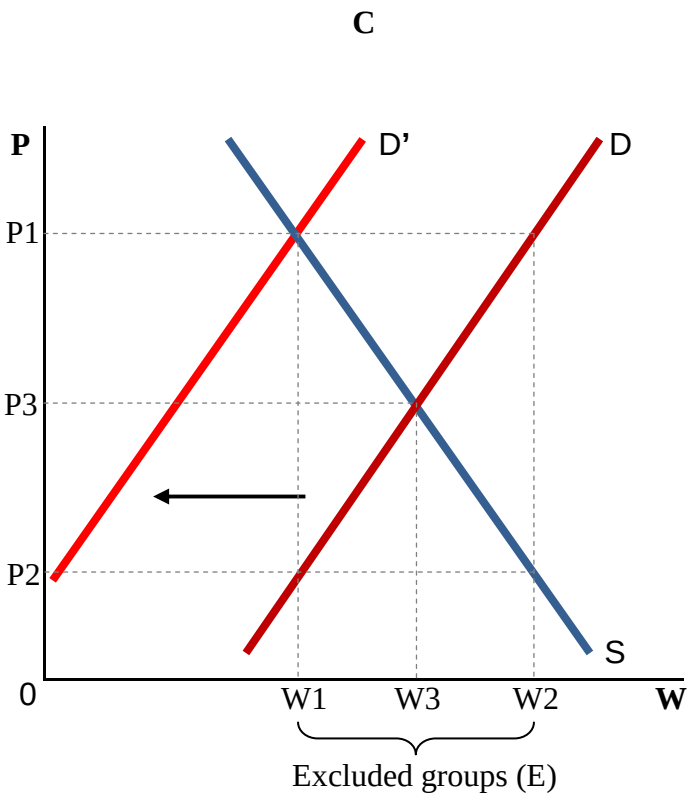


Figure 2.2: Supply and Demand for Coalition Membership. The y-axis represents the amount of private goods per coalition member (P). The x-axis represents the size of the incumbent's coalition (W). For interpretation of the references to color in this and all other figures, the reader is referred to the electronic version of this dissertation.

Figure 2.2 (cont'd)



The risk of exclusion may not only be related to their access to private goods but also to their physical survival in an ethnically divided society. For example, when Michel Micombero, a Tutsi, came to power in Burundi, he acted ruthlessly to eliminate Hutus who held high positions in the military and government under the previous regime. Similarly, Juvénal Habyarimana executed key figures, mostly southern Hutus, from the previous regime after he seized power in Rwanda. All of these are theoretical reasons for predicting that leaders are likely to form an ethnically exclusive coalition in small-W systems.

The causal mechanism of the exclusion model is graphically depicted in Figure 2.2. The supply curve, labeled **S** in Figure 2.2A, shows how the size of the leader's coalition changes as the amount of private goods received by each coalition member changes. The supply curve is

downward sloping, as suggested by the selectorate theory; the larger the coalition, the less leaders are able to provide private goods to their coalition members. On the other hand, the demand curve, labeled **D**, shows how the size of the coalition demanded by citizens depends on the amount of private goods provided to each coalition member. The demand curve is upward sloping. That is, holding other things equal, more citizens will want to join the coalition as the level of private benefits goes up.

Let's suppose a leader in a small-W system (W = W1), who initially provides a large amount of private goods to coalition members—say, P1 in Figure 2.2B. This leader has an incentive to form a minimum winning coalition of size W1, while citizens want a larger coalition of size W2—a situation in which the coalition demanded exceeds the coalition supplied. What would happen if the leader's coalition is based on an identity with $C = 0$? The imbalance between the supply and demand for coalition membership would create downward pressure for the amount of private goods (per coalition member) as citizens outside the coalition tried to enter the coalition and the leader did not block their entry. Eventually, the leader's coalition would expand until its size reaches W3, resulting in an oversized coalition. This outcome makes both the leader and the existing coalition members worse off, as the leader is less likely to survive in office with an oversized coalition and existing coalition members receive a smaller amount of private goods, P3.

Alternatively, as shown in Figure 2.2C, the same leader can maintain her coalition size at W1 by excluding a group of people E (or W2 – W1) from entry into her coalition. The leader can do this by requiring that any individual who is a coalition member to have a particular set of ethnic identities such as skin color and language. By doing so, she can not only prevent entry by new members but continue to provide a large amount of private benefits to key supporters. This

is exactly how many dictators practice ethnic exclusion to maintain their small coalition. Graphically, such an exclusive policy increases the cost of changing identity for those outside the coalition, thereby shifting the demand curve from **D** to **D'**. As a result, the system clears at a higher amount of private goods P1 and a smaller coalition size W1. This outcome makes both the leader and coalition members better off, as the leader is more likely to remain in office with a minimum-sized coalition and coalition members continue to enjoy a large amount of private goods.

2.3.1 Ethnic Exclusion and Leadership Tenure

Having specified my causal mechanisms, I now move on to look at the observable implications of the exclusion model. The first set of hypotheses concerns the relationship between ethnic exclusion and leadership tenure. Although we might expect that leaders who promote ethnic integration deserve a long tenure in office, my theory suggests that the opposite may be true in small coalition systems. When W is small, leaders who pursue an exclusionary ethnic policy would have longer terms in office because it prevents oversized coalition. When small-coalition leaders do not promote ethnic exclusion, however, the size of their coalition will expand (as shown by the right-pointing arrow in Figure 2.2B). This will not only reduce the rewards provided to coalition members but also weakens their loyalty to the incumbent. Given that political competition in small-W systems is based on the ability to provide private goods, such an inclusive policy makes defection to the challenger more likely. Therefore, I hypothesize that

> **H1**: Leaders who promote ethnic exclusion are more likely to stay longer in office than those who do not promote ethnic exclusion in small-W systems.

In addition, I expect that leaders are more likely to be replaced in an irregular manner if they do not employ ethnic exclusion in small-W systems. As indicated by the downward-pointing arrow in Figure 2.2B, the expansion of coalition in small-W systems decreases the welfare of existing members in the leader's coalition. Thus, in order to return their welfare to the previous higher level, dissatisfied members of the leader's coalition may attempt to displace the incumbent in an irregular manner. They can carry out Coup d'état, revolt, or assassination as a means to achieve this end (Bueno de Mesquita et al., 2003, p. 397). Moreover, this process can be especially violent when inclusive ethnic policy is preceded by a long period of exclusive rule. The longer the ruling elite profits from the small-coalition system, the less likely they relinquish their privilege without a fight. This makes them more determined to use violence as a means to assert power when their power and privilege are deeply threatened. Through a coup or other means of irregular turnover, they eventually want to install a new leader who can advance their interests in a smaller coalition. From this argument, I derive the following hypothesis:

> **H2**: Leaders who do not promote ethnic exclusion are more likely to be removed from office in an irregular manner than those who promote ethnic exclusion in small-W systems.

Both **H1** and **H2** suggest that ethnic exclusion is good politics for leaders in small-W systems because it enhances their prospects for remaining in office. However, according to recent literature on civil wars (Cederman et al., 2010; Wimmer, Cederman, & Min, 2009), ethnic exclusion also increases the likelihood of civil war by sharpening the grievances of excluded

ethnic groups. This finding raises a critical question: is ethnic exclusion good politics for small-coalition leaders even if it increases the probability of facing armed conflict? Based on the exclusion theory, I argue that ethnic exclusion is good politics even under the worst case scenario, where the leader is involved in civil war, due to the loyalty of the military to the incumbent leader. In small-coalition systems, the key positions in the military are often filled by members of the leader's ethnic group. Bashar al-Assad has filled almost all key positions in the Syrian army and security services with members of the Alawite minority. Under Saddam Hussein, members of the Sunni north-west held a near-monopoly on key posts in the Republican Guard and regular armed forces. The commanders of the Sierra Leone's army were all Limba under the Stevens regime. Because these individuals in the military are so closely tied with the incumbent in terms of ethnicity, their ethnic identity signals potential disloyalty to the challenger's future coalition, which makes them face high risk of purge if the current leader is overthrown and the rival group comes to power (McLauchlin, 2010). For this reason, the loyalty of the military is especially high when the small-coalition leader employs an "ethnic preference policy" in the armed forces (McLauchlin, 2010). Since victory is essential for their access to private goods, they also fight hard in the face of rebellion, making the incumbent more likely to win the conflict. I summarize this reasoning in my third hypothesis:

> **H3**: During civil war, leaders who promote ethnic exclusion are less likely to lose power than those who do not promote ethnic exclusion in small-W systems.

2.3.2 Coalition Size and the Likelihood of Ethnic Exclusion

The next set of hypotheses proposes a negative relationship between the size of the winning coalition and the likelihood of ethnic exclusion. If the causal mechanisms operate as the model suggests—that is, if ethnic exclusion is good politics in small-W systems—there should be a statistically significant tendency that leaders pursue higher levels of ethnic exclusion in small-W systems. Another prediction that naturally follows from this tendency is that ethnic groups outside of the leader's coalition have a higher risk of being subjected to political exclusion in small-coalition systems. I submit these predictions to separate tests by dividing **H4** into two sub-hypotheses:

> **H4a**: Leaders are more likely to engage in higher levels of ethnic exclusion in small-W systems than in large-W systems.
>
> **H4b**: Ethnic groups that are not in the incumbent's coalition are more likely to be subjected to formal political exclusion in small-W systems than in large-W systems.

2.4 Chapter Conclusion

In this chapter, I have outlined a theory of how the size of the winning coalition creates different incentives for ethnic exclusion. While large-coalition leaders are encouraged to employ an inclusive strategy towards out-group members, small-coalition leaders are incentivized to pursue an ethnically exclusive strategy. Theoretically, I extend the selectorate theory of Bueno de Mesquita et al. (2003) by accounting for the role of ethnic ties in the leader's coalition. When the winning coalition is large, leaders choose to form an inclusive coalition based on non-ethnic identity; otherwise they will face undersized coalition with a higher risk of losing office. When

the winning coalition is small, leaders want to form an exclusive coalition based on ethnic identity; otherwise they will produce oversize coalition with a greater risk of removal from office in an irregular manner. Therefore, leaders who employ ethnic exclusion are less likely to lose office in small-W systems than those who do not promote such a policy. I argue that this relationship holds even in times of civil war caused by exclusionary ethnic policies. The overall implication of the exclusion theory is that ethnic exclusion is good politics in small-W systems even if it brings about civil war.

The exclusion theory left me with four testable hypotheses regarding how the size of the winning coalition is related to ethnic exclusion and leader survival. Before I subject these hypotheses to empirical tests in Chapters 4-5, I will formally describe the exclusion theory in the form of agent-based computational model in Chapter 3. Although the exclusion model outlined in this chapter fully focuses on the behavior of the incumbent in the absence of any disturbing factors, the computation model will involve a strategic interaction between the incumbent and the challenger within an artificial environment that allows mistakes, random noises, and external shocks.

CHAPTER 3

A COMPUTATIONAL MODEL OF ETHNIC EXCLUSION

This chapter will build upon the theoretical framework established in the previous chapter, and from it will present how computational modeling illuminates the role of leaders in the exclusion of ethnic groups and how this exclusion can be an evolutionary outcome. While the theory outlined in chapter 2 confines its focus to the incumbent leader, the computational model introduced in this chapter accounts for both the incumbent and the challenger competing for political office. I choose to describe my argument in the form of an agent-based model (ABM), which provides the following advantages.

First, ABM is appropriate for modeling "changes" in the size of the leader's coalition. The size of the incumbent's coalition can be broken down into three broad categories. The first is simply an "appropriate (or minimum)" size that corresponds to the size of the minimum winning coalition. The second is "undersized" coalition, which occurs when a leader forms a small coalition in large-W systems. In this case, she is most likely to be punished by voters in regular elections. The third category is "oversized" coalition, which occurs when a leader chooses to form a large coalition in small-W systems. In this case, an oversized coalition may bring about a violent leadership turnover that could have been avoided if the leader's coalition had been small. The formal mathematical approach works best for the first category. For instance, Bueno de Mesquita et al. (2003) use their formal model to prove that the leader prefers the "minimal winning coalition (p. 90)" since she "never benefits from adding additional members to her coalition" (p. 123). The core of my theory, however, concerns oversized coalition. When a leader has an oversized coalition in small-W systems, I argue, she does not

adopt prudent ethnic policies and chooses to base her coalition on non-ethnic identity. ABM is well suited to modeling dynamic systems with oversized coalition. Specifically, the flexibility provided by the ABM approach allows me to understand how boundedly rational behavior of leaders results in either shrinkage or expansion of the leader's coalition and how these outcomes contribute to peaceful or violent turnover of leadership.

Second, with ABM, I can demonstrate the "evolution" of ethnic exclusion in small-W systems. Rather than assuming perfect rationality and static equilibrium, I assume a scenario where leaders occasionally make mistakes, learn from past mistakes or successes, and adapt their behavior in ways that promote their survival. I use this assumption to show that ethnic exclusion does not result from a single leader's policy choice, but evolves from multiple generations of leaders in small-W systems. With a variety of evolutionary algorithms available, computational methods provide a convenient tool for studying the evolutionary process of ethnic exclusion. Lastly, I can use ABM to investigate the robustness of the causal relationship proposed by the exclusion theory. Especially, it can test whether the expected effects of ethnic exclusion on leader survival are due to general causal mechanisms of the theory or to chance, mistakes, or random external shocks. I turn next to a specification of my computational framework.

3.1 The Model

The model contains three agent types—selectors, the incumbent leader (L), and a challenger (C)—with simple attributes and behavioral rules local to their environment. The model landscape consists of a 100 × 100 torus with each patch representing an individual selector (therefore, a total of 10,000 selectors). L and C are randomly placed on one of the patches at the beginning of each model run. The positions of the agents are not geographical locations, but

represent selectors' relation to L or C—the closer the selector's location is to L or C, the greater the proximity between them in social identity space. For instance, if a selector is located on the same patch with L (or C), she shares the same identity with L (or C). If her location is far from L (or C), her identity is highly distinguished from L's (or C's). The attributes of the agents are as follows.

3.1.1 Incumbent Attributes

The incumbent leader is defined by five distinct attributes: a budget *b*; a coalition identity *e*; the size of the disenfranchised population *d*; a memory *t*; and a probability of mistake *m*. A budget (*b*) ranges from 1 to 20,000 and denotes the total amount of financial resources available to the leader during a given time step.[6] Ranging from 0 to 1, a coalition identity (*e*) denotes a key identity that establishes the criteria for determining what constitutes a leader's coalition. It approaches 1 (or 0) as the leader's winning coalition is organized along the lines of ethnic (or non-ethnic) identity. So the higher the value of *e*, the higher the cost of changing identity; and therefore the harder it becomes for selectors outside the leader's coalition to become a coalition member, and vice versa.

The size of the disenfranchised (*d*) represents the proportion of the population that is disenfranchised by the leader, and ranges from 0 to 1. Members of the disenfranchised group have neither a say in the selection of leaders, nor an opportunity to become a member of a winning coalition of L or C. This model assumes that the leader disenfranchises her citizens in

[6] The choice of *b* in this range is arbitrary at the outset of the simulation. In my model, the initial value of *b* does not affect the simulation results as long as the challenger has the same level of (prospective) budget (*b**) with the incumbent. But, *b* can be affected by external shocks during simulation, creating a situation in which the incumbent and the challenger have different levels of budget size.

the order of who is farthest from her position in identity space. For example, if the leader decides to disenfranchise only one citizen, this person should be chosen among the selectors who have the longest distance to L on the model landscape. Taken together, *e* and *d* determine the degree of ethnic exclusion employed by the leader—the former representing exclusion from the leader's coalition (hereafter called exclusion type 1), and the latter, exclusion from the polity (exclusion type 2). In addition, leaders are defined by a memory of previous leaders' ethnic policies and lengths of tenure during the last *t* generations. Lastly, I include a parameter to reflect the possibility that a leader mistakenly fails to imitate successful ethnic policies adopted by her predecessors with probability *m*.

3.1.2 Challenger Attributes

The challenger is characterized by two attributes: its prospective budget *b** and coalition identity *e**. A prospective budget (*b**) denotes the total amount of budget in the hands of the challenger once he comes to power, with a range between 1 and 20,000. A coalition identity (*e**) is a key identity that constitutes a challenger's winning coalition and has the same properties as *e*—that is, the higher the value of *e**, the higher the difficulty in changing one's identity. Since the challenger has not assumed office yet, she, unlike the incumbent leader, has no legal power to disenfranchise any citizens.

3.1.3 Selector Attributes

Each selector is endowed with an ideological preference *r*. The random variable *r* follows a normal distribution with mean 1 and standard deviation σ_r, which is a model parameter that is fixed at the beginning of the simulation. I assume that selectors with ideological preferences

below 1 (the leftists) are more likely to favor a change in the status quo and thus are more favorably inclined toward the challenger, while those with ideologies above 1 (the rightists) are inclined toward the incumbent.

3.1.4 Global Parameters

Other than these attributes of the agents, this model has four global parameters: the size of the minimum winning coalition *w*, the price of public goods *p*, the frequency and strength (denoted *f* and *s*) of economic crisis and political scandal, a threshold for entering a coalition τ, and a discount factor δ. Ranging from 0 to 1, *w* denotes the minimum proportion of supporters in the selectorate that a leader needs to stay in power. In liberal democratic systems with simple majority rule, the value of *w* is typically about 0.5. However, in autocracies, this number can be much less than half. For example, the size of the minimum winning coalition in North Korea consists of a tiny proportion of the population who are members of Kim Jung-un's royal family and top commanders of the military loyal to Kim. The price *p* ranges from 1 to 1,000 to denote the cost of producing a unit of public goods. Next, this model assumes that a leader's budget (*b*) and selectors' ideologies (*r*) are affected by two types of external shock—economic crisis and political scandal, respectively—that occur with a probability *f* and strength *s*, both with a range of 0-1. I assume that external shocks decrease the survival prospects of the incumbent leader either by reducing his budget or by making selectors less favorable toward him.[7] In addition to

[7] Previous research suggests that a decrease in economic growth, especially during the economic crisis, is commonly associated with an increase in the risk of removal from office (Bueno De Mesquita & Smith, 2010; Debs & Goemans, 2010; Goemans, 2008) or governmental collapse (Alesina, Özler, Roubini, & Swagel, 1996). A number of leaders have also been removed from office due to political scandal, which is major corruption or abuse of power leading to severe political consequences. These leaders include, for instance, Syngman Rhee of South Korea (1948-1960), Richard Nixon of the United States (1969-1974), Yasuhiro Nakasone of Japan

Table 3.1: Model Parameters

Agent-Level Parameters		
Incumbent Attributes		
b	Budget	$b \in [\ 1\ ,\ 20000\ ]$
e	Coalition Identity	$e \in [\ 0\ ,\ 1\ ]$
d	Size of the Disenfranchised	$d \in [\ 0\ ,\ 1\ ]$
t	Memory	$t \in [\ 0\ ,\ 20\ ]$
m	Probability of Mistake	$m \in [\ 0\ ,\ 1\ ]$
Challenger Attributes		
b^*	Budget	$b^* \in [\ 1\ ,\ 20000\ ]$
e^*	Coalition Identity	$e^* \in [\ 0\ ,\ 1\ ]$
Selector Attributes		
r	Ideological Preference	$r \sim N[\ 1\ ,\ \sigma_r^2\ ]$
Global Parameters		
w	Minimum Winning Coalition Size	$w \in [\ 0\ ,\ 1\ ]$
p	Price of Public Goods	$p \in [\ 1\ ,\ 1000\ ]$
f	Frequency of External Shocks	$f \in [\ 0\ ,\ 1\ ]$
s	Strength of External Shocks	$s \in [\ 0\ ,\ 1\ ]$
τ	Coalition Threshold	$\tau \in [\ 0\ ,\ 1\ ]$
δ	Discount Factor	$\delta \in [\ 0\ ,\ 1\ ]$

these parameters, a coalition threshold τ and a discount factor δ, both of which range from 0 to 1, are defined globally and common to all selectors. All of these global parameters are fixed at the outset of a model run. Table 3.1 summarizes model parameters and value ranges.

(1982-1987), Chuan Leekpai of Thailand (1992-1995, 1997-2001), and Christian Wulff of Germany (2010-2012).

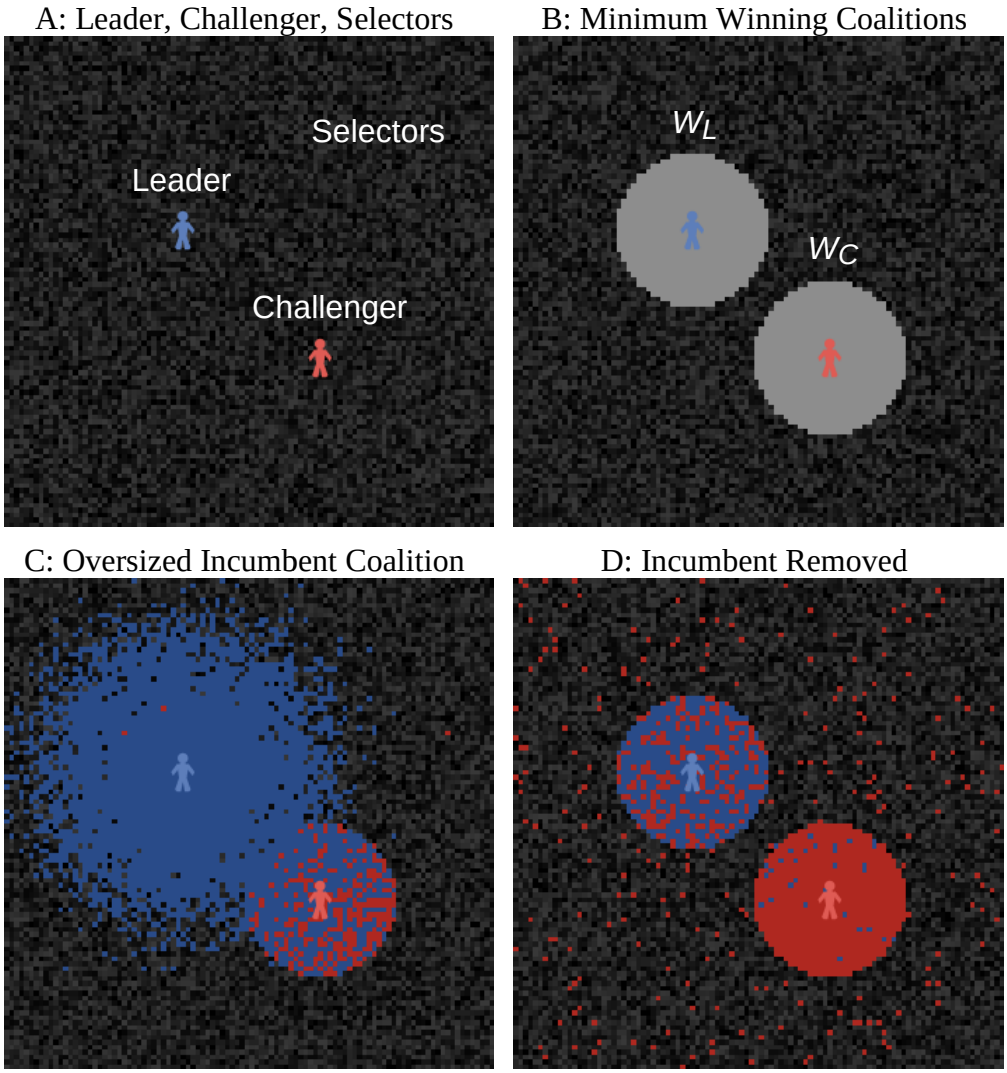


Figure 3.1: Screenshots of the Simulation Process. In 3.1C and 3.1D, blue-colored patches represent the incumbent's supportres, while red-colored patches represent the challenger's supporters.

3.2 Sequence of Play

At the beginning of the simulation, both the incumbent and the challenger are created and randomly located on the two-dimensional torus composed of 10,000 patches, each representing an individual selector (see Figure 3.1A). Once the initial conditions are set, the simulation proceeds through the following successive steps:

1. The incumbent decides to disenfranchise a group of size *d* among selectors in the order of who is farthest from his location in identity space, and then simultaneously both the incumbent and the challenger announce their coalition identities (*e* and *e**).
2. Both the incumbent and the challenger pick their minimum winning coalitions of size $w \times 10{,}000$—denoted W_L and W_C —from selectors in the order of who is closest to their locations in identity space (see Figure 3.1B).
3. The incumbent proposes a plan for x_L public and g_L private goods from a fixed budget *b*, while the challenger proposes provisions of x_C public and g_C private goods from his prospective budget *b**.
4. All selectors (except those who are disenfranchised) simultaneously choose to support either the incumbent or the challenger, or to remain independent.
5. The incumbent is removed and the challenger becomes the new leader if and only if the following two conditions hold: (1) the incumbent retains less than *w* supporters in his coalition; and (2) the challenger has more supporters than the incumbent (see Figure 3.1D).[8] If the challenger becomes the new incumbent leader, nature picks a new challenger and the simulation returns to step 1. Otherwise, the incumbent remains in power and a new round begins at step 3 where the incumbent and the challenger update their policy provisions based on the number of supporters in their coalitions.

[8] The same deposition rule is used by Bueno de Mesquita et al. (2003, p. 81)

Now, I move on to the specification of decision rule for each player.[9]

3.2.1 Incumbent's Policy Choice

I assume that selectors who are included in the incumbent's coalition receive payoffs from two different sources—the incumbent-provided public goods (x) and private goods (g)—and have the following specific utility function: $U(x, g) = \sqrt{x} + \sqrt{g}$. The incumbent's strategy is, given a budgetary constraint, to find the best possible provision of public and private goods in order to maximize the welfare of her coalition members:

Incumbent rule: $\max_{xL,gL} U(x_L, g_L)$

subject to the budget constraint that $b = |W_L| \cdot g_L + p \cdot x_L$, where $|W_L|$ refers to the actual size of the incumbent's coalition. The value of $|W_L|$ is equal to the size of the minimum winning coalition ($w \times 10{,}000$) in the first round of simulation. If the incumbent survives the first round, $|W_L|$ will be the actual number of supporters in the incumbent's coalition in each subsequent round.

3.2.2 Challenger's Policy Choice

The challenger's strategy, like the incumbent's, is to find the spending policy that maximizes the welfare of his coalition members within the limit of his prospective budget. Therefore, the challenger's optimal policy choice is

[9] I apply insights and formulas from the selectorate model (Bueno de Mesquita et al., 2003, pp. 106-120) in specifying decision rule for each player.

Challenger rule: $\max_{xC,gC} U(x_C, g_C)$

subject to the budget constraint that $b^* = |W_C| \cdot g_C + p \cdot x_C$, where $|W_C|$ is actual number of supporters in the challenger's coalition. The value of $|W_C|$ is updated in the same way as in the incumbent case.

3.2.3 Selectors' Choice

All members of the selectorate know how many public and private goods are offered by the incumbent and the challenger. They also know whether they are chosen by the incumbent and/or the challenger to be part of their minimum winning coalitions as well as their distance from L and C in social identity space. Having this information, each selector calculates her utility from joining each side's coalition and enters the one that provides her with greater utility.

Specifically, the expected reward to a selector from joining the incumbent's coalition in the current and future rounds is given by $Z_L = \frac{1}{1-\delta} U(x_L^*, g_L^*)$, where δ is a common discount factor that takes the value between 0 and 1, and (x_L^*, g_L^*) are optimal policy provisions of the incumbent in each round. However, when a selector calculates the expected reward from joining the challenger's coalition, she must consider the probability of being excluded from the challenger's long-term coalition after the challenger comes to power. The selectorate theory defines the probability that a selector is included in a successor coalition as (w / S), where S is the size of the enfranchised population (or the selectorate) and is defined as ($1 - d$) in this model (Bueno de Mesquita et al., 2003, pp. 65-68). Hence, the expected reward from joining the

challenger's coalition is $Z_C = \frac{1}{1-\delta}\left(\frac{w}{S}U(x_C^*, g_C^*) + (1-\frac{w}{S})U(x_C^*)\right)$. The benefit from joining the incumbent's or challenger's coalition is then calculated according to the following formula.

$$B_L = (Z_L \cdot r) / (Z_L + Z_C) \quad \text{and} \quad B_C = Z_C / (Z_L + Z_C)$$

As such, I assume that selectors with ideological preferences (*r*) below 1 (or above 1) underestimate (or overestimate) the benefit provided by the incumbent's coalition. Both B_L and B_C are normalized to lie between 0 and 1 by dividing by $(Z_L + Z_C)$.

Entering a coalition also entails a cost to those who are not chosen by L or C as their minimum coalition members. Those individuals have to change their identities before entering the coalition. Therefore, for a selector who has not offered coalition membership, the cost of joining either the incumbent's or challenger's coalition is given by

$$C_L = D_L \cdot e \quad \text{and} \quad C_C = D_C \cdot e^*$$

where D_L and D_C indicate the normalized distance of a selector from the locations of L and C in identity space, respectively, and take values between 0 and 1. Coalition identities (*e* and *e**) determine how costly it is for a selector far from the location of L (or C) to enter his coalition. The key intuition behind these equations is straightforward. The cost of changing identity is higher when coalitions are organized along the lines of ethnic identity. The selector's overall utility from joining either the incumbent's or challenger's coalition is then given by

$U_L = B_L - C_L$ and $U_C = B_C - C_C$

Therefore, the selector's simple behavioral rule is:

Selector rule: if $U_L - U_C > \tau$ (where $U_L > 0$), then enter the incumbent's coalition; if $U_C - U_L > \tau$ (where $U_C > 0$), then enter the challenger's coalition; else remain independent.

3.2.4 External Shocks

In addition to the basic rules described above, this model also assumes that the incumbent budget (*b*) and selectors' ideologies (*r*) can be affected by random external shocks. Given that surprises are inevitable in systems of humans, ABM is particularly useful in analyzing the effects of unpredictable events on leadership tenure, which are not easily addressed by other traditional modeling methods. In this model, I assume that two types of external shock—economic crisis and political scandal—create chances for the incumbent to be removed from office either by decreasing the incumbent's resources or by shifting selectors' ideologies to the left. When external shocks occur, they affect *b* and *r* according to the following sets of equations:

(1) The Impact of economic crisis on *b* at time *t*

$$b_t = (1-\rho)b + \rho \cdot b_{t-1} - v_t$$

$$v_t = \varphi \cdot b_{t-1}$$

(2) The impact of political scandal on *r* at time *t*

$$r_t = (1-\rho)r + \rho \cdot r_{t-1} - \varepsilon_t$$

$$\varepsilon_t = \varphi \cdot r_{t-1}$$

where $0 < \rho < 1$ and φ is a random number greater than or equal to 0 but strictly less than s with probability f, or 0 with probability $(1 - f)$ in each round of play. As such, the current values of budget and ideologies are part of their original and previous values plus a random shock weighted by coefficient ρ. How fast the effect of previous shocks decays depends on the value of ρ. Since $0 < \rho < 1$, all shocks will eventually dissipate over time and b and r will revert to their original values.

3.2.5 Evolutionary Algorithm

The evolutionary algorithm used in this model is imitation-based learning of ethnic exclusion (Alkemade, 2004; Page, 1999, p. 37). This algorithm is based on the assumption that a current leader learns from previous leaders' experiences in order to acquire knowledge of different types of ethnic policy. Specifically, the learning mechanism allows a leader to formulate her ethnic policy in the following way:

1. After assuming office, a new incumbent observes previous leaders' ethnic policies—coalition identity (e) and the scale of disenfranchisement (d)—as well as their lengths of tenure during the last t generations.
2. Then, she imitates the most successful strategy—the one that brought the longest tenure—with probability $(1 - m)$, or simply chooses a strategy randomly with probability m.

This is a process of learning whereby successful strategies are imitated by following leaders, and, occasionally, new strategies are introduced by random exploration or mistake. When a leader

Table 3.2: Input Assumptions for Model Runs

	W size	Exclusion parameters		Noise parameters			
Model Variant	***w***	***e***	***d***	***m***	***f***	***s***	σ_r^2
Simulation with Evolutionary Algorithm							
1	0.05	—	—	0.1	0.1	0.1	0.1
2	0.05	—	—	0.2	0.2	0.3	0.2
3	0.1	—	—	0.1	0.1	0.1	0.1
4	0.1	—	—	0.2	0.2	0.3	0.2
5	0.25	—	—	0.1	0.1	0.1	0.1
6	0.25	—	—	0.2	0.2	0.3	0.2
7	0.3	—	—	0.1	0.1	0.1	0.1
8	0.3	—	—	0.2	0.2	0.3	0.2
9	0.45	—	—	0.1	0.1	0.1	0.1
10	0.45	—	—	0.2	0.2	0.3	0.2
11	0.5	—	—	0.1	0.1	0.1	0.1
12	0.5	—	—	0.2	0.2	0.3	0.2
Simulation without Evolutionary Algorithm							
13	0.05	Random	0.25	N/A	0.1	0.1	0.1
14	0.05	Random	0.25	N/A	0.2	0.3	0.2
15	0.1	Random	0.25	N/A	0.1	0.1	0.1
16	0.1	Random	0.25	N/A	0.2	0.3	0.2
17	0.15	Random	0.25	N/A	0.1	0.1	0.1
18	0.15	Random	0.25	N/A	0.2	0.3	0.2
19	0.4	Random	0.1	N/A	0.1	0.1	0.1
20	0.4	Random	0.1	N/A	0.2	0.3	0.2
21	0.45	Random	0.1	N/A	0.1	0.1	0.1
22	0.45	Random	0.1	N/A	0.2	0.3	0.2
23	0.5	Random	0.1	N/A	0.1	0.1	0.1
24	0.5	Random	0.1	N/A	0.2	0.3	0.2
25	0.5	0.1	0.1	N/A	0.1	0.1	0.1
26	0.5	0.9	0.1	N/A	0.1	0.1	0.1
27	0.1	1.0→0.1	0.25	N/A	0.1	0.1	0.1

Note: In all model variants, the following parameters were held constant: incumbent budget (b = 10,000); memory (t = 10); challenger budget (b* = 10,000); challenger coalition identity (e* = random number between 0 and 0.2); price of public goods (p = 500); coalition threshold ($\tau = 0.1$); and discount factor ($\delta = 0.9$).

chooses a random strategy with probability *m*, it can be either harmful or beneficial to leader survival. The process of evolution is facilitated by this "randomness," which allows various

strategies to be rejected or imitated over time. In addition, I assume that the "first generation" leader, who has no predecessors, always chooses $e < 0.1$ and $d < 0.1$. Hence, the goal of this evolutionary algorithm is to show how ethnic-based exclusion evolves out of self-interested interactions between three types of agent although no discrimination was present at the beginning of simulation.

3.3 Experiments and Analysis

I run 27 distinct model variants in NetLogo (v. 4.0.5) to examine the effects of coalition identity (*e*) and the scale of disenfranchisement (*d*)—taken together to denote the level of ethnic exclusion—on leadership turnover in different sizes of minimum winning coalition. While exclusion parameters (*e* and *d*) are programmed to evolve during the simulation in variants 1-12, they are fixed at the outset of a model run in variants 13-26. For replicability of the simulation results, Table 3.2 provides input assumptions for all model variants.

3.3.1 Evolution of Ethnic Exclusion

This section focuses on variants 1-12. I run each variant for a period of 80 generations of leaders to examine how ethnic exclusion (type 1 and type 2) evolve over time in small-, medium- and large-coalition systems under slightly noisy ($m = 0.1$, $f = 0.1$, $s = 0.1$, $\sigma_r^2 = 0.1$) or highly noisy ($m = 0.2$, $f = 0.2$, $s = 0.3$, $\sigma_r^2 = 0.2$) conditions. Each variant is run 10 times with unique random seeds to generate a total of 120 independent model runs. Figure 3.2 compares the evolution of coalition identity (exclusion type 1) for three different sizes of minimum winning coalition. The vertical axis shows the mean values of coalition identity (*e*), while the horizontal axis is the number of generations. In small-coalition systems with $0.05 \leq w \leq 0.1$, ethnic exclusion (type 1)

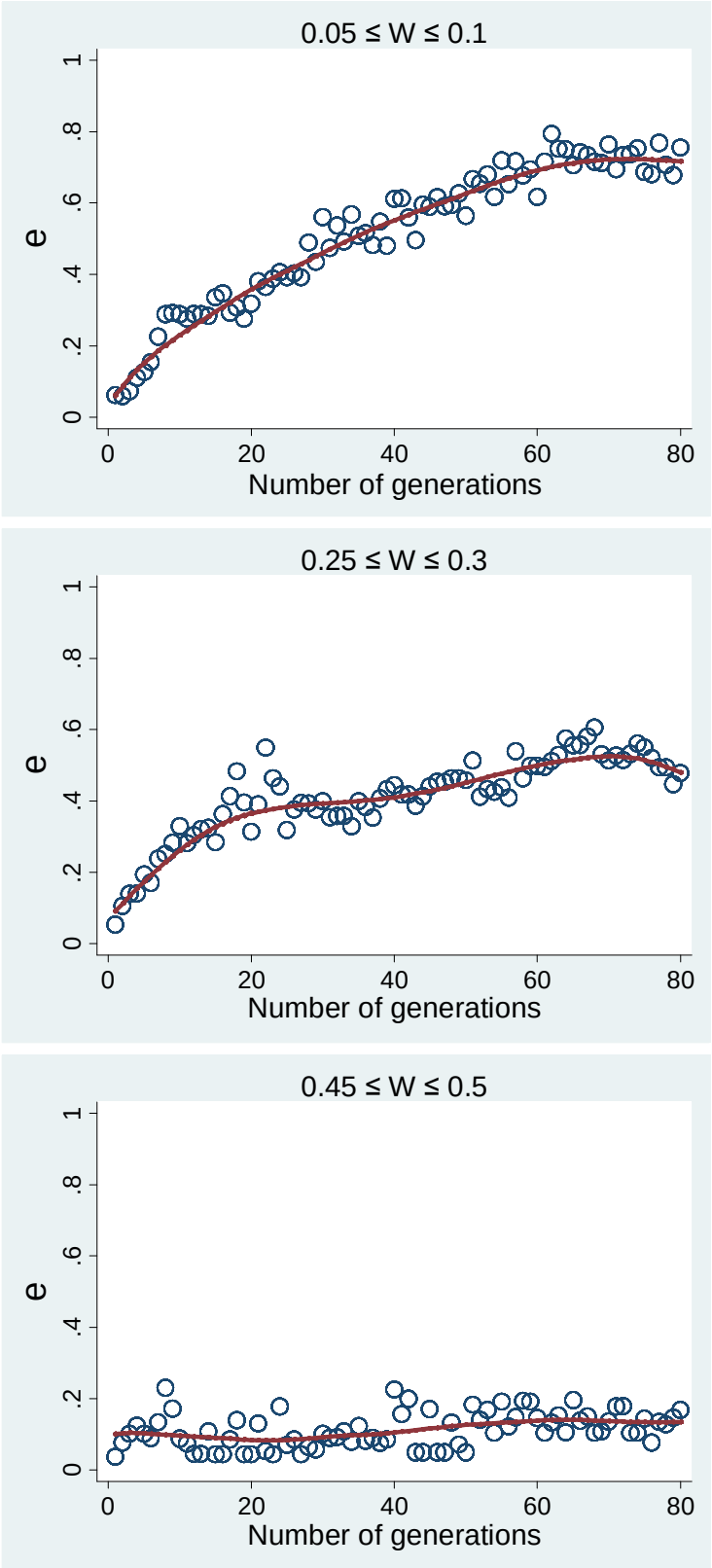


Figure 3.2: Evolution of Ethnic Exclusion Type 1, by *w*. The bandwidth for lowess curves is 0.5.

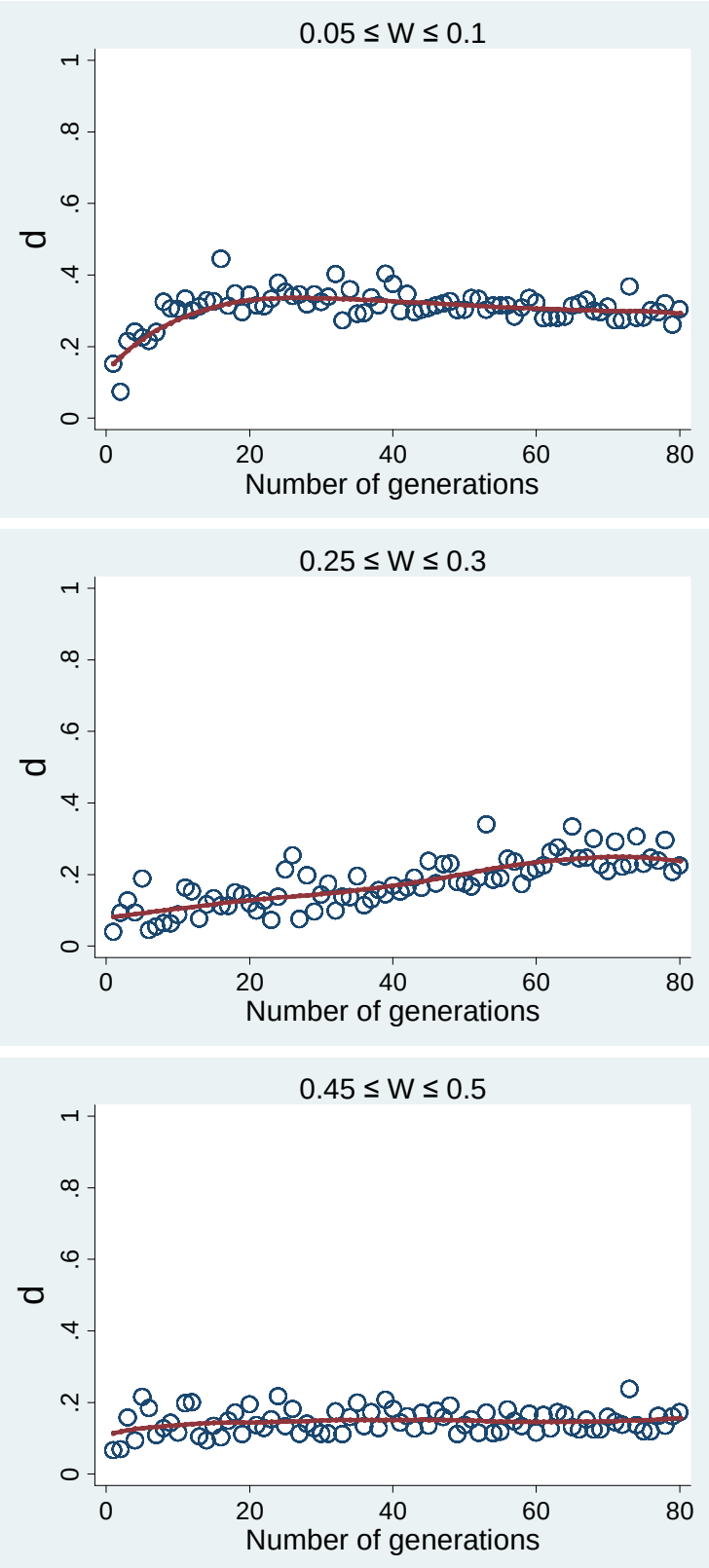


Figure 3.3: Evolution of Ethnic Exclusion Type 2, by *w*. The bandwidth for lowess curves is 0.5.

gradually evolves until the value of coalition identity reaches about 0.75. When small-coalition leaders are allowed to imitate the successful strategies of their predecessors, they learn and implement more exclusive strategies through trial and error and, eventually, establish winning coalitions along the lines of identity with a high changing cost. This holds true even if ethnic exclusion is absent in the first generation of leaders. On the other hand, in large-coalition systems with $0.45 \leq w \leq 0.5$, mean values of coalition identity hardly go above 0.2 during 80 generations, suggesting that leaders favor coalitions based on individual identities that are easy to change. I also observe evolutionary process in systems with medium-sized winning coalitions ($0.25 \leq w \leq 0.3$), but its trajectory is not as upward as the one in small winning coalitions.

Figure 3.3 illustrates the different evolutionary dynamics of type 2 exclusion for small-, medium- and large-coalition systems. The vertical axis shows the mean values of disenfranchisement scale (d). The horizontal axis is the number of generations. Consistent with theoretical expectations, leaders with small winning coalitions tend to exclude a larger proportion of selectors from the polity than those with large coalitions. When the winning coalition is small ($0.05 \leq w \leq 0.1$), leaders will end up disenfranchising about 30 percent of selectors after round 20. On the other hand, when the coalition is large ($0.45 \leq w \leq 0.5$), only 15 percent of selectors, on average, are disenfranchised by leaders.

But, the question remains as to why the evolution of type 2 exclusion is less noticeable than type 1 in small-coalition systems. The selectorate theory provides an answer. When d starts off small, increases in the size of the disenfranchised enhances a leader's survival in office by preventing those disenfranchised from participating in the challenger's coalition. Beyond a certain point (0.3 in this experiment), however, further increases in d may put a leader at a higher risk of losing office. This happens because the increases in d also increase the probability that a

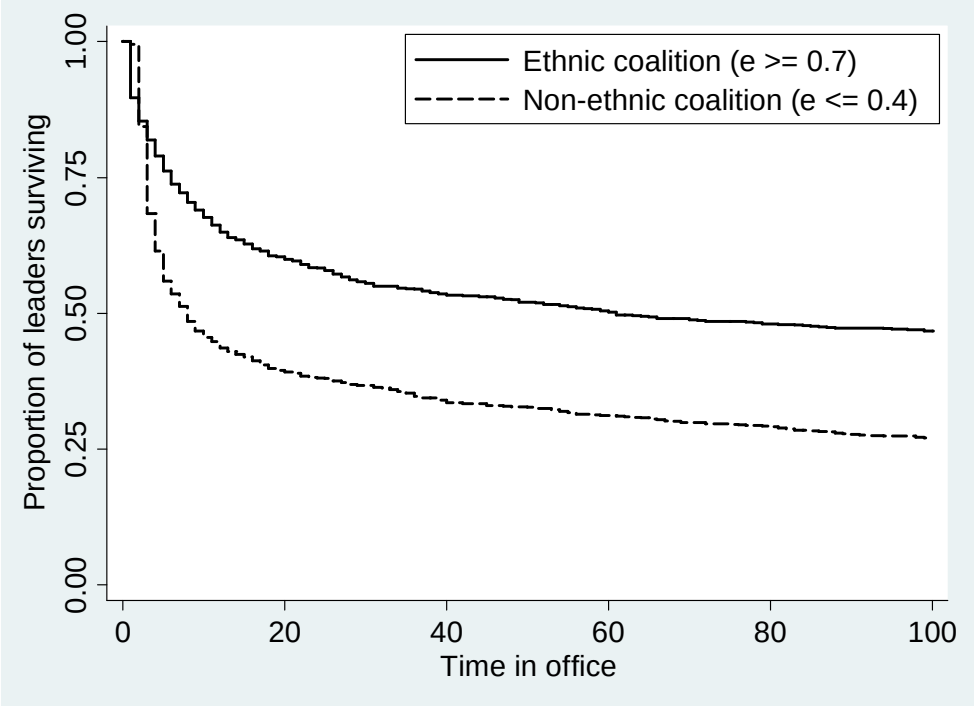
selector is included in the successor winning coalition, or w / S. The higher the probability of being included in a successor coalition, the less risk a selector is taking by supporting the challenger. For this reason, excluding too many selectors from the polity weakens coalition members' loyalty to the incumbent leader, and therefore increases the hazard of losing office.

3.3.2 Leadership Tenure

In order to examine how the survival of leaders differs according to ethnic exclusion and coalition size, I now run a model without the evolutionary mechanism, repeating the simulation 1000 times for each variant (from 13 to 24) to generate a total of 12,000 leaders with random values of coalition identity (e). I focus on the effects of coalition identity (e) on leadership tenure by holding the scale of disenfranchisement (d) either at 0.25 (for variants 13-18) or at 0.1 (for variants 19-24), which are the most plausible values for d given my previous experiments using evolutionary algorithm.

Figure 3.4 shows the proportion of leaders who survive at a particular time in office, estimated by the Kaplan–Meier method. In small-coalition systems with $w \leq 0.15$ (Figure 3.4A), leaders who organize coalitions along ethnic lines ($e \geq 0.7$) find it easier to survive than leaders who build their coalitions based on non-ethnic identities ($e \leq 0.4$). 82 percent of leaders with $e \geq 0.7$ survive in office beyond the first round, while 68 percent of leaders with $e \leq 0.4$ survive their first round. By the end of round fifty, 52 percent of leaders with $e \geq 0.7$ are still in office, while only 33 percent of leaders with $e \leq 0.4$ remain. The log-rank test of the difference in survival rates between these two groups is statistically significant at the 0.01 level. In large-coalition systems with $\boldsymbol{w} \geq 0.4$ (Figure 3.4B), however, coalition building along ethnic lines poses a threat to leaders' survival, although its effect is not as strong as in small-coalition systems. The median

A: Kaplan-Meier Survival Estimates, $w \leq 0.15$



B: Kaplan-Meier Survival Estimates, $w \geq 0.4$

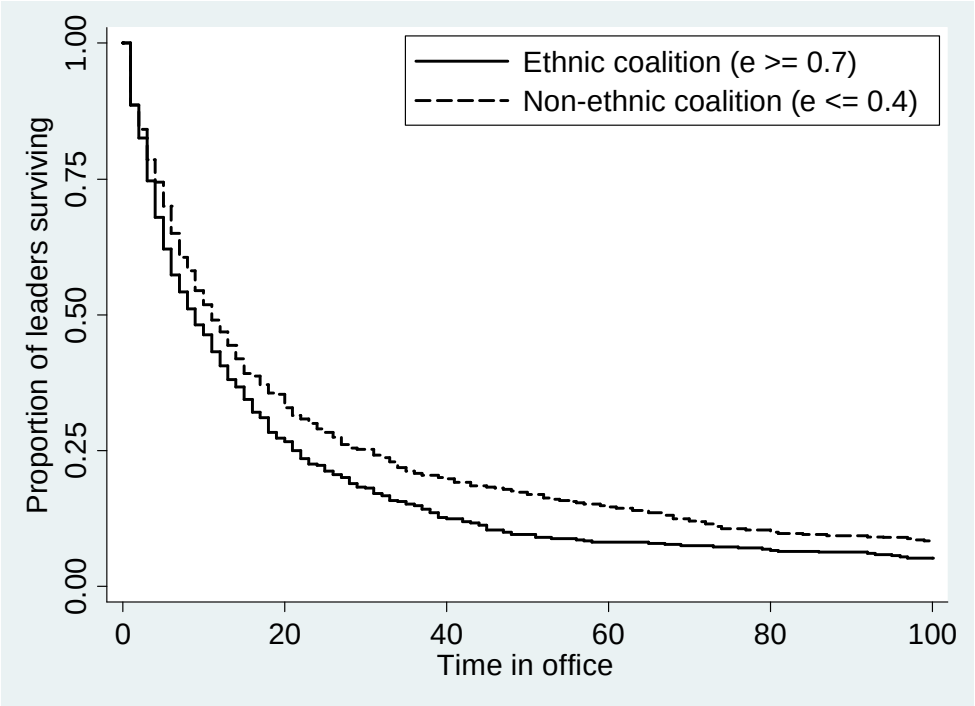


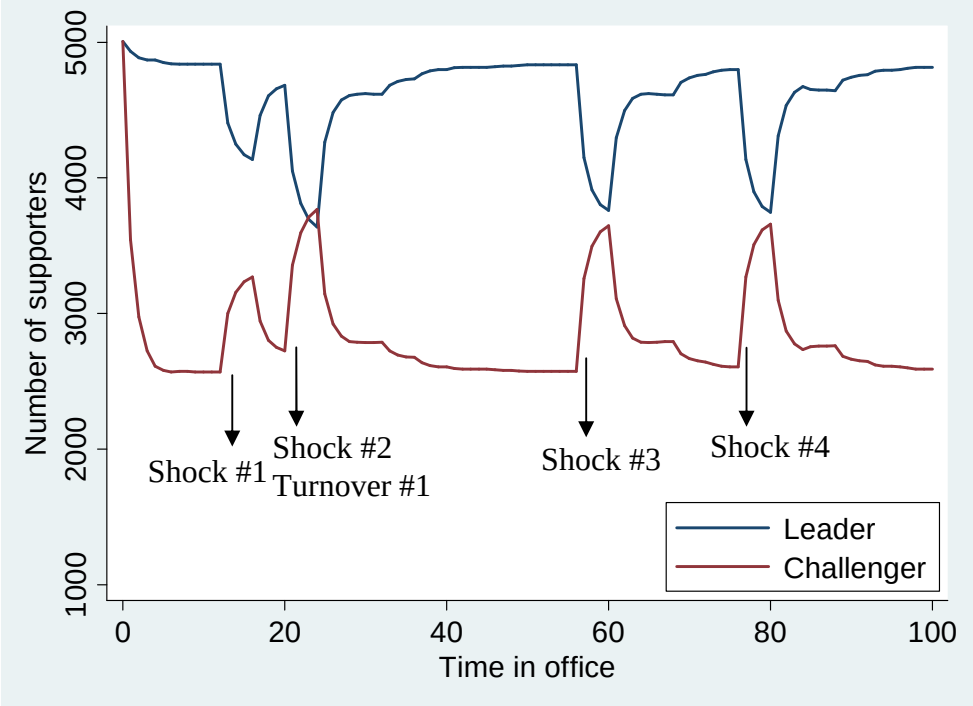
Figure 3.4: Survival of Leaders by Ethnic Exclusion

survival times for leaders with ethnic and non-ethnic wining coalitions are 9 rounds and 11 rounds, respectively. The difference in survival rates is also statistically significant at the 0.01 level. Consistent with my theoretical predictions, these results suggest that ethnic exclusion is good politics for small-coalition leaders although large-sized coalition can turn the same policy into bad politics.

3.3.3 Political Mistakes

How does a political system punish leaders who do not implement an appropriate ethnic policy? In order to examine the consequences of mistaken ethnic policy, I illustrate two scenarios where a leader employs ethnic exclusion in large-W systems or fails to employ it in small-W systems. In variant 25, a leader organizes a coalition based on non-ethnic identity (e = 0.1) in large-W systems (w = 0.5). As shown in Figure 3.5A, four external shocks have threatened her survival during 100 rounds of the simulation. Out of these shocks, only the second one (Shock #2) was big enough to remove her from office. On the other hand, in variant 26, the incumbent's coalition is based on ethnic identity (e = 0.9) in large-W systems (w = 0.5). As shown in Figure 3.5B, this policy results in an undersized coalition, in which the number of supporters in the leader's coalition remains below the minimum winning coalition of 5,000 selectors. Three external shocks have occurred during this simulation, and all of them led to the removal of leaders. This result suggests that leaders who form an undersized coalition by promoting ethnic exclusion are less immune to external shocks than those who do not promote it in large-W systems. This happens because selectors who are excluded from the incumbent's coalition quickly switched their support to the challenger, making it possible that even a small-scale external shock could remove the incumbent from office.

A: Non-ethnic Coalition (e = 0.1)



B: Ethnic Coalition (e = 0.9)

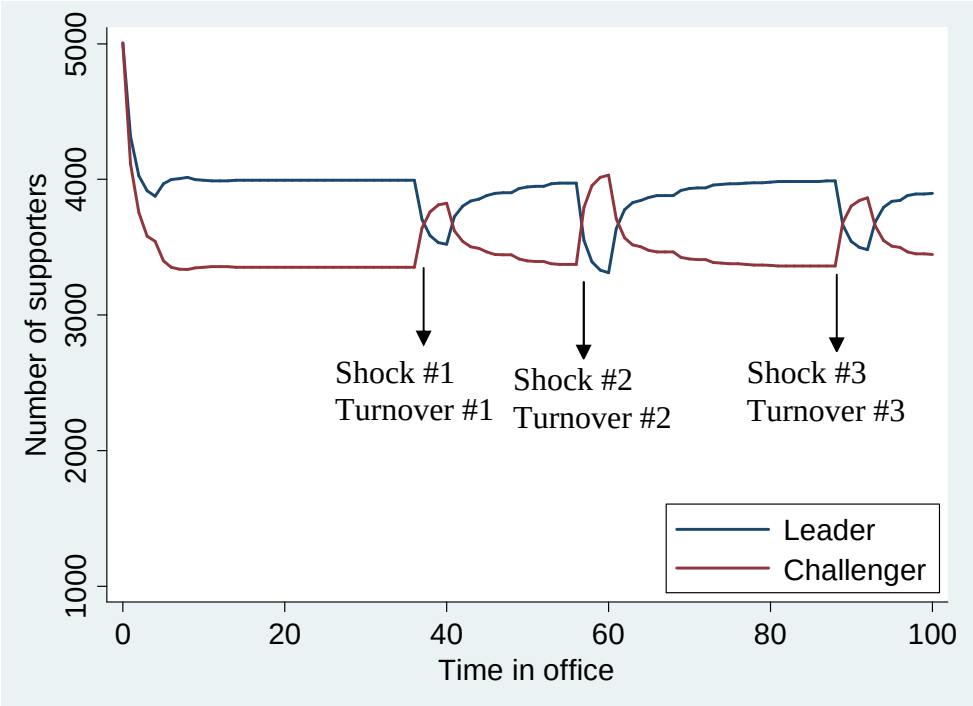
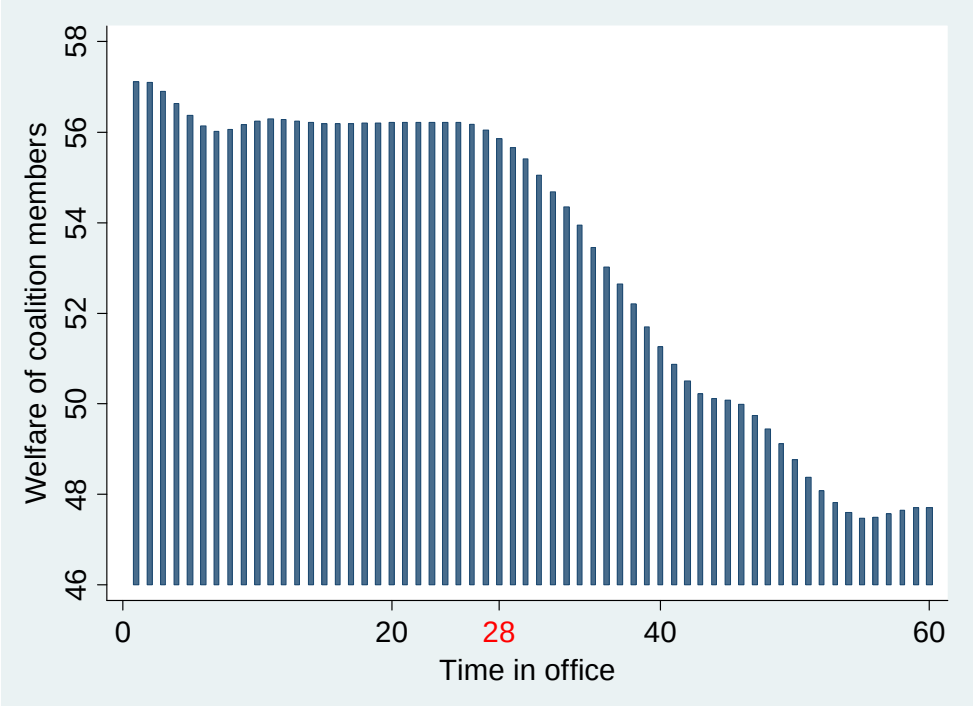


Figure 3.5: Number of Supporters in Large-W Systems (w = 0.5). Parameter settings are based on variants 25 (Figure 3.5A) and 26 (Figure 3.5B).

Model variant 27 represents a scenario in which a small-coalition leader decides to abolish ethnic exclusion at one point in time during her tenure. Figure 3.6 shows the results when I decrease coalition identity (*e*) of the incumbent in small-W systems with $w = 0.1$. I hold the incumbent's coalition identity at 1.0 for the first 28 rounds. Then, I gradually decrease it to 0.1 between rounds 29 and 60. Figure 3.6A plots the welfare for members of the incumbent's coalition. It shows that the rewards received by each coalition member diminish over time after the incumbent begins to reduce ethnic exclusion (or decrease her coalition identity) at round 28. Figure 3.6B shows the number of supporters in the winning coalitions—both the leader's and the challenger's—in each round of play. Even though the number of supporters in the leader's coalition tends to increase for some period of time after round 28, there is a sharp rise in the size of the challenger's coalition beginning in round 55.

Why is this so? When strong exclusion is present at the beginning of the simulation, a gradual decrease in *e* produces an oversized coalition because selectors who were previously excluded from the incumbent's coalition will try to enter the coalition in order to share the benefits of private goods. Beyond a turning point (round 53 in Figure 3.6B), however, further decreases in *e* begin to decrease the number of supporters in the leader's coalition as the amount of private goods received by coalition members continues to decrease. Combined with the promise of future payoffs from the challenger and weakened loyalty toward the incumbent, a period of oversized coalition is followed by a sudden outburst of opposition to the incumbent in round 55. As predicted by the exclusion theory, this example shows that the abolition of ethnic exclusion in small-W systems place leaders at a higher risk of irregular removal from power. Faced with decreasing welfare, dissatisfied members of the leader's coalition may attempt to enhance their welfare by displacing the incumbent in an irregular manner through coup d'état or

A: Welfare of Coalition Members



B: Number of Supporters in W_L and W_C

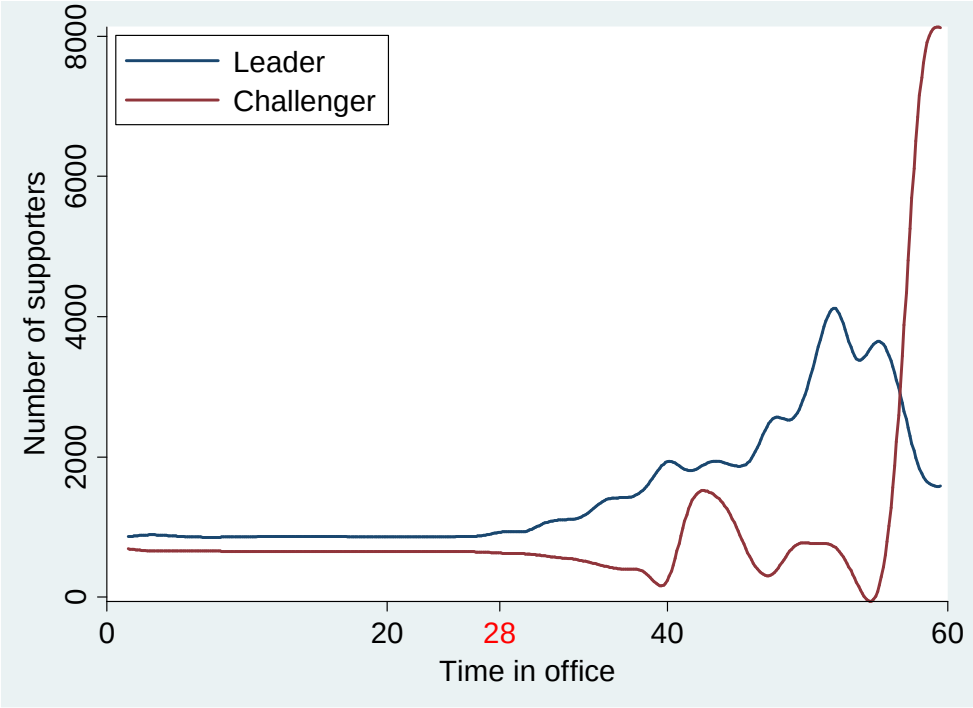


Figure 3.6: Political Liberalization (at t = 28) in Small-W Systems (w = 0.1). Parameter settings are based on variant 27.

assassination. Bueno de Mesquita et al. (2003, p. 397) state, "[i]n a coup, they can displace the incumbent with someone from their own ranks in the hope that the newly installed leader will promote their interests." This leader could also be removed by popular uprising (or an outburst of opposition as shown in Figure 3.6B), as exemplified by the recent removal of long-time Arab dictators, Muammar Gadhafi and Hosni Mubarak.

3.4 Chapter Conclusion

In this chapter, I developed a computational model to explore how the size of the winning coalition influences the motivation for ethnic exclusion and leader survival. The following results are obtained from the simulation. First, ethnic exclusion is an evolutionary outcome of political competition. Leaders in small-W systems are likely to establish an ethnically exclusive regime through multiple generations of trial and error. Second, leaders in small-W systems are more likely to survive in office when they implement ethnic exclusion. Third, a large-coalition leader who employs ethnic exclusion jeopardizes her tenure by producing an undersized coalition, which makes the incumbent more vulnerable to external shocks. Fourth, a small-coalition leader who renounces ethnic exclusion faces a higher risk of irregular turnover by producing an oversized coalition, which might give rise to an outburst of opposition to the incumbent leader.

Having simulated hypothetical effects of ethnic exclusion and turnover dynamics with a computational model, the next chapter (Chapter 4) will test whether ethnic exclusion, as demonstrated by the model, is indeed associated with a longer tenure in small-W systems using empirical data on leadership tenure. In Chapter 5, I will demonstrate the evolutionary process of ethnic exclusion in three historical cases, together with an illustration of how political liberalization in small-W systems was followed by an outburst of violence in two small African

countries—Burundi and Rwanda—in the early 1990s.

CHAPTER 4

EMPIRICAL ASSESSMENT I: STATISTICAL ANALYSIS

In Chapter 2, I argued that, in small-W systems, ethnic exclusion can enhance the probability that leaders will remain in office despite its positive impact on the risk of armed conflict, while failure to implement it can put them at higher risk of being deposed in a violent manner. In this chapter, I present an empirical test of this argument. This chapter is composed of two broad parts. In the first part, I test the determinants of leadership turnover and find that ethnic exclusion is good politics in small-coalition systems even in times of civil war. In the second part, I examine the determinants of ethnic exclusion and show that leaders really do implement higher levels of ethnic exclusion in small-W systems. I now turn to an empirical assessment of ethnic exclusion and leader survival.

4.1 Ethnic Exclusion, Coalition Size, and Leader Survival

In this section, I test how the size of the winning coalition and ethnic exclusion affect leader survival based on new measures of selection institutions (W and S) and ethnic exclusion. Consistent with the theoretical prediction, I find that ethnic exclusion has a significant effect on the risk of removal from office. A strong exclusion policy decreases the risk of losing office in small-W systems, while the same policy increases the risk of deposition in large-W systems. Leaders without promoting ethnic exclusion are punished by violence in small-coalition systems, while leaders with exclusion policy are punished by election in large-coalition systems. I also find that civil war increases the risk of an irregular removal from office, but its effect is conditioned by the level of ethnic exclusion employed by the leader.

4.1.1 Research Design I

I test the determinants of leadership tenure and irregular turnover (**H1**, **H2**, **H3**) using Cox's semi-parametric proportional hazards models, with leader-years as the unit of analysis. The dependent variable is the length of time leaders survive in office before he left office (in a particular manner), and is taken from the Archigos data on leaders (Goemans, Gleditsch, & Chiozza, 2008). This data set provides information on the time and manner—regular or irregular—of leaders' entry into office as well as their departure in 188 countries from 1875 to 2004. In order to relax the proportional hazards assumption, I include an interaction term between the natural logarithm of survival time and independent variables that fail to pass the proportional hazards test based on the analysis of Schoenfeld residuals (Box-Steffensmeier & Jones, 2004, pp. 131-133). In addition, I account for unobserved country-specific factors by including country-level frailty terms that are assumed to follow a gamma distribution with mean 1 and unknown variance θ.

The first main independent variable is the size of the winning coalition (*W*). Previously, a 5-point measure of W (hereafter denoted as W_{LPS}) was developed by Bueno de Mesquita et al. (2003). One disadvantage of using W_{LPS} is that it is hard to separate the effects of W from the effects of regime type because this measure is constructed based on a subset of indicators used in Polity IV democracy index (Monty G. Marshall & Jaggers, 2011). Given that the size of the winning coalition is not by itself equivalent to regime type, a failure to control for regime type can induce omitted relevant variable bias (Clarke & Stone, 2008). Recognizing this limitation of W_{LPS}, I develop a new measure of W (hereafter denoted as W_{EPR}) based on the EPR data set (Cederman et al., 2010).

The EPR data set provides information about whether "the political elites that claim to represent an ethnic group" are participating in the state's executive branch in all countries from 1946 to 2005 (Cederman et al., 2010, p. 100). Participating groups are further divided into four subtypes: monopoly (14%), dominant (15%), senior partner in power-sharing regime (25%), and junior partner in power-sharing regime (46%). On the other hand, non-participating groups are divided into regional autonomy (30%), separatist autonomy (3%), powerless (42%), and discriminated (25%). It is important to note that groups participating in the executive branch do not necessarily employ exclusionary ethnic policies in the EPR data set. More than 70 percent of participating groups are involved in power-sharing arrangements with other ethnic groups. Even among "dominant" ethnic groups, 64 percent are not engaged in intentional or targeted exclusion of other ethnic groups. For instance, although "Whites" in the USA are coded as "dominant" between 1966 and 2005, they did not employ any exclusion policy. Likewise, only 25 percent of non-participating groups in the data are subjected to political discrimination. Therefore, in the EPR data, participating in the executive branch does not mean promoting exclusive rule. Similarly, not participating in the executive does not mean becoming the target of exclusive rule.

Having noted that, I move on to discussing how I measure W based on the EPR data. I argue that the proportion of ethnic groups participating in the executive branch is a useful indicator of W. In many societies, political coalitions are organized along ethnic lines and ethnicity provides a basis for the distribution of political goods (Bates, 1983; Chandra, 2004; Fearon, 1999; Ferree, 2004; Heger & Salehyan, 2007; Horowitz, 2000). In addition, it is the executive branch that actually distributes most of the political goods—private benefits and public goods—to coalition members (Bueno de Mesquita et al., 2003, pp. 163-164). For this reason, I argue that ethnic groups participating in the executive branch—including the presidency, the

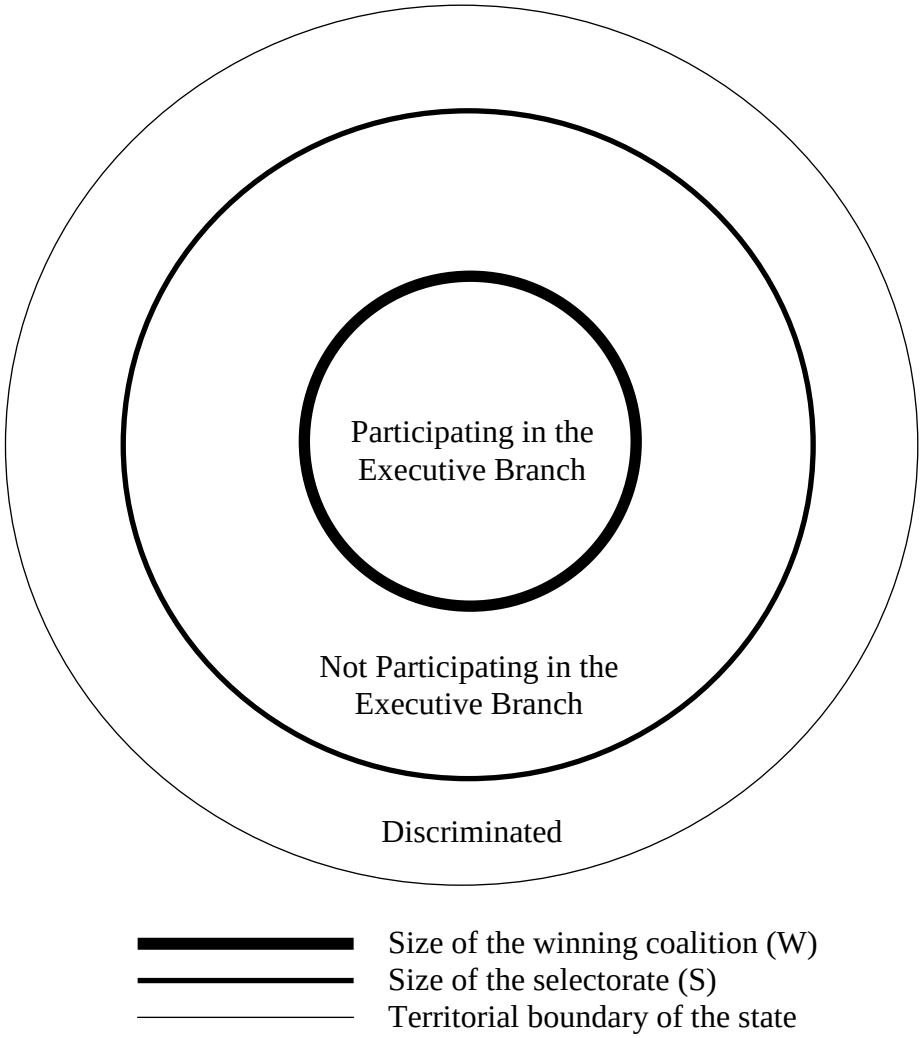


Figure 4.1: Ethnopolitical Configuration of the State

cabinet, the army, and key posts in the administration (Cederman et al., 2010, p. 99)—provide a useful proxy for ethnic groups included in the winning coalition.

Thus, I use the proportion of ethnic group(s) participating in the executive branch, which varies from 0 to 1, as an indicator of W. Also varying from 0 to 1, the indicator of the size of the selectorate (S) is 1 minus the proportion of discriminated ethnic group(s). The way I measure W and S is graphically displayed in Figure 4.1. The main advantage of using a new measure of W

is that this is not based on the Polity IV components, unlike the one used in Bueno de Mesquita et al. (2003). This allows me to separate the effects of W from the effects of regime type by including the Polity IV democracy score as a control variable. However, the use of W_{EPR} is based on the assumption that the winning coalition is organized along ethnic lines in every country. For this reason, when I use W_{EPR}, I restrict my analysis to countries where politically relevant ethnic groups are present.[10] In practice, it is not easy to measure the exact size of the winning coalition, nor do I believe that W_{EPR} is always superior to other measures of W. Therefore, rather than resting my analysis solely on W_{EPR}, I will examine whether my results are consistent when W_{LPS} is used in my statistical model.

The second major independent variable is ethnic exclusion. I estimate the degree of ethnic exclusion as a composite index *Exclusion* based on four indicators: 1) exclusion from central government; 2) exclusion from national power; 3) exclusion from political participation; and 4) exclusionary ideology of the ruling elite. For each of these indicators, I use the variables *MONOPOLY* and *DISCPOP*, taken from the EPR data (Cederman et al., 2010), *PARCOMP* from the POLITY IV data (Monty G. Marshall & Jaggers, 2011), and *ELCELITI* from the Political Instability Task Force (PITF) data (Monty G. Marshall & Cole, 2011). Specifically, I assign *Exclusion* one point if *MONOPOLY* is equal to 1, meaning that elite members who claim to represent a particular ethnic group have monopoly power in central government at the exclusion of other ethnic groups. When *DISCPOP*—the percentage of discriminated population—is larger

[10] I follow the criteria used by Cederman et al. (2010) in classifying an ethnic group as politically relevant. An ethnic group is considered political relevant "if at least one political organization claims to represent it in national politics or if its members are subjected to state-led political discrimination (Cederman et al., 2010, p. 99)."

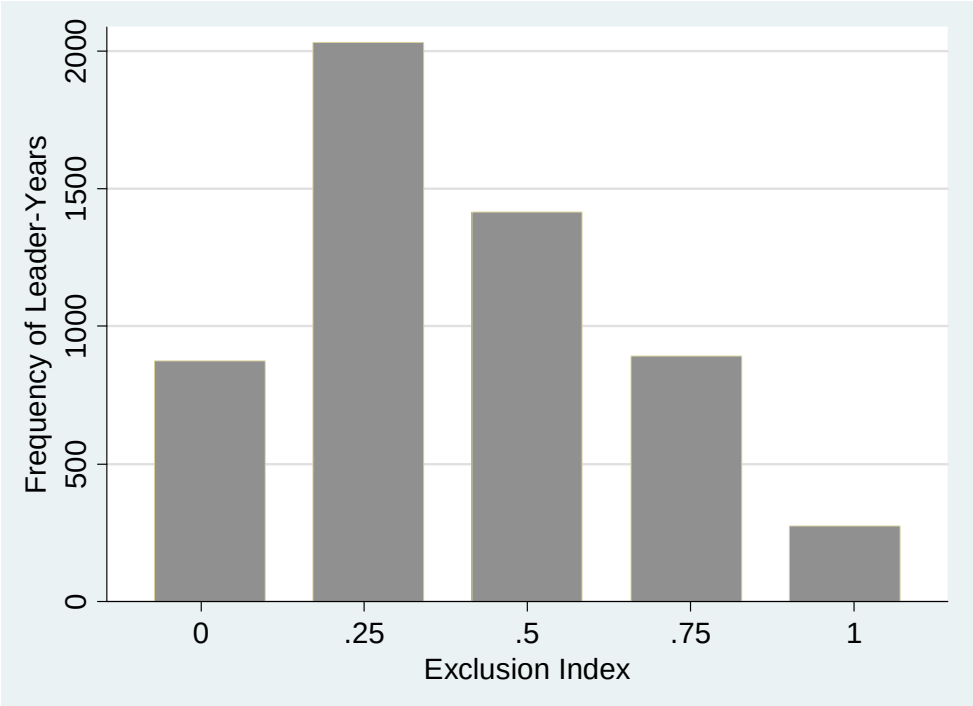


Figure 4.2: Frequency Distribution of *Exclusion* Scores

than 0.01, another point is assigned to *Exclusion*. A *DISCPOP* larger than 0.01 means that ethnic group members that account for more than 1 percent of the country's population "are subjected to active, intentional, and targeted discrimination, with the intent of excluding them from both regional and national power (Cederman et al., 2010, p. 101)." I assign *Exclusion* another point if *PARCOMP*—the competitiveness of political participation—is not equal to code 4 or 5, so that participation is either repressed, suppressed, or factional competition between rival ethnic groups, and there are no secular political groups regularly competing for political influence at the national level (Monty G. Marshall & Jaggers, 2011, pp. 26-27). Finally, I add one more point to the index of *Exclusion* when *ELCELITI*—the ideological character of the ruling elites—is equal to 1, meaning that governing elites hold exclusionary ideology, which they use to discriminate, oppress, or eliminate particular categories of people. *Exclusion* is then

a five-point ordinal scale; that is, leaders of systems with higher values are likely to have a higher degree of ethnic exclusion. I normalize *Exclusion* to a number between 0 and 1 by dividing it by 4 for the ease of comparing its effect with that of other independent variables.

Figure 4.2 is a frequency distribution of *Exclusion* scores. About 16 percent of leaders (875 leader-years) have no exclusion policy of any kind (*Exclusion*=0), while about 5 percent (274 leader-years) have the strongest form of ethnic exclusion (*Exclusion*=1). A score of 0.25 represents the modal level of exclusion to which 37 percent of leaders (2,032 leader-years) belong. In addition, the Pearson correlation coefficients of *Exclusion* vs. W_{EPR}, W_{LPS}, and *Regime Type* are -0.15, -0.33, and -0.44, respectively, suggesting that my index of ethnic exclusion is not simply reflective of small-coalition systems or authoritarian states.

Next, I investigate the effects of civil war on leadership tenure by including a dichotomous variable *Civil War* that equals 1 if a leader is engaged in civil war that reaches a threshold of 25 battle-related deaths within a given year based on the UCDP/PRIO Armed Conflict Dataset (Gleditsch, Wallensteen, Eriksson, Sollenberg, & Strand, 2002). I also check to see whether my results are different if I include an alternative measure of civil war *Civil War (COW)* with a higher threshold of 1,000 battle deaths per year based on the Correlates of War (COW) data set (Singer & Small, 2006).

I add both leader-level and country-level control variables. At the leader-level, I include the leader's *Age* and the manner of *Entry* into office, both taken from Goemans et al. (2008). I expect a positive coefficient on *Age* since old leaders are more likely to experience difficulty in promising future benefits to coalition members than young leaders (Bueno De Mesquita & Smith, 2010, p. 943). The manner of *Entry* is coded as 0 if a leader came to power through a regular process, or as 1 if through an irregular process, for example, as a result of coup d'état.

Especially, I am interested in examining how the manner of entry affects the hazard of losing office in a specific manner. To control for country-level characteristics, I use four control variables: GDP *Growth*, GDP_{PC}, *Population*, and *Regime Type*. *Growth*, which is taken from Debs and Goemans (2010), is measured by dividing the current year's GDP by the previous year's GDP, and has been found to be a highly significant predictor of leadership tenure, with an increase in GDP growth decreasing the risk of deposition (Bueno De Mesquita & Smith, 2010; Debs & Goemans, 2010; Goemans, 2008). I also include the natural log of gross domestic product per capita (GDP_{PC}) and logged country *Population* as indicators of socioeconomic development and demographic conditions. Both of these variables are taken from Debs and Goemans (2010). Lastly, I rely on the Polity IV data to measure *Regime Type* (Monty G. Marshall & Jaggers, 2011). The Polity score ranges from -10 indicating countries that are full autocracies to 10 indicating countries that are full democracies. I include *Regime Type* to separate the effects of W from the effects of democracy and expect its positive influence on the hazard of losing office.

4.1.2 Nonparametric Analysis

Before performing regression analyses to test the proposed hypotheses, it appears relevant to let the data "speak" for themselves by making no assumptions about the functional form of the survivor function for the leaders' data. Figure 4.3 plots the Kaplan-Meier estimates of the survivor function for leaders from small-W and large-W systems. A system is considered to be a large-coalition system if $W_{EPR} \geq 0.75$ and a small-coalition system if $W_{EPR} < 0.75$. As predicted by the selectorate theory (Bueno de Mesquita et al., 2003), the curve representing the survival function of small-coalition leaders is at each time above the one representing the

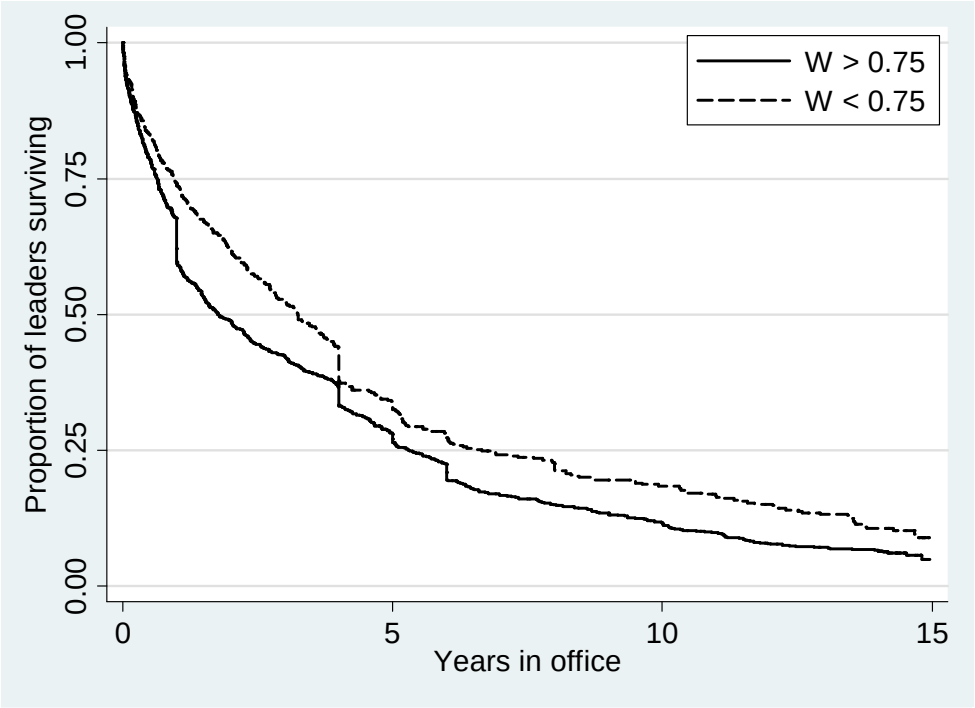
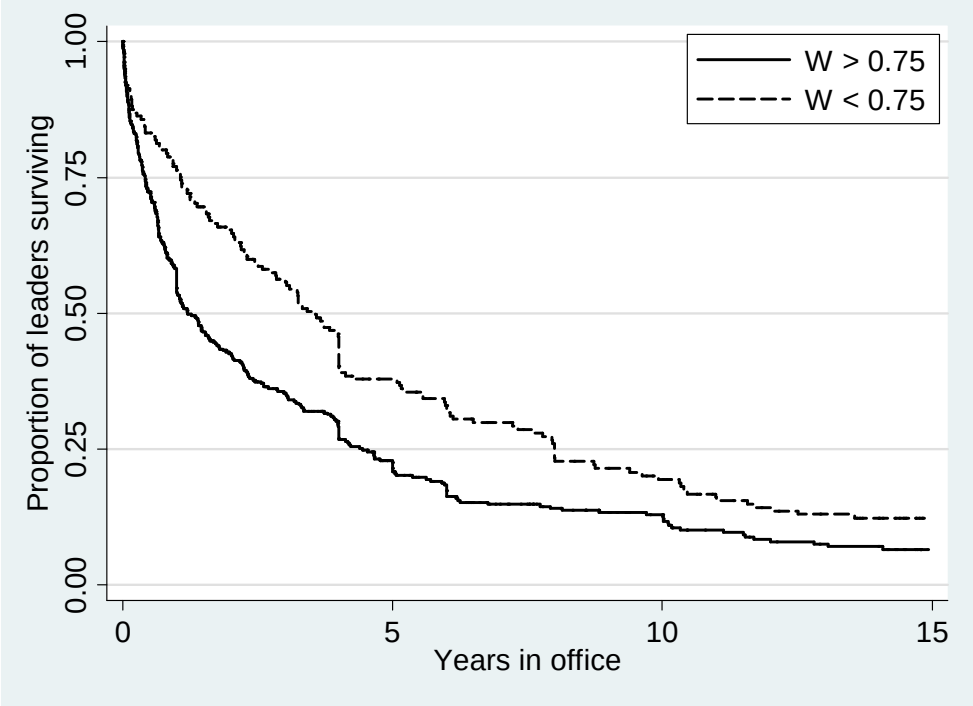


Figure 4.3: Kaplan-Meier Survival Estimates, by *W*

survival function of large-coalition leaders. About 18 percent of leaders from small-coalition systems remain in office by the end of ten years, whereas only 12 percent of leaders do so in large-coalition systems. In addition, the log-rank test rejects the null hypothesis of the equality of the two survival functions (c*hi-square*=16.92, *p*=0.000).

Next, I split the sample into two separate groups—no exclusion and exclusion. "No exclusion" group consists of leaders with *Exclusion*=0 and "exclusion" group includes leaders with *Exclusion*=0.75/1.0. Figure 4.4 compares the survival curves of small-W and large-W leaders within each group. If ethnic exclusion does not influence the leader's survival, the survival curves in the exclusion and no exclusion groups should display similar patterns. Figure 4.4A shows the survival curves for the exclusion group. Again, consistent with the selectorate theory (Bueno de Mesquita et al., 2003), small-W leaders have a significantly lower risk of

A: Exclusion (*Exclusion*=0.75/1.0)



B: No Exclusion (*Exclusion*=0)

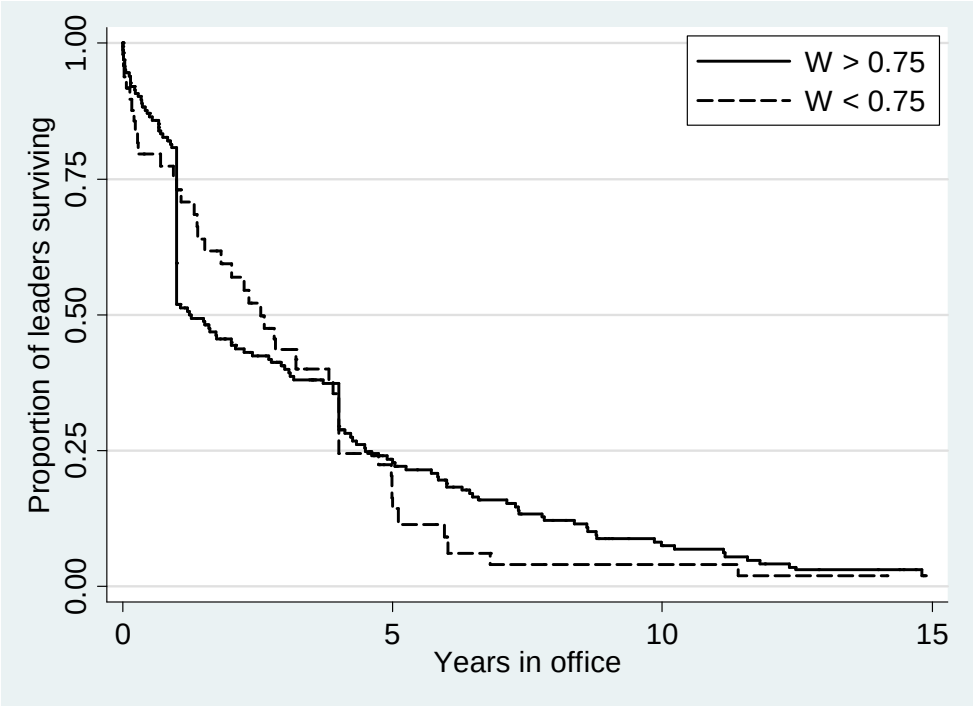


Figure 4.4: Kaplan-Meier Survival Estimates, by *W* and *Exclusion*

leaving office than large-W leaders in the exclusion group. By the end of their second year, 65 percent of leaders in small-W systems and 43 percent of leaders in large-W systems remain in office. By the end of their fifteen years, 12 percent of small-coalition leaders are still in office, while only 6 percent of large-coalition leaders remain. The difference between the two survival curves is statistically significant at the 0.01 level (c*hi-square*=15.03, *p*=0.000).

On the other hand, Figure 4.4B compares the survival of leaders in the no exclusion group. Unlike what the selectorate theory predicts, I do not find any evidence that small-coalition leaders survive longer than large-coalition leaders in this group. The log-rank test fails to reject the null hypothesis of the equality of the two survival functions at the 0.05 level (c*hi-square*=0.43, *p*=0.512). Overall, the results of nonparametric analysis suggest that leaders in small-W systems have an incumbency advantage over their large-W counterparts only when they employ ethnic exclusion. When leaders do not promote ethnic exclusion in small-W systems, they no longer have such an advantage. These findings are generally consistent with my prediction that leaders who employ ethnic exclusion are more likely to survive in office than those who do not employ it in small-W systems. In the next section, I test whether these results are robust to the inclusion of other relevant factors by performing a regression analysis.

4.1.3 Regression Analysis I: Leader Survival

Table 4.1 presents the results of fitting six Cox regression models to the data on leaders. Model 1 is a baseline specification that replicates the findings of Bueno de Mesquita et al. (2003) and consists of coalition size, selectorate size, and five control variables. As predicted by the selectorate theory, the estimated hazard of losing office among large-coalition leaders (*W*=1) is 82.2% higher than that of small-coalition leaders (*W*=0). This effect is statistically significant at

Table 4.1: Ethnic Exclusion, Coalition Size, and Leader Survival

	Cox Proportional Hazard Regression					
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
VARIABLES	*Baseline*		*W (LPS)*	*Civil War (COW)*	*Regular Turnover*	*Irregular Turnover*
Coalition size (W)	0.600***	-0.389	-0.366	-0.372	-0.065	-1.239**
	(0.194)	(0.306)	(0.284)	(0.306)	(0.396)	(0.582)
Exclusion		-1.592***	-1.715***	-1.498***	-0.952	-4.376***
		(0.577)	(0.342)	(0.577)	(0.768)	(1.088)
W * Exclusion		2.115***	2.031***	2.005***	1.929**	4.989***
		(0.700)	(0.533)	(0.699)	(0.910)	(1.379)
Selectorate size (S)	-0.467*	-1.007**	0.739***	-0.958**	-0.896	-2.383***
	(0.283)	(0.424)	(0.141)	(0.425)	(0.593)	(0.730)
S * ln(*t*)			-0.305***			
			(0.057)			
Civil War		0.276***	0.253**	0.301**	0.039	1.025***
		(0.099)	(0.100)	(0.119)	(0.129)	(0.179)
Age	0.019***	0.014***	0.021***	0.014***	0.008*	0.020**
	(0.003)	(0.004)	(0.004)	(0.004)	(0.005)	(0.008)
GDP Growth	-2.059***	-2.583***	-2.632***	-2.486***	-2.458***	-3.291***
	(0.422)	(0.474)	(0.484)	(0.485)	(0.636)	(0.788)
Log(GDP_{PC})	-0.000	-0.009	0.177***	-0.019	-0.021	-0.341**
	(0.049)	(0.057)	(0.062)	(0.057)	(0.068)	(0.138)
Log(Population)	-0.022	0.010	0.015	0.022	0.073	-0.179**
	(0.037)	(0.040)	(0.043)	(0.039)	(0.048)	(0.090)
Entry	0.160*	0.385***	0.157	0.400***	0.619***	-0.066
	(0.084)	(0.103)	(0.113)	(0.102)	(0.147)	(0.169)
Entry * ln(*t*)	-0.231***		-0.315***			
	(0.038)		(0.050)			
Regime Type		0.049***		0.050***	0.129***	-0.111***
		(0.009)		(0.009)	(0.012)	(0.019)
Regime Type * ln(*t*)		0.025***		0.025***	0.033***	0.036***
		(0.003)		(0.003)	(0.004)	(0.009)
Log-likelihood	-6532.85	-4829.35	-4868.61	-4830.06	-3116.06	-1137.78
Theta	0.199	0.167	0.225	0.165	0.170	0.838
Observations	6,401	5,276	5,236	5,276	5,276	5,276
Number of subjects	1,218	982	981	982	982	982
Number of failures	1,090	850	855	850	552	214

Standard errors in parenthesis
* $p < .1$; ** $p < .05$; *** $p < .01$ (two-tailed tests)

the 0.01 level. On the other hand, the negative coefficient for S indicates that leaders in systems with a large selectorate find it easier to survive as anticipated by the selectorate theory, although the effect is only marginally significant (p=0.100). Therefore, the results based on new measures of selection institutions (W_{EPR} and S_{EPR}) are consistent with the selectorate theory's main predictions.

The control variables also provide additional insight into the logic of leader survival. The positive coefficient on the age variable tells us that the hazard of losing office is 1.9% higher for each additional year of a leader's age. For variables on economic performance, only GDP growth significantly influences survival. For every 1% increase in *Growth*, the hazard of losing office is 87.2% lower. The hazard rate for leaders who entered office in an irregular manner is 17.4% higher than that for those with no such history after one year in office. However, this effect gradually decreases over time as the length of tenure increases. The coefficients on GDP_{PC} and *Population* are not distinguishable from zero.

Model 2 examines the effects of ethnic exclusion and civil war on leadership tenure by including the *Exclusion* and *Civil War* variables as well as the interaction of *Exclusion* with coalition size (*W* * *Exclusion*). This model also includes *Regime Type* as a control variable in order to separate the effects of coalition size from the effects of democracy. The negative coefficient estimates on the *Exclusion* variable indicates that the practice of ethnic exclusion significantly decreases the risk of losing office for small-coalition leaders, lending support to **H1**. In Model 2, the hazard of deposition for leaders who substantially exclude ethnic out-groups from the political process (*Exclusion*=1) is 79.7% lower than that of leaders who do not employ such a policy (*Exclusion*=0) in small-coalition systems (*W*=0). In large-coalition systems (*W*=1), the effect of ethnic exclusion is the sum of the coefficients on *Exclusion* and its interaction with

W. This aggregate effect is positive and statistically significant (p=0.048), indicating that ethnic exclusion increases the risk of deposition by about 68.6% for large-coalition leaders. These results are consistent with the results of computational simulation in Chapter 3 (section 3.3.2). In addition, the presence of civil war influences leader survival. In times of civil war, the hazard of deposition increases by 31.8% for all leaders.

Model 3 repeats this specification, but replaces W_{EPR} and S_{EPR} with W_{LPS} and S_{LPS} in order to see how my results change if I use an alternative measure of W and S. I do not find any major differences in the effect of key independent variables: *Exclusion*, *W * Exclusion* and *Civil War* remain consistent and significant even after using different measures of selection institution.[11] In Model 4, which bases the coding of civil war on the COW data, I obtain a quite similar coefficient and significance level for the *Civil War* variable. Overall, my statistical findings are robust to alternative measures of selection institution and civil war, and suggest that ethnic exclusion is good politics for small-coalition leaders, whereas the reverse is true for large-coalition leaders.

In Models 1-4, the event of interest was whether or not leaders lose office; however, there are different ways in which leaders exit office. Goemans (2008) identifies two distinct ways of exit: a regular and an irregular way. Leasers may lose office in a regular manner due to electoral defeat, term limits, or ill health. But, they can also be removed from office in an irregular manner as a result of "the threat or use of force" such as a coup, revolt, or assassination (Goemans, 2008, pp. 4-5). For this reason, in Models 5-6, I perform a competing risks analysis

[11] The GDP_{PC} variable gains some of its impact and is now significant at the 0.01 level in Model 3.

where I distinguish two different types of exit. In so doing, I can obtain a more refined estimate of how ethnic exclusion and coalition size are associated with a particular way of losing office.

In Model 5, the negative coefficient estimate on the *Exclusion* variable indicates that the presence of ethnic exclusion decreases the hazard of "regular" turnover for small-coalition leaders (*W*=0). However, this effect is statistically insignificant. On the other hand, the effect of ethnic exclusion on the hazard of "irregular" turnover is large and significant in small-coalition systems, providing support for **H2**. In Model 6, I find that the risk of irregular turnover among small-coalition leaders who employ ethnic exclusion (*Exclusion*=1) is only about 1.3% of the risk for those who do not employ such a policy (*Exclusion*=0). These findings suggest that while ethnic exclusion is good politics in small-coalition systems, its mechanism is driven by the reduction in the hazard of irregular turnover.

In large-coalition systems (*W*=1), the policy of ethnic exclusion increases the hazard of deposition both in a regular and an irregular manner, although its effect is statistically significant only for the hazard of regular removal. In Model 5, the estimated hazard of regular turnover among large-coalition leaders with exclusion policy (*Exclusion*=1) is more than 2.5 times that of those for whom *Exclusion*=0. As such, unlike in small-coalition systems, ethnic exclusion is bad politics for large-coalition leaders and its mechanism is driven by the increase in the hazard of regular turnover. The control variables provide additional insights. Larger GDP_{PC} and *Population* decrease the hazard of irregular removal from office, while an irregular entry to office (*Entry*=1) increases the hazard of regular removal. In addition, the impact of civil war is much higher for the risk of irregular turnover but has less of a relationship to the risk of regular turnover. That is, the outbreak of civil war does not significantly increases the risk of regular removal from power but strongly increases the risk of irregular removal from power. These

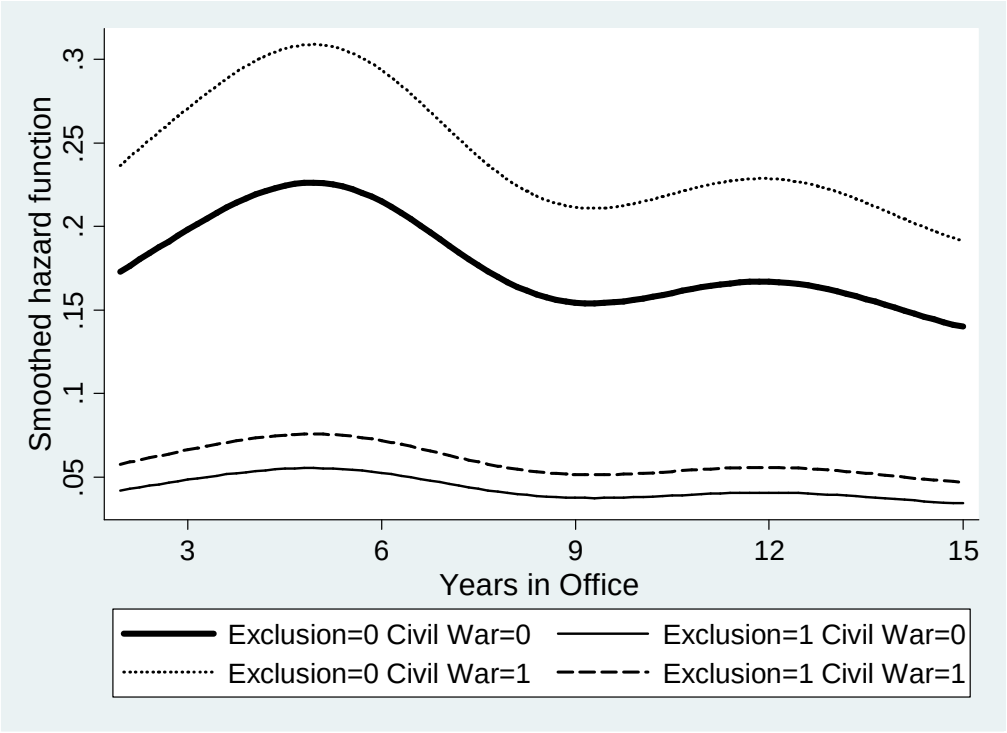
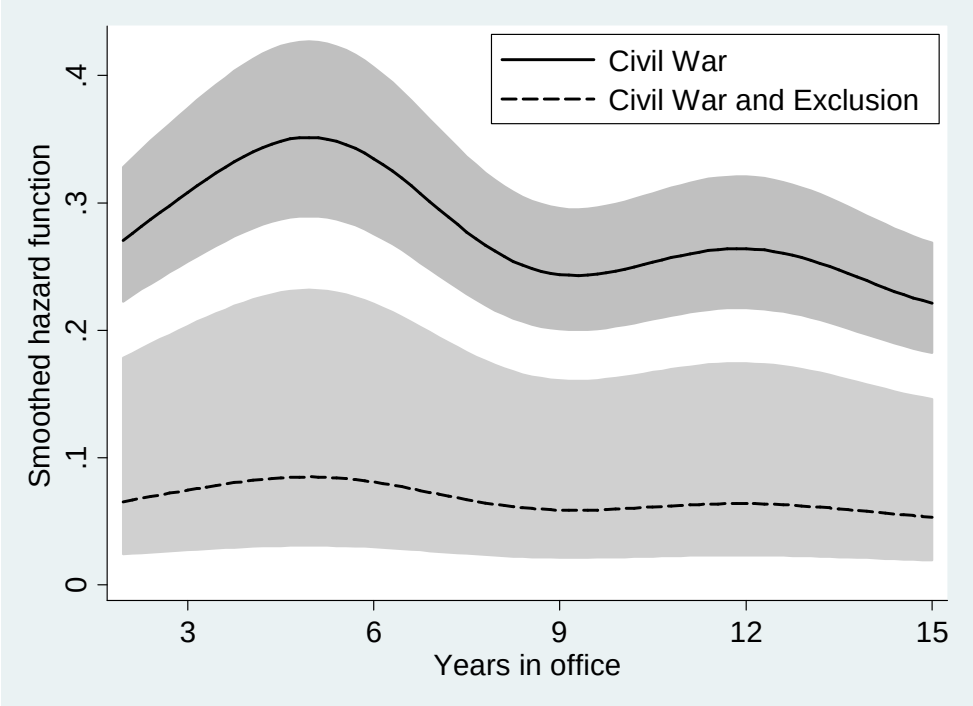


Figure 4.5: Ethnic Exclusion, Civil War, and Predicted Hazard Rates, smoothed by a Gaussian kernel density estimator. I hold all other variables at their means.

results show that each mode of exit may be influenced by different mechanisms and the two approaches—the pooled and competing risks models—can result in different conclusions regarding the effects of individual variables on leadership tenure.

Coupled with these numerical results, Figure 4.5 plots the predicted hazard rates generated from Model 2 for $W = 0.1$. This figure provides compelling evidence that a variable measuring ethnic exclusion has a powerful effect on the hazard of losing office in small-coalition systems. Holding all other variables at their mean values, small-coalition leaders who employ ethnic exclusion (*Exclusion*=1) in times of peace (*Civil War*=0) face the lowest hazard of losing office. This leader has a lower risk of deposition than small-coalition leaders who do not employ the same policy (*Exclusion*=0) in times of peace (*Civil War*=0). On the other hand, leaders with

A: Overall Hazard of Losing Office



B: Hazard of Losing Office in an Irregular Manner

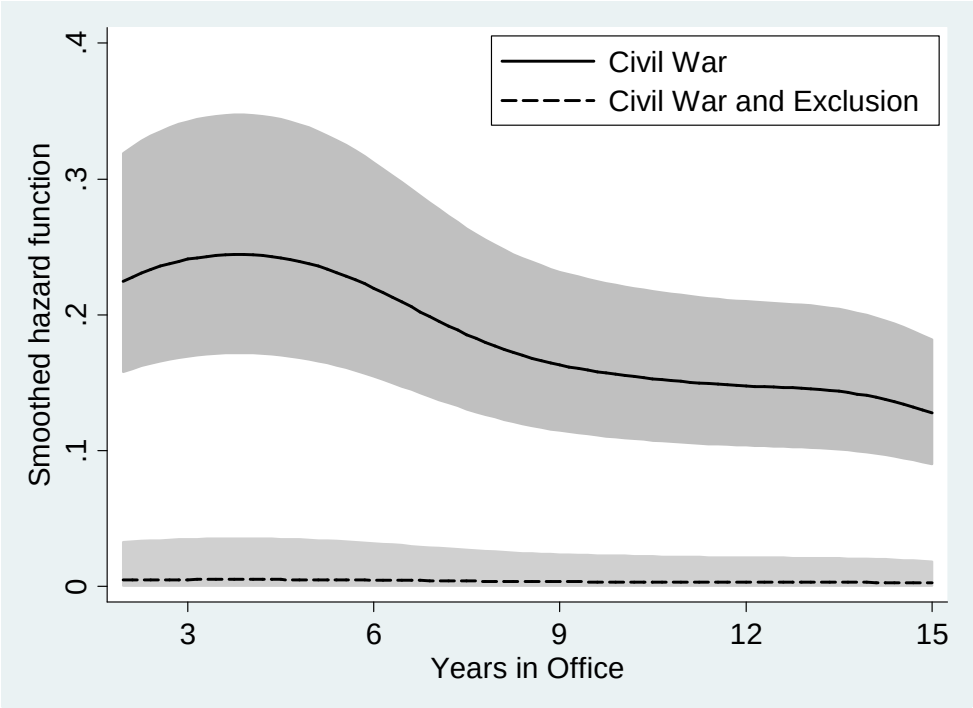


Figure 4.6: Predicted Hazard Rates during Civil War, smoothed by a Gaussian kernel density estimator. I hold all other variables at their means. Shaded areas represent 95% confidence intervals.

small winning coalitions face the highest risk of deposition if they do not employ ethnic exclusion (*Exclusion*=0) in times of war (*Civil War*=1). However, the risk of deposition would drop significantly if this leader adopted ethnic exclusion (*Exclusion*=1) even during civil war (*Civil War*=1). Overall, in small-coalition systems, both ethnic "inclusion" and civil war increase the hazard of losing office, although the effect of the former is much larger than that of the latter—that is, ethnic inclusion is riskier than civil war for small-coalition leaders. These results suggest that ethnic exclusion is good politics for small-coalition leaders even if it could increase the risk of civil war.

As a way to focus on the relationship between ethnic exclusion and civil war in small-W systems (*W*=0.1), I plot the difference that these two variables have on the predicted hazard rates, holding other variables at their mean values. Figure 4.6 displays the hazard rates associated with different values of the *Exclusion* variable (*Exclusion*=0 or *Exclusion*=1) in times of civil war (*Civil War*=1) with 95 percent confidence intervals. In Figure 4.6A, it is notable that small-coalition leaders without exclusion policy are about 5 times more likely to be removed from office during civil war as compared with those who promote exclusion along ethnic lines, thus supporting **H3**. The effect of ethnic exclusion is especially pronounced for the hazard of irregular turnover. In Figure 4.6B, small-coalition leaders with *Exclusion*=0 are about 40 times more likely to be removed from office in an irregular manner during civil war than those with *Exclusion*=1. Surprisingly, in small-coalition systems, the risk of irregular turnover virtually disappears even in times of civil war if a leader has a strong exclusion policy.

4.2 Coalition Size and Ethnic Exclusion

In this section, I test whether leaders in the real world behave as predicted by the exclusion model. In other words, if ethnic exclusion really is good politics for leaders in small-W systems, I should find higher levels of ethnic exclusion in small-W systems than in large-W systems. For the same reason, I also expect that minority ethnic groups are more likely to be subjected to political exclusion in small-W systems.

4.2.1 Research Design II

In order to test the determinants of ethnic exclusion implemented in the state (**H4a**), I estimate ordered logit regression models using country-years as the unit of analysis. The dependent variable is a five-point index (from 0 to 4) of ethnic exclusion (*Exclusion*), which is obtained in the same way as described in section 4.1.1. I account for unobserved country-specific factors by including random intercepts at the country level. To test whether ethnic minorities face a higher risk of violence in small-W systems (**H4b**), I estimate logistic regression models using group-years as the unit of analysis. The Minorities at Risk (MAR) data set (Birnir & Gurr, 2009) is appropriate for testing this hypothesis because it identifies a total of 283 politically-active and mobilized minority ethnic groups in all countries from 1940 to 2003. Ethnic groups included in the MAR data set can either suffer or benefit from "systematic discriminatory treatment vis-à-vis other groups in a society," and thus relevant to the causal process to be tested (Birnir & Gurr, 2009). The dichotomous dependent variable equals 1 if the POLDIS variable in the MAR data set is coded "Exclusion/Repressive policy" where the group's political participation is substantially restricted by public policies in comparison to other ethnic groups (Birnir & Gurr, 2009). In order to account for unobserved country- and group-specific factors, I use three-level logistic regression with a random intercept for each group and country. The explanatory variable

in both analyses is the size of the winning coalition (*W*), which is measured in the same way as in section 4.1.1.

I use the following control variables. The first country-level control variable is the amount of natural resource rents. I expect that leaders are less likely to exclude members of ethnic out-groups when rents from natural resources allow them to pay off the larger coalition. I choose an annual *Oil Production* (in barrels) as a reasonable proxy for resource rents. The data for this variable are taken from Wimmer and Min (2006). This variable is measured for all oil producing countries for the years 1946-2005. The next country-level control variable *Past Conflict* $_{Country}$, which is taken from the PITF data (Monty G. Marshall & Cole, 2011), is the number of times a country has previously been engaged in ethnic conflict. I expect a positive effect for this variable since we can assume that leaders of the country with a past history of rebellion are more likely to engage in exclusionary politics against rival ethnic groups. Other controls— GDP_{PC} , *Population*, and *Regime Type*—are the same country-level variables as described in section 4.1.1.[12]

In order to control for group-level characteristics, we use six control variables. *Group Size* is the natural log of group size as estimated by Birnir and Gurr (2009), which is expected to have a positive effect, because large ethnic groups tend to have more salient ethnic identities (Posner, 2004) and mobilization potential (Gurr, 1993), and thus are more likely to be the target of political discrimination. The next group-level control variable *Past Conflict* $_{Group}$ is the number of times an ethnic group has previously been engaged in ethnic conflict, and is taken

[12] I include GDP_{PC} as an indicator of socioeconomic development and expect a negative effect on ethnic exclusion. I also include *Population* since large populations are generally associated with a higher probability of conflict between ethnic groups (Fearon & Laitin, 2003; Weidmann, 2009).

Table 4.2: The Determinants of Ethnic Exclusion (at the Country Level)

	Ordered Logit			Logit
VARIABLES	**Model 1**	**Model 2**	**Model 3** *LPS's W*	**Model4**
***Fixed part*:**				
Coalition size (W)	-3.747***	-3.224***	-3.978***	-4.865***
	(0.320)	(0.346)	(0.203)	(0.706)
Log(Oil Production)	-0.123***	-0.118***	-0.090***	-0.234***
	(0.013)	(0.014)	(0.013)	(0.036)
Past Conflict $_{Country}$	0.977***	0.741***	0.710***	1.269***
	(0.101)	(0.110)	(0.104)	(0.186)
Log(GDP_{PC})	-0.564***	-0.560***	-0.515***	-0.796***
	(0.111)	(0.121)	(0.111)	(0.240)
Log(Population)	-0.830***	0.108	-0.767***	-0.759***
	(0.140)	(0.151)	(0.141)	(0.285)
Regime Type		-0.314***		-0.202***
		(0.011)		(0.017)
Constant 1	-19.916***	-11.557***	-18.492***	6.562**
	(1.416)	(1.540)	(1.414)	(3.132)
Constant 2	-15.123***	-5.793***	-13.496***	
	(1.392)	(1.518)	(1.390)	
Constant 3	-11.876***	-1.981	-10.116***	
	(1.383)	(1.514)	(1.380)	
Constant 4	-8.532***	2.162	-6.581***	
	(1.374)	(1.519)	(1.373)	
***Random part*:**				
[Country]	21.020	20.519	18.974	127.83
Log likelihood	-3569.37	-3050.28	-3430.26	-735.99
Observations	4,409	4,409	4,409	4,409
Number of countries	126	126	126	126

Standard errors in parenthesis
* $p < .1$; ** $p < .05$; *** $p < .01$ (two-tailed tests)

from Cederman et al. (2010). I expect a positive effect for this variable since we can assume that ethnic groups with a past history of rebellion are more likely to be excluded from state power. Finally, I test how patterns of settlement are associated with the probability of ethnic exclusion by classifying ethnic groups into four broad settlement types—*Concentrated* in one region,

Majority in one region, *Minority* in one region, and widely *Dispersed*—as coded by Birnir and Gurr (2009).[13] Previous studies suggest that the spatial distribution of ethnic groups has a significant effect on conflict onset (Melander, 2009; Toft, 2003; Weidmann, 2009) and violence against civilians during ethnic war (Bhavnani & Choi, 2012). I test whether settlement patterns are also related to the risk of ethnic exclusion.

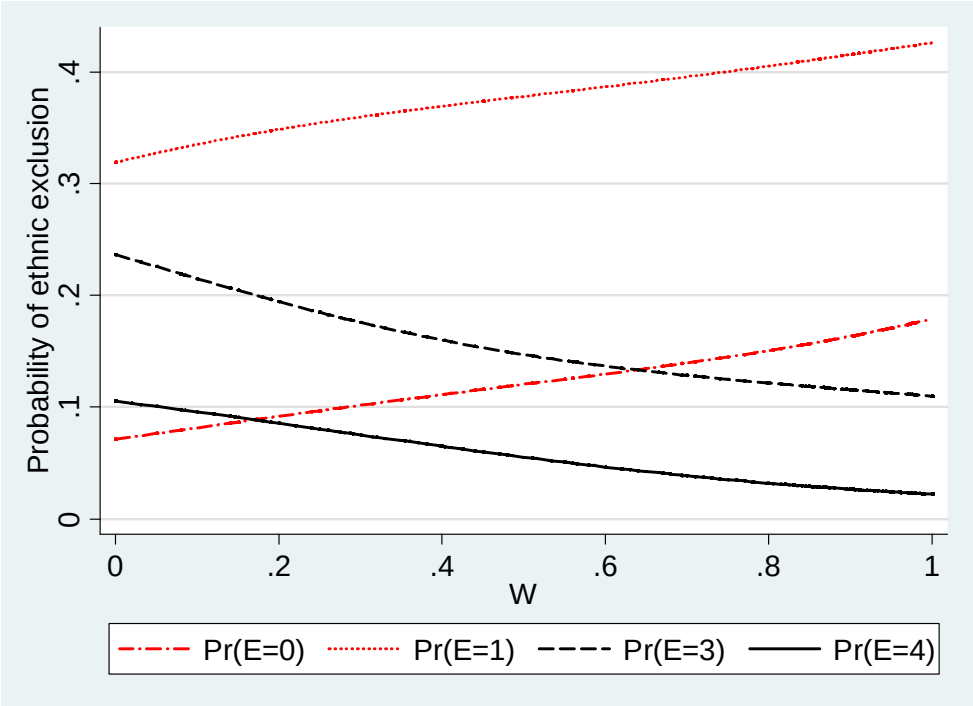


Figure 4.7: The Effect of W on the Level of Ethnic Exclusion. I hold all other variables at their means.

4.2.2 Regression Analysis II: Ethnic Exclusion in the State

Table 4.2 shows the results of the regression analysis. The results in Model 1 provide strong support for **H4a**. The coefficient for *W* is negative and highly significant at the 0.01 level,

[13] I use *Dispersed* as a reference category in all models.

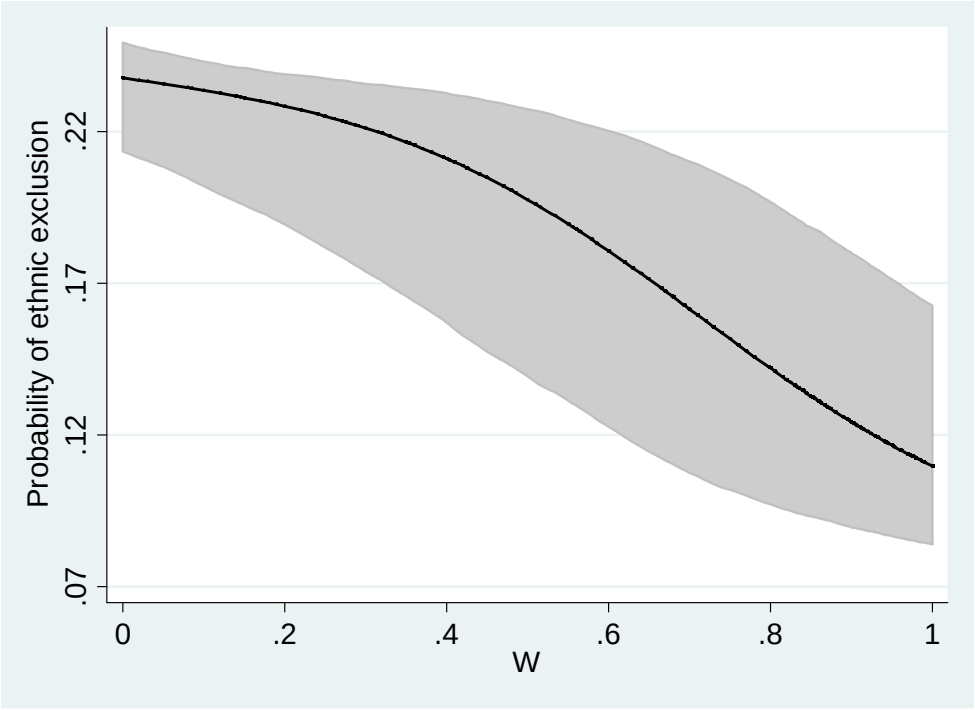


Figure 4.8: The Probability of High-level Exclusion (*Exclusion*≥3) by W. I hold all other variables at their means. Shaded areas represent 95% confidence intervals.

indicating that the probability of the highest level of ethnic exclusion (*Exclusion*=4) in large-W systems (*W*=1) is only about 30% of that employed in small-W systems (W=0), holding all other variables constant at their means. In Model 2, I do not detect any major difference in the effects of *W* even after controlling for the effects of democracy. In Model 3, I replace W_{EPR} with W_{LPS} in order to test whether my models are sensitive to different ways of measuring W. The use of W_{LPS} makes no substantive difference for my results. The coefficient for *W* is still negative and significant in Model 3 and its effect is slightly stronger than those in Models 1 and 2. Figure 4.7 provides a graphic depiction of how the size of the winning coalition influences the level of exclusion policy implemented in the state. The plot, which is based on Model 2, shows that small-coalition systems are more likely to have higher levels of ethnic exclusion than large-

coalition systems, lending support to **H4a**. Consider the probability of the highest level of exclusion (*Exclusion*=4), which is indicated by black solid line. At *W*=0, the probability is about 0.1. As *W* increases, the predicted probability decreases to 0.06 at *W*=0.5 and 0.025 at *W*=1. On the other hand, the probability of no exclusion (*Exclusion*=0), which is indicated by red dash-dot line, begins at 0.075 at *W*=0 and ends at 0.18 at *W*=1. In Model 4, I dichotomize my dependent variable (*Exclusion*) into low- and high-level of exclusion. The dependent variable is now defined as 1 if *Exclusion* $\geq$ 3, and 0 otherwise. Figure 4.8 shows the relationship between *W* and the probability of "high" exclusion based on the logistic regression in Model 4. Consistent with **H4a**, a change in *W* from 0 to 1 decreases the probability of high-level exclusion by 15%, holding all other variables at their means.

Regarding the control variables, the coefficient for *Oil Production* remains negative and statistically significant across all four regressions, as predicted, and suggests that leaders tend to employ a weaker form of ethnic exclusion in resource-rich countries. This finding is somewhat counterintuitive given that resource abundance has been commonly associated with negative political outcomes such as corruption (Leite & Weidmann, 1999), dictatorship (Jensen & Wantchekon, 2004), and civil war (Collier & Hoeffler, 2004; Ross, 2004). In addition, GDP_{PC} is significant across all four models, decreasing the level of ethnic exclusion. The coefficient for $Past\ Conflict_{\ Country}$ also has the expected positive sign, indicating that countries that have previously been engaged in ethnic conflict are more likely to have higher levels of ethnic exclusion. Less robust is my control for the country's population. *Population* is negative and significant in Models 1 and 3, but loses significance and changes its sign when I control for the effects of regime type in Model 2.

Table 4.3: The Determinants of Ethnic Exclusion (at the Group Level)

	Random-intercept Logistic Regression			
VARIABLES	**Model 1**	**Model 2**	**Model 3**	**Model 4** *LPS's W*
***Fixed part*:**				
Coalition size (W)	-3.199***	-2.826***	-1.189*	-1.265***
	(0.296)	(0.307)	(0.700)	(0.160)
W * Difference			-3.938**	
			(1.533)	
Difference			2.516	
			(1.764)	
Log(Oil Production)	-0.065***	-0.056***	-0.083***	-0.052***
	(0.009)	(0.010)	(0.012)	(0.009)
Log(Group Size)	-1.351***	-1.329***	-1.068***	- 1.181***
	(0.258)	(0.253)	(0.257)	(0.243)
Past Conflict $_{Group}$	0.364***	0.349***	0.312***	0.308***
	(0.069)	(0.071)	(0.076)	(0.068)
Concentrated	-1.459	-1.646*	-1.653*	-1.145
	(0.942)	(0.944)	(0.950)	(0.906)
Majority	-1.754*	-1.904*	-1.983*	-1.537
	(1.057)	(1.063)	(1.071)	(1.023)
Minority	-2.120*	-2.354**	-2.307*	-1.966*
	(1.179)	(1.179)	(1.215)	(1.144)
Log(GDP_{PC}), lagged	-0.274***	-0.252***	-0.224**	-0.182**
	(0.084)	(0.089)	(0.097)	(0.085)
Log(Population)	0.395	0.640**	0.684**	0.130
	(0.267)	(0.265)	(0.274)	(0.257)
Regime Type		-0.111***	-0.108***	
		(0.008)	(0.009)	
Constant	17.057***	14.017***	9.154***	14.784***
	(1.990)	(2.016)	(2.382)	(1.923)
***Random part*:**				
[Country]	3.060	2.859	2.702	3.225
[Group]	3.896	3.951	3.969	3.721
Log likelihood	-3648.37	-3473.19	-3222.02	-3686.27
Observations	11,680	11,497	10,650	11,680
Number of groups	294	294	286	294

Standard errors in parenthesis
* $p < .1$; ** $p < .05$; *** $p < .01$ (two-tailed tests)

4.2.3 Regression Analysis III: Ethnic Exclusion of Minorities

The logistic regressions in Table 4.3 assess how the size of the winning coalition affects the probability of political exclusion against ethnic groups. In Model 1, the negative coefficient of -3.199 on *W* indicates that as the size of the winning coalition gets larger, ethnic groups are less likely to be subjected to formal political exclusion, thus supporting **H4b**. The control variables provide additional insight into the logic of exclusion. As expected, the coefficient for *Oil Production* is both negative and statistically significant, suggesting that ethnic groups tend to face a lower risk of political exclusion in resource-rich countries. Both *Group Size* and GDP_{PC} have negative and statistically significant influences on the probability of ethnic exclusion. In addition, the impact of *Past Conflict* $_{Group}$ is positive and significant, suggesting that ethnic groups that had previously been engaged in conflict are more likely to be excluded from the political process. The negative coefficients on the variables for spatial distribution indicate that widely dispersed groups are most vulnerable to political exclusion, but these effects are only marginally significant. The coefficient for *Population* fails to reach statistical significance at the 0.1 level.

In order to separate the effects of coalition size from the effects of regime type, I include the *Regime Type* control variable in Model 2. The addition of this variable does not alter my main results. Model 3 contains ethnic difference index (ETHDIFXX) in MAR data set and its interaction with *W*. Ranging from 0 to 11, ethnic difference index measures the extent to which a given ethnic minority group is different from the dominant group in terms of language, religion, customs, and race (Birnir & Gurr, 2009). I name this index "*Difference*" and divide it by 11 so that it varies between 0 and 1. According to my theory, the more "distinguishable" an ethnic group is from the dominant group, the more difficult it is to disguise one's identity to infiltrate

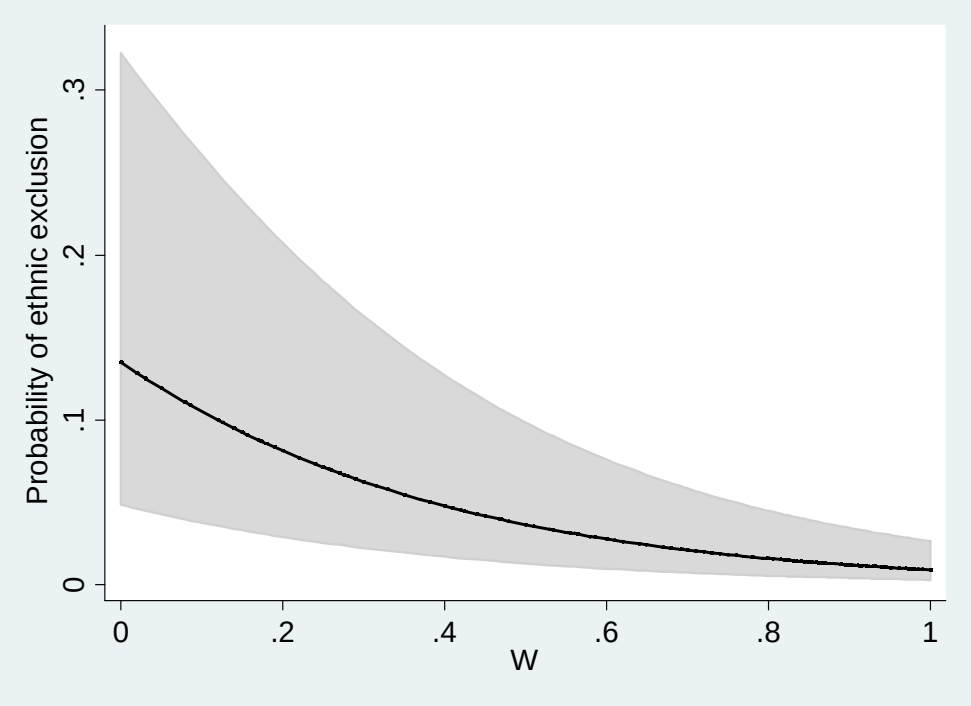


Figure 4.9: The Effect of W on the Risk of Ethnic Exclusion. I hold all other variables either at their means (*Group Size*, GDP_{PC}, *Population*, and *Past Conflict* $_{Group}$) or at zero (*Concentrated*, *Majority*, and *Minority*). Shaded areas represent 95% confidence intervals.

into the leader's coalition. Hence, such a group is more likely to become the target of political exclusion in small-coalition systems. Indeed, this is what I find. The large and negative coefficient of -3.938 for the interaction of *W* and *Difference* indicates that the effect of *W* is much stronger when ethnic groups have distinct characteristics that distinguish them from the dominant group.

Model 4 is a robustness check of my primary findings. In order to test whether my model is sensitive to the way I measure W, I replace a measure of W with W_{LPS}, while otherwise keeping the specification of Model 1 unchanged. The results from Model 4 demonstrate the robustness of my main hypothesis (**H4b**). My results hold in predicting political exclusion of ethnic groups with an alternative measure of coalition size. The variables of theoretical interest

(*W* and *Oil Production*) retain their effects and significance, as does the *Group Size*, *Past Conflict* $_{Group}$ and GDP_{PC} variables. Figure 4.9, which is generated from Model 2, displays the predicted probability of ethnic exclusion associated with ethnic groups as a function of *W*, holding all other variables either at their means or at zero. This figure clearly demonstrates the effect of wining coalition, with higher probabilities of ethnic exclusion in smaller coalition systems. Minority ethnic groups in small-W systems (*W*=0.2) are about three times more likely to be subjected to political exclusion as compared with those in large-W systems (*W*=0.8).

4.3 Chapter Conclusion

Empirical tests of the proposed hypotheses using data on leaders and ethnic groups suggest that there is indeed a powerful connection between the size of the winning coalition, ethnic exclusion, and leader survival. Specifically, I find that in small-W systems: (1) leaders who employ ethnic exclusion are more likely to survive in office than those who do not promote exclusionary politics; (2) leaders are less likely to be removed in an irregular manner when they promote ethnic exclusion; and (3) political benefits from ethnic exclusion are large enough to offset the risk of civil wars. Therefore, in small-W systems: (4) leaders are more likely to engage in strong exclusion policy; and (2) ethnic minorities are more likely to be subjected to formal political exclusion. Overall, my statistical analysis confirms this "unwelcome" conclusion: ethnic exclusion is good politics in small coalition systems even if it could increase the risk of ethnic conflict. On the other hand, ethnic exclusion is bad politics in large-coalition systems since leaders who employ exclusion policy are more likely to be punished by voters in regular elections. These results proved robust even after separating the effects of W from the effects of democracy, and after using alternative measures of W and civil war. In the next chapter, I will

provide brief case histories that are chosen to illuminate and illustrate the workings of the exclusion theory.

CHAPTER 5

EMPIRICAL ASSESSMENT II: ILLUSTRATIVE EXAMPLES

The exclusion model offered in Chapter 2 attempts to explain why leaders with small winning coalitions tend to establish ethnically exclusive polity and why they do so in spite of the risk of armed rebellion. I tried there to provide five hypotheses, which are strongly supported by both computational and statistical evidence provided in Chapters 3 and 4. Nevertheless, whether my theory is useful depends on how well it explains the actual behavior of small-coalition leaders. Do they act as the exclusion model predicts? In order to answer to this question, Chapter 5 examines the ethnic policies of leaders in three small-coalition systems: Iraq from the time of the First Republic in 1958 until the fall of Saddam Hussein in 2003; Rwanda from its independence from Belgium in 1962 to the outbreak of genocide in 1994; and Burundi from the 1962 independence to the beginning of civil war in 1993. I choose to examine the behavior of multiple leaders in each country's history rather than focusing on a single leader because doing so helps show that an exclusive polity governed by a small group of people with particular ethnic backgrounds is not an outcome of one leader's choice, but, as computational simulation suggests, an evolutionary process over multiple generations of leaders.

Iraq (1958–2003) is a straightforward case that provides strong support for the exclusion model. During this period, major ethnic rivals—the Kurds and Shia Muslims—were excluded from important positions in the Iraqi government, and the country had become more and more a narrowly defined regime which ended up being controlled by a small proportion of Sunni Muslims, especially those affiliated with Saddam Hussein's family. Surviving a defeat in the Gulf War, economic sanctions, revolts, and assassination attempts, Hussein remained in office

for 24 years until he was finally deposed not by domestic challenges but by external powers in 2003. Developments after 1962 in Burundi and Rwanda display similar evolutionary trajectories to Iraq. However, these two cases are distinguished from the Iraqi case in that one of their leaders—Pierre Buyoya in Burundi and Juvénal Habyarimana in Rwanda—attempted to end ethnic exclusion after a long practice of exclusive rule, thus showing how small-coalition leaders are punished when they fail to employ ethnic exclusion. Rwanda is further distinguished from Iraq and Burundi in that its leaders did not belong to minority ethnic groups. The exclusion model predicts that leaders in small-coalition systems will end up ruling with the active support of a small group of co-ethnics, in combination with the systemic exclusion of the ethnic majority. But, the problem in post-colonial Rwanda appears to be the opposite: it was the Hutu majority (constituting about 85 percent of the population) that had been in power until the Rwandan Patriotic Front (RPF) victory in 1994. Hence, if my theory is to be persuasive, I must show that 1) a similar evolutionary (or narrowing) process had taken place in Rwanda even if the Hutu majority was believed to be in control of political power; and 2) Rwandan leader(s) became to rule with a small segment of the Hutu population to the exclusion of Tutsis and many other Hutus. In the next section, I begin with an assessment of Iraqi ethnic policies between the First Republic and the outbreak of the second Iraq War.

5.1 Iraq (1958–2003)

After General Abd al-Karim Qasim, a Sunni Arab, came to power in a 1958 coup d'état, Iraq became a military dictatorship where the winning coalition was composed of a small group of military elites who participated in a coup, including Qasim, Colonel Abd al-Salam Arif, and twelve other young army officers who called themselves the Free Officers (Andrews & Ra'anan,

1969, p. 73). Sunnis played a dominant role in Qasim's conspiracy. Of these fourteen members, twelve were Sunnis, although Sunnis comprise about 30 percent of the Iraqi population, while only two were Shiites, though about 60 percent of the Iraqi population is Shiite, with no Kurdish officers (Andrews & Ra'anan, 1969, p. 71).

Even though the Iraqi government under Qasim was essentially a Sunni regime, Qasim did not actively discriminate against the Shia and Kurd populations. During his early years in office, Qasim had an integrative vision in which he represents all Iraqis, and diverse Muslim communities work together for the Iraqi state (Tripp, 2007, p. 146).[14] Qasim created a three-man Council of Sovereignty as a symbolic head of the state to represent Iraq's three main ethnic groups: Shia Muslims, Sunni Muslims and Kurds. His first cabinet contained a few of the Free Officers including Arif as minister of the interior, but otherwise included civilians with diverse ideological and ethnic backgrounds (Hurewitz, 1969, p. 155; Tripp, 2007, p. 147). In addition, Qasim did not obey the structural imperative of small-coalition systems by spending considerably more resources on public goods than other small-coalition leaders. He allocated oil revenues to fund internal reform projects such as the construction of new roads, canals, schools, and houses for poor people around Baghdad (Andrews & Ra'anan, 1969, p. 74; Tripp, 2007, p. 161). During his rule, for example, the number of students tripled and Baghdad and some other cities were transformed into more modern and healthy places.

Although Qasim's rule led to a number of positive changes that benefitted all members of Iraqi society, he was unable to win over the support of members in his winning coalition. Some of the Free Officers were disappointed by their share of profits and political role under the Qasim regime. Moreover, members of the Iraqi officer corps were deeply divided between pan-Arab

[14] This is partly explained by his family background. Qasim's father was a Sunni Muslim while his mother was a Kurdish descent and Shia Muslim.

nationalists and communists. Pan-Arab nationalists were supported by Qasim's political rival Arif (a Sunni Arab), and his military faction, while Qasim sought the support of the communists (Andrews & Ra'anan, 1969, pp. 75-76). In October 1959, a group of disgruntled pan-Arab Free Officers attempted an unsuccessful coup, in which the 22-year old Saddam Hussein participated. This event was followed by an extensive purge of pan-Arab sympathizers in the armed forces as well as large public demonstrations in support of Qasim. Despite Qasim's repressive measures, Arif's supporters were not discouraged and started to build up their support base throughout the country. They staged another military coup in February 1963. Fierce fighting continued around the Ministry of Defense for two days until Qasim was forced to surrender to the rebel forces. Qasim and his followers were executed after a show trial on February 9, and Colonel Arif became the new president of Iraq.

The new government was also a military dictatorship with a small winning coalition composed of military elites. However, unlike his predecessor, Arif was well aware of the importance of patronage network in the armed forces. After removing military officers who were suspected of opposing him, Arif consolidated his power in the military by utilizing his personal and ethnic networks. He appointed his brother, Abd Al-Rahman Arif, to Chief of Staff, and created the Republican Guard as an elite unit of the Iraqi army. The Commander of the Republican Guard, Colonel Said Slaibi, was a relative of Arif, and most of the Guard members were recruited from Sunni Muslim tribe of "Al-Jumayla" (Marashi & Salama, 2008, p. 97). Better trained, armed and paid than the regular army, the main mission of this unit was to protect the regime against future coup attempts (Tripp, 2007, p. 169).

Being confident about his control of the armed forces, Arif decided to start the gradual withdrawal of the military from politics. In September 1965, he appointed a civilian, Abd al-

Rahman al-Bazzaz, as deputy prime minister to build a larger winning coalition participated by civilians. Faced with the impending loss of power and privileges, several leading officers in the military and the prime minster at that time launched a coup against Arif while he was attending Arab summit in Morocco. The coup was quickly suppressed by the Republican Guard and, upon his return, Arif appointed al-Bazzaz as new prime minster. As the first civilian prime minister since the overthrow of the monarchy in 1958, al-Bazzaz held a liberal view that the leadership of the Iraqi government could return to civilians and that the military should return to its primary mission of national defense. A number of domestic reforms were implemented during his premiership. A National Council of the Revolutionary Command (NCRC) was abolished and the legislative power of NCRC was transferred to a newly created cabinet. Al-Bazzaz also encouraged private enterprise and constructive criticism against him, and promised to legalize political parties and hold elections. (Tripp, 2007, p. 177). Especially, he promoted a policy of ethnic integration with the Kurdish population. For example, his twelve-point agreement in June 1966 was the most extensive concessions to the Kurds, including an amnesty to the Kurd rebels, constitutional recognition of the Kurdish identity, recognition of Kurdish as an official language, and representation of Kurds in all branches of the executive (Ghareeb & Dougherty, 2004, p. lxii; Tripp, 2007, p. 181).

Arif's tenure came to an end when he was killed in a helicopter crash in April 1966. His older brother, Abd Al-Rahman Arif, succeeded the presidency, and Al-Bazzaz was reappointed as prime minister in the new cabinet. However, the officer corps remained dissatisfied with the new government. They opposed al-Bazzaz's proposed reduction in the defense budget (Tripp, 2007, p. 179) and inclusive policies toward the Kurds. Disappointed with their decreasing privileges under the Arif government, a number of senior officers including the head of the

Republican Guard launched a bloodless coup against the government in July 1968. Arif was exiled to Turkey while al-Bazzaz was arrested and accused of conspiracy against the state. One of the coup leaders, General Ahmed Hassan al-Bakr, was appointed the new president of Iraq on July 17.

Al-Bakr consolidated his power by appointing himself prime minister and his cousin, Saddam Hussein, as deputy chairman of the Revolutionary Command Council (RCC), the second most powerful position in Iraq. Al-Bakr and Hussein were as quick as Arif to sense the importance of ethnic networks in the armed forces, but their "exclusion" was far more comprehensive than that of previous leaders. The Iraqi government led by Al-Bakr and Hussein was a small-coalition system that favored a small segment of the Sunni minority, especially those from their home region of Takrit as well as others from the Sunni lands of the north-west (Tripp, 2007, p. 191). The commanding positions in the army and the Republican Guard—including Minister of Defense, Chief of Staff, and Commander of the Air Force—came to be occupied by privileged officers from Takrit, and other members from the Sunni north-west staffed many key positions in the state's central administration and the security services (Marashi & Salama, 2008, p. 144).

Throughout the 1970s, Hussein strengthened his power in the party and the state through security services, eventually becoming de-facto leader of Iraq. On 16 July 1979, the aging Al-Bakr was forced to step down from his position, officially for health reasons, and within a few hours the 42-year-old Saddam became Iraq's new president. Hussein's rule depended on ethnic loyalties and exclusion. Like Al-Bakr, Hussein appointed clan members of the Sunni north-west to key government positions, the tenure of which depends exclusively on their unconditional loyalty to the leader (Balaghi, 2006, p. 73). The officer corps and intelligence networks were

also filled with members of his clan and immediate family for the purpose of preventing any coup attempts. Consisting of only 500,000 out of a population of nearly 26 million (W=0.02) (Tripp, 2007, p. 259), these coalition members of Saddam Hussein enjoyed privileged access to valuable state resources and opportunities. Foods and resources were more widely distributed in central Baghdad and Takrit regions (Balaghi, 2006, p. 98), and even the black market and smuggled goods were used as private benefits to loyal supporters (Bueno de Mesquita et al., 2003, p. 202). They relied upon Hussein for all of their privileges and even survival, and if Hussein fell in a coup, they would lose everything. Charles Tripp (2007, p. 216) describes Hussein's coalition in the following way,

> As an engine of power, accumulating resources, deploying patronage and maintaining control over its inhabitants, it was centered on the restrictive circles of Saddam Hussein's associates, linked to him either through bonds of kinship and regional background or through a history of personal trust. These men formed the inner circle of the Iraqi regime, having been put to the test on numerous occasions during the preceding fifteen years, when they could have sided with other clansmen, other ideological tendencies in the party or with restless and opportunistic military officers. Instead, they had followed Saddam Hussein. This made them the *Ahl al-Thiqa* ["the trusted"] in whom … Saddam Hussein could have confidence. His cause had become theirs and they were so closely identified with him that their political fate would be linked to his.

The exclusionary political system of Hussein led to suffering of vast numbers of those excluded, exacerbating grievances among Shia Muslims and Kurds, who together constitute

about 70 percent of the Iraqi population. Discriminated in their access to private goods and excluded from state power, these ethnic groups occasionally took up arms against the regime of Saddam Hussein. However, they made little impact on Hussein's leadership. For instance, in March 1991, Shia Muslims in southern Iraq launched an armed struggle against the Sunni-dominated regime. However, support for the rebellion was confined to southern cities and towns, and the Republican Guard units crushed the rebel forces within a couple of weeks, killing some 30,000 Shiites and displacing more than 70,000 people (Balaghi, 2006, p. 90; Tripp, 2007, p. 246). Soon thereafter, the Kurdish rebels in the north initiated conflict against Saddam. In 1988, Saddam used chemical weapons against the Kurds, killing over 100,000 Kurd civilians. This time again, the rebellion was ruthlessly repressed by the Republican Guard, and massive numbers of Kurds fled Iraq. In 1998, the U.S. Congress passed the Iraq Liberation Act and authorized President Bill Clinton to spend up to $98 million to assist qualified Iraqi opposition groups, mostly Shia and Kurdish ("Iraq Liberation Act," 1998). However, this still could not weaken Saddam's hold on power. There were also a number of assassination attempts against Hussein made by disgruntled Shia groups (Tripp, 2007, p. 238), although they were ineffective and poorly organized in comparison to military coups against previous regimes. In sum, combined with ethnic solidarity, the loyalty of the Republican Guard and intelligence service controlled by Saddam's inner circle provided little opportunity for those who planned to overthrow the Hussein regime. After staying in power for 24 years, Hussein was finally overthrown not by a coup or civil war but by a full-scale invasion of the country by American forces in 2003.

5.2 Burundi (1962–1993)

The two major ethnic groups in Burundi are the Hutu and the Tutsi. Although the Tutsi constituted only about 14 percent of Burundi's population and the Hutu nearly 85 percent, the Tutsi maintained the privileged status under the Belgian colonial regime. The Belgian authority replaced all Hutu chiefdoms with Tutsis, and "Tutsi was evolving to become synonymous with power and high status … and Hutu to become synonymous with subordination and exclusion" (Eller, 1999, p. 213). When Burundi gained independence in 1962, it became a constitutional monarchy under the Tutsi King Mwambutsa IV. After independence, however, the Hutu Revolution (1959-1961) in neighboring Rwanda sparked a new phase of conflict between the two ethnic groups in Burundi. In Rwanda, Tutsis were subject to mass murder by Hutu politicians after political power was transferred from the Tutsi minority to the Hutu majority. King Mwambutsa feared that Burundian Tutsis would meet the same fate. Therefore he appointed Tutsis in key military and police positions, while at the same time making concessions to the Hutu by co-opting emergent Hutu elites into the bureaucracy and by allowing them to gain status and prestige (Weinstein & Schrire, 1976, p. 14). Tutsis perceived this situation as a threat to their survival and to "the privileges and power that Tutsi had been able to accumulate and establish for themselves, as a result of preferential treatment under Belgian … colonial rule" (Weinstein & Schrire, 1976, p. 15). The first parliamentary elections were held in May 1965, with the Hutu winning an overwhelming victory. However, King Mwambutsa refused to recognize the result of the election, and instead appointed a Tutsi as Prime Minster. In response, a group of Hutu officers attempted an unsuccessful revolt against the King, which was followed by the purge of a large number of Hutu intellectuals and politicians by Tutsi hardliners. In fear of losing more privileges and power after the 1965 events, the Tutsi-controlled army led by Captain Michel Micombero overthrew the monarchy in November 1966 and declared a republic

with Micombero as its first president.

President Micombero—a young Tutsi born in Bururi province—abolished parliament and ruled the country through the seventeen-member National Revolutionary Council (NRC), effectively creating a small-coalition system. Consistent with the exclusion model, the Micombero's dictatorial regime was based on the political exclusion of Hutus. He eliminated Hutus from the military and high positions in the administration, with a number of Hutu officers being executed for treason. The Hutus responded to discrimination by launching a rebellion against Tutsi rule in April 1972, although it was brutally suppressed by the Tutsi-dominated army, resulting in the deaths of about 200,000 Hutus. Approximately a quarter of Hutu students disappeared during 1972 and 1973. And, almost all Hutu officials and administrators either fled or were killed during this period (Weinstein, 1977, p. 53).

With the Hutu under control, fissures quickly opened up inside the Tutsi elite. The most important was a regional rivalry between Tutsis from the southern province of Bururi, one of Burundi's 15 provinces, and those from other provinces. Consistent with computational simulation in Chapter 3 (Section 3.3.1), the Burundian regime evolved to a system with a smaller winning coalition of Bururi Tutsis who comprise well under 10 percent of Burundi's population (W<0.1). Although non-Bururi Tutsis benefited from power more than Hutus, they were largely excluded from important positions—including the presidency, key ministers, and army commanders—as well as from education opportunities (Nkurunziza & Ngaruko, 2002, p. 19). Tutsis from central provinces were also suspected of plotting a coup against Micombero, leading to the arrest and execution of several non-Bururi Tutsi politicians and army officers in 1971 (Weinstein, 1977, p. 53; Weinstein & Schrire, 1976, pp. 26-27). Micombero had been in office for 10 years until he was overthrown by Deputy Chief of Staff Jean-Baptiste Bagaza, a distant

relative, in a bloodless coup of November 1976. It was reported that Micombero was not able to control events during his later years in office due to chronic alcoholism and paranoia (Bartrop, 2012, p. 210; Weinstein, 1977, p. 55), and the coup was carried out to restore Bururi Tutsis' control over the government.

The dominance of Bururi Tutsis had been more secure under President Bagaza, who stayed in power until 1987. Its main manifestation was through the economic benefits provided to Bururi Tutsis by the central government. Illustrating the concentration of economic benefits in Bururi province, Ngaruko and Nkurunziza (2005, pp. 42-43) note that Bururi has received significantly more public services—in terms of overall school enrollment, population/hospital ratio, teachers per classroom, illiteracy rate, and per capita income—than other provinces while paying significantly less taxes. Hutus residing in Bururi province were excluded from these benefits except for positive external effects of public infrastructure (Ngaruko & Nkurunziza, 2005, p. 43).

The Bururi Tutsi's hold on power, however, began to erode in the late 1980s. Under pressure from the international donor community, President Pierre Buyoya, a Bururi Tutsi who seized power through a bloodless coup in September 1987, decided to end ethnic exclusion that had been in effect since the 1960s. Buyoya appointed Hutus to key political posts, legalized multiparty politics, and agreed to hold presidential and legislative elections in June 1993. Both elections were won by Hutu-dominated parties, and Melchior Ndadaye became Burundi's first Hutu president in July. The exclusion model predicts that a leader who attempts to end ethnic exclusion in small coalition systems would be removed from office in an irregular (or violent) manner by existing (and now less loyal) coalition members who try to recover their share of private goods. This is similar to developments in Burundi following the 1993 elections. Bururi

Tutsis viewed the advent of Hutu domination as a peril to their survival and to every privilege they had enjoyed under previous governments. This suspicion was confirmed when President Ndadaye replaced large numbers of Tutsi officeholders with Hutus after his election (Ngaruko & Nkurunziza, 2005, p. 45). In the words of Ngaruko and Nkurunziza (2005, p. 44),

> Such changes were particularly threatening because the system had been enforced for so many years with so much determination; there was much to lose. Indeed, Burundi's history shows that when the change of leadership does not threaten the interests of the dominating group, it is peaceful. Between 1966 and 1987, for instance, three Tutsi military presidents from Rutovu in Bururi province succeeded each other through bloodless palace coups. This contrasts sharply with the bloodbath that resulted from the victory of a non-Bururi Hutu in the June 1993 democratic elections.

The ruling Bururi Tutsi had little intention of giving up their power without a fight. As predicted by the theory, the Bururi Tutsi-dominated army assassinated Ndadaye on October 1993. This event was followed by violent reprisals against Tutsi civilians throughout the country, resulting in the deaths of about 50,000 civilians, mostly Tutsis, in the first week following the assassination. Buyoya came back to power through a military coup in July 1996. But, a Burundi had fallen into a civil war between the Tutsi-dominated army and Hutu rebel groups. Between 1993 and 2005, approximately 200,000 people were killed in ethnic violence. These events are clear examples of violent leadership turnover in the wake of ethnic inclusion preceded by a long period of exclusive rule. For Bururi Tutsis, it was better to fight now, while they still have some advantages, than to risk waiting until their hold on power may be significantly weak. For those

excluded, it was better to start a war because now, for the first time, they had a good chance to come to power.

5.3 Rwanda (1962–1994)

The population of Rwanda consists of three ethnic groups: the Hutu (85%), the Tutsi (14%), and the Twa (1%). In pre-colonial times, Hutus and Tutsis spoke the same language, had the same religion, lived in the same villages, and often intermarried. However, it was under Belgian colonial rule (1914-1962) that a divide between the two ethnic groups was solidified. The Tutsis enjoyed a privileged status in the Belgian administration, which ruled Rwanda indirectly through the Tutsi minority at the expense of the majority Hutu. The Belgian colonizers believed that Tutsis were genetically superior to Hutus who were perceived as short, stocky, and wide-nosed. On the other hand, Tutsis were perceived as tall, elegant, and thin-nosed with "superior" Caucasian ancestry (Straus, 2006, pp. 20-21). In the 1930s, ethnic identity cards were issued to all Rwandans, so that a Hutu could not become a Tutsi. Such a discriminatory treatment created deep resentments and grievances among the Hutus. The result of this tension was the 1959 Hutu Revolution that led to the overthrow of the Tutsi monarchy and to the establishment of Hutu-dominated government. On 1 July 1962, Rwanda achieved independence from Belgium and Grégoire Kayibanda, a Hutu, became the first President of the Rwandan Republic.

The young republic was a single party, small-coalition system where the ruling Parmehutu party occupied all the seats in the National Assembly. Like most other leaders in small-coalition systems, President Kayibanda was re-elected in 1965 with 99 percent of the vote in a rigged election where he was the sole candidate. The Kayibanda regime was characterized by ethnic exclusion and widespread violence against the Tutsis. Under Kayibanda, the majority

Hutu established its firm control over all aspects of the Rwanda state: the central government, the single party, and the military. On the other hand, the minority Tutsi was increasingly excluded from any meaningful participation in politics. Between 1962 and 1964, there were a series of anti-Tutsi pogroms. In February and March 1962, a group of Tutsi exiles, who fled Rwanda for neighboring countries during the Hutu Revolution, began to attack Rwanda, killing a handful of Hutu policemen and government soldiers.[15] In response, Kayibanda chose to target the rebel's base of support in the Tutsi population (Straus, 2006, pp. 186-187). During this period, 10,000 to 15,000 Tutsis were killed, and many others fled Rwanda. Another round of anti-Tutsi violence followed in 1973 when several Tutsi government officials were executed and large numbers of Tutsi students were expelled from universities and secondary schools.

With the Tutsi eliminated from military contention, the Hutu began to be divided along regional lines. The Hutu who make up 85 percent of the population was clearly an oversized winning coalition. Since it was impossible to provide private goods to such a large winning coalition, Kayibanda favored southern Hutus in the distribution of posts in the civilian government (Jones, 2001, p. 25; Newbury, 1992, p. 197; Straus, 2006, p. 190), which created resentment among northern Hutus. Despite this regional favoritism, there was no "systemic" exclusion of northern Hutus within the regime. Though there was unrest among northern Hutus who dominated the Rwanda army, Kayibanda did not purge northerners from the military (Enloe, 1980, p. 46; Newbury, 1992, pp. 197-198; Straus, 2006, p. 191). It was this northern component of the officer corps that ultimately toppled Kayibanda from power. On 5 July 1973, a group of military officers, mostly northern Hutus, led by General Juvénal Habyarimana seized power in a coup d'état. The new authority executed key figures from the previous regime and placed

[15] The Hutus called the Tutsi rebels "*inyenzi*" or "cockroaches" because they attacked at night.

Kayibanda under house arrest until he died in 1976 (Straus, 2006, p. 191).

After assuming power, President Habyarimana established a single party dictatorship under the exclusive rule of the MRND (National Republican Movement for Democracy and Development) party. As predicted by the theory, ethnic exclusion was reinforced under the small-coalition system of Habyarimana. A system of ethnic quota was introduced to limit Tutsis' access to post-primary education and employment in government sector. The winning coalition of Habyarimana was largely composed of Northern Hutus, especially those from the northwestern province of Rwanda (Straus, 2006, p. 23). Using discriminatory appointments to public office, excluding not only Tutsis but also Hutus from other provinces, northwestern Hutus have monopolized control over key positions in the government, in the army, and in state-owned corporations (Straus, 2006, p. 23). At the elite level, the inner circle of the Habyarimana regime was dominated by members of his clan and immediate family, a group known as *akazu* or "little house" (Jones, 2001, pp. 26-27). For instance, the Presidential Guard, an elite unit in the army, was filled with clan members loyal to Habyarimana in order to protect his regime against future coup attempts.

That said, the evolution of ethnic exclusion in Rwanda diminished the significance of overarching ethnic categories, such as the Hutu and Tutsi, and demanded more narrowly defined identity. If one was a Hutu, it made a critical difference whether he was a southern Hutu or a northwestern Hutu. On the ethnic categories in Rwanda, Bruce Jones (2001, p. 26) states,

> Whereas the standard picture of the Rwandan regime depicted it as a Hutu regime, this failed to capture the reality of pre-genocide Rwandan politics. Even though the vast majority of those who held power in Rwanda before the genocide were Hutu, they were

> Hutu of particular clans—especially from the Bushiru region. As in pre-colonial times, the clan was a powerful factor in Rwandan political life. The Habyarimana regime was in fact a clan-based northern Hutu regime that was discriminatory against Hutus from southern Rwanda as against Tutsis.

For this reason, I argue that the "ancient hatred" model is not appropriate for explaining ethnic politics in pre-genocidal Rwanda. Rwandan politics was not simply an ethnic contest between the two ethnic groups, but an ethno-regional rivalry in which both southern Hutus and Tutsis were excluded from state power by northwestern Hutus to consolidate the latter's privilege within the leader's coalition. Furthermore, the ancient hatred model cannot capture the ways in which Rwandan leaders changed the meaning and scope of ethnic categories in order to secure their political survival.

A major change in Rwanda began with end of the cold war in the early 1990s. Under pressure from Western aid donors, President Habyarimana announced in July 1990 his intention to end the single party system. Immediately thereafter, Habyarimana and his party began to be challenged by various Hutu opposition parties from southern Rwanda. Another major change was the invasion of the country by the Rwandan Patriotic Front (RPF) in October 1990. The RPF rebels were primarily descendants of Tutsi exiles who had fled Rwanda in the 1960s. The size of the winning coalition expanded in April 1992 when Habyarimana agreed to form a coalition government with opposition parties. A coalition government then reached a peace agreement with the RPF rebels in August 1993. Known as the Arusha Accord, the agreement aimed to establish a broad-based transitional government with significant Tutsi representation; the RPF was given a third of the cabinet positions, 40 percent of the regular army, and 50 percent

of the officer corps.[16]

Rwanda's ruling elites—Habyarimana's inner circle and its allies from the northwest—perceived these changes as a threat to their hold on power as well as to the privileges they had enjoyed under Habyarimana. Theoretically speaking, these changes meant a rapid expansion of the winning coalition that will diminish their share of private benefits significantly. The more they will lose from the new system, the more they are willing to fight for the current system (Bueno de Mesquita et al., 2003, p. 370). Consistent with the theory's prediction, the ruling elites in Rwanda adopted hardline stances and chose to keep their power through irregular means, ultimately laying the groundwork for the 1994 genocide. They created and trained a youth militia known as *interahamwe*, spread anti-Tutsi propaganda from a radio station, and developed "death lists" of moderate Hutus. When Habyarimana was killed in April 1994, the hardliners, who once dominated key positions in the Habyarimana government, were coordinating the genocide that claimed at least 500,000 lives.

5.4 Chapter Conclusion

The preceding three cases—Iraq, Burundi, and Rwanda—support my claim that leaders in small-coalition systems tend to strengthen exclusionary politics against ethnic "others" over time. In each case, major ethnic rivals—the Kurds and Shia Muslims in Iraq, Hutus in Burundi, and Tutsis in Rwanda—were excluded from participation in central government. Then, another round of power struggle begins among former ethnic allies. Eventually, the regime becomes dependent on the active support of a small group of political elites who share the same ethno-regional backgrounds with the leader. Moreover, the cases of Burundi and Rwanda also show

[16] The full text of the Arusha Accords (1993) can be downloaded from http://www.incore.ulst.ac.uk/services/cds/agreements/pdf/rwan1.pdf.

that political survival can be threatened by an attempt to end ethnic exclusion in small-coalition systems. The outcomes of such "mistaken" ethnic policy could be especially dangerous (not only to the leader, but also to the country itself) when the abrogation of ethnic exclusion was preceded by a long period of exclusive rule. However, as we will see in the next chapter, these findings should be interpreted with great caution. Especially, they should not be interpreted as a recommendation for ethnic exclusion as a way to ensure domestic stability and regime survival.

Overall, the behavior of leaders and their survival (or failure) in the above cases provide strong support for my theory. Although there is plenty of room for further case studies and data collection in future research, I believe that the results presented in this and previous chapters (Chapters 3 and 4) are of high theoretical importance as well as of policy relevance. In the next chapter, I will summarize the key findings of this dissertation and discuss their implications for the peacemaking efforts of international community.

CHAPTER 6

CONCLUSION

This dissertation started with a simple question: why do some leaders deliberately employ ethnic exclusion even though it increases the risk of ethnic conflict? The political exclusion of ethnic groups and the resulting "grievances" have been recognized as one of the most important causes of civil war (Cederman et al., 2011; Cederman et al., 2010; Gurr, 1993, 2000; Horowitz, 2000). However, leaders' incentives for ethnic exclusion have been largely forgotten or ignored in the existing literature on ethnic conflicts and in many attempts to implement policies designed to resolve ethnic grievances. The central purpose of this dissertation is to emphasize the crucial role of leaders in explaining ethnic exclusion and violence. To this end, I introduced a theory of ethnic exclusion by modifying the selectorate theory of Bueno de Mesquita et al. (2003). Contrary to common belief, my theory suggests that ethnic exclusion is good politics for leaders with small winning coalitions because it enhances their prospects for remaining in office, despite its positive impact on the risk of ethnic conflict. In the remainder of this concluding chapter, I will summarize the theoretical and empirical findings of the previous chapters and discuss their broader theoretical and policy implications.

6.1 Summation of the Argument

My theory builds upon the key assumptions and arguments of the selectorate theory (Bueno de Mesquita et al., 2003); namely, (1) all leaders have political survival as their primary objective; (2) leaders maintain the support of their coalition by providing a mix of private and public goods to coalition members; and (3) small-coalition leaders are expected to survive longer than large-coalition leaders due to the high loyalty to the incumbent in small-coalition systems. Yet, in

examining how notions of ethnicity affect leader survival, my analysis extends and differs from the selectorate theory in four notable respects.

First, I assume that every leader chooses to form her coalition on the basis of coalition identity that she thinks best ensures her political survival. Second, every coalition identity is associated with a different cost of changing identity (*C*). As a general rule, *C* is higher when coalition identity is based on ethnic attributes—such as skin color, religion and language—than when it is based on non-ethnic ones—such as party affiliation and ideological preferences (Chandra, 2006; Fearon, 1999). Third, individuals outside of the leader's coalition may attempt to enter the coalition by changing their identity. But, they do so *if and only if* the cost of chaining their identity is less than the expected benefit of private goods received by each coalition member (Caselli & Coleman, 2006; Fearon, 1999). Fourth, the size of the winning coalition is not necessarily equal to the "actual" number of supporters in the incumbent's coalition. The coalition is (1) "minimum-sized" if the actual size of the incumbent's coalition corresponds to the size of the minimum winning coalition; (2) "undersized" if the actual coalition size is small in large-W systems; or (3) "oversized" if the actual size is large in small-W systems.

An extension of the selectorate theory based on the above assumptions provides novel implications for the relationship between ethnic exclusion and leader survival. In large-W systems, the demand for coalition membership is low due to the low amount of private goods provided to each coalition member. Since leaders in this system have to include large numbers of supporters in their coalition, it is rational for them to form an inclusive coalition based on non-ethnic identity; otherwise they will generate undersized coalition with a high risk of removal from office. In small-W systems, the demand for coalition membership is high due to the high amount of private goods allocated to each coalition member. Since survival in office depends

upon the provision of private benefits to key supporters, leaders in this system have a strong incentive to limit the size of their coalition by forming an exclusive coalition based on ethnic identity; otherwise they will face an oversized coalition with a greater risk of losing office in an irregular manner. This makes ethnic exclusion good politics for leaders in small-coalition systems.

Four hypotheses were deduced from my theory for explaining ethnic exclusion and leader survival. **H1** maintains that, in small-coalition systems, leaders who employ ethnic exclusion are more likely to survive longer in office than those who do not employ it. This is because ethnic exclusion prevents oversized coalition in small-W systems. **H2** maintains that, if small-coalition leaders do not pursue an exclusive ethnic policy, they are more likely to be removed from office in an irregular manner. In this case, dissatisfied members of the leader's coalition may attempt to displace the incumbent through coup d'état or other violent means in order to advance their interests in a smaller coalition. **H3** suggests that, during civil war, leaders who promote ethnic exclusion are less likely to lose power in small-W systems because the loyalty of the military to the incumbent is especially high in such a system. **H4** predicts that, if ethnic exclusion really is good politics in small-W systems, there should be higher levels of ethnic exclusion in small-W systems than in large-W systems.

These hypotheses were then empirically tested and supported by Cox's proportional hazard regressions using data on the tenures of 982 leaders from 1946 to 2004. My results show that in small-coalition systems: (1) the hazard of deposition for leaders who implement a strong exclusion policy is about 80% lower than that of leaders who do not promote exclusion; (2) the risk of irregular turnover among leaders who employ ethnic exclusion is only about 1.3% of the risk for those who do not employ such a policy; and (3) the risk of irregular removal from office

virtually disappears even in times of civil war if a leader employs a strong exclusion policy. Case studies of Iraq, Burundi, and Rwanda further corroborate causal claims made by the exclusion theory. In all three cases, major ethnic groups had been excluded from participation in the leader's coalition until a small group of ethnic elites monopolizes key positions in the army and government. The cases of Burundi and Rwanda also show how the occurrence of oversized coalition in small-W systems leads to large-scale violence when ethnic inclusion is attempted after years of exclusive rule. Overall, my findings lead to an "unwelcome" conclusion: ethnic exclusion is good politics in small-coalition systems even if it could increase the risk of ethnic conflict.

6.2 Implications and Conclusion

The theory of ethnic exclusion bridges the gap between the role of political institutions in leadership survival and the politics of ethnicity. In common with the selectorate theory, I believe that institutions for selecting leaders play a central role in influencing leadership survival; namely, leaders in small-W systems have a greater incumbency advantage than those in large-W systems. I also believe, however, that the type of coalition identity and the resulting ethnic policy play a major role in shaping leaders' survival and manner of exit. More importantly, I believe that such ethnic variables interact with the size of the winning coalition; that is, when leaders fail to promote ethnic exclusion in small-W systems, oversized coalition is likely, and when they promote ethnic exclusion in large-W systems, undersized coalition is likely. While the impact of selection institutions upon leadership survival is filtered through leaders' stance on ethnicity, I argue, leaders often jeopardize their own survival by making errors in their choice of ethnic policy. The marriage between political institutions and ethnic politics within a coherent theoretical framework suggests a number of theoretical and policy implications.

6.2.1 Theoretical Implications

First, my theory can be expanded to research on conflict onset and escalation. In recent statistical research on ethnic conflicts, many scholars focused on the opportunity for rebellion as a primary determinant of conflict onset (Collier & Hoeffler, 2004; Fearon & Laitin, 2003; Melander, 2009; Toft, 2003; Weidmann, 2009). These studies made a notable contribution to identifying and understanding the economic or geographic conditions that make insurgency a more feasible option for excluded ethnic groups. However, they do not explicitly explain what motivates ethnic groups to initiate conflict in the first place. A theory of ethnic exclusion can provide an explanation for the underlying causes of ethnic grievances. Leaders in small-W systems utilize ethnic exclusion as a way to promote their personal political success. Doing so generates grievances among excluded ethnic groups by increasing political and economic inequalities between them and members of the incumbent's coalition. The smaller the size of the winning coalition, the higher the degree of grievances it will generate, since excluded groups are expected to have fewer political goods and higher levels of taxation in small-W systems.

After all, motivation matters, but opportunity also matters. While the exclusion theory can tell us when excluded ethnic groups hold high levels of grievance, it is the opportunity mechanism that tells us how effectively these groups will mobilize manpower to initiate a conflict. For example, previous studies find that a geographic concentration facilitates group mobilization by alleviating collective action problems (Laitin, 2004; Toft, 2003; Weidmann, 2009). They argue that concentrated ethic groups will be more likely to mobilize against the state when they are motivated to do so. On the other hand, geographically dispersed groups will be less effective in coordinating their actions and thus in resolving collective action problems.

Therefore, I expect that excluded and highly motivated ethnic groups can engage in different forms of violence: while concentrated groups are more likely to initiate full-fledged civil wars, dispersed groups are more likely to carry on their struggle in the form of low-intensity violence such as scattered riots, terrorism, and violent demonstrations.

Second, although my theory deals mostly with the incumbent leader, it can also be used to understand the behavior of insurgent leader. Especially, when lootable resources—such as gold, diamonds and drugs—are available to the rebel group, the insurgent leader can distribute them as private rewards to a small group of essential supporters. In this case, the internal politics of rebel organizations should reflect, in part, the basic logic of the exclusion theory. Consider Foday Sankoh who was the leader of the Revolutionary United Front (RUF) of Sierra Leone during its 11-year-long civil war between 1991 and 2002. Sankoh used access to diamond resources as a private benefit to his loyal supporters at the expense of local populations. Sankoh is known particularly for his brutality against his own countrymen, including loot, murder, child conscription, rape, amputations of limbs, and forced labor in the diamond fields (Dobbins, 2005, p. 133). Rebel leaders of this kind resemble small-coalition leaders practicing ethnic discrimination; in this sense, my theory may provide explanations for why some rebel leaders are more likely to survive a long-running war when they act harshly against local populations rather than seeking their support.

A third theoretical implication has to do with the role leaders in shaping ethnic cleavages. In the literature on ethnic identity and violence, ethnicity is often assumed to be fixed by history and deeply held values of an ethnic group (Isaacs, 1989; Smith, 1986; Van den Berghe, 1981). According to this "primordial" view, ethnic violence results from antagonisms and hostilities that are unchaining characteristics of rival ethnic groups. However, a history of ethnic conflict is rife

with examples where members of specific ethnic groups target their co-ethnic rivals. During the Rwandan genocide, some 10,000-30,000 moderate Hutus were killed by their Hutu neighbors (Prunier, 1995, p. 265). President Nimeiri broke the Addis Ababa Agreement and plunged Sudan back into civil war in 1983 for fear of his own radical Muslims in the north rather than rebels in the south (Fearon & Laitin, 2000, pp. 866-867). Similarly, a study of Northern Ireland conflict by Kennedy-Pipe (1997, pp. 53, 63) shows that when moderate Catholics pursued the peace process with Protestants and British authority, radical Catholics in the Provisional Irish Republican Army (IRA) attempted to spoil this process by provoking British troops to shoot ordinary citizens in the hope that they can garner support from moderate Catholics, and thus strengthen their hold on power and social privileges. These examples suggest that the boundary of ethnic identity is not fixed, but rather is multi-layered and changing over time.

The theory of ethnic exclusion is in line with the "instrumentalist" view that ethnicity is socially constructed by elites for instrumental purposes (Esman, 1994, pp. 10-11). In addition, following Chandra and Wilkinson (2008), I draw a distinction between "nominal" and "activated" ethnic identities, where the former "are those for which we possess the attributes of membership while [the latter] are that subset of our nominal categories in which we profess membership or are assigned membership by others" (p. 517). Rather than simply arguing that ethnic identities are socially constructed, my theory specifies when and under what conditions a particular ethnic category is "activated" by political leaders. Specifically, the theory suggests that ethnicity is activated (and thus become politically salient) when leaders in small-coalition systems form an exclusive coalition along ethnic lines. When a small-coalition leader is a member of a large ethnic group A, for instance, she is likely to activate a smaller ethnic identity B, which is a subset of A, by excluding members not belonging to B from her coalition. In all three cases examined

in Chapter 5, leaders activated sub-ethnic cleavages—the Sunni north-west in Iraq, the Bururi Tutsi in Burundi, and the northwestern Hutu in Rwanda—within the nominal ethnic identity. These cleavages, not the nominal ones, correspond to ethnic groups that are actually engaged in the politics of exclusion that is likely to generate ethnic grievances.

6.2.2 Policy Implications

Scholars and policy makers have supported the idea of "inclusive coalition" as a way to manage conflict in ethnically divided societies. In *Politics in West Africa*, for instance, Lewis (1965) proposed a coalition government in which all the major parties participate in decision-making. In such a system, he writes, "it is necessary to get right away from the idea that somebody is to prevail over somebody else; from politics as a zero-sum game. Words like 'winning' and 'losing' have to be banished from the political vocabulary of a plural society" (Lewis, 1965, p. 67). In *Democracy in Plural Societies*, Lijphart (1977) introduced another model of inclusive coalition, called consociational democracy. The key characteristic of consociationalism is that "the political leaders of all significant segments of the plural society cooperate in a grand coalition to govern the country" (Lijphart, 1977, p. 25). Other elements of consociationalism include (1) the mutual veto that protects minority interests; (2) proportionality in the allocation of government jobs and political goods; and (3) segmental autonomy whereby minorities rule themselves (Lijphart, 1977, p. 25).

More recently, the World Bank (2011) supports the idea of "inclusive-enough coalition" as one of the basic principles for violence prevention and peaceful resolution of conflicts. Defined as the governing coalition encompassing broader segments of society—including local governments, private businesses, civil society movements, and opposition parties—this strategy

aims at restoring confidence needed to create continued momentum for political reform (World Bank., 2011, p. xvii). With regard to the characteristics of inclusive-enough coalition, the report (World Bank., 2011, pp. 12-13) says,

> Coalitions are "inclusive-enough" when they include the parties necessary for implementing the initial stages of confidence-building and institutional transformation. They need not be "all-inclusive." Inclusive-enough coalitions work in two ways: (1) at a broad level, by building national support for change and bringing in the relevant stakeholders, through collaboration between the government and other sectors of society—as well as with regional neighbors, donors, or investors, and (2) at a local level, by promoting outreach to community leaders to identify priorities and deliver programs.

Forming an inclusive coalition may be a good policy for the country. Indeed, previous studies provide evidence that the presence of inclusive coalition leads to democratic transition (Linder & Bachtiger, 2005), democratic consolidation (Reynolds, 1999), and conflict resolution in Africa (Sisk & Reynolds, 1998). The exclusion theory, however, suggests that such a policy is not necessarily good politics, at least for the leader. The promotion of inclusive coalition in small-W systems gives rise to oversized coalition, making the leader vulnerable to a violent turnover of power. Especially, when members of one ethnic group have enjoyed exclusive privileges for a long period of time before this policy is implemented, they are unlikely to relinquish their privileges without a bloody fight. This was the pattern of behavior that led to the Rwandan genocide and Burundi civil war in the early 1990s. The above recommendations for inclusive coalition have not taken an adequate account of this dangerous trade-off that may arise

in the course of policy implementation.

What can be learned from the research presented in this dissertation, and what policies should be considered in the future? The theory of ethnic exclusion suggests that there is no easy way to simultaneously promote ethnic inclusion and leaders' survival in small-coalition systems. To be sure, a successful transition from an exclusive toward an inclusive coalition will reduce the risk of ethnic conflict. However, this transition should be accompanied by institutional reforms to increase the size of the minimum winning coalition. My theory makes a clear distinction between the institutional size of the winning coalition (W), and the actual size of the incumbent's coalition. To the extent that the incumbent's coalition is larger than W, efforts toward an inclusive coalition generate violent outcomes in small-coalition systems. Hence, only after leaders have undertaken significant institutional reforms toward a large W can they safely form an ethnically inclusive coalition to escape the vicious cycle of exclusion and violence.

Secondly, intervention by the international community through organizations such as the United Nations and African Union can facilitate a peaceful transition to a larger and more inclusive coalition by taking defensive measures to protect the incumbent during a transition period. The expansion of coalition in small-W systems decreases the welfare of existing coalition members. My empirical findings show that, faced with the erosion of welfare, they could choose to remove their current leader by force. International actors can reduce this risk by providing an effective protection against any attempts at unconstitutional changes of government. The recent approval of tougher anti-coup measures by the African Union is therefore a positive development (Voice of America, 2010). Lastly, efforts must be made to reassure hardliners in the incumbent's coalition that the transition toward an inclusive coalition is not aimed at excluding them, but rather at promoting a stable system that provides all citizens with peace and

prosperity.

To conclude, policy makers must be acutely aware that the formation of inclusive coalition could become another source of violence and instability in small-W systems, especially when such a measure is implemented after years of authoritarian rule based on ethnic exclusion. Those who lack a clear understanding of this grim reality are likely to find that their efforts to build an inclusive coalition will end in violence.

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