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NOT MY BROTHER’S KEEPER:
HOW ETHNIC VIOLENCE CAUSES INFLICTING

BY

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Abstract

Why, during an ethnic conflict, would an ethnic group turn its weapons against itself? That is the question that motivates this dissertation. Such behavior is puzzling because as an ethnic group devotes valuable time, energy, and resources on an intra-group conflict, it reduces the total amount of resources the group can draw on to wage the ethnic conflict. Unfortunately, the ethnic conflict literature provides few answers to the puzzle of infighting during ethnic conflict because the ethnic conflict literature generally assumes that ethnic violence increases ethnic cohesion. I examine that assumption in detail, and find it both theoretically and empirically flawed.

Instead, I argue that both at the factional level and at the individual level, ethnic violence creates incentives and opportunities for fragmentation, and the ethnic leadership then engages in infighting to counter this pressure. I test the theory using both large-n statistical analyses, as well as process tracing and case studies. Both empirical analyses provide evidence to support the theory, challenging the claim that ethnic violence increases ethnic cohesion. Ultimately, I conclude that infighting during ethnic conflict is the irrational macro-level outcome of rational micro-level choices.
To my parents, Peter and Leelamma Arackal
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“If I have seen further it is by standing on the shoulders of giants.”
-Sir Isaac Newton

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Chapter 1: Introduction

Why, during an ethnic conflict, would an ethnic group turn its weapons against itself? That is the question that motivates this dissertation. Such behavior is puzzling because as an ethnic group devotes valuable time, energy, and resources on an intra-group conflict, it reduces the total amount of resources the group can draw on to wage the ethnic conflict. Instead of focusing attention and resources on fighting the opponent, ethnic leaders turn their weapons on the very group in whose name they are supposedly fighting.

In recent years, there has been a growing interest in the causes and consequences of combatant fragmentation. However in the ethnic conflict literature, infighting during ethnic violence is not seen as problematic. This is because much of the ethnic conflict literature continues to assume that the external pressures generated by ethnic violence will ‘harden’ ethnic boundaries and make ethnic groups more cohesive. This assumption, though, has been challenged by a steady stream of empirical evidence from places such as Iraq and Afghanistan, where the effect of violence on ethnicity has not been so simple. These conflicts have instead been characterized by a shifting landscape of sub-group actors, clan and tribal loyalties, and malleable allegiances. In these conflicts, ethnic violence did not produce group cohesion. Instead, these regions have seen the puzzling phenomenon of infighting during ethnic conflict.

In Iraq, for example, the three main ethnic groups (Shia, Sunni, and Kurds) have been engaged in a national power struggle. At the same time, though, there has also been a significant amount of infighting within each of these groups. For example, from 2004-06 two rival militia groups within the Shia camp, the Mahdi Army and Badr Organization, violently clashed in

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1 The February 2012 issue of the Journal of Conflict Resolution is devoted to the problem of combatant fragmentation.
several cities throughout Iraq. Among Sunnis, Al Qaeda in Iraq (AQI) and Sunni nationalist insurgents fought over smuggling routes and leadership positions (Staniland 2012). Among Kurds, bloody clashes occurred between the separatist groups, PUK and KDP, and the recently created Islamic fundamentalist group, Ansar al-Islam.

We see a similar pattern in Afghanistan, where the Tajik-led Northern Alliance opposed the Pashtun-led Taliban. Since the fall of the Taliban, though, there has also been a national power struggle between the Taliban and the government of Hamid Karzai. However both the Taliban and Karzai are part of the same Pashtun ethnic group. Furthermore, the Taliban have also used violence against their own members. In recent years, the Taliban used terrorism against senior leaders who engaged in negotiations with the Karzai government (Nelson and Farmer 2012). In 2010, Mullah Omar, the leader of the Taliban, made infighting an official policy by issuing a directive ordering field commanders to capture and kill ‘collaborators,’ which Omar broadly defined as any Afghan who helped NATO forces (Al Jazeera 2010).

During an ethnic conflict, why would an ethnic group turn its weapons against itself? Why would an ethnic group waste valuable energy and resources on infighting during an ethnic conflict? That is the puzzle that this dissertation seeks to solve.

1.1 Background of the Study

Today, the most frequent form of organized political violence takes place within states, rather than between states. According to the Correlates of War dataset, between 1816 and 2007 there have been 655 wars. Of these, 95 have been inter-state wars, 163 have been extra-state wars (between a state and a non-state actor), 335 have been intra-state wars (within the boundaries of a state), and 62 were non-state wars (between two non-state actors). The percentage of intra-
state wars has also steadily increased over time. Between 1997 and 2006, almost 75% of new war onsets have been intra-state wars (Sarkees and Wayman 2010).

Ethnicity has played a role in many of these conflicts. According to one study, of the 127 civil wars fought since 1945, almost two-thirds involved some form of ethnic violence (Fearon and Laitin 2003). Toft (2005:3) goes even further:

> Today, nearly two-thirds of all armed conflicts include an ethnic component. Ethnic conflicts are almost twice as likely to break out as fights over governmental control and four times more likely than interstate wars...The number and intensity of ethnic conflicts across the globe directly and indirectly threaten the lives of millions.

Scholars who study ethnic violence have devoted much time and effort to studying the complex impact of ethnicity on violence. These studies have looked at issues as diverse as the impact of ethnicity on civil war (Collier and Hoeffle 2004; Fearon and Laitin 2003), the impact of ethnicity on democratic stability (Snyder 2000; Chua 2003), and the impact of ethnicity on terrorism, to name just a few examples. In recent years, a constructivist moment within the ethnic conflict literature has emerged, and has urged scholars to reverse the causal arrow in order to study the impact of diverse forces on ethnicity (Chandra 2012).

However with a few notable exceptions, when looking at the impact of violence on ethnicity the academic literature generally continues to assume that violence ‘hardens’ ethnic boundaries. This assumption, though, makes it impossible to explain the puzzle of infighting during an ethnic conflict. If ethnic violence hardens ethnic boundaries, how can we explain infighting during an ethnic conflict?

If we look to the civil conflict literature, we find growing evidence to support the prevalence of combatant fragmentation during civil war. Since 1989 combatant fragmentation has occurred in approximately 44% of civil wars, with fragmentation occurring more than once in many conflicts, and with splits clustering toward the beginning and end of the conflict (Findley and
Rudloff Forthcoming). Ethnic conflicts, though, are assumed to follow a different dynamic because ethnicity is one of the strongest bonds that can unite a group of people. In ethnic conflicts, it is argued, violence causes ethnic groups to unite, not fragment.

In contrast, I find that similar to civil conflicts, ethnic violence does indeed cause ethnic groups to fragment. In this dissertation, I show that (1) contrary to the common wisdom, ethnic violence exerts an external pressure on ethnic groups that can encourage infighting rather than cohesion, and (2) variation in outcome (whether ethnic conflict leads to infighting or cohesion) can in large part be explained by the intensity of ethnic violence: The greater the ethnic violence, the greater the external pressure for infighting. Infighting during ethnic conflict, I ultimately argue, is the irrational macro-level outcome of rational micro-level choices.

1.2 Theoretical Explanation

Why, during an ethnic conflict, would an ethnic group turn its weapons against itself? What causes infighting during an ethnic conflict? This dissertation argues that both at the factional level and at the individual level, ethnic violence creates incentives and opportunities for fragmentation. Fragmentation, though, does not always lead to violence since differences can be settled non-violently through negotiation and compromise. However as the intensity of ethnic violence increases, ethnic violence actually creates a pressure that pushes the ethnic group toward violent infighting.

First, at the factional level, ethnic violence encourages fragmentation by providing incentives and opportunities to challenge the ethnic leadership. Incentives to challenge the leadership can certainly exist prior to the outbreak of ethnic violence, however existing theories assume that the outbreak of ethnic violence then encourages the ethnic group to overlook these differences and
unite against a common threat. Instead, I find that ethnic violence actually creates new areas of contention such as the type of strategy (terrorism vs. non-violence) the ethnic group should employ against its opponent. By placing new issues on the table, ethnic violence provides factions with more reasons and opportunities to contest the current leadership.

As the level of ethnic violence increases, ethnic violence pushes the ethnic group toward violent infighting for at least two reasons. First, intense ethnic violence lowers the cost and increases the benefits of infighting by eroding institutions that maintain law and order, such as police forces, and by eroding non-violent pathways toward regime change, such as elections. Second, intense ethnic violence increases the cost of bargaining and negotiation. As the casualties from ethnic violence begin to mount, rivals begin to fear for their survival. The threat to their survival increases the costs of a time-consuming bargaining process, and makes the efficiency of violence a more attractive option.

At the individual level, ethnic violence encourages fragmentation by providing group members with incentives and opportunities to collaborate with ethnic rivals. The rival ethnic group might, for example, offer rewards or reduce penalties for collaborators. During an ethnic conflict, the prison system offers an excellent opportunity to gather information and recruit new collaborators.

As the level of ethnic violence increases, ethnic violence pushes the group toward violent infighting because increased ethnic violence also increases the threat collaboration poses to the leadership. Since the leadership cannot know the identity of collaborators, they instead respond to the increased threat by using demonstrative violence against suspected collaborators in order to generate fear in all group members, deter further collaboration, and ensure group cohesion.
This theory can be modeled by the following diagram:

**Figure 1.1**

1.3 Significance of the Study

In this dissertation, I hope to offer contributions both to the scholarly literature and to public policy. The study hopes to contribute to the scholarly literature in three ways. First, the dissertation addresses an important gap in the new fragmentation literature by examining the effect of different forms of violence on intra-group dynamics. Second, the study challenges both the claim that violence increases fragmentation and the claim that violence increases cohesion. Instead, the dissertation finds that violence can lead to a variety of outcomes. While ethnic
violence increases fragmentation, ethnic leaders can then use intra-group violence to counter this pressure by policing boundaries and increasing group cohesion. Finally, the dissertation demonstrates the valuable insights that can be gained by disaggregating the ethnic group in order to explore the shifting loyalties and tensions that characterize intra-group dynamics.

This study hopes to contribute to public policy in two ways. First, the study challenges early theories which claimed that violence hardened ethnic boundaries. This assumption underlies policy recommendations such as partition as the solution to ethnic conflict (Kaufmann 1996; Kaufmann 1998; Muller 2008). Partition theory is based on belief that differences between people are a source of conflict, and that by sorting people into groups based on ethnicity we can eliminate differences and therefore eliminate conflict. However such arguments are flawed because people have multiple identities (such as religion, caste, race, class, gender, occupation, and so forth) and so sorting people into groups based on one identity will not eliminate differences due to other identities. In fact, this dissertation finds that the reason why ethnic violence leads to infighting is precisely because ethnic violence can activate alternate identities within an ethnic group. Within an ethnically homogeneous group, for example, ethnic violence can activate tribal or clan differences. By examining infighting within an ethnically homogenous group, this dissertation hopes to show that partition by itself is not a solution to the problem of organized violence.

Second, when faced with wide-spread violence which cannot be explained using readily available theories, there is sometimes an unfortunate tendency to dismiss the perpetrators of violence as ‘irrational’, or to attribute their behavior to a ‘culture of violence’. This leads to the policy conclusion that external efforts at conflict resolution are futile. I hope to counter this tendency by trying to make sense of what seems, on the surface, as senseless behavior. Why
would a group attack itself during an ethnic conflict? This dissertation argues that such behavior is not irrational. Instead, the perpetrators of violence are responding to opportunities and incentives for fragmentation created by the ethnic violence itself. The ethnic leadership counters this pressure for fragmentation and restores group cohesion through the use of intra-group violence. I therefore find that there is indeed a logic to infighting, and by studying this logic and its impact on intra-group dynamics, external efforts at conflict resolution may indeed be possible.

1.4 Definition of Key Terms

Concepts such as ‘ethnicity’ are sometimes difficult to study because they have such a wide variety of meanings. In the following section, I take three concepts which appear frequently in the following analysis, and explain how they are defined for the purposes of this study: (1) ethnicity, (2) ethnic boundaries, and (3) group fragmentation.

1.4.1 Ethnicity

Irrespective of whether a person desires an ethnic identity or not, everyone is assigned to an ethnic group. “Trying to imagine a person without an ethnicity (or several of them) is like trying to imagine one without a heart, lungs, or other vital organ” (Arnold 2009:4). But what exactly is ethnicity? How many ethnic identities do people have? Can ethnicity change, and if so, how? There are two main schools of thought on these matters: constructivism and primordialism.

Constructivism

According to constructivism, ethnicity is not a biologically given characteristic, but is instead a socially constructed category (Anderson 1991; Gellner 1983; Laitin 1986). Recent
constructivist works have focused on demonstrating that several ‘ancient’ ethnic identities are actually fairly new constructions. As recently as 1870, one author argues, most rural and small-town dwellers in France did not see themselves as French. For the majority of people living in France at that time, identities often did not stretch beyond the village or valley (Weber 1976). Similarly, the modern Englishman is constructed from Celtic Briton, Germanic Angle, Saxon, Jute, Dane, and Norman (Conner 2004). In precolonial Rwanda, ‘Tutsi’ and ‘Hutu’ actually referred to a porous class division (Fearon and Laitin 2000), and in Sudan, the Arab Sudanese are actually ethnic Africans who adopted the Arab culture.

Constructivists also argue that individuals can have more than one ethnic identity, and that these identities can shift and change over time (Brewer 1999). Constructivist literature has identified several processes that can cause ethnicity to change, including broad historical processes such as the rise of literacy and print vernacular (Anderson 1991), economic modernization (Gellner 1983; Newman 1991), or colonialism (Horowitz 1985; Laitin 1986). Ethnicity can also change when individuals move between social situations:

...ethnic identity is a composite of the view one has of oneself as well as the views held by others about one’s ethnic identity. As the individual (or group) moves through daily life, ethnicity can change according to variations in the situations and audiences encountered (Nagel 1994:154).

Since ethnicity is malleable, it is also subject to manipulation. Constructivist theories have examined the ability of ethnic entrepreneurs to manipulate ethnic relations in places as diverse as Yugoslavia (Gagnon 1995), Burundi and Rwanda (Uvin 1999), and India (Brass 2003). In a collection of essays on ethnicity and nationalism, Brass (1991:8) explains why elites can manipulate ethnicity:

…ethnicity and nationalism are not ‘givens,’ but are social and political constructions. They are creations of elites, who draw upon, distort, and sometimes fabricate materials from the cultures of the groups they wish to represent in order to protect their well-being
or existence or to gain political and economic advantage for their groups as well as for themselves.

In modern social science, constructivist approaches have come to dominate the study of ethnicity.

**Primordialism**

Primordialism, in contrast, assumes that ethnicity has biological or genetic foundations. Individuals have only one ethnic identity which is fixed and cannot be easily changed. Although constructivism has become the dominant approach toward ethnicity among social scientists, it is nevertheless important to acknowledge the continuing importance of primordialism in both the social and biological sciences.

Primordialism is still relevant to the social sciences because social scientists often use primordialist assumptions to create ethnic datasets, such as the commonly used Index of Ethnolinguistic Fractionalization (ELF). The ELF index is calculated using a formula that assumes each person in society belongs to only one ethnic group, and that ethnic categories are mutually exclusive (Chandra 2009). Because of this, the conclusions of many quantitative studies are actually based on implicit primordialist assumptions (Chandra 2012; Chandra 2009).

Primordialism has also seen an interesting resurgence in the biological sciences. As Morning (2009:1168-1169) writes:

> Consider for example the forensic convention of identifying human remains or crime specimens by race; such efforts would be nonsensical were they not supported by the belief that racial identity is embedded in the human body.... The claim that races are genetically distinct groups is not only enjoying a scientific renaissance, but is also being conveyed through new products and services such as genetic genealogy tests that claim to identify individuals’ racial ancestry, race-targeted pharmaceuticals and even vitamins.

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2 Some scholars have developed or are currently developing quantitative datasets which incorporate constructivist assumptions. These new datasets include the Index of Institutionalized Ethnicity (IEI) (Lieberman and Singh 2008), ECI (Chandra and Wilkinson 2008), and EVOTE (Chandra 2009).
The field of medicine also often links ethnicity to health. During pregnancy, certain blood tests for genetic abnormalities, such as the test for cystic fibrosis, generate probabilities partly based on one’s ethnic background. Because of this, Morning (2011:3) challenges purely constructivist interpretation of race when she asks, “What kind of phenomenon [is] race that it could be linked to blood, genes, and illness?”

A Middle Ground between Constructivism and Primordialism?

In 2001/2, the sociologist Ann Morning interviewed 40 biology and anthropology professors about their views on race. She found that none could be classified either as pure constructivists or as pure primordialists:

None took the extreme view that is sometimes attributed to constructionists—namely, that there is “no difference” between any two human beings. Nor did anyone believe the old essentialist view that there are clear cut, sharply-defined discrete race groups, all of whose members share some trait (or traits) that no members of other races share (Morning 2006).

An alternative to constructivism and primordialism is to view ethnicity as both constructed and primordial. It is clear that people are different, both in genetics and phenotype, and that these differences matter in terms of factors such as disease prevalence. The question of how we should group these differences, and the normative meanings that are attributed to those differences, is cultural and contingent. Human beings vary in their genetic makeup and physical appearance, but which of those differences should we use to categorize people into separate groups: skin color, hair color, height, or eye shape? How much difference constitutes a racial

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3 The difference between race and ethnicity is an interesting topic. One common way to differentiate between race and ethnicity is by arguing that race refers to categories based on physical differences, while ethnicity refers to categories based on cultural differences (such as language or religion) (Morning 2011). In practice, though, ethnic differences often tend to have a biological, or heritable, component. Some scholars have even defined ethnicity as a heritable quality (Chandra 2006). Similarly, race often means more than biology and encompasses social and political differences (Morning 2006). For these reasons, I do not differentiate between ethnicity and race in this dissertation.
difference? While one form of categorization might be used in a particular time and place, the categories could very well shift in another time and place:

In short, while human biological variation certainly seems to be real, the ways that we cut it up, name and describe it are the product of our scientific imagination (Morning 2006).

1.4.2 Hardened Ethnic Boundaries

A second concept that appears frequently in this dissertation is the concept of a ‘hardened ethnic boundary’. According to early scholars, violence produced hardened ethnic boundaries, but what exactly does that mean? Later in Chapter 2, I examine the ethnic conflict literature and conclude that scholars use that term to mean three very different things. In the literature, a ‘hardened’ ethnic boundary can mean either: (1) increased loyalty to one’s own ethnic group, (2) greater hostility between ethnic groups, or (3) the external imposition of ethnicity. However there is a fourth, more subtle way in which ethnic boundaries can be incrementally hardened in the absence of violence: through the ethnification of ordinary behavior.

In the literature, ‘ethnification’ is defined as a process through which ordinary behaviors become redefined as ethnically meaningful (Kuran 1998). Wearing a hat, for example, does not necessarily contain any ethnic symbolism. During the Independence of India, however, Hindus began wearing the homespun ‘Gandhi cap’ while Muslim opted for the fur-lined ‘Jinnah cap’.

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4 Although this section draws on Morning’s definitions of constructivism and primordialism, other definitions are possible. In the field of comparative politics, Kanchan Chandra’s constructivist writings have been enormously influential. What Chandra defines as the constructivist position, though, is what Morning defines as the ‘middle ground’ between constructivism and primordialism. What Morning then defines as the constructivist position is dismissed by Chandra (2012:19) as not constructionist: “…it would be useful to identify what constructivism, at least with respect to ethnic identity, is not. It is not, as it is often caricatured, a body of work which predicts unconstrained change in ethnic identities…The position that descent-based attributes are one of the principal constraints on ethnic identity change in the short term would be shared by most works that we term constructivist.” Because Chandra claims so much for constructivism, the primordialist camp is left with very little content. In this section, I use Morning’s definitions because they allow for both constructivism and primordialism to have legitimate content.
Headgear, Kuran writes, went from being a personal choice to becoming a symbol of one’s commitment to an ethnic group.

Ethnically meaningful behavior, though, does not constitute ethnic boundaries. After all, if a Muslim in India wore a Gandhi cap, he would be seen as a disloyal Muslim, not a loyal Hindu. Ethnification, we might say, does not create an ethnic boundary but is rather the process that determines the strength of existing ethnic boundaries, and whether the boundary should be considered ‘hard’ or ‘soft’. If we traveled to India, for example, and found that dozens of ordinary behaviors were infused with ethnic meaning, ordinary behaviors from the way one ate food, to the foot one used to step out the door in the morning, to the way one greeted neighbors, we would say that the boundary between Hindus and Muslims was quite hard. If, on the other hand, all these actions were considered personal decisions devoid of any ethnic meaning, we might say that the boundary between Hindus and Muslims was relatively soft.

A second aspect of ethnification is the normative judgment attached to ‘ethnified’ behavior. If, for example, Muslims accepted food with the left hand and Hindus with the right, do Muslims see ‘Hindu behavior’ as inferior, superior, or neutral? Similarly, what normative judgment do Hindus hold about ‘Muslim behavior’? Normative judgments can also be passed on ‘ethnified’ behavior performed by co-ethnics. For example, a Muslim who fails to wear a Jinnah cap might be praised, ignored, or sanctioned by other Muslims. Once a behavior has become ethnified, the normative judgments attached to that behavior help shape how hard or soft an ethnic boundary becomes.

Finally, the social pressure to participate in ethnification can vary. According to Barth (1969), the boundaries of ethnic groups are maintained through social interaction and the use of social sanctions. In Punjab, Sikhs who refused to wear turbans and grow a beard were pressured to do
so through ridicule and the threat of violence (Kuran 1998). The government can also participate in ethnification when it establishes policies, such as affirmative action or segregation, which distribute benefits and privileges by ethnicity. Under these conditions, ordinary decisions, such as the decision about which school to attend or which water fountain to drink from, no longer represent personal taste, but are instead infused with ethnic symbolism and imposed upon people.

In short, the ethnification of ordinary behavior is a fourth, subtle way that ethnic boundaries can become gradually ossified in the absence of ethnic conflict.

1.4.3 Ethnic Fragmentation

The ongoing conflicts in Afghanistan and Iraq have presented scholars with the puzzle of group fragmentation during ethnic violence. In response, scholars have increasingly sought to understand the causes and consequences of group fragmentation. One interesting feature of this new literature is the wide variety of definitions for ‘fragmentation’. The reason behind this plurality of definitions is that ‘fragmentation’ denotes something broken, but scholars differ over what exactly is broken in a fragmented group.

Some scholars, for example, are interested in the number of organizations within an ethnic group. These scholars define fragmentation as the process by which a single organization breaks into multiple organizations (Asal, Brown, and Dalton 2012; Findley and Rudloff Forthcoming), or as the state of being broken into multiple organizations (Cunningham, Bakke, and Seymour 2012; Cunningham 2011) (Lawrence 2010). The more organizations there are within the ethnic group, the more fragmented the ethnic group becomes. Other scholars are interested in the distribution of power within an ethnic group. A fragmented ethnic group is therefore one in
which power is distributed across multiple actors and organizations, while a unified ethnic group consolidates power in a single actor (Bakke, Cunningham, and Seymour 2012).

Still other scholars are interested in the ability of group members to coordinate behavior. For these scholars, a fragmented group lacks overarching institutions which can coordinate group actions (Bakke, Cunningham, and Seymour 2012). Fragmentation can also mean that the internal harmony of a group is interrupted because of internal violence (McLauchlin and Pearlman 2012). Finally, fragmentation can mean that a group’s sense of collective purpose, or ‘togetherness’ is broken. A unified group, on the other hand, is characterized by a strong sense of collective purpose which is shared among all group members (Pearlman 2012).

At least one group of scholars has attempted to bring unity to this plurality of definitions by combining multiple definitions. Bakke, Cunningham, and Seymour (2012) define fragmentation in terms of the number of organizations, the degree of institutionalization, and the dispersion of power among those organizations.

Ultimately, though, the type of fragmentation one studies is in large part determined by the type of question one is trying to answer. In this dissertation, I am interested in two forms of group fragmentation: (1) at the factional level, the dissertation will explore how and why factions challenge the ethnic leadership, (2) then at the individual level, the dissertation will look at the incentive and opportunities to collaborate with an ethnic rival.

1.5 Outline of the Dissertation

Chapter 1 presented the research question and defined key terms. In the next chapter, I review the literature on violence and ethnic fragmentation in order to place the dissertation within the framework of existing research. Earlier scholarship that studied the effect of ethnic violence on
group dynamics did not see infighting as a problem. That was because this literature argued that violence would ‘harden’ ethnic boundaries and increase group cohesion. Empirically, though, the claim that ethnic violence produces group cohesion was challenged by a steady stream of evidence in which ethnic groups simultaneously engaged in infighting and ethnic violence. A new, more recent wave of scholarship has therefore turned its attention to this empirical puzzle by problematizing group fragmentation. However while this literature examines the effect of violence on group fragmentation, it tends to treat ‘violence’ as a homogenous concept.

In chapter 3, I address this gap by presenting a theory of infighting during ethnic conflict. According to this theory, ethnic violence creates opportunities and incentives for fragmentation. To counter this pressure for fragmentation, the ethnic leadership uses intra-group violence to restore group cohesion.

The dissertation then tests these hypotheses using a wide variety of quantitative and qualitative methods. In Chapter 4, the hypotheses are tested using panel data on 274 ethnic groups in 115 countries over the time period 1990-2006. An multilevel model and a Markov probit regression find that (1) there is a positive correlation between ethnic violence and infighting, (2) this relationship only holds when an ethnic group is geographically concentrated, and (3) this relationship only holds when infighting the previous year had been at low or high levels.

While Chapter 4 provides evidence that ethnic violence and infighting are positively related, the mechanism through which ethnic violence leads to infighting must still be tested. In Chapter 5, the dissertation tests the claim that ethnic violence leads to infighting by creating incentives and opportunities for factional violence and collaboration. Using process tracing on a case study of Palestinian infighting, the dissertation finds evidence that violence does indeed lead to
infighting by increasing the incentives and opportunities for factional violence and collaboration.

Chapter six concludes the dissertation with a summary and discussion.
Chapter 2: Literature Review

Why would an ethnic group engage in infighting during an ethnic conflict? In the ethnic conflict literature, much of the research that examines the effect of violence on group dynamics does not see infighting as problematic. This is because for the most part, the ethnic conflict literature assumes that violence ‘hardens’ ethnic boundaries and makes groups more cohesive. In this section, I examine those claims and I conclude that scholars who argue that ethnic violence hardens ethnic boundaries actually mean three different things when they use the term ‘hardened boundary’: (1) increased loyalty to one’s own ethnic group, (2) greater hostility between ethnic groups, and (3) the external imposition of ethnicity.

I then examine each of these three claims in turn, and find several flaws in the causal mechanisms linking ethnic violence to hardened ethnic boundaries. While ethnic violence can sometimes produce group cohesion, it can also produce the exact opposite outcome: ethnic violence can (1) decrease loyalty to an ethnic group, (2) decrease hostility between ethnic groups, and (3) can remove externally imposed ethnic identities.

The claim that violence hardens ethnic boundaries, which is quite prevalent in the ethnic conflict literature, can therefore provide little insight into the problem of infighting during ethnic conflict. To search for more clues to this puzzle, this chapter turns next to the civil conflict literature, which has recently made some advances into the problem of rebel fragmentation during civil conflict.

2.1 Reversing the Causal Arrow and Hardened Ethnic Boundaries

In the ethnic conflict literature, much effort has gone into studying the consequences of ethnic diversity. These studies have, for example, examined at the effect of ethnic diversity on
interstate war (Van Evera 1994), on civil war (Fearon and Laitin 2003; Collier and Hoefle 2004; Posen 1993; Elbadawi and Nicholas 2002; Reynal-Querol 2002; Cederman, Wimmer, and Min 2010), on democratic stability (Chua 2003; Horowitz 1985; Mann 2005; Rabushka and Kenneth 1972), and on terrorism (Basuchoudharya and Shughart 2010).

Other studies have flipped this causal arrow in order to study the effect of various factors on ethnicity. These studies have, for example, examined how ethnicity is influenced by democratization (Snyder 2000), by elections (Chandra 2004; Posner 2005), economic growth (Anderson 1991; Gellner 1983), state formation and consolidation (Laitin 1986; Scott 1998), by elite manipulation (Brass 1997), and by emotions (Petersen 2002).

A few studies have looked at the effect of violence on ethnicity, and these studies tend to conclude that violence hardens ethnic boundaries. According to students of inter-group conflict, such as Georg Simmel and Lewis Coser, inter-group conflict hardens group boundaries by causing groups to become more cohesive. The experience of conflict with another group increases intra-group interactions, causes group members to draw stark contrasts between their group and other groups, and heightens group identification and group loyalty. When facing a common enemy, factions within the group set aside differences and cooperate toward the common goal of group survival (Coser 1956).

The claim that violence hardens group boundaries is so prevalent that it is even used to generate policy solutions, such as partition as a solution to ethnic violence (Kaufmann 1998; Kaufmann 1996). But what exactly does it mean to ‘harden’ an ethnic boundary? A closer look at the literature suggests that scholars who use that phrase are actually referring to three very different processes. In the literature, the term ‘hardened’ ethnic boundary is used by scholars to mean either: (1) increased loyalty to one’s own ethnic group, (2) greater hostility between ethnic
groups, or (3) the external imposition of ethnicity. In the next few sections I will examine and critique each of these three definitions.

2.1.1 Harden 1: Inter-ethnic Hostility

For some scholars, the claim that violence ‘hardens’ ethnic boundaries basically means that violence can change inter-ethnic relations. These scholars use the phrase ‘hardened boundary’ to indicate that the relationship between different ethnic groups has become increasingly negative and hostile. The following passages provide brief illustrations of the claim that ethnic violence increases inter-ethnic hostility:

...in ethnic wars both hypernationalist mobilization rhetoric and real atrocities harden ethnic identities to the point that cross-ethnic political appeals are unlikely to be made and even less likely to be heard (Kaufmann 1996:137).

Stories of prior atrocities would circulate and encourage killings of Muslims in Bosnia or Tutsi in Rwanda. These categories were artificially constructed and not precisely bounded...[b]ut once called into action as units of collective liability, the categories also gave members compelling reasons to join together in mutual solidarity and defense, and thus to make what had been previously a more abstract groupness more real (Calhoun 2003:564).

As stipulated in the model [in this paper], ethnic violence accentuated intergroup divisions while narrowing intragroup distances, leading to increased ethnic identification and escalating conflict (Sambanis and Shayo 2013).

Instrumentalist theories, which focus on elite manipulation of ethnicity, are especially likely to conclude that violence can lead to a deterioration in inter-ethnic relations. According to these theories, elites can deliberately use riots and other forms of violence to increase hostility between ethnic groups (Gagnon 1995; Brass 2003; Uvin 1999). In an interesting study, Wilkinson (2012) suggests that politicians who find themselves at an electoral disadvantage are more likely to incite riots when ethnic identities are unactivated or weakly activated. This is because ethnic
riots can be used to temporarily increase inter-ethnic hostility and harden ethnic identities around a winning ethnic coalition.

In the literature, even the threat of violence has sometimes been linked to increased hostility between ethnic groups. According to Posen (1993), when the state collapses ethnic groups find themselves in a security dilemma because the actions that one group takes to protect itself can appear threatening to another group. This leads to increased hostility between the ethnic groups, eventually culminating in ethnic violence.

Analysis

The causal argument that links violence to greater inter-ethnic hostility makes two important assumptions. The first assumption is that violence produces hostility toward those who perpetrated the violence. The second assumption is that violence is primarily perpetrated by members of the rival ethnic group. Together, these two assumptions lead to the conclusion that ethnic violence increases hostility between ethnic groups.

- Assumption 1: Violence produces hostility toward the perpetrators of violence

The assumption that violence produces hostility toward the perpetrators of violence seems uncontroversial, but there are important examples where this assumption does not hold. First, different people can react differently to the same violence. In an interesting series of interviews, Kreidie and Monroe (2002) explore the motives of perpetrators of violence during the Lebanese Civil War. One of these was a man they called ‘Marwan’. In the following paragraph, Kreidie and Monroe describe how the same experience of violence produced different reactions among different members of Marwan’s family:
Even when the war erupted and their lives were endangered, Marwan’s parents chose not to get involved and discouraged their son from taking part. Unlike his parents, however, Marwan could not take a passive role. “How can I see this happening to my people? They [Christian Lebanese Forces] allied with the enemy and they were supplementing their plan of eradicating not only the Palestinians but also us Lebanese Muslims” (p. 20).

From this passage, we can see that violence produced strong feelings of fear and caution in Marwan’s parents. In Marwan, though, the same violence produced feelings of anger and hostility. This suggests that at the individual level, violence can trigger different emotions in different people. Violence may indeed produce hostility, but can also produce fear.

Second, at least one scholar has found that at the group level, violence can reduce hostility between ethnic groups. Byman (2002) argues that the state can use a mix of violence and positive incentives to co-opt minority groups that violently oppose the dominant ethnic group. To empirically test his claim, he looks at three cases in which the government used violence and coercion to make an ethnic group less of a threat to the dominant ethnic group. These cases include Bakhtiyaris in Iran, Berbers in Morocco, and Arabs in Israel. However, Byman also finds that the use of violence can sometimes lead to increased inter-ethnic hostility, and this is demonstrated with a case study of Baathist violence against Kurds. Byman concludes that two factors are especially important in determining how state violence will effect inter-ethnic relations. The first is the amount of violence used by the state: the greater the violence, the more likely it is that inter-ethnic hostility will increase. The second factor is the ability of the state to co-opt ethnic group leaders and group members.

- Assumption 2: Violence is primarily perpetrated by ethnic rivals.

The second assumption that links ethnic violence to increased hostility between ethnic groups is the assumption that violence is primarily perpetrated by ethnic rivals. However during an ethnic
conflict, violence can also be perpetrated by co-ethnics. Infighting among co-ethnics can even lead to defection, with group members turning to the ethnic rival for help and support. In Algeria, one important reason why many Algerian Muslims supported the French during the War of Independences was because of FLN (National Liberation Front) violence. Also in Iraq, the desire for revenge against co-ethnics led many former insurgents to switch sides and join U.S. counterinsurgency efforts (Kalyvas 2008).

In summary, it seems that under certain conditions ethnic violence can indeed increase inter-ethnic hostility. Under other conditions, though, violence can lead to a quite different outcome. Violence can produce fear and caution, it can decrease inter-ethnic hostility, and it can increase intra-ethnic animosity to the point of ethnic defection.

2.1.2 Harden 2: Ethnic Cohesion

The claim that violence hardens ethnic boundaries is also asserted by scholars who believe that violence can change *intra*-ethnic relations. At the individual level, a ‘hardened’ boundary means that members of an ethnic group feel more loyalty to their identity and grant that identity more importance. This then leads to greater ethnic cohesion, which ‘hardens’ the identity. Examples of this argument can be found in the following passages:

Conflict enhances the hardening effect of mass literacy on identity by enhancing the emotional impact of recorded national memories (Van Evera 2001:21).

If men define a threat as real, although there may be nothing in reality to justify this belief, the threat is real in its consequences- and among these consequences is the increase of group cohesion (Coser 1956:107).

Specifically, the model [in this paper] predicts that intense ethnic conflict makes people care more about their ethnic group relative to other groups, and seek to resemble it more (Sambanis and Shayo 2013).
At the factional level, an ethnic group can become more cohesive when sub-groups, such as clans or tribes, set aside differences and work together. The ethnic group then begins to look more like a unitary actor as various sub-groups either unite under an umbrella organization, or cooperate toward the same goal. The more the ethnic group resembles a unitary actor, the more cohesive it becomes.

**Analysis**

While violence may indeed increase group cohesion, it does not always lead to this outcome. There are at least two reasons why violence does not always increase ethnic cohesion. First, people can have multiple ethnic identities, so it isn’t immediately clear which ethnic identity people will cohere to. Ethnicity is actually an umbrella concept that encompasses several different types of identities. Identities that are typically included under the umbrella of ethnicity include race, tribe, religion, and caste, to name just a few. Additionally, many of these categories can be further divided into ethnic subcategories. For example, a person can belong to a particular sect of a particular ethnic group, such as Sunni Muslim or Brahmin Hindu. Because ethnicity is such a large, multifaceted concept, most people actually have multiple ethnic identities.

Ethnicity is also often assumed to be a particularly salient cleavage (Horowitz 1985). However if people have multiple ethnicities, then some ethnic identities may be more salient than others. During the Partition of India, for example, there was a great deal of violence between Hindu Brahmins and Muslims. Dalits (Untouchables) were forced to choose between defending their Hindu identity against Muslims, or standing aside and claiming this was a fight
between Brahmins and Muslims. Ultimately, Dalits chose to stand aside and not participate in the conflict (Butalia 1998).

Second, empirical evidence indicates that when faced with an out-group threat, groups sometimes fragment rather than unite. In Iraq, the Sunni insurgency was originally spearheaded by ex-Baathist forces, but between 2003 and 2006, the insurgency splintered into at least 56 different Sunni insurgent groups (Findley and Rudloff Forthcoming). In 1985, the Indian government negotiated an autonomy agreement with Punjabi separatists. When the agreement was not implemented, Punjabi militant groups fractured and began attacking each other (Cunningham, Bakke, and Seymour 2012). In Sudan, the violence between African Muslims and Arab Muslims was also accompanied by violence between two competing factions of African Muslims, the Justice and Equality Movement and the Sudanese Liberation Army.

A more extreme form of ethnic fragmentation occurs when members of an ethnic group defect to the other side. Examples of this include Algerian Muslims supporting the French during the War of Independence, Sunni tribes allying with the US in Iraq, Kashmiri Muslims supporting the Indian military, and Tamil militants siding with Sri Lankan and Indian forces against the LTTE (Kalyvas 2008; Staniland 2012).

It turns out that fragmentation during violence is surprisingly common. In a recent study of group fragmentation, the authors coded the number of wars in which at least one combatant experienced fragmentation. They found that since 1946, fragmentation occurred in roughly 44% of conflicts (Findley and Rudloff Forthcoming). In summary, then, it seems that under certain conditions ethnic violence can indeed lead to greater ethnic cohesion. Under other conditions, though, ethnic violence can lead to abandoning co-ethnics, infighting, or even defection.
2.1.3 Harden 3: Imposing Ethnic Identities

Finally, the term ‘hardened ethnic boundary’ can describe the extent to which ethnic identities are externally imposed. Individuals normally have a portfolio of ethnic identities from which to choose, and that portfolio can change as the social situation changes (Nagel 1994). If identities are imposed so that individuals have little to no choice over the ethnicity that is activated, then we can say that in that society, ethnicity has hardened.

Prior to the Civil Rights Movement in the United States, for example, people of African origin had severely restricted ethnic options. Also during periods of extreme violence, such as civil wars, individuals can be assigned to sides based on ethnic background. In Abkhazia, a former Autonomous Republic of the Soviet Republic of Georgia, people were forced to identify themselves as either Abkhaz or Georgian during the civil conflict. Even if people privately would have preferred another identity, publicly no other options were allowed (Dale 1997). The following passages describe how ethnic options can become severely restricted during periods of violence:

Once violence starts, ethnic identities become social facts, they are quickly ascribed to people whether or not they want to have them...The power of ethnicity comes from an acceptance by enough people that particular social divisions are natural and inevitable (Allen and Seaton 1999:3).

Ethnic civil wars, argue partition theorists, are characterized by strong and fixed identities, by weak ideological and strong religious overtones, by the dissemination of tales of atrocities to strengthen mobilization, and by easy recognition of identities and the existence of only limited scope for individual choice (Sambanis 2000).
Analysis

If identities cannot change because they are externally imposed, this assumes the existence of external actors who are powerful enough to enforce particular ethnic structures. However, such actors may not always be present, due perhaps to state collapse or to intervention by a third party. Kalyvas (2008:1048) examines the effect of civil war on ethnicity and finds that:

Civil war is a process of severe disruption: It destroys existing structures, networks, and loyalties; it creates new opportunities for political losers, alters the size of optimal coalitions, gives rise to new entrepreneurs, and generally reshuffles politics. Therefore, it has the potential to alter the structure of cleavages and generate realignment in identity affiliation, thus destabilizing and even changing a country’s ethnic demography.

In short, violence can be used to create and maintain order, but violence can also be used to disrupt the existing order (Kalyvas, Shapiro, and Masoud 2008). This means that external actors may indeed use violence to impose and maintain particular ethnic structures, but violence can also strip those actors of the ability to impose ethnic structures.

During colonial times, for example, colonial powers frequently used violence to establish and maintain particular ethnic hierarchies in their colonies. Eventually, several colonies used violence to challenge the colonial regimes, and in the process created new ethnic hierarchies. Additionally, perpetrators of genocide and ethnic cleansing rely on violence to create particular ethnic structures. External actors, though, can use violence to stop them from establishing those ethnic structures.

In short, violence can be used to impose and maintain a particular ethnic structure. However, violence can also be used to disrupt that order and establish new ethnic structures.
2.2 The Civil Conflict Literature on Rebel Fragmentation

This chapter has found several flaws in the wide-spread assumption that ethnic violence leads to hardened ethnic boundaries. Unfortunately, these arguments cannot help us explain the puzzle of infighting during ethnic conflict. To search for additional clues to help explain the puzzle, we therefore turn to the civil conflict literature, which has recently made some advances into the problem of rebel fragmentation during civil conflict.

2.2.1 Group Fragmentation as the Independent Variable

The civil conflict literature has made recent advances into the puzzle of combatant fragmentation during civil conflict. However for the most part, combatant fragmentation is explored as an independent variable, rather than a dependent variable which needs to be explained in its own right. This literature, for example, has found that group fragmentation can have a wide range of consequences. First, fragmentation can shape how violence is conducted. Fragmentation can encourage violence against civilians, it can encourage violence against other factions within the ethnic group, and fragmentation can encourage violence against other ethnic groups through outbidding (Cunningham, Bakke, and Seymour 2012). Fragmentation can discourage nonviolent strategies because nonviolent resistance requires a high degree of coordination and cohesion (Pearlman 2012). Finally, a fragmented insurgency becomes less effective at attaining its goals since fragmentation makes political and military coordination more difficult (Pearlman 2008/09).

Second, fragmentation can influence peace negotiations. There is a vast spoiler literature which finds that factions that are dissatisfied with the terms of a negotiated agreement will attempt to undermine that agreement, unless third parties suppress or co-opt them (Stedman
Spoilers can undermine negotiations through a variety of routes. Spoilers can use violence to make the state mistrust the ability of their negotiating partner to fulfill its obligations (Kydd and Walter 2002). Spoilers can also use violence to provoke a retaliatory attack that will radicalize moderates within their own community, and undermine the possibility of a negotiated agreement (de Figueiredo Jr. and Weingast 2001). The ultimate goal of spoilers, according to Pearlman (2008/09), is actually not to influence peace negotiations, but rather to contest the leadership of the ethnic group. Spoiling is ultimately a strategy to shift the distribution of power among factions.

Finally, fragmentation can shape the termination of violence. Fragmentation can help end violence by allowing the state to co-opt faction leaders, which undercuts a rebel group and brings the conflict to a more speedy conclusion (Driscoll 2012). When combatants are fragmented, conflicts tend to terminate with a negotiated agreement (Findley and Rudloff Forthcoming). Lastly, as the number of factions within a group increases, the number of concessions made in that negotiated agreement by the opposing side also increases (Cunningham 2011).

2.2.2 Group Fragmentation as a Dependent Variable

The civil conflict literature has also offered valuable insights into the causes of fragmentation during conflict. While the theories in this literature are quite diverse, we can organize the theories by where they locate the causes of infighting. The theories tend to locate the causes of infighting in one of three different places: (1) combatant/opponent characteristics, (2) power transitions between factions, and (3) the context in which factions operate.

The first set of theories locates the causes of infighting in combatant characteristics. Asal et al (2012), for example, find that certain organizational structures increase the probability of group
fragmentation: organizations with a factionalized leadership are most likely to experience splits whereas organizations with a unified leadership are more likely to remain together. Warren and Troy (Forthcoming) stress the importance of group size: in small ethnic groups ethnic entrepreneurs are prevented from inciting violence by ethnic leaders, while in large ethnic groups ethnic entrepreneurs are prevented from inciting violence by the repressive actions of the state. Moderately sized ethnic groups are therefore more likely to experience fragmentation. Stedman (1997) argues that ideology influences fragmentation, and claims that spoilers emerge because actors within a rebel movement differ in the radicalness of their goals.

A related set of theories locate the causes of infighting in opponent characteristics. Goodwin, for example, (2001) finds that insurgent movements will remain cohesive when the state they face is both weak and exclusionary. However one major challenge for theories that locate the causes of infighting in either combatant or opponent characteristics is that these theories tend to be path dependent and cannot explain the variation in infighting over the course of an ethnic conflict. Combatant and opponent characteristics tend to remain constant throughout the conflict, but infighting can vary widely during the course of the conflict. During some periods infighting can be quite high, while during other periods infighting is almost nonexistent. While these theories may therefore provide some information about the underlying causes of infighting, the immediate causes of infighting continue to remain a puzzle.

There is second set of theories which locate the causes of infighting in the power relationship between factions. Staniland (2012), for example, finds that defection from an ethnic group is caused by fratricide among co-ethnic insurgent groups, which occurs when one group makes a bid for hegemony or when local feuds escalate out of control. In order to survive the fratricide, threatened insurgent groups will often turn to the state, or to other non-co-ethnic rivals, for
support. Greenhill and Major (2006/07) focus on power shifts, and argue that spoilers emerge when shifts in the relative power between factions provide an opportunity to undermine negotiations.

In both these cases, the authors locate the source of infighting in the bid for hegemony by weaker factions. There are three challenges for these theories. First, these theories must explain why a rising faction would violently challenge the dominant faction when time alone will grant the rising faction dominance. Second, the theories must also explain why dominant factions choose violence instead of modifying the status quo to appease the challenger. Finally, ‘power’ is a rather nebulous concept, and so a challenge these theories face is the need to specify what exactly constitutes a power shift. Otherwise, power shift theories can only be used as post-hoc explanations.

A third type of theory locates the causes of infighting within the context in which factions operate. Kalyvas (2008), for example, argues that a key factor in defection is the ability of the state to encourage defection by dispensing resources and controlling territory. However the state can also encourage defection through negative incentives as well, and sometimes defection is not the intended purpose of the state, but rather the unintended consequence of other actions.

McLauchlin and Pearlman (2012) examine the effect of state violence on factions. The authors argue that violence by the state can cause a group to either fragment or unite, depending on how satisfied factions are with the status quo. If factions within the group are satisfied with the status quo, violence will lead to cohesion. If factions are dissatisfied with the status quo, violence will lead to fragmentation.

There are two challenges to this argument. First, the ‘status quo’ actually consists of decisions on a wide array of issues. It seems unlikely that factions will agree on every issue, which means
that there will always be dissatisfied factions. Second, the level of violence does not remain constant throughout the conflict, and it seems probable that low levels of violence (i.e. mild property damage) might have vastly different consequences than high levels of violence (i.e. mass killings). There is therefore a gap in this literature for a theory which examines the wide-range of consequences that ethnic violence can have on factions, and ways in which different levels of violence can influence those consequences.

2.3 Summary

This chapter has argued that with a few notable exceptions, the ethnic conflict literature does not see infighting during ethnic conflict as problematic because the literature assumes that violence ‘hardens’ ethnic boundaries and increases group cohesion. The empirical evidence from places such as Iraq and Afghanistan, though, challenges this assumption. To look for clues to the puzzle, the chapter therefore turns to the civil conflict literature, which has recently begun to examine the problem of combatant fragmentation during civil conflict. In the next chapter, I build on insights from the civil conflict literature in order to create a theory of infighting during ethnic conflict.
Chapter 3: Theory of Infighting during Ethnic Conflict

“…numbers, weapons, and strategy all count in war, but major deficiencies in any one of those may still be counterbalanced by superior cohesion and discipline.”
- (Huntington 1968:23)

Why would an ethnic group engage in infighting during an ethnic conflict? Such behavior is puzzling because as an ethnic group devotes valuable time, energy, and resources on an intra-group conflict, it reduces the total amount of resources the group can draw on to wage the ethnic conflict. Instead of focusing attention and resources on fighting the opponent, ethnic leaders turn their weapons on the very group in whose name they are supposedly fighting. How can we explain such puzzling behavior?

In this chapter, I argue that infighting during an ethnic conflict is the irrational macro-level outcome of rational micro-level choices. At the micro-level, individuals and factions are responding to incentives and opportunities generated by the ethnic violence itself. First, at the factional level, ethnic violence encourages fragmentation by providing incentives and opportunities to challenge the ethnic leadership. Incentives to challenge the leadership can certainly exist prior to the outbreak of ethnic violence, however existing theories assume that the outbreak of ethnic violence then encourages the ethnic group to overlook these differences and unite against a common threat. Instead, I find that ethnic violence can actually create new areas of contention such as the type of strategy (terrorism vs. non-violence) the ethnic group should employ against their opponent. By placing new issues on the table, ethnic violence provides factions with more reasons and opportunities to contest the current leadership.
As the level of ethnic violence increases, ethnic violence pushes the group toward violent infighting for at least two reasons. First, severe ethnic violence lowers the cost and increases the benefits of infighting by eroding or stretching institutions that maintain law and order, such as police forces, and by reducing non-violent pathways toward regime change, such as elections. Second, severe ethnic violence increases the cost of bargaining and negotiation. As casualties from increase, rivals fear for their very survival. The threat to their survival increases the cost of bargaining, and makes violence a more attractive option.

At the individual level, ethnic violence encourages fragmentation by providing group members with incentives and opportunities to collaborate with ethnic rivals. The rival ethnic group might, for example, offer rewards or reduce penalties for collaborators. During an ethnic conflict, the prison system also offers an excellent opportunity to gather information and recruit new collaborators.

As the level of ethnic violence increases, ethnic violence pushes the group toward violent infighting because increased ethnic violence also increases the threat collaboration poses to the leadership. Individual collaborators may be identifiable and subject to retaliation, but since the leadership cannot know the identity of all collaborators, they may instead respond to the increased threat by using demonstrative violence against suspected collaborators in order to generate fear in all group members, deter further collaboration, and ensure group cohesion.

The end result of these rational micro-level decisions is an irrational macro-level outcome: infighting during an ethnic conflict. The theory outlined in this chapter can be modeled by the following diagram:
The rest of the chapter will elaborate on this theory. The first section will start at the factional level and will explore how ethnic violence encourages factional violence. The second section will then shift to the individual level, and will explore how ethnic violence encourages violence against suspected collaborators.

3.1 The Factional Level: Challenging the Ethnic Leadership

Nested within ethnic identities are numerous sub-identities such as clan, tribe, religion, region, and caste. Not all sub-identities are politically organized, though, and the salience of these
identities can shift over time. These sub-identities are nevertheless important because they provide important cleavages along which factions can form.

When ethnic violence occurs, it acts as an external shock that can shift this ethnic landscape. One way ethnic violence can shift this landscape is by bringing new contentious issues to the table, such as the type of strategy the group should employ (violence vs. non-violence) or the type of goals the group should pursue (autonomy vs. independence). By placing new issues on the table, ethnic violence increases fragmentation by providing factions with incentives and opportunities to challenge the leadership. As ethnic violence becomes more intense, the violence pushes the group toward infighting by decreasing the cost of infighting and increasing the cost of negotiation.

3.1.1 The Incentive to Challenge the Leadership

During ethnic violence, the incentive to challenge the leadership can come from at least four different sources. First, factions can be dissatisfied with the leadership’s strategic choices during the ethnic conflict. For example, some factions might prefer negotiation while others advocate a more forceful or violent response (Kydd and Walter 2002). In Palestine, Hamas prefers a policy of armed resistance and terrorism while Fatah advocates pressure through negotiation. In Chechnya, insurgents were split between Islamic factions that supported tactics such as suicide bombings and hostage taking, and nationalist factions that opposed those tactics (Lyall 2010).

Second, factions might be dissatisfied with the goals of the leadership during the ethnic conflict. While both the Turkish Hezbollah and PKK were Kurdish groups fighting against the

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5 Although the cause of the external shock is exogenous to the present theory, it is important to note that factions can purposely trigger inter-ethnic violence in order to shift the distribution of power within an ethnic group. Factions have, for example, used terrorism against rival ethnic groups in order to provoke retaliatory violence (Pearlman 2008/09; de Figueiredo Jr. and Weingast 2001)
Turkish government, the two groups also fought each other because the Turkish Hezbollah, unlike the leftist PKK, sought to establish a conservative Sunni theocracy in southeastern Turkey.

Third, ethnic violence can cause preferences to shift by increasing the cost of mobilization. Groups may respond differently to the increased cost of mobilization, with strongly committed groups pushing forward regardless of cost while less committed groups prefer compromise. The increased cost of mobilization can force all factions to reconsider the utility of participating in the conflict, creating divisions even between those who had been satisfied with the status quo prior to the outbreak of ethnic violence.

Finally, previous sources of tension can carry over or be exacerbated by the violence. Prior to the outbreak of the conflict, some factions might have been dissatisfied with the distribution of goods and resources within the ethnic group, or with the allocation of leadership positions. After violence breaks out, this dissatisfaction can carry over or become exacerbated by the conflict. For example, the Chechen political and religious leader, Akhmad Kadyrov, fought against the Russians in the first Chechen War, but then switched sides and fought with the Russians in the Second Chechen war. Kadyrov, who was a Sufi mufti, opposed the rise of Wahhabism and the growing criminality he saw under the leadership of Chechen President Aslan Maskhadov (Ware 2005).

All these sources of dissatisfaction provide an incentive for fragmentation because they give factions a reason to challenge the ethnic leadership.
3.1.2 The Opportunity to Challenge the Leadership

Violence not only provides an incentive to challenge the ethnic leadership, but can also provide an opportunity to challenge the leadership. Prior to the outbreak of violence, the distribution of power within the ethnic group may have made it risky for rival factions to issue a direct challenge. Ethnic violence, though, can shift this distribution of power by undermining the leadership and by strengthening weaker factions. Ethnic violence can shift the distribution of power and create an opportunity to challenge the leadership in at least three ways.

First, during the violence ethnic leaders may be arrested, kidnapped, or killed, which produces uncertainty and disarray as leadership authority shifts between individuals. The loss of an organization’s leadership can weaken an organization to the point that dissatisfied factions believe they have an opportunity to mount an effective challenge. Two prominent examples of effective leadership decapitation are the arrests of Abimael Guzman, the leader of the Shining Path, and Abdullah Ocalan, the head of the Kurdistan Workers’ Party’s (PKK). In both instances, the arrest of the leader led to the complete collapse of the organization (Jordan 2009).

In the aftermath of 9/11, leadership targeting has become a prominent strategy of the U.S. military, based on the belief that, “The loss of leadership can cause many organizations to collapse” (Bush 2003). However the National Strategy for Combating Terrorism continues with the following caveat:

Some groups, however, are more resilient and can promote new leadership should the original fall or fail. Still others have adopted a more decentralized organization with largely autonomous cells, making our challenge even greater (Bush 2003).

Indeed, Spanish authorities had thought that the arrest of Francisco Mugica, the leader of the Basque Homeland and Freedom (ETA), would lead to the collapse of the organization. ETA, though, did not collapse after the loss of its leader (Jordan 2009). Also in Iraq, Abu Musab al-
Zarqawi was killed in June 2006 based on the belief that his death would weaken al Qaeda in Iraq. However al Qaeda simply replaced Zarqawi, and reconstituted itself (Masters 2012).\textsuperscript{6}

Issuing an effective challenge against an ethnic leadership, though, does not first require the leadership to collapse. A weakened organization can also become a potential target for challengers. Although the death of Zarqawi did not lead to the collapse of al Qaeda in Iraq, it did cause the group to become splintered and decentralized, which then allowed other Sunni insurgent groups to step forward (Masters 2012; al-Salhy 2012). Although al Qaeda in Iraq did not collapse,

It doesn’t have that distinct command-and-control structure it used to. Once you take away that figurehead, no one has been able to come in and wrangle all the pieces together (Brian Fishman, as quoted in Beehner 2007).

Second, if an ethnic group appears to be losing the conflict, there is a greater potential for factional loyalties to shift. Under such conditions, the leadership can suffer a loss of confidence. Factions that had previously supported the leadership may withdraw their support, or even turn against the leadership. This presents rival factions the opportunity to challenge the newly weakened leadership for control of the ethnic group.

Third, ethnic violence allows dissatisfied factions to shift the distribution of power by turning to the ethnic rival for support and protection. When Al Qaeda in Iraq began targeting rival groups, the presence of U.S. forces allowed besieged groups to protect themselves by turning to the U.S. for support. In Kashmir, the Pro-Pakistani Ikhwanis were able to turn to the Indian military for support when they were targeted by other Pro-Pakistani Kashmiri militants (Staniland 2012).

\textsuperscript{6} In an interesting study, Jordan (2009) looked at the consequences of leadership decapitation in terrorist organizations. Her study found that the loss of the leader is most likely to lead to organizational collapse among organizations that are smaller, more recently formed, and ideologically based.
Ethnic violence, then, can provide both an incentive and an opportunity to challenge the ethnic leadership. The challenge to the ethnic leadership, though, does not necessarily need to involve violence. Nor does the leadership need to respond to challengers with violence. As the intensity of ethnic violence increases, though, infighting becomes more likely as ethnic violence decreases the cost of infighting and increases the cost of negotiation.

3.1.3 The Conditions that Encourage Violence

Ethnic violence can create an environment that encourages and promotes infighting in at least three ways. First, violence can create new cleavages in the ethnic group, around which competing factions can form. These cleavages can form over differences in the strategy or goals of the conflict, or over the distribution of goods and leadership positions. As the number of factions increases, the number of potential dyads along which incompatibilities and disputes can lead to violence also increases. As the number of dyads along which conflict can occur increases, the probability of violence also increases (Bakke, Cunningham, and Seymour 2012).

Second, ethnic violence can increase the probability that challengers will use violence by both (1) reducing non-violent pathways for protest and by (2) reducing the constraints against violence. First, violence can erode institutions that had previously channeled leadership disagreements through non-violent pathways, such as regular elections. When faced with ethnic violence, the ethnic leadership may cancel elections or declare a state of emergency. Challengers are then faced with a dilemma because non-violent options to push forward their demands are reduced or no longer available. If the leadership refuses to step aside or accommodate demands, and if non-violent options to change the leadership or gain legitimate representation are no
longer available, then violence, which is a much quicker and more efficient way to challenge the leadership, becomes a more attractive option.

Ethnic violence can also increase the probability that challengers will use violence by undermining institutions that had previously constrained factional violence. During periods of ethnic violence, institutions that had maintained law and order, such as regular police forces, can be spread thin or have their resources redirected toward the ethnic conflict. This creates conditions under which, for example, roving groups of factional supporters can freely challenge opponents. When the forces that maintained law and order are undermined, the constraints on factions are loosened and violent clashes become more likely.

Third, as the casualties from ethnic violence begin to mount, rivals begin to fear for their survival. The threat to their survival makes bargaining and negotiation, which are time-consuming processes, a less attractive option. The efficiency of violence becomes a more attractive option.

If the above causal analysis is true, we would expect the following two predictions and hypotheses to also be true:

**H1:** When inter-ethnic violence is at low levels, then infighting from factional violence will also be at low levels.

**H2:** When inter-ethnic violence is at high levels, then infighting from factional violence will also be at high levels.
3.2 The Individual Level: The Pressure to Collaborate

Ethnic violence not only creates pressure for fragmentation at the factional level, but also creates pressure for fragmentation at the individual level. When ethnic violence occurs, it acts as an external shock that creates new challenges, incentives, and opportunities for group members, leading those who would normally never consider collaboration to suddenly reconsider, and causing those who have already collaborated to rethink their actions. As ethnic violence increases, collaboration may or may not increase. However, as ethnic violence increases the threat collaboration poses to the ethnic leadership does increase, making it more likely that the leadership will use violence to deter collaboration and restore group cohesion.

3.2.1 The Incentive to Collaborate

The pressure to collaborate can come from several sources. First, the rival ethnic group can encourage collaboration. Collaboration aids the rival group in many ways, but at least one study has found that when the rival group is able to successfully co-opt faction leaders, it tends to undercut the resistance and bring the conflict to a more speedy conclusion (Driscoll 2012). The rival ethnic group can encourage collaboration through negative incentives, such as blackmail and threats, or with positive incentives, such as money, food, and freedom of movement. In Iraq, for example, Americans used the promise of a paycheck and steady employment to recruit former Baathists to fight Sunni insurgents (Maass 2005).

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7 In this dissertation, collaboration is defined as fighting against co-ethnics by joining another ethnic group that is opposed to the aspirations of one’s co-ethnic group (Kalyvas 2008).
8 Factions can also collaborate against the ethnic leadership. However, since that type of collaboration often involves direct attacks against the ethnic leadership, factional collaboration is included under ‘factional challenges to the leadership’.
A second incentive to collaborate can come from within the ethnic group, as individuals seek revenge for pre-war grievances, or seek revenge for atrocities committed during the ethnic violence (Staniland 2012). In East Timor, Mydans (1999) tells the story of a young Timorese man, Alfonso Goncalves, who was killed by Timorese militants collaborating with the Indonesian army. Goncalves was targeted by collaborators not only because his father was a strong proponent of Timorese independence, but also because of a pre-conflict family feud. Goncalves’ niece had eloped with a relative of the militants, and the murder of Goncalves was an act of revenge. In Chechnya, the recently assassinated Chechen warlord, Raybek Tovzayev, chose to collaborate with the Russians because in 1995, a Chechen rebel leader had entered Tovzayev’s village and killed his father in front of the family. Three months after his father’s murder, Tovzayev gathered a small band of fighters and assassinated the Chechen rebel leader (Tyler 2001). Among Algerians who supported France during the war of independence, one of the most important reasons for defection was FLN violence (Kalyvas 2008).

Within the ethnic group, pressure to collaborate can also come from tribal or clan loyalties because if the local leaders choose to defect, group members may feel compelled to do the same. During the Mau Mau insurgency in Kenya, for example, the British relied on local leaders to persuade and bully their supporters into joining the British Home Guard (Kalyvas 2008).

A fourth pressure can come from the need to provide daily necessities or to take care of a family. According to one Chechen refugee, many Chechens were willing to work for the pro-Russian Chechen leader, Akhmad Kadyrov, because it was one of the few ways to earn a steady paycheck:

There are no jobs in Chechnya. Either you bring stuff to the market to sell or you work in the reconstruction business. You know, the Russian state is trying to build Grozny, and most of our men work in these construction sites. But there are not many construction
jobs. And even if you find one, it is not likely that you will get paid regularly (as quoted in Kalayvas 2008, 1054).

A fifth incentive to collaborate can arise from personal beliefs and ideology, which may conflict with those of the political leadership. In such cases, collaboration does not suggest disloyalty to the ethnic group, but rather disloyalty to the political leadership, which the individual may believe is necessary in order to remain loyal to the ideals and goals of the larger ethnic group.

Lastly, pressure can also come from self-interest and the desire to be on the winning side. During the Mau Mau insurgency, for example, Kikuyu who had been Mau Mau insurgents switched sides when the local distribution of power also switched (Kalyvas 2008).

3.2.2 The Opportunity to Collaborate

In addition to providing incentives to collaborate, inter-ethnic violence can also provide individuals with opportunities for collaboration. During periods of ethnic violence, there is often a great deal of confusion and disarray. During this period of disarray, behavior that might have previously aroused suspicion might instead be overlooked. Also during ethnic violence, the ethnic rival may arrest or detain members of the ethnic group. These periods of incarceration provide excellent opportunities to gather information from collaborators or to coerce new individuals to collaborate by, for example, reducing jail time in return for information.

3.2.3 Pressure for Violent Infighting

The different pressures to collaborate may vary in their intensity as the conflict continues, with some sources exerting more pressure and others exerting less. For example, as the conflict
becomes more violent the rival ethnic group might offer greater incentives to collaborate, which attracts some within the ethnic group. On the other hand if the ethnic group is also winning the conflict, then the more pragmatic members of the group will be less willing to collaborate. At the same time, violence from co-ethnics may cause some group members to collaborate out of desire for revenge. These shifting pressures mean that the pressure to collaborate may or may not increase as inter-ethnic violence increases in intensity. Changes in the pressure to collaborate are dependent on a variety of factors, only some of which are related to the intensity of violence.

However, even if the pressure to collaborate is not directly related to the intensity of violence, we cannot say the same for the damage caused by collaboration. Collaborators can undermine an ethnic leadership in a variety of ways. First, collaborators have important local knowledge that they can leak to the rival group. According to Lyall (2010:16):

Defectors, particularly those fleeing posts with command responsibilities, can reveal a variety of different types of sensitive information, including the size of the group, the identity and whereabouts of its leadership, its morale, and the location of its physical infrastructure such as bases and weapons caches.

The rival ethnic group can then use this information to target or kill militants. In India, the Indian government recruited former militants from the United Liberation Front of Assam (ULFA) into the pro-government militia, Surrendered Liberation Front of Assam (SULFA). SULFA was then used by the government to assassinate activists and ULFA members (Gossman 2000). The Indian government used the same tactic in Kashmir, where the government’s use of ‘turncoat’ militants as informants and assassins had a devastating effect on militant organizations (Gossman 2000).

The fear of informants can cause ethnic leaders to be constantly on the move, preventing them from organizing and planning the resistance. In Chechnya, Chechens who supported the Russian
government were enlisted in ‘sweeps’, which were house-to-house searches for insurgents. Sweeps conducted entirely by Chechens, rather than Russians, were far more effective and led to a significant decline in insurgent attacks (Lyall 2010).

Collaboration can also undermine the legitimacy of the ethnic leadership. If collaboration leads to mass defection, the leadership’s claim of being the sole legitimate representative of the ethnic group is called into question. Using the category of ‘loyal Kurd’, Turkey was able to mobilize tens of thousands of Kurdish peasants into local militias. Support for the PKK’s separatist agenda declined dramatically, and to stop the flood of defections, the PKK began a systematic campaign targeting defectors (Kalyvas 2008). During the Colonial wars of the 19th century, recruiting collaborators from the indigent population was seen as both routine and necessary (Lyall 2010).

The ethnic leadership, in turn, can respond to this threat using a range of strategies. The leadership can, for example, employ speeches, positive incentives, and punitive measures. As ethnic violence increases, collaboration may or may not increase. However, as ethnic violence increases the increased ability of collaborators to undermine the ethnic group makes it more likely that the ethnic leadership will use violence against collaborators. The violence is used not only to eliminate existing collaborators, but also to deter others from collaborating. Through violence the leadership can intimidate potential collaborators, forcing individuals to weigh the benefits of collaboration against the terrible cost of being caught.

As inter-ethnic violence becomes more intense, collaborator killings are likely to become more public and more gruesome. In 2010 when violence in Afghanistan was at its worst since the Taliban was overthrown in 2001, Mullah Omar, the head of the Taliban, issued new orders to his field commanders instructing them to kill collaborators working with NATO forces (Al
Jazeera 2010). As violence escalated in Iraq, Sunni insurgents targeted collaborators working with the new interim government. The insurgents targeted both high level officials such as the governor of Mosul, and low level officials such as Zawadi Shaati, who was brutally tortured and then shot in the head before his body was left hanging from a lamp post (Harnden 2004). Ethnic leaders can use brutality as a tool to generate fear and compel loyalty by deterring additional collaboration.

If the above causal analysis is true, we would expect the following two hypotheses to be true:

H3: When inter-ethnic violence is at low levels, then infighting due to collaboration will also be at low levels.

H4: When inter-ethnic violence is at high levels, then infighting due to collaboration will also be at high levels.

### 3.3 Additional Implications of the Theory

According to the theory presented in this chapter, ethnic violence increases infighting by encouraging challenges to the leadership and by increasing the threat from collaboration. However the effect of ethnic violence on infighting can be influenced by the proximity of ethnic group members to each other for at least four reasons.

First, it is easier for group members to engage in violence against each other if they are in the same geographic location. Physical separation makes it more difficult to attack co-ethnics. Second, in a group that is geographically concentrated, group members are more likely to compete over the same resources. An ethnic group that is geographically dispersed, in contrast, will likely have other resources which they can try to obtain. The pressures for change within a geographically dispersed group may therefore be lower, making it less likely that a shift in the power structure will lead to factionalism.
Third, when group members are geographically concentrated, out-group members are less likely to have knowledge about the leadership structure and inner workings of the group. Any out-group member that tried to infiltrate a tightly concentrated ethnic group would likely be quickly identified and isolated. This makes insider information more valuable, and makes the threat from collaboration relatively higher. When an ethnic group is tightly concentrated, the asymmetry of information between out-group and in-group members will increase the threat of collaboration, leading to greater violence against suspected collaborators.

Finally, when an ethnic group is geographically concentrated, more group members may have access to valuable information, such as the location of key leaders or the location of weapon stockpiles. The number of potential collaborators is therefore much larger. However, because the group is tightly concentrated, it also becomes easier to identity collaborators. Because (1) collaborators are easier to identify and (2) there are more potential collaborators to deter, the violence against collaborators is expected to be more frequent, public and gruesome.

If the above analysis is true, we would expect the following hypothesis to be true:

H5: Inter-ethnic violence will increase infighting more when ethnic group members are geographically concentrated.

### 3.4 Summary

Why would an ethnic group engage in infighting when fighting an ethnic conflict? This chapter argued that infighting during an ethnic conflict is the irrational macro-level outcome of rational micro-level choices. At the micro-level, individuals and factions are responding to incentives and opportunities generated by the ethnic violence itself.

First, at the factional level, inter-ethnic violence provides an incentive and opportunity to challenge the ethnic leadership. As the level of violence intensifies, ethnic violence also creates
an environment that facilitates and encourages violence within the ethnic group. When combined, these two consequences of ethnic violence dramatically increase the probability of violent challenges to the ethnic leadership. The ethnic leadership, in turn, uses violence to counter this pressure toward fragmentation and restore group cohesion.

Second, at the individual level, violence can provide group members with both the incentive and opportunity to collaborate with ethnic rivals. As the level of inter-ethnic violence increases, collaboration may or may not increase, but the threat collaboration poses to the ethnic leadership does increase, making it more likely that the leadership will use violence against suspected collaborators in order to deter collaboration and restore group cohesion. The end result of these rational micro-level decisions is an irrational macro-level outcome: infighting during an ethnic conflict.
Chapter 4: Statistical Analysis

Why would an ethnic group engage in infighting during an ethnic conflict? According to the theory presented in the previous chapter, the ethnic violence itself creates opportunities and incentives for fragmentation. To counter this pressure for fragmentation, the ethnic leadership uses intra-group violence to restore group cohesion. This theory was then used to generate the following five hypotheses:

H1: When inter-ethnic violence is at low levels, then at the factional level infighting from leadership challenges will also be at low levels.

H2: When inter-ethnic violence is at high levels, then at the factional level infighting from leadership challenges will also be at high levels.

H3: When inter-ethnic violence is at low levels, then at the individual level infighting from collaboration will also be at low levels.

H4: When inter-ethnic violence is at high levels, then at the individual level infighting from collaboration will also be at high levels.

H5: Inter-ethnic violence will increase infighting more when ethnic group members are geographically concentrated.

To test these hypotheses, the dissertation will need to use a two-step approach. The first step will consist of a series of statistical analysis which test the claim that higher levels of ethnic violence lead to higher levels of infighting. This is an important and controversial claim because much of the ethnic conflict literature assumes the exact opposite – the literature assumes that ethnic violence actually ‘hardens boundaries’ by increasing group cohesion. The assumption that ethnic violence increases ethnic cohesion has even led to some controversial policy
recommendations, such as partition as a solution to ethnic conflict (Kaufmann 1996; Kaufmann 1998; Muller 2008).

If ethnic conflict does indeed produce higher levels of infighting, then the second step, which is presented in the next chapter, is to use process tracing on a series of case studies in order to test the proposed causal mechanism that links ethnic violence to infighting. According to the hypotheses, ethnic violence causes an increase in infighting because at the factional level, ethnic violence increases the incentive and opportunity to challenge the leadership, and also creates conditions that encourage violence. At the individual level, ethnic violence creates incentives and opportunities for collaboration, and increases the threat collaboration poses to the leadership. The leadership then attempts to counter these pressures for fragmentation by using intra-group violence to restore ethnic cohesion.

Using a series of statistical regressions, the rest of the chapter will test the first of these claims, which is the hypothesis that higher levels of ethnic violence lead to higher levels of infighting.

### 4.1 Research Design

This chapter attempts to answer three different questions about the relationship between ethnic violence and infighting. First, do higher levels of ethnic violence lead to higher levels of infighting? Second, is the relationship between ethnic violence and infighting influenced by the geographic concentration of the ethnic group (hypothesis 5)? And finally, given levels of infighting at time $t-1$, does ethnic violence cause the ethnic group to transition to higher levels of infighting at time $t$?

All three of these questions require us to make a causal inference about what would have happened to the amount of infighting within an ethnic group at a particular moment in time if
that same ethnic group had experience a different level of ethnic violence at that same moment in time. All attempts at causal inference, though, run into what is known as the “fundamental problem of causal inference.” The “fundamental problem of causal inference” is that we cannot observe both what would have happened if the ethnic group did experience ethnic violence at a particular moment, and what would have happened if that same ethnic group did not experience ethnic violence at that same moment. Instead, we only observe one outcome, and must then make causal inferences based on incomplete information (Gelman and Hill 2007).

One way to get around this problem is by using statistical adjustments to estimate the unobserved outcome. To make causal inferences about the effect of ethnic violence on infighting, this chapter will use two different statistical methods: Multilevel modeling, which addresses the interdependence of observations for each ethnic group, and a Markov transition model, which allows us to model the transition from one level of infighting to another.

4.1.1 Data

The data used in this section is from the Minorities at Risk (MAR) project. MAR has collected information on 274 ethnic groups in 115 countries over the time period 1990-2006.9 Each year, the dataset records whether a specific ethnic group engaged in infighting and/or ethnic violence, and if so, the intensity of violence. There are a total of 2,130 individual observations in the dataset.

---

9 The dataset provides information only on the post-Cold War era. The theory, however, does not predict that the Superpower rivalry influences the effect of ethnic violence on infighting. If the statistical analysis fails to provide evidence of a relationship between ethnic violence and infighting in the post-Cold War era, then there is no reason to believe the theory can explain infighting during the Cold War or pre-Cold War era. If the statistical analysis does provide evidence of a relationship between ethnic violence and infighting in the post-Cold War era, this would justify further research which tests this relationship during the Cold War and pre-Cold War era.
The ethnic groups included in the MAR dataset are defined as non-state, ‘politically significant’ communal groups. MAR defines ‘politically significant’ groups as those that meet the following two criteria:

- The group collectively suffers, or benefits from, systematic discriminatory treatment vis-a-vis other groups in a society; and,
- The group is the basis for political mobilization and collective action in defense or promotion of its self-defined interests. (MAR website)

This is important for two reasons. First, Rosenbaum (2010) argues that a good observational study is one in which the subjects are included or excluded from an experiment based on covariates prior to, and unaffected by the treatment. The ethnic groups included in MAR are chosen based on criteria unrelated to the “treatment” of ethnic violence, and so the study meets this exclusion criterion. Second, the ethnic groups included in the analysis are already politically mobilized, and it therefore seems likely that these groups will be more cohesive than non-mobilized ethnic groups. The groups in the MAR dataset therefore represent a hard case for my theory, which argues that inter-ethnic violence will cause such groups to fragment and engage in infighting.

### 4.1.2 Multilevel Model

The dissertation uses a multilevel model to address two of the three questions that motivate this chapter: (1) Do higher levels of ethnic violence lead to higher levels of infighting? (2) Is the relationship between ethnic violence and infighting influenced by the geographic concentration of the ethnic group?
In the dataset, each ethnic group is observed at multiple points in time, and the levels of infighting and ethnic violence within the group are then recorded. However, the observations recorded for a single ethnic group at time $t$ are likely correlated with the observations recorded for that same ethnic group at time $t-1$. Since the observations clustered within each ethnic group are likely not independent of the other observations within that same cluster, the observations contain less unique information. The larger the correlation between observations, the less unique information each observation contains. Ordinary Least Squares (OLS), though, assumes independent observations. If OLS is used on clustered data with correlated errors, then the standard errors may be underestimated, increasing the chances of a Type I error and rendering significance tests less reliable (Luke 2004).

One measure that provides information on the level of correlation within groups is the interclass correlation (ICC). The ICC tells us how strongly units in the same group resemble each other by using the following formula:

$$ ICC = \frac{\text{level 2 variance}}{\text{level 2 variance} + \text{level 1 variance}} $$

In our dataset, ethnic groups are the Level 2 units, and nested within those groups are repeated measurements, which are the Level 1 units. If the ICC is close to zero, this means that nesting observations within groups is unnecessary because there is little variation at the group level. Single level regression is therefore acceptable. If the ICC is close to one, then observations within groups are similar and group level variation accounts for most of the variation in the dataset. Multi-level modeling is therefore suggested. The ICC for our data is:
\[ ICC = \frac{.2426}{.2426 + .7673} = .2402 \]

which means that approximately a quarter of the variation between observations can be explained by variation between groups, which is large enough to suggest the need for multi-level modeling.

Multilevel models use maximum likelihood estimation to predict the values of a dependent variable when the outcome is a function of predictors at more than one level. Such models are useful whenever data has a clustered structure, such as houses within neighborhoods or, in this case, multiple observations of an ethnic group over time. The system of equations that will be estimated for a random intercept model is (Luke 2004):

\[
L1: Y_{ij} = \beta_{0j} + \beta_{1j}X_{ij} + r_{ij} \\
L2: \beta_{0j} = \gamma_{00} + \mu_{0j} \\
\beta_{1j} = \gamma_{10}
\]

The first level equation (L1) estimates the value of infighting, \( Y_{ij} \), for each observation \( i \) of each ethnic group \( j \). The second level equation (L2) tells how each of the L1 parameters is a function of L2 predictors. The equations in L2 estimate \( \beta_{0j} \), the intercept for each ethnic group \( j \), and \( \beta_{1j} \), the slope for each ethnic group \( j \). \( \gamma_{00} \) is the expected value of infighting when the predictor variables all have a value of 0, and \( \gamma_{10} \) is the mean value of the L1 slope for \( X_{ij} \). Finally, \( \mu_{0j} \) is the unmodeled variability in each ethnic group \( j \). In the above model, the intercepts are allowed to vary for each ethnic group while the slopes remain constant.\(^{10}\)

\(^{10}\) A random intercept model assumes that different ethnic groups have different average infighting levels. This is a reasonable assumption since the data shows that some ethnic groups appear to experience much more infighting than others. A random slope model, though, assumes that the effect of ethnic violence on infighting varies across groups. Ethnic violence, in other words, may cause some groups to engage in more infighting than others. However the
The model will also include an interaction between ethnic violence and geographic concentration, as well as several control variables. The interaction term is used to test the claim that ethnic violence has a different impact on infighting in geographically concentrated and geographically dispersed ethnic groups. The control variables are included in order to account for observed variables that are related to both ethnic violence and infighting (Gelman and Hill 2007). For example, ethnic groups with kin across international borders might be more likely to engage in infighting because neighboring kin groups represent alternate sources of leadership, and they may also be more likely to engage in ethnic violence because they have more external support. If the presence of kin across international borders were to be omitted from the analysis, then the effect of ethnic violence in the model would be “confounded” with the effect of neighboring kin.

4.1.3 Markov Ordered Probit Regression

The third question will be then be addressed using a Markov transition model, a method that allows us to model the transition between infighting categories, as well as the factors associated with each transition. The Markov chain, developed by the Russian mathematician Andrey Markov, is a mathematical system that undergoes a transition from one state to another state. Markov chains are useful in the social sciences because they can be used to model how social phenomena move between different states (Gill 2006). In a Markov chain, the decision making process is based only on the current conditions. For example, a gambler might decide to fold or bet depending on the cards she holds, or an army general may decide to advance or retreat based on the current conditions outlined in the previous chapter provides no reason to believe that ethnic violence has a different impact on infighting in different ethnic groups. Because of this, the estimated model will have a random intercept and a fixed slope.
on current conditions on the battlefield. Markov chains are ‘memoryless’ in the sense that previous states are forgotten and only the current state matters in the decision-making process (Gill 2006).

In this dissertation, a Markov chain will be used to model the probability that an ethnic group will transition from one level of ethnic infighting to another level of ethnic infighting. The conditions of the initial state are represented by all the variables in the previous year, at time $t-1$. The analysis will then examine how the variables in that initial state ($t-1$) influence the probability of transitions to another state in the following year, at time $t$. If the hypotheses are correct, then the level of ethnic violence will influence the probability of transitioning between each of the different levels of infighting.

A Markov chain regression is used in this analysis for two reasons. First, a Markov model will allow us to distinguish between the different levels of infighting in order to determine if some states have different transition probabilities than other states. For example, is the impact of ethnic violence when transitioning from no infighting (level 0) different from the impact of ethnic violence when transitioning from moderate infighting (level 3)? If an ethnic group is experiencing high levels of infighting, what impact does ethnic violence have on infighting in that group? Second, the Markov model has the additional advantage of allowing us to determine what, if any, variables are associated with a decrease in infighting. If an ethnic group is experiencing high infighting, are any of the variables associated with transitioning down to a lower level of infighting? Depending on the outcome of the analysis, the answer to this question can have important policy implications for the management of intra-group conflict.

Following Epstein et al. (2006), I estimate the following Markov transition model:
\[ F[\Pr(Y_{it} = b|Y_{it-1} = a)] = \Theta_{ab} + X_{it}\beta_a, \]

where \( a \) and \( b \) are possible infighting levels, \( \Theta_{ab} \) is the category threshold, a parameter that provides each cumulative regression with its own intercept, \( X_{it}\beta_a \) is a linear predictor, and \( F(\cdot) \) is a function that translates the \([0,1]\) interval to the real line. The left side of the equation tells us that we are estimating the probability that an ethnic group is at one level of infighting, given the level of infighting that they were at last year. In other words, what is the probability that an ethnic group will be at infighting level 5, given that they were at infighting level 0 last year? The right side of the equation is the cumulative link model, which is a class of regression models for ordered categorical data. The cumulative link model consists of the category threshold \( (\Theta_{ab}) \) and a linear function of the regressors, \( (X_{it}\beta_a) \) also known as the linear predictor.

To map the linear predictor to the unit interval \([0,1]\), we need a link function \( F(\cdot) \). While any cumulative distribution function (cdf) can be used as a link function, the two cumulative distribution functions that are used most often are the logistic distribution:

\[
\Lambda(z) = \frac{1}{1 + e^{-z}}
\]

and the standard normal distribution:

\[
\phi(z) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{z} e^{-\frac{1}{2}z^2} \, dZ
\]

This analysis will use the cumulative standard normal distribution, which then leads to the linear probit model:

\[
\pi_i = \phi(\alpha + \beta_1X_{i1} + \ldots + \beta_kX_{ik}) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{\alpha + \beta_1X_{i1} + \ldots + \beta_kX_{ik}} e^{-\frac{1}{2}z^2} \, dZ
\]
The linear probit model is used when the outcome, $Y$, is dichotomous. Since the outcome in this analysis has six ordered categories, I use the ordered probit model.

To model the transition between the six ordered categories of infighting, I follow Epstein et al. (2006) and Owsiak (2011) and use cumulative transition probabilities. Let us assume there are $C$ ordered categories of the dependent variable, labeled 0, 1, ..., $C$-1. In this analysis $C=6$ since there are six different levels of infighting. We can then express the dependent variable ($Y$) in terms of a new variable called $Y^*$ such that:

$$Y^*_a = 1 \text{ if } Y_{t-1} \leq a,$$

where $Y_{t-1}$ = infighting at time $t$-1 and $a$ = the ordered category.\(^{11}\) The complete translation from $Y$ to $Y^*$ is given in Table 4.1:

<table>
<thead>
<tr>
<th>$Y$: Level of Infighting at $t$-1</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>$Y_0^*$</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>$Y_1^*$</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>$Y_2^*$</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>$Y_3^*$</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>$Y_4^*$</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Since transition probabilities are cumulative, each value of $Y^*$ splits $Y$ into a dichotomy and indicates whether the prior level of infighting was at or below a particular level of violence. For example, $Y_0^*$ splits $Y$ into the dichotomy \{0, 12345\}, and indicates whether prior levels of infighting were at or below 0.

---

\(^{11}\) I used the lagged dependent variable ($Y$) to generate $Y^*$ because the analysis is interested in transitions from the previous time period ($t$-1).
infighting was at or below level 0. $Y_1^*$ creates the dichotomy \{01, 2345\}, and indicates whether prior levels of infighting were at or below level 1. $Y_4^*$ creates the dichotomy \{01234,5\}, and indicates whether prior levels of infighting were at or below level 4. $Y_5^*$ then becomes the reference category because it includes all values \{012345\}, and indicates whether prior levels of infighting were at or below level 5.

Using cumulative transition probabilities is useful because it allows us to combine categories that have similar transition probabilities (Epstein et al. 2006). Let us assume, for example, that $Y_2^*$ and $Y_3^*$ have similar transition probabilities. This means that outcomes are basically the same when prior levels of infighting were at or below level 2 \{012, 345\}, and when prior levels of infighting were at or below level 3 \{0123, 45\}. In other words, actors treat level 2 and level 3 as if they were the same. Since $Y_3^*$ subsumes $Y_2^*$, for the sake of parsimony we do not therefore need both $Y_2^*$ and $Y_3^*$ in the model. Instead, we can drop $Y_2^*$ from the analysis, which collapses level 2 into level 3 and creates a single, more meaningful category.

By definition, $\Pr(Y \leq a) = \Pr(Y \leq a - 1) + \Pr(Y = a)$, which means we can use cumulative transition probabilities to recover the transition probabilities for each individual level of infighting. Substituting $Y^*$ for values of $Y$ in the previous period yields the following equation:

$$ F[\Pr(Y_{it} = b|Y_{it-1} \leq a)] = \Theta_{ab} + X_{it} \beta_a $$

This equation can be estimated separately for each level of infighting. For example, we can estimate one equation when $Y_{it-1} \leq 0$, and then another for $Y_{it-1} \leq 1$, etc. However it is more convenient to combine that data into a single equation which includes $Y^*$, the independent variables, and the interactions of $Y^*$ with each independent variable (Epstein et al. 2006):
\begin{equation}
F[\text{Pr}(Y_{it} = b|Y_{it-1}^* = y_{it-1}^*)] = \Theta_b + \sum_{l=0}^{1} \alpha_{lb} y_{it-1}^* + x_{it} \left( \beta + \sum_{l=0}^{1} Y_l y_{it-1l}^* \right),
\end{equation}

4.2 Variables

The following sections briefly describe the variables that will be used in the statistical analyses.

4.2.1 Dependent Variable: Infighting

The dissertation claims that ethnic violence leads to infighting. To test this claim, infighting is operationalized by measuring the intensity of intra-ethnic violence one year after inter-ethnic violence has (or has not) occurred.\(^\text{12}\) By lagging ethnic violence, the study seeks to follow the recommendation of Rosenbaum (2010:5) that good observational studies should have:

\dots a well-defined treatment, that began at a well-defined time, so there is a clear distinction between covariates measured prior to treatment, and outcomes measured after treatment.

A one year lag is chosen because the theory predicts a short temporal gap between ethnic violence and infighting. When ethnic violence increases, the theory predicts that infighting will follow fairly quickly. Also, a one year lag between ethnic violence and infighting is neither too long for credible discussions of causal relationships, nor so short that questions of reverse causality arise (Lyall 2010).

\(^{12}\) Previous studies have operationalized fragmentation in many different ways. To measure fragmentation, some scholars have focused on splits within existing groups (Asal, Brown, and Dalton 2012; Findley and Rudloff Forthcoming), or on the total number of groups (Cunningham, Bakke, and Seymour 2012; Cunningham 2011) (Lawrence 2010). Still others have developed composite measures of cohesion and fragmentation. For example, Bakke, et al (2012) offer a tripartite measure that defines cohesion by the number of organizations, the distribution of power among these organizations, and by the presence of institutions that can coordinate action. Pearlman (2012) looks at leadership, organizational structure, and a sense of collective purpose. McLauchlin & Pearlman (2012) define cohesion by both the presence of an umbrella organization and the presence of armed conflict between factions.
The variable, *Infighting*, is an ordinal variable coded on a 0-5 scale, with 0 representing no conflict and 5 representing protracted communal warfare. Table 4.2 shows the criteria used to divide *Infighting* into these six categories:

<table>
<thead>
<tr>
<th>Level of Violence</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No conflict</td>
</tr>
</tbody>
</table>
| 1                 | Sporadic violent attacks
|                   | Attacks without weapons (e.g., brawls), knives, or few small arms (e.g., one or two handguns). |
| 2                 | Series of bombings/assassinations |
| 3                 | Substantial rioting |
| 4                 | Sporadic armed clashes
|                   | Attacks with multiple firearms, automatic weapons, or heavy weaponry (mortars, shelling, etc.) |
| 5                 | Protracted communal warfare
|                   | More than 6 clashes a year between antagonists |

The distribution of *Infighting* is displayed in Figure 4.1. What is most obvious from the histogram is the fact that most of the time, ethnic groups are not engaged in intra-communal violence. In fact, out of 2,130 observations, approximately 83% of observations fail to note any infighting. When infighting does occur, it tends to be at either low levels (“...violent attacks without weapons, knives, or few small arms (e.g., one or two handguns)”), or at rather high levels (“...armed clashes with multiple firearms, automatic weapons, or heavy weaponry (mortars, shelling, etc.).”)

---

4.2.2 Explanatory Variable: Ethnic Violence

The dissertation claims that ethnic violence leads to infighting. To test this claim, ethnic violence is operationalized by measuring the intensity of inter-ethnic violence each year. The explanatory variable, *Ethnic Violence*, is an ordinal variable coded on a 0-6 scale, with 0 representing no conflict and 6 representing communal warfare. Table 4.3 shows the criteria used to divide ethnic violence into these seven categories:
### Table 4.3: Summary of Ethnic Violence Categories\(^{14}\)

<table>
<thead>
<tr>
<th>Level of Violence</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No conflict</td>
</tr>
<tr>
<td>1</td>
<td>Individual acts of harassment, no fatalities</td>
</tr>
<tr>
<td>2</td>
<td>Political agitation, campaigns urging authorities to impose restrictions on group</td>
</tr>
<tr>
<td>3</td>
<td>Sporadic violent attacks by gangs or other small groups</td>
</tr>
<tr>
<td></td>
<td>Attacks without weapons (e.g., brawls), knives, or few small arms (e.g., one or two handguns) involving fewer than 20 people.</td>
</tr>
<tr>
<td>4</td>
<td>Anti-group demonstrations, rallies, marches</td>
</tr>
<tr>
<td>5</td>
<td>Communal rioting, armed attacks</td>
</tr>
<tr>
<td></td>
<td>Attacks with multiple firearms, automatic weapons, or heavy weaponry (mortars, shelling, etc.) OR attacks without weapons (e.g., brawls), knives, or few small arms (e.g., one or two handguns) involving more than 20 people</td>
</tr>
<tr>
<td>6</td>
<td>Communal warfare</td>
</tr>
<tr>
<td></td>
<td>More than 6 clashes a year between antagonists</td>
</tr>
</tbody>
</table>

The distribution of ethnic violence is displayed in Figure 4.2. From the histogram, we can see that inter-ethnic conflict is infrequent, although not as infrequent as intra-ethnic violence. Out of 2,130 observations, approximately 62% of observations fail to note any inter-ethnic violence, whereas 83% of observations failed to note intra-ethnic violence. When inter-ethnic violence does occur, much of the violence is at moderate levels, which consists of “sporadic violent attacks by gangs or other small groups without weapons (e.g., brawls), knives, or few small arms (e.g., one or two handguns) involving fewer than 20 people.”

---

4.2.3 Bivariate Relationship Between Infighting and Ethnic Violence

In this section, the dissertation takes a preliminary look at the relationship between ethnic violence and infighting by examining the bivariate relationship between these two variables. The bivariate relationship is examined by (1) graphing yearly trends, (2) performing a Chi-square test for independence, and by (3) examining a scatterplot of the data.

First, Figure 4.3 displays the yearly trend in ethnic violence and infighting. In the first graph, we can see that between 1990-1995 there was a steady increase in the number of ethnic groups that engaged in ethnic violence. After 1995, however, the number of ethnic groups that engaged in ethnic violence began to decline and then dropped steeply around 2001. If ethnic violence leads to group cohesion, as much of the literature expects, then we should expect less infighting during the early 1990s, when ethnic violence was at its highest.

Instead, the second graph shows that between 1990-1994, there was a steady increase in the number of ethnic groups that engaged in infighting. After 1994, however, the number of ethnic
groups that engaged in infighting began to decline. Together, these two graphs show that both ethnic violence and infighting increased in the early half of the 1990s, and then sharply declined in the latter half of the decade. This trend lends some preliminary support to the hypothesis that ethnic violence is related to infighting.

**Figure 4.3: Yearly Trend in Ethnic Violence and Infighting**

Next, since both the dependent and independent variables are categorical, we can test the independence of the two variables using a Chi-square test. Table 4.4 lists the observed values of the data, and Table 4.5 lists the values we would expect to see if infighting and ethnic violence were actually independent of each other.
### Table 4.4: Observed Values

<table>
<thead>
<tr>
<th>Lagged Ethnic Violence</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infighting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>966</td>
<td>119</td>
<td>57</td>
<td>216</td>
<td>25</td>
<td>70</td>
<td>38</td>
</tr>
<tr>
<td>1</td>
<td>65</td>
<td>15</td>
<td>12</td>
<td>34</td>
<td>5</td>
<td>16</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>27</td>
<td>0</td>
<td>2</td>
<td>14</td>
<td>2</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>48</td>
<td>2</td>
<td>0</td>
<td>15</td>
<td>1</td>
<td>22</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>1118</td>
<td>137</td>
<td>71</td>
<td>285</td>
<td>33</td>
<td>119</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>1491</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 4.5: Expected Values

<table>
<thead>
<tr>
<th>Lagged Ethnic Violence</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infighting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>918</td>
<td>112</td>
<td>58</td>
<td>234</td>
<td>27</td>
<td>98</td>
<td>44</td>
</tr>
<tr>
<td>1</td>
<td>92</td>
<td>11</td>
<td>6</td>
<td>24</td>
<td>3</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>33</td>
<td>4</td>
<td>2</td>
<td>8</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>59</td>
<td>7</td>
<td>4</td>
<td>15</td>
<td>2</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1118</td>
<td>137</td>
<td>71</td>
<td>285</td>
<td>33</td>
<td>119</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>1491</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These tables produce a Chi-Square ($\chi^2$) value of 138 with 30 degrees of freedom. The probability of the null hypothesis of independence being true when $\chi^2 = 138$ is less than .005, leading us to reject the null hypothesis that infighting and ethnic violence are not related to each other.

Finally, figure 4.4 uses a jittered scatterplot to examine the relationship between ethnic violence and infighting. Included in the scatterplot are a red regression line and a blue loess line. The regression line graphs the linear relationship between infighting and ethnic violence, while the loess line using nonparametric methods to graph the relationship between the two variables.

---

15 The x and y values in the scatter plot are jittered so that the density of the data at each point can be more clearly seen.
Both the regression line and the loess line are generally positive and increasing, lending additional support to the claim that ethnic violence is associated with an increase in infighting.

![Figure 4.4](image)

In summary, the yearly trend data, the Chi-Square test, and the scatterplot all provide preliminary evidence that ethnic violence and infighting are related. If ethnic violence actually led to increased ethnic cohesion, as much of the literature assumes, we should have seen a negative association between ethnic violence and infighting, and not the positive trend indicated by the data. The next few sections will further explore this counterintuitive finding.
4.2.4 Interactions

According to the theory, the relationship between ethnic violence and infighting is different when an ethnic group is geographically concentrated. A concentrated ethnic group will experience greater infighting when ethnic violence occurs, whereas an ethnic group with geographically dispersed members will experience less infighting during periods of ethnic violence. To test this hypothesis, the analysis will include an interaction term between a measure of the geographic concentration of the ethnic group and the level of ethnic violence. The geographic concentration of the ethnic group is measured on a 0-3 scale with 0 indicating a widely dispersed group, and 3 indicating a highly concentrated group.

An interaction term allows us to test the hypothesis that the relationship between the dependent and independent variables is different at different levels of another predictor variable. The null hypothesis is that the predictor variable does not change the relationship between the dependent and independent variables.

4.2.5 Controls

In addition to ethnic violence and group concentration, there are several other factors that might cause or influence infighting. The analysis will account for these by including several controls in the statistical analysis. Table 4.6 provides descriptive statistics for all covariates included in the analysis. Since the Markov analysis looks at factors in the previous time period that are associated with transitions to higher levels of infighting in the current time period, all control variables will be lagged by one year.
Table 4.6: Summary Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min.</th>
<th>Max.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infighting</td>
<td>0.39</td>
<td>1.038</td>
<td>0</td>
<td>5</td>
<td>2130</td>
</tr>
<tr>
<td>Ethnic Violence</td>
<td>1.17</td>
<td>1.76</td>
<td>0</td>
<td>6</td>
<td>2130</td>
</tr>
<tr>
<td>Geographic Concentration</td>
<td>2.11</td>
<td>1.09</td>
<td>0</td>
<td>3</td>
<td>2130</td>
</tr>
<tr>
<td>Ethnic Kin</td>
<td>1.60</td>
<td>0.97</td>
<td>0</td>
<td>3</td>
<td>2124</td>
</tr>
<tr>
<td>Regime Type</td>
<td>3.31</td>
<td>6.00</td>
<td>-10</td>
<td>10</td>
<td>2130</td>
</tr>
<tr>
<td>Group Population (in thousands)</td>
<td>4696.12</td>
<td>13104</td>
<td>1</td>
<td>138964</td>
<td>2118</td>
</tr>
<tr>
<td>Racial Difference</td>
<td>0.74</td>
<td>0.95</td>
<td>0</td>
<td>3</td>
<td>2119</td>
</tr>
<tr>
<td>Religious Difference</td>
<td>0.82</td>
<td>0.92</td>
<td>0</td>
<td>2</td>
<td>2008</td>
</tr>
<tr>
<td>Language Difference</td>
<td>1.06</td>
<td>0.68</td>
<td>0</td>
<td>2</td>
<td>2124</td>
</tr>
<tr>
<td>Level of Discrimination</td>
<td>3.72</td>
<td>2.66</td>
<td>0</td>
<td>8</td>
<td>1863</td>
</tr>
</tbody>
</table>

First, the analysis will control for the presence of ethnic kin across international borders. If an ethnic group has close kin across an international border, the ability of the leadership to consolidate control decreases for two reasons. First, neighboring kin can become an alternate source of leadership, and so when ethnic violence occurs, the members of the ethnic group can look to those alternate groups for leadership and direction. Second, factions within the ethnic group can also benefit because access to diasporas and state sponsorship can provide the funds needed to sustain an organization during an inter-factional competition. This decreases the ability of the leadership to consolidate control over the ethnic group. The amount of transnational dispersion, kin, is coded on a 0-3 scale, with 0 indicating that the group has no kindred across an international border and 3 indicating that the group has ethnic kindred in more than one adjoining country.
The analysis will include a measure for regime type. Democratic states tend to encourage and support the growth of civic groups. This openness allows for the proliferation of factions within the ethnic group, and as the number of factions increase, the pressure for fragmentation will also increase. To measure regime type, the analysis will use the Polity2 variable from the PolityIV dataset. Polity is measured on a 21 point scale which ranges from -10 to 10. A score of -10 indicates a highly autocratic regime while a score of 10 indicates a regime that is highly democratic.

The literature on collective action has generally concluded that the larger a group becomes, the more difficult it becomes for the group to maintain cohesion (Olson 1965). Larger groups have a more difficult time remaining cohesive for several reasons. First, larger groups are more likely to have a wider range of preferences and identities, which could encourage fragmentation (Alesina and Spolaore 2003). Additionally, intra-group tensions can increase with group size because of the decreased reputational costs of ethnic defection (Fearon & Laitin; Rohner 2007). The analysis will control for this by including a measure for the logged population of the ethnic group, log population.

Ethnicity is a broad category that encompasses many different identities. To unpack the concept a bit more, the analysis will control for three types of ethnic distinctiveness: race, religion, and culture. Racial differences from the majority ethnic group, race, are coded on a 0-3 scale, with 0 indicating ‘no physical difference in appearance’ and 3 indicating a ‘different racial stock, little or no intermixture’. Religious differences from the majority ethnic group, belief, are coded on a 0-2 scale, with 0 indicating ‘same religion as plurality’ and 2 indicating a ‘totally distinct religion’. Finally, language differences from the majority ethnic group are used to indicate the degree of cultural distinctiveness. Language, language, is coded on a 0-2 scale, with
0 indicating ‘linguistic assimilation with plurality group’ and 2 indicating that the ‘group speaks primarily one language, different from plurality group’.

The level of political and economic discrimination is also included in the model. If an ethnic group faces a great deal of discrimination from the state, this might influence both their willingness and opportunity to engage in infighting. Discrimination is coded on a 0-8 scale, with 0 indicating no discrimination and 8 indicating a high degree of both political and economic discrimination.

4.3 The Problem of Endogeneity

An important challenge in this study is the problem of endogeneity. Even if inter-ethnic violence and infighting are positively correlated, how do we know whether ethnic violence causes infighting, as the theory expects, or whether infighting actually causes ethnic violence? There are two ways that infighting might cause ethnic violence. First, some scholars have argued that intra-group competition can lead to outbidding. Factions try to prove their military capability and increase popular support by attacking another ethnic group or by escalating violence during a conflict. This undermines the legitimacy of other factions by making the other factions look ‘soft’ and less effective. The more intense the intra-group competition, the more violent outbidding will likely become (Bloom 2004; Cunningham, Bakke, and Seymour 2012). The consequences of outbidding can range from destabilized peace negotiations to increased ethnic violence.

A second possibility is that ethnic groups which are fragmented are more likely to become targets of ethnic violence. Fragmented ethnic groups are more vulnerable and less able to defend
themselves against an attack, and are therefore a more attractive target for predatory ethnic groups. In both these situations, an increase in infighting leads to an increase in ethnic violence.

This chapter addresses the problem of endogeneity by lagging all variables. Lagging the treatment is conceptually useful because it allows the model to predict what will happen in time period \( t_0 \) by using information on what happened in time period \( t_{-1} \). In the case of outbidding, the model will look at the degree of ethnic violence one year prior to the time when infighting is measured. If the outbidding hypothesis is correct, then we should not expect to see a relationship between lagged ethnic violence and infighting because the outbidding hypothesis assumes intra-group conflicts are the cause of, and therefore precede ethnic violence. The outbidding literature generally argues that factions incite ethnic violence in order to increase their popular support (Bloom 2004; Kydd and Walter 2002). The outbidding hypothesis therefore provides no reason to assume that past values of ethnic violence will be related to present levels of infighting.

Similarly, if the predation hypothesis is correct, we should not expect to see a relationship between lagged ethnic violence and infighting because the predation hypothesis assumes intra-group violence causes, and therefore precedes ethnic violence. Under the predation hypothesis also, we have no reason to expect that past values of ethnic violence will influence present levels of infighting. Even if infighting encourages attacks by predatory ethnic groups, the theory is silent about the consequences of those attacks on the level of infighting.

### 4.4 Regression Results

The statistical section addresses three distinct questions about the relationship between ethnic violence and infighting. First, are ethnic violence and infighting positively correlated? Second, does the geographic concentration of the ethnic group change the relationship between ethnic
violence and infighting? And finally, given levels of infighting at time \( t-1 \), does ethnic violence effect the transition to higher levels of infighting at time \( t \)?

The first two questions will be addressed using a multilevel model, and the third question will be addressed using a Markov transition model.

### 4.4.1 Multi-level Model

In this section, the dissertation addresses questions about (1) the relationship between ethnic violence and infighting, and (2) the effect of geographic concentration on that relationship. To answer these questions, this section will use a multilevel model which regresses infighting on ethnic violence, while taking into account the possibility of interdependence among observations. All dependent variables are lagged one year, and the results of the model are presented in Table 4.7.
Table 4.7: Multilevel Model  
Dependent Variable: Level of Infighting

<table>
<thead>
<tr>
<th>variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>.214***</td>
<td>.094</td>
<td>-.101</td>
<td>-.574***</td>
</tr>
<tr>
<td></td>
<td>(.039)</td>
<td>(.082)</td>
<td>(.113)</td>
<td>(.222)</td>
</tr>
<tr>
<td>Ethnic violence</td>
<td>.098***</td>
<td>.080**</td>
<td>.018</td>
<td>.015</td>
</tr>
<tr>
<td></td>
<td>(.014)</td>
<td>(.031)</td>
<td>(.035)</td>
<td>(.036)</td>
</tr>
<tr>
<td>Geographic concentration</td>
<td>.057*</td>
<td>.011</td>
<td>.007</td>
<td>.007</td>
</tr>
<tr>
<td></td>
<td>(.013)</td>
<td>(.038)</td>
<td>(.039)</td>
<td>(.039)</td>
</tr>
<tr>
<td>Ethnic violence * Geo. concentration</td>
<td>.009</td>
<td>.036**</td>
<td>.037**</td>
<td>.037**</td>
</tr>
<tr>
<td></td>
<td>(.082)</td>
<td>(.015)</td>
<td>(.015)</td>
<td>(.015)</td>
</tr>
<tr>
<td>Kin across borders</td>
<td>.106***</td>
<td>.117***</td>
<td>.117***</td>
<td>.117***</td>
</tr>
<tr>
<td></td>
<td>(.040)</td>
<td>(.041)</td>
<td>(.041)</td>
<td>(.041)</td>
</tr>
<tr>
<td>Polity score</td>
<td>.002</td>
<td>.004</td>
<td>.004</td>
<td>.004</td>
</tr>
<tr>
<td></td>
<td>(.006)</td>
<td>(.006)</td>
<td>(.006)</td>
<td>(.006)</td>
</tr>
<tr>
<td>Discrimination Level</td>
<td>.036***</td>
<td>.040***</td>
<td>.040***</td>
<td>.040***</td>
</tr>
<tr>
<td></td>
<td>(.012)</td>
<td>(.013)</td>
<td>(.013)</td>
<td>(.013)</td>
</tr>
<tr>
<td>Log Population</td>
<td>.062**</td>
<td>.062**</td>
<td>.062**</td>
<td>.062**</td>
</tr>
<tr>
<td></td>
<td>(.025)</td>
<td>(.025)</td>
<td>(.025)</td>
<td>(.025)</td>
</tr>
<tr>
<td>Different Race</td>
<td>- .022</td>
<td>- .022</td>
<td>- .022</td>
<td>- .022</td>
</tr>
<tr>
<td></td>
<td>(.041)</td>
<td>(.041)</td>
<td>(.041)</td>
<td>(.041)</td>
</tr>
<tr>
<td>Different Belief</td>
<td>-.001</td>
<td>-.001</td>
<td>-.001</td>
<td>-.001</td>
</tr>
<tr>
<td></td>
<td>(.042)</td>
<td>(.042)</td>
<td>(.042)</td>
<td>(.042)</td>
</tr>
<tr>
<td>Different Language</td>
<td>.009</td>
<td>.009</td>
<td>.009</td>
<td>.009</td>
</tr>
<tr>
<td></td>
<td>(.055)</td>
<td>(.055)</td>
<td>(.055)</td>
<td>(.055)</td>
</tr>
</tbody>
</table>

N = 1816 1816 1547 1458

***p<0.01, **p<0.05, *p<0.10

In the first model, which is a simple regression of infighting on ethnic violence, the coefficient indicates that a one level increase in ethnic violence is associated with a .098 level increase in infighting. If we look at the minimum and maximum possible values of ethnic violence, this coefficient tells us that when ethnic violence=0, infighting=.21, and when ethnic violence=6,
These results, which are graphed in figure 4.5, support the hypothesis that an increase in ethnic violence is associated with an increase in ethnic infighting, and challenge the claim that ethnic violence increases ethnic cohesion.\(^\text{17}\)

The next three models interact the effect of ethnic violence with the geographic concentration of the ethnic group. The interaction term is positive across all specification, which indicates that ethnic violence has a greater impact (i.e. steeper slope) when ethnic groups are geographically concentrated. When ethnic groups are widely dispersed (geographic concentration=0), the slope of ethnic violence in model 4 is .015. When ethnic groups are highly concentrated (geographic concentration=3), the slope of ethnic violence in model 4 is .126.\(^\text{18}\)

If we look at the substantive results from model 2, this means that when ethnic groups are widely dispersed (geographic concentration=0) and there is no ethnic violence (ethnic

\[^{16}\text{The following formula was used to calculate the slope at different levels of ethnic violence:}\]
\[
\text{Infighting} = .214 + \text{Ethnic Violence} \times (.098)
\]

\(^{17}\text{Since infighting and ethnic violence are rare events, a few observations can have a large influence on the regression line. To check the influence of the observations, the Cook’s Distance of each observation was examined. Cook’s D values over 1.00 indicate an observation has a worrisome amount of leverage, however none of the observations in any of the models had a Cook’s D over .74.}\)

\(^{18}\text{Slope of Ethnic Violence} = \beta_1 + \beta_3(\text{Geographic Concentration})\)
violence=0), then infighting = .094. When ethnic violence=6 in widely dispersed ethnic groups, infighting=.574. On the other hand, when ethnic groups are concentrated (geographic concentration=3) and there is no ethnic violence (ethnic violence=0), then infighting = .265. When ethnic violence=6 in geographically concentrated groups, infighting=.907. These results, which are graphed in figure 4.6, lends support to hypothesis five which argues that the effect of ethnic violence on infighting is influenced by the geographic concentration of the ethnic group.

![Figure 4.6](image)

To further explore the interaction between group concentration and ethnic violence, the sample was divided into smaller groups according to the level of group concentration. All observations in which group concentration=0 were sorted into one group, all observations in which group concentration=1 were sorted into a second group, observations where group concentration=2 were sorted into a third group, and in the final group, group concentration=3.

19 Infighting = .094 + .08(ethviol) + .057(geocon) + .009(ethviol × geocon)
Models 2-4 were then re-run using each of these sub-samples. The results of the analysis are presented in Table 4.8.

**Table 4.8: Effect of Ethnic Violence at Different Levels of Geographic Concentration**

Dependent Variable: Level of Infighting

<table>
<thead>
<tr>
<th>Geographic Concentration</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Widely Dispersed) 0</td>
<td>-.004</td>
<td>-.008</td>
<td>-.010</td>
</tr>
<tr>
<td>1</td>
<td>.161***</td>
<td>.012</td>
<td>-.003</td>
</tr>
<tr>
<td>2</td>
<td>.189***</td>
<td>.167***</td>
<td>.177***</td>
</tr>
<tr>
<td>(Highly Concentrated) 3</td>
<td>.092***</td>
<td>.124***</td>
<td>.116***</td>
</tr>
</tbody>
</table>

***p<0.01, **p<0.05, *p<0.10

The columns in the table represent the different models, while the rows indicate the different levels of group concentration. Within the table, each number represents the coefficient of ethnic violence at each level of group concentration. While each model was run using the full set of variables associated with that particular model, the table lists only the coefficients on ethnic violence in order to conserve space.

The results of Table 4.8 are quite interesting. According to the table, ethnic violence has almost no impact on infighting when an ethnic group is widely dispersed. It is only when an ethnic group has some degree of geographic concentration that ethnic violence begins to have a significant impact on infighting. Furthermore, the impact of ethnic violence is greatest when group concentration is at level 2, hinting at a curvilinear relationship. This finding could mean that widely dispersed ethnic groups are unlikely to engage in infighting when ethnic violence occurs because there are fewer ties between group members. Conversely, when a group is highly
concentrated, they more likely to engage in infighting because of increased interactions between group members. As the degree of geographic concentration increases past a certain point, though, the geographic concentration of group members somehow begins to mitigate the effect of ethnic violence, making infighting somewhat less likely. Future research might examine the interactions between geographic concentration and ethnic violence in order to determine the causes of this curvilinear relationship.

Turning to the control variables, the coefficient on neighboring kin is interesting because of its large substantive impact. In model 4, a one unit increase in the level of kin leads to a .117 unit increase in the level of infighting. This means that if an ethnic group has kin in more than one adjoining country (kin=3), the average value of infighting increases by .351.

Finally, two of the variables on ethnic group characteristics are especially worth noting. First, group population is positive, indicating that larger groups tend to experience more infighting. Second, the level of discrimination is also positive, indicating that high levels of discrimination lead to higher levels of infighting. While the first finding makes sense intuitively, the second finding is a bit surprising. An ethnic group that is experiencing high levels of discrimination would be strengthened by a unified front, and perhaps better able to oppose the discriminatory actions. Further research could explore why this outcome, which seems to be the rational outcome, does not seem to occur.

4.4.2 Markov Transition Regression

In this section, the dissertation asks whether ethnic violence influences the transition to higher levels of infighting at time \( t \), given the level of infighting at time \( t-1 \)? To answer this question, this section will conduct a Markov probit regression on ethnic violence and infighting.
Examining the $Y^*$ Variable

In this section, I examine whether all five $Y^*$ variables should be included in the model, or whether, for the sake of parsimony, we can reasonably collapse $Y^*$ categories. This decision is made by examining the correlation coefficients between $Y^*$ variables. A strong correlation between two $Y^*$ variables indicates that two variables convey essentially the same information. If both variables are then included in the model, it becomes difficult to distinguish the impact of each variable since both tend to increase together.

Table 4.9 lists the correlation coefficients between each of the $Y^*$ variables. From the table, we can see that there is an almost perfect correlation between $Y^*_2$ and $Y^*_3$ (.947). A look at the data tell us that this is because $Y^*_3$ differs from $Y^*_2$ by only 11 observations. While $Y^*_2$ includes all observations where infighting ($Y$) ≤ 2, $Y^*_3$ includes all observations where infighting ($Y$) ≤ 3. There are only 11 observations in which (lagged) infighting is equal to three, which explains why $Y^*_2$ and $Y^*_3$ are so highly correlated. The large degree of correlation between these two variables indicates that only one category should be used in the analysis. Since $Y^*_2$ is nested within $Y^*_3$, the analysis will collapse $Y^*_2$ into $Y^*_3$. 

80
The table also indicates that there is a high correlation between $Y_1^*$ and $Y_3^*$. The large degree of correlation between these two variables indicates that only one category should be used in the analysis. Since $Y_1^*$ is nested within $Y_3^*$, the analysis will also collapse $Y_1^*$ into $Y_3^*$.

Lastly, $Y_4^*$ (in which infighting ($Y$) ≤ 4) and the reference category $Y_5^*$ (in which infighting ($Y$) ≤ 5) differ by only 15 observations because there are only 15 observations in which infighting at $t-1$ is equal to 5. Since these two categories are almost certainly highly correlated, and because $Y_4^*$ is nested within the reference category, the analysis will collapse $Y_4^*$ into the reference category.

The remaining $Y^*$ variables are therefore $Y_0^*$ which splits Y into the dichotomy {0, 12345}, and indicates whether prior levels of infighting were at or below level 0, $Y_3^*$ which creates the dichotomy {0123, 45}, and indicates whether prior levels of infighting were at or below level 3, and the reference category $Y_5^*$ which includes all values {012345} and indicates whether prior levels of infighting were at or below level 5. The advantage of this categorization is that it will later aid in the substantive interpretation of the results since the categories partition prior levels of infighting into three levels that I label:
1. no infighting \((Y_0^*)\)
2. moderate infighting \((Y_3^*)\)
3. high infighting \((Y_5^*)\)

Markov Ordered Probit Regression

This section presents the results of the Markov ordered probit model. The results of the saturated model are listed in Table 4.10.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>Coefficient</td>
<td>Coefficient</td>
</tr>
<tr>
<td>(Y_0^*)</td>
<td>-1.408***</td>
<td>-1.484***</td>
<td>-2.459***</td>
</tr>
<tr>
<td></td>
<td>(.120)</td>
<td>(.387)</td>
<td>(.705)</td>
</tr>
<tr>
<td>(Y_3^*)</td>
<td>-0.984***</td>
<td>-1.860***</td>
<td>-2.400</td>
</tr>
<tr>
<td></td>
<td>(.185)</td>
<td>(.674)</td>
<td>(1.477)</td>
</tr>
<tr>
<td>Ethnic violence</td>
<td>.100**</td>
<td>.160**</td>
<td>.200***</td>
</tr>
<tr>
<td></td>
<td>(.048)</td>
<td>(.069)</td>
<td>(.076)</td>
</tr>
<tr>
<td>Ethnic violence*Y0</td>
<td>.067</td>
<td>.107**</td>
<td>.123**</td>
</tr>
<tr>
<td></td>
<td>(.045)</td>
<td>(.050)</td>
<td>(.054)</td>
</tr>
<tr>
<td>Ethnic violence*Y3</td>
<td>-.083</td>
<td>.145*</td>
<td>-.211**</td>
</tr>
<tr>
<td></td>
<td>(.061)</td>
<td>(.080)</td>
<td>(.088)</td>
</tr>
<tr>
<td>Geographic concentration</td>
<td>-.334*</td>
<td>-.520**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.198)</td>
<td>(.241)</td>
<td></td>
</tr>
<tr>
<td>Geographic</td>
<td>.001</td>
<td>.090</td>
<td></td>
</tr>
<tr>
<td>Concentration*Y0</td>
<td>(.114)</td>
<td>(.129)</td>
<td></td>
</tr>
<tr>
<td>Geographic</td>
<td>.470**</td>
<td>.590**</td>
<td></td>
</tr>
<tr>
<td>Concentration*Y3</td>
<td>(.223)</td>
<td>(.267)</td>
<td></td>
</tr>
<tr>
<td>Kin across borders</td>
<td>.233</td>
<td>.279</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.163)</td>
<td>(.172)</td>
<td></td>
</tr>
<tr>
<td>Kin across borders*Y0</td>
<td>.014</td>
<td>.005</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.104)</td>
<td>(.111)</td>
<td></td>
</tr>
<tr>
<td>Kin across borders*Y3</td>
<td>-.121</td>
<td>-.165</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.185)</td>
<td>(.196)</td>
<td></td>
</tr>
<tr>
<td>Polity score</td>
<td>-.024</td>
<td>-.029</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.024)</td>
<td>(.028)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>Polity score*Y0</td>
<td>0.019</td>
<td>0.032</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.019)</td>
<td>(0.021)</td>
<td></td>
</tr>
<tr>
<td>Polity score*Y3</td>
<td>0.014</td>
<td>0.012</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.029)</td>
<td>(0.033)</td>
<td></td>
</tr>
<tr>
<td>Discrimination Level</td>
<td>0.030</td>
<td>-0.040</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.052)</td>
<td>(0.071)</td>
<td></td>
</tr>
<tr>
<td>Discrimination Level*Y0</td>
<td>-0.022</td>
<td>-0.004</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.041)</td>
<td>(0.047)</td>
<td></td>
</tr>
<tr>
<td>Discrimination Level*Y3</td>
<td>0.007</td>
<td>0.070</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.063)</td>
<td>(0.082)</td>
<td></td>
</tr>
<tr>
<td>Log Population</td>
<td>0.030</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.149)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log Population*Y0</td>
<td>0.107</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.073)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log Population*Y3</td>
<td>-0.017</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.162)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different Race</td>
<td>0.178</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.159)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different Race*Y0</td>
<td>-0.050</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.120)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different Race*Y3</td>
<td>-0.168</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.189)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different Belief</td>
<td>0.223</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.186)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different Belief*Y0</td>
<td>-0.231*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.120)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different Belief*Y3</td>
<td>-0.054</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.213)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different Language</td>
<td>-0.400*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.215)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different Language*Y0</td>
<td>0.076</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.160)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
To make this rather cumbersome model easier to understand, I examine both the statistical significance and the substantive impact of the findings. First, to determine statistical significance, I first examine whether the interactions of a variable with $Y^*$ are significantly different from the reference category. If the interaction of the variable with $Y_0^*$ is significant, this means that the variable has a different effect on the current level of infighting (i.e., a different slope) when there was no infighting in the ethnic group last year. If the interaction with $Y_3^*$ is significant, this means that the variable has a different effect on the current level of infighting when there was high infighting last year. If both the interaction with $Y_0^*$ and the interaction with $Y_3^*$ are significant, this means that the variable has a different effect for all three levels of prior infighting. If neither interactions are significant, this indicates that the variable has the same effect for all three levels of prior infighting (i.e., the slopes are all the same). A summary of this is provided in Table 4.11.

<table>
<thead>
<tr>
<th>$Y_0^*$</th>
<th>$Y_3^*$</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>no</td>
<td>Different effect if no prior infighting</td>
</tr>
<tr>
<td>no</td>
<td>yes</td>
<td>Different effect if high prior infighting</td>
</tr>
<tr>
<td>yes</td>
<td>yes</td>
<td>Different effect for all three levels of prior infighting</td>
</tr>
<tr>
<td>no</td>
<td>no</td>
<td>Same effect for all three levels of prior infighting</td>
</tr>
</tbody>
</table>

We can illustrate this process by using ethnic violence as our example. If we set the cut-off for significance levels at .05, then in table 4.8 the interactions with $Y^*$ are not significant in the
first model, but both interactions are significant in model 2 and model 3. Based on this, I conclude there is some evidence that ethnic violence has a different effect on infighting for all three levels of prior infighting.

Next, I examine whether the impact of any of these effects is different from zero. To determine that, I sum the coefficients on the direct and interaction terms and then conduct a Wald test to determine the p-value of the summed coefficient. To obtain the coefficient on the effect of ethnic violence when there was no infighting last year, I add the coefficient on the direct effect of ethnic violence with the coefficient on the interaction of ethnic violence with $Y_0^*$ ($.100 + .067 = .167$). This coefficient tells us that if there is no infighting in the previous year, then a one unit increase in ethnic violence increases infighting by .167.

To determine whether this effect (.167) is different from zero, I perform a Wald test on the hypothesis that the sum of these two coefficients (the main effect plus the interaction effect) is actually equal to zero. The results of the Wald test provide a p-value of .011 ($\chi^2 = 6.45$, $p = 0.011$), which tells us the interaction effect is statistically significant at the .05 level.

These same steps are repeated to calculate the coefficients for the effect of ethnic violence when there is moderate prior infighting ($Y_3^*$):

\[
.100 - .083 = .016, \\
(\chi^2 = .20, \ p = 0.655),
\]

If prior infighting is high, the effect of ethnic violence is captured by the main effect of ethnic violence. A summary of these results is presented in Table 4.12.
Table 4.12: Summary of Markov Results for Ethnic Violence

<table>
<thead>
<tr>
<th>$Y^*$</th>
<th>Model 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnic violence</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>.167**</td>
</tr>
<tr>
<td>3</td>
<td>.016</td>
</tr>
<tr>
<td>5</td>
<td>.100**</td>
</tr>
</tbody>
</table>

Note: Coefficients are the sums of the relevant direct and interaction effects. *p<0.10, **p<0.05, ***p<0.01

In the table, each row indicates the level of infighting in the prior year, and the column indicates the model. A positive sign on a coefficient means that the variable leads to higher levels of infighting, while a negative sign tells us that the variable leads to lower levels of infighting. The asterisks indicate the significance level of the coefficient.

The results of the analysis for model 1 are quite interesting and reveal the strength of a Markov regression. According to Table 4.10, ethnic violence is associated with transitions to higher levels of infighting when there has been no prior infighting and when prior infighting was high. When prior infighting was at moderate levels, though, the impact of ethnic violence is greatly reduced.

Next, I examine whether this pattern can be found in the other two models. The steps described above are followed for each variable in Table 4.8. The results are presented below in Table 4.13.
### Table 4.13: Summary of Markov Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y’</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic violence</td>
<td>.167**</td>
<td>.267***</td>
<td>.324***</td>
</tr>
<tr>
<td>Geographic Concentration</td>
<td>.136</td>
<td>.070</td>
<td></td>
</tr>
<tr>
<td>Kin across borders</td>
<td>.233</td>
<td>.279</td>
<td></td>
</tr>
<tr>
<td>Polity</td>
<td>-.024</td>
<td>-.029</td>
<td></td>
</tr>
<tr>
<td>Discrimination Level</td>
<td>.030</td>
<td>-.040</td>
<td></td>
</tr>
<tr>
<td>Log population</td>
<td>.030</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different Race</td>
<td>.178</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different Belief</td>
<td>-.008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different Language</td>
<td>-.400*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Coefficients are the sums of the relevant direct and interaction effects.
*p<0.10, **p<0.05, ***p<0.01

Next, I shift from the statistical significance of the results to their substantive impact. The substantive impact of these findings is depicted in the following set of graphs. Figure 4.7 illustrates the effect of ethnic violence on the probability that an ethnic group will not engage in infighting. When an ethnic group has not been involved in ethnic violence (ethnic violence = 0), there is an 84% chance that the ethnic group will also not engage in infighting, give or take 2%. In contrast, if the ethnic group has been engaged in intense communal warfare (ethnic violence
=6), the probability that the group will not engage in any infighting drops to 71%, give or take 15%.

![Figure 4.7](image)

Figure 4.7 depicts the probability that an ethnic group will not experience infighting, given previous level of infighting and previous level of ethnic violence. The red line represents the effect of ethnic violence when there has been no previous infighting in the ethnic group (y0=1). The blue line represents the effect of ethnic violence when there has been previous infighting in the ethnic group (y0=0). From the graph we can see that if an ethnic group has not engaged in infighting, then an increase in ethnic violence increases the probability that the group will engage in infighting by about 22%, with the probability of no infighting being 94% when ethnic violence=0, and 73% when ethnic violence =6. If the group has previously engaged in
infighting, though, the probability of no infighting declines to 16% when ethnic violence increases to 5, but then suddenly increases to 55% when ethnic violence=6.²⁰

![Figure 4.8](image)

Figure 4.8 depicts the probability that an ethnic group will not experience infighting, given previous level of infighting and previous level of ethnic violence. In this graph, though, the red line represents the effect of ethnic violence when previous infighting had been at low-moderate levels (y3=1). The blue line represents the effect of ethnic violence when previous infighting had been high (y3=0). From the graph we can see that if an ethnic group had been engaged in high levels of infighting, then an increase in ethnic violence increases the probability that the group will engage in infighting by about 20%, with the probability of no infighting being 20% when ethnic violence=0, and 0.2% when ethnic violence =6. If the group had previously engaged in low-moderate infighting, though, the probability of no infighting declines about 11%, with the probability of no infighting being 88% when ethnic violence=0, and 76% when ethnic violence =6.

²⁰ This sudden increase is puzzling, and requires further exploration.
4.5 Summary and Conclusion

Using a series of statistical regressions, this chapter sought to test the claim that ethnic violence leads to infighting. This is an important and controversial claim because much of the ethnic conflict literature assumes the exact opposite – the literature assumes that ethnic violence actually ‘hardens boundaries’ by increasing group cohesion.

If ethnic violence does indeed increase group cohesion, then the statistical analysis should find evidence of a negative relationship between ethnic violence and infighting. If the theory proposed in this dissertation is correct, though, then the statistical analysis should find evidence of a positive relationship between ethnic violence and infighting. Both the multilevel model and the Markov regression did indeed find evidence of a positive relationship between ethnic violence and infighting, which supports the claim that ethnic violence actually leads to infighting.

However it is also true that ethnic violence does not always lead to infighting. The data contains several observations in which ethnic groups were engaged in an ethnic conflict, but did
not experience infighting. What differentiates those cases from the rest? The analyses in this chapter suggest some interesting answers to this puzzle. First, ethnic violence seems to only lead to infighting in geographically concentrated ethnic groups. If an ethnic group is geographically dispersed, in contrast, ethnic violence will not lead to infighting. Second, ethnic violence only seems to lead to infighting when prior levels of infighting within the group were low or high. If prior levels of infighting were at moderate levels, then ethnic violence seems to have little impact on infighting. Further research might help us determine the exact causal mechanisms that produced these outcomes.
Chapter 5: Case Study: Ethnic Infighting

In the previous chapter, the hypotheses were tested using a cross-national dataset of 274 ethnic minority groups from 115 different countries. Using a variety of statistical methods, the analysis found evidence to support the claim that ethnic violence leads to more infighting. This evidence is important because much of the literature assumes that ethnic violence leads to greater group cohesion. In contrast, the previous chapter found that ethnic violence generally leads to less group cohesion.

Building off the results of the previous chapter, the current chapter will explore the causal mechanism that links ethnic violence to infighting. Why exactly does ethnic violence generate infighting? While the previous chapter addressed questions of propensity, this chapter will address the question of mechanism. According to the hypotheses:

H1: When inter-ethnic violence is at low levels, then at the factional level infighting from leadership challenges will also be at low levels.

H2: When inter-ethnic violence is at high levels, then at the factional level infighting from leadership challenges will also be at high levels.

H3: When inter-ethnic violence is at low levels, then at the individual level infighting from collaboration will also be at low levels.

H4: When inter-ethnic violence is at high levels, then at the individual level infighting from collaboration will also be at high levels.

To test the claim that ethnic violence leads to infighting through factionalism and collaboration, this chapter will study Palestinian infighting from September 2000 to October 2012. The Palestinians are an excellent test case for several reasons. First, Palestinians and Israelis have engaged in almost continual ethnic violence since 1948, when the state of Israel was first founded. In this one case, there is therefore over 60 years of data on the effect of ethnic
violence on intra-group dynamics. Second, during this time period there has been a great deal of variation in the treatment variable: the intensity of inter-ethnic violence. Over the past 60 years, periods of low intensity ethnic violence have been interspersed with periods of high intensity ethnic violence.

Third, the previous chapter has told us that ethnic groups which are geographically concentrated are more likely to experience infighting during ethnic violence. The Palestinians are not dispersed throughout the region, but are instead geographically concentrated in two areas: The Gaza Strip and the West Bank. The Palestinians therefore meet the conditions outlined in the theory, and we should therefore expect to see increased infighting when ethnic violence increases. If this pattern is not evident in this case study, that would provide evidence against the validity of the theory.

The geographic concentration of Palestinians into two noncontiguous regions also provides the unique opportunity to formulate a natural experiment. When ethnic violence occurs, the violence is usually concentrated in either Gaza or the West Bank. The region that experiences ethnic violence can therefore be used as the treated group in a natural experiment, and can be compared to the control region which does not experience ethnic violence. If the hypotheses are true, then the treated region should experience infighting while the control region does not.

Fifth, the theory developed in this dissertation also contributes to the extensive literature on the Israeli-Palestinian conflict. While some have located the causes of Palestinian infighting either entirely within Palestinian society (Schanzer 2008), or entirely due to Israeli actions (Qatar Foundation 2010), I argue that both these extreme positions are untenable. Instead, as outlined in chapter three, ethnic violence acts as an external shock on existing group dynamics, both creating and exacerbating incentives and opportunities for infighting. In short, this chapter contributes to
the Israeli-Palestinian literature by locating the causes of Palestinian infighting not within Palestinian society or Israeli actions alone, but rather at the intersection of both.

Finally, human rights groups, such as the Israeli human rights group B’Tselem, have collected excellent data on Palestinian fatalities. This data allows us to not only differentiate between Palestinians killed by Israelis and Palestinians killed by other Palestinians, but to also differentiate between Palestinians killed during factional fighting and Palestinians killed due to suspected collaboration. This distinction was not possible in the cross-national analysis because such fine-grained data is quite difficult to collect. While many datasets list the number of individuals hurt or killed in infighting, it is quite rare to find a dataset that also provides the motive for each killing.

Using a blend of statistical analysis, natural experiments, and process tracing, the rest of the chapter will test the four hypotheses listed above. The chapter begins with a series of case studies that examine periods of high and low infighting. The first case study finds that during the first time period, the primary cause of infighting was factional violence, and that the intensity of factional fighting was exacerbated by the actions of Israel and the U.S. The second case study then finds that almost all infighting fatalities during the second time period were due to suspected collaboration. In the second case study, the data indicates that spikes in collaborator attacks were preceded by increased ethnic violence. The last two case studies then briefly examine two periods of low infighting, and conclude that periods of low infighting were accompanied by periods of low ethnic violence.

5.1 Research Design

In this analysis the dependent variable, ethnic infighting, is measured by the number of Palestinians killed by other Palestinians for political reasons. Limiting the focus of the study to
political violence is necessary in order to exclude violence due to criminal activities such as theft or homicide, which likely require a separate theoretical explanation. The independent variable, ethnic violence, is measured by the number of Palestinians killed by Israelis.

The data used in the analysis is compiled by the Israeli human rights group, B’Tselem. B’Tselem maintains a large database of statistics on the Israeli-Palestinian conflict, including a detailed list of Palestinians killed in the Occupied Territories.21 The analysis will employ monthly fatality rates from September 2000 to October 2012 because for that time period, B’Tselem has gathered information on both Palestinians killed by Israelis and Palestinians killed by other Palestinians.

The analysis will examine the underlying causal relationship between ethnic violence and infighting by testing the hypothesis that ethnic violence leads to increased factionalism and collaborator killings. The hypothesis will be tested by using the process tracing method on four case studies of the Palestinian-Israeli conflict. Process tracing is a qualitative method that examines causation by looking at how the independent variable produces a series of conditions that lead to the dependent variable. Using a wide variety of primary and secondary sources, process tracing attempts to determine whether the proposed causal mechanism is actually evident in the sequences of events leading up to the outcome (George and Bennett 2005; Checkel 2008).

There are two reasons why process tracing is especially useful in this chapter. First, process tracing can complement statistical analysis by providing important insights into the mechanisms that underlie a statistical relationship. According to David Laitin, the value of process tracing is that it has made a, “fundamental contribution…in finding regularities through juxtaposition of historical cases…If statistical work addresses questions of propensities, narratives address the

21 Data can be downloaded from the B’Tselem website: <http://old.btselem.org/statistics/english/>. B’Tselem continually updates its datasets as new information becomes available. The data used in this analysis was downloaded on 10/12.
question of process” (Laitin 2002:2-5). Second, process tracing is especially useful when the process under study is characterized by equifinality, in which multiple causal pathways can lead to the same outcome. Indeed, the hypotheses tested in this chapter argue that ethnic violence can lead to infighting via two very different causal pathways. According to George and Bennett (2005:215):

> Process-tracing offers the possibility of identifying different causal paths that lead to a similar outcome in different cases…Process-tracing encourages the investigator to be sensitive to the possibility of equifinality.

The four case studies in this analysis are chosen by selecting on the dependent variable. In their influential book, King et al. (1994) warn that selecting cases on the dependent variable can lead to problems of selection bias. However qualitative methodologists have argued that when using certain qualitative methods, such as process tracing, selecting on the dependent variable is not only permissible, but is the preferred method of case selection. This is because process tracing is not interested in the correlation between the dependent and independent variable across multiple cases. Instead, the value of process tracing comes from its focus on the specific sequence of events that led from the independent to the dependent variable in a single case (George and Bennett 2005:13).

Therefore in the following analysis, two case studies will examine periods of high infighting and two case studies will examine periods of low infighting. To choose the time periods, I rely on fatality reports from B’Tselem. In the dataset, there are two time periods when infighting was especially deadly: March 2002- April 2002 in which 38 Palestinians were killed, and May 2007-June 2007 in which 213 Palestinians were killed. To select the time periods when infighting was especially low, I select the two longest stretches of time when the number of Palestinian deaths from infighting was zero. Those two time periods are July 2011-May 2012 in which no deaths
were recorded for 11 months, and September 2009-March 2011 in which no deaths were recorded for 19 months. If the hypotheses are correct, we should expect to see the two periods of high infighting preceded by high levels of ethnic violence, while the two periods of low infighting will be preceded by low levels of ethnic violence.

In both case studies of high infighting, I find that infighting was indeed preceded by a spike in ethnic violence. That spike in ethnic violence, however, was concentrated in Gaza in the first case study, and then in the West Bank in the second case study. This disparity provides a unique opportunity to conduct a natural experiment. A natural experiment is an observational study in which there are two or more roughly identical groups. Some groups are exposed to the treatment, while others are not. Most importantly, the treatment is assigned to groups either by nature or by factors that are exogenous to the theory. The process by which the treatment is assigned to groups therefore approximates random assignment. Natural experiments are most useful when the treatment can be clearly defined and is administered in a short time frame, because the effects of the treatment can then be more clearly observed (Meyer 1995).

In the Palestinian case, a natural experiment is possible because Palestinians are geographically concentrated into two noncontiguous regions, the Gaza Strip and the West Bank. During the period of highest ethnic violence, Gaza experienced almost four times more fatalities than the West Bank. During the second highest period of ethnic violence, the West Bank experienced almost three times more fatalities than Gaza. The treatment in both cases, ethnic violence, is both clearly defined and administered in a short time frame. The region that experienced ethnic violence can therefore be used as the treated group in a natural experiment, and can be compared to the control region which experienced much lower levels of ethnic violence. If the hypotheses are correct, we should expect to see high levels of infighting in the
treated region, and low levels of infighting in the control region. The next two sections present the results of these analyses.

5.2 Variables

5.2.1 Dependent Variable

The degree of infighting is measured by the number of Palestinians killed by other Palestinians each month, as recorded by B’Tselem. Other studies have used different measures to proxy Palestinian group cohesion. Brym and Araj (2008), for example, measure Palestinian social solidarity by using the ratio of suicide bombing attempts (what they call altruistic suicide) to non-altruistic suicides. Using this measure, the authors conclude that increased conflict with Israel heightens Palestinian social solidarity. In contrast, this study uses fatalities from Palestinian-Palestinian violence to measure Palestinian group cohesion and to test the claim that increased conflict with Israel actually decreases Palestinian cohesion. The distribution of the dependent variable is displayed in Figure 5.1.
There are 141 observations and the variable has a mean of 4.7 and standard deviation of 15.4. The maximum value of infighting is 161, which is a clear outlier. The vast majority of these outlier fatalities occurred between June 12, 2007 and June 14, 2007, during what has become known as ‘The Battle of Gaza.’ This conflict began in 2006 when Hamas won the Palestinian legislative elections and Fatah refused to cede power. In June 2007 Hamas violently removed Fatah from Gaza.

5.2.2 Independent Variable

The degree of ethnic violence is measured by the number of Palestinians killed by Israelis each month, as recorded by B’Tselem. The distribution of the dependent variable is displayed in Figure 5.2.
There are 141 observations and the variable has a mean of 46.8 and standard deviation of 95.0. The maximum value is 977, which is a clear outlier. The vast majority of outlier fatalities occurred between January 1, 2009 and January 18, 2009, during operation ‘Cast Lead.’ Operation Cast Lead began in Dec. 27, 2008 when the Israeli military launched an assault into Gaza in order to stop rocket attacks by Hamas. By the end of the incursion, a total of 1,397 Palestinians had been killed.

5.3 High Infighting: May 2007-June 2007

5.3.1 Background: The Evolution of Factionalism

The majority of infighting deaths during this time period were caused by clashes between two rival Palestinian factions, Fatah and Hamas. In this section, I provide a brief history of the
rivalry between these two factions, which began with a disagreement over military strategy, and evolved into persistent factionalism and eventually electoral competition.

Fatah and Hamas support different ideologies, with Hamas endorsing Islamic nationalism and Fatah secular nationalism, but it is their strategic differences that have caused the two groups to clash. In the early days, Fatah supported armed resistance against Israel while the Muslim Brotherhood, from which Hamas emerged, supported the nonviolent Islamization of Palestinian society. After the First Intifada, Hamas supported armed resistance against Israel while Fatah leaned toward diplomacy and negotiation. The election of Mahmoud Abbas marked another turning point. Abbas completely rejected armed struggle, believing that only negotiation and international pressure could lead to a Palestinian state. Hamas, in contrast, has maintained that, “Palestine has been put on the map with the beginning of the Palestinian resistance. It will disappear from the map the moment we stop our resistance” (Baumgarten 2005:39).

The roots of the rivalry between Fatah and Hamas can be traced all the way back to early 1950s, when various organizations clashed over how to respond to the founding of Israel. One of the earliest resistance organizations was the Movement of Arab Nationalists (MAN), which believed that Palestine could only be liberated by a unified Arab army. However a necessary precondition was the creation of Arab unity, which by the mid-1950s seemed increasingly unlikely. According to Baumgarten (2005:32), after several attempts at creating pan-Arab unity:

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22 In a 2010 Doha Debate, Fatah and Hamas leaders debated each other over their differences. Interestingly, the participants never even mentioned a religious/secular divide. Instead, their primary point of contention was the strategy that should be pursued against Israel. Fatah representatives focused on negotiation and international pressure, using South Africa as an example, while Hamas officials said Palestinians must focus on making the occupation as costly as possible, using Gaza and South Lebanon as examples (Qatar Foundation 2010).

23 This quote is from Khalid Mishal, the head of Hamas’ politbureau in 2003. Hamas believes that in the absence of a powerful external actor that will compel Israel to comply with agreements, the one bargaining chip the Palestinians have is ability to deny Israel the security it desires. To give up the right to armed resistance therefore means giving up their only bargaining chip (Gunning 2004).
Israel was thriving, the situation of Palestinian refugees was deteriorating, the Arab national struggle against Israel was being waged with words rather than deeds, and the only “Palestinian” organization, MAN, was seen as doing Nasser’s bidding.

In response to the failures of MAN, and of pan-Arabism more broadly, Yasser Arafat founded The Movement for the Liberation of Palestine (Fatah) in the late 1950s. Fatah was founded on a distinct Palestinian nationalism, and emphasized the role of armed resistance against Israel. Fatah quickly became popular among Palestinians refugees, who were disillusioned both by the ineffectiveness of pan-Arabism, and by the poor treatment of Palestinian refugees by their Arab neighbors (Baumgarten 2005).

The tactics Fatah used against Israel, though, were controversial. Fatah decided to launch guerrilla attacks from a host country, initially Jordan and then Lebanon, in order to provoke Israel into a conflict that would then draw in the host country’s military (Baumgarten 2005). MAN feared that these cross-border attacks would prematurely provoke Israel before the pan-Arabic army was ready. Another group that refused to endorse the tactics of Fatah was the Muslim Brotherhood, from which Hamas would later emerge.

The Muslim Brotherhood was founded in Egypt in 1928 and opened branches in Gaza in the late 1940s (Milton-Edwards 2008). Unlike the pan-Arabism of MAN and the Palestinian nationalism of Fatah, the Muslim Brotherhood adopted an Islamic ideology, arguing that the liberation of Palestine first required an ‘internal jihad’ and the Islamic transformation of society (Abu-Amr 1993). Rather than fighting Israel, the Brotherhood concentrated on ‘the upbringing of an Islamic generation’ through the creation of an extensive network of religious schools, sports and social clubs, hospitals, libraries, and charities (Abu-Amr 1993). At the time, Fatah was highly critical of the Muslim Brotherhood for not only failing to participate in the armed struggle, but also for taking volunteers away from armed resistance by claiming it was not yet
time for Jihad. Despite these denouncements by Fatah, the Brotherhood refused to endorse Fatah’s armed resistance. Instead, the Brotherhood continued to maintain that resistance against the Israeli occupation was futile and premature (Gunning 2004).

During the 1967 war, Israel launched a surprise attack on Egypt, and within six days, had defeated the armies of Egypt, Jordan, and Syria. Pan-Arabism had claimed that only a unified Arab army could defeat Israel, but Israel’s easy victory over these Arab armies resulted in the death of pan-Arabism and convinced many that ‘armed struggle’, or unconventional war, was the only viable strategy against Israel (Baumgarten 2005). Fatah became the dominant force within the Palestine Liberation Organization (PLO)\(^2\), and its numerous factions immediately began launching attacks against Israel’s new occupation of the West Bank. By the mid-1970s, the PLOs armed wing, the fedayeen, enjoyed the unquestioned loyalty and support of Palestinians (Milton-Edwards and Farrell 2010).

In the late 1970s, though, two separate events would strengthen the role of Islamists in the Occupied Territories. The first was the 1979 Iranian Revolution, which in Palestine focused attention on religious groups such as the Muslim Brotherhood. The second was the decision by the Israeli government to allow the establishment of Islamist groups in Palestine in the hope that they could counterbalance the PLO, which at the time was the much greater threat to Israel (Milton-Edwards 2008). The Brotherhood took advantage of both these events to step up their social and political activities (Abu-Amr 1993).\(^2\)

The First Intifada, which began in December 1987, was an important turning point in the relationship between Islamists and secular nationalists. The uprising initially took both the PLO

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\(^2\) The PLO was created by the Arab League in 1964.

\(^2\) Not all factions within the Muslim Brotherhood were content with its policy of avoiding armed resistance with Israel. In 1979, the Islamic Jihad broke away from the Muslim Brotherhood and quickly became one the most prominent Islamist groups to engage in armed resistance against Israel (Schanzer 2008).
and the Muslim Brotherhood by surprise, but both groups quickly tried to take control over the movement. The PLO created the United National Leadership of the Uprising (UNLU), while the Muslim Brotherhood created \textit{Harakat al-muqawama al-Islamiyya}, known by the acronym Hamas.

When the Intifada began, most of the leadership of the Muslim Brotherhood wanted to continue their course of nonviolent religious outreach since they believed the Islamization of Palestinian society was not yet complete (Schanzer 2008). The younger members of the Brotherhood, though, were eager to participate in the Intifada. To prevent a split within the organization, the Muslim Brotherhood created Hamas as a separate wing\textsuperscript{26}. In its founding charter, published a few months later, Hamas claimed land occupied by Israel (both Israel proper and the Occupied Territories) for a future Palestinian homeland and stressed the importance of armed resistance.

Although Hamas did not explicitly present itself as an alternative to the PLO, it nevertheless repeatedly referred to Islam as an alternative to failed nationalist and secular ideologies (Abu-Amr 1993)\textsuperscript{27}. Hamas challenged UNLU for control over the First Intifada by issuing rival communiqués, and by calling and for rival strikes, marches, and demonstrations (Milton-Edwards and Farrell 2010). In its conflict against Israel, Hamas followed a dual policy of ‘internal’ and ‘external’ jihad. On the one hand, Hamas devoted considerable resources to continuing the Islamization of society by expanding the extensive social service network of

\textsuperscript{26} By creating Hamas as a separate wing, the Muslim Brotherhood could disown Hamas if the Intifada failed, and claim Hamas as its own if the Intifada succeeded (Abu-Amr 1993).

\textsuperscript{27} Hamas was invited to join the PLO, but demanded 40-50 percent of seats in the Palestine National Council (PNC) as a precondition for joining. This number was based on the percentage of votes Hamas generally won in local elections to student councils, trade unions, and professional associations. Since the PLO clearly could not meet this demand, Hamas may have been trying to refuse membership in the PLO while avoiding public criticism for rejecting cooperation with nationalist movements (Abu-Amr 1993).
schools, orphanages, and hospitals established by the Muslim Brotherhood, while on the other hand, Hamas engaged in armed attacks against Israel (Baumgarten 2005).

As the Intifada continued into the early 1990’s, the PLO entered into peace talks with Israel. The negotiations culminated in the 1993 Oslo Accords, in which the PLO recognized Israel and renounced terrorism, and in which Israel agreed to the creation of the Palestinian Authority (PA) and to withdrawal from Gaza and the West Bank. Hamas reacted with fury, and issued countless leaflets denouncing the PLO as traitors. Hamas also tried to derail the agreements by engaging in suicide attacks against Israel. At this juncture, the Palestinian people, eager to enjoy the dividends of peace, put their support behind Arafat and the PLO (Milton-Edwards and Farrell 2010).

The more pragmatic elements within Hamas responded to its declining popularity by moderating its policies. In 1995, Hamas declared a unilateral ceasefire and its spokesman, Mahmud Zahar, explained that Hamas continually,

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\ldots\text{calculates the benefit and cost of continued armed operations. If we can fulfill our goals without violence, we will do so. Violence is a means, not a goal. Hamas’ decision to adopt self-restraint does not contradict our aims (Baumgarten 2005:41).}
\]

The Second Intifada and the death of Arafat in November 2004 marked a new phase in the Hamas-Fatah rivalry. Hamas had consistently refused to participate in earlier PA elections both because it rejected Oslo and, more importantly, because the popularity of Fatah made it unlikely that Hamas could defeat Fatah at the ballot box (Milton-Edwards 2008). During the Second Intifada, though, Hamas’ armed attacks against Israel found renewed support among a population disillusioned by the peace process, by the blatant corruption of PLO officials, and by the steadily growing number of Israeli settlements.
Hamas successfully participated in several local elections and then ran in the January 2006 Legislative election as the party of “Change and Reform” (Usher 2005; Usher 2006). In preparation for participating in mainstream politics, Hamas deliberately toned down its rhetoric. In 2004, the leader of Hamas in the West Bank, Hasan Yusuf, suggested that Hamas might be willing to concede its goal of a greater Palestine when he referred to, “a long-term truce with Israel on the basis of the establishment of a Palestinian state along the 1967 borders in the West Bank and Gaza Strip” (Baumgarten 2005:41).

The Legislative election, which was deemed free and fair by international observers, provided Hamas with a surprising victory. Hamas offered to form a coalition government, but Fatah refused to cede power. In the weeks after the election, Fatah engaged in a ‘bloodless coup’ in which Abbas issued multiple presidential decrees designed to shift power away from the parliament and toward the president. For example, Abbas shifted authority over the PA’s security forces, information and finance ministries, and payroll and personnel directly to the president. The outgoing parliament also created a new constitutional court with the authority to resolve any dispute between the president and the parliament, and the authority to cancel and declare unconstitutional any laws created by the parliament (Usher 2006). These actions caused a power struggle in Gaza, which ended in July 2007 when Hamas violently removed Fatah from power after weeks of bloody fighting (Norton and Roy 2007).

28 Several explanations for the Hamas victory have been offered, including corruption and poor governance by Fatah, gratitude for Hamas’ extensive network of charity organizations, frustration with the stalled peace process, and splits within Fatah that led ‘independent’ Fatah candidates to run against ‘official’ Fatah candidates (Usher 2006).
5.3.2 A Look at the Data

Although the rivalry between Fatah and Hamas can be traced back more than 50 years, tensions between the two factions reached new heights when Hamas won 74 out of 132 seats in the Palestinian Legislative Council in the January 2006 elections. Fatah, which had dominated the PA since its establishment, won only 45 seats (Bullock 2007). Figure 5.3 graphs the total number of Palestinian deaths, starting with Hamas’ electoral victory in 2006 and ending with the removal of Fatah from Gaza.

Figure 5.3

The Battle for Gaza: Palestinian Fatalities
(Jan 2006-Aug 2007)

We can see from the graph that infighting spiked twice during this time period. The first spike occurred in Jan-Feb 2007, during which time 86 Palestinians were killed in infighting. The second, larger spike occurred in May and June 2007. During those two months, 213 Palestinians were killed in infighting, and of those, 167 deaths were the result of clashes between Fatah and Hamas. The majority of these deaths occurred between June 7 and June 15, in what has since
become known as the ‘Battle of Gaza’. During those nine days of intense factional violence, 156 Palestinians were killed. These two spikes in infighting represent a large increase from the average number of infighting fatalities over the entire time period studied (9/00-10/12), which is roughly 5 per month.

The graph also indicates that both spikes in infighting were preceded by spikes in ethnic violence. First, there was a spike in ethnic violence in November 2006. In that spike, 134 Palestinians were killed, with the majority of those deaths occurring between November 2nd and November 8th during an IDF incursion to stop rockets from Gaza. During that seven day period, 98 Palestinians were killed in operation ‘Autumn Cloud’. Then in May 2007, 62 Palestinians were killed in ethnic violence, the majority of whom were killed between May-16 and May-21. This figure represents a noticeable increase from the average number of ethnic violence fatalities over the entire time period studied (9/00-10/12), which is roughly 47 per month.

This initial look at the data provides some support for the hypotheses since both spikes in infighting were indeed preceded by spikes in ethnic violence. The evidence, though, is only moderately strong because (1) the May 2007 spike in ethnic violence is relatively small compared to the massive increase in infighting that followed, and (2) there is a spike in ethnic violence in July 2006 which is not followed by an increase in infighting. Since the data only provides moderate support for the hypotheses, I further test the hypotheses by conducting a natural experiment in Gaza and the West Bank.

5.3.3 A Natural Experiment: Gaza vs. West Bank

During May and June of 2007, Gaza experienced more than four times as many casualties from ethnic violence than the West Bank. This disparity allows me to conduct a natural
experiment in which the West Bank is used as a control group. If the hypotheses are correct, we should expect the number of fatalities from infighting in the West Bank to be lower than the number of fatalities from infighting in Gaza.

Figure 5.4 compares fatalities in Gaza and the West Bank. As a reference point, the average number of fatalities from ethnic violence over the entire time period studied is roughly 47/month, and the average number of fatalities from infighting over the entire time period is roughly 5/month.

In Figure 5.4, we can see that in Gaza, ethnic violence was higher than average in May, but lower than average in June. Infighting deaths in Gaza were well above average in both those months. In Gaza, ethnic violence was well under the average for both May and June, and infighting was also well under the average for both those months. A summary of the results of the experiment are presented in Table 5.1.
Overall, the results of the natural experiment are generally supportive of the hypotheses. In the West Bank, the results of the experiment clearly support the hypotheses: when ethnic violence is low, infighting is also low. In Gaza, though, the results of the experiment are mixed. Only the results from May support the hypotheses, while the results from June, in which ethnic violence was low but infighting was high, seem to contradict the hypotheses.

How can we explain this anomaly? One obvious explanation is that the increased infighting in June was the continued repercussion of the spike in ethnic violence from May. The majority of deaths from ethnic violence in May occurred in the latter half of the month, between May 16 and May 21. The majority of deaths from infighting occurred in the first half of the month, between June 7 and June 15. Only two and half weeks separate these two events, so a causal link between ethnic violence and infighting cannot be ruled out.

But how exactly did ethnic violence increase infighting during this period of time? According to the theory presented in chapter 3, ethnic violence acts as an external shock that, at the factional level, can provide an incentive and opportunity to challenge the ethnic leadership. As the level of violence intensifies, ethnic violence also creates an environment that facilitates and encourages violence within the ethnic group. When combined, these two consequences of ethnic violence dramatically increase the probability that challengers will use violence against the ethnic leadership. The ethnic leadership, in turn, responds violently to challengers in order to counter this pressure toward fragmentation and restore group cohesion.
In the next two sections, I use the process tracing method to determine whether there is evidence that this is indeed the causal mechanism through which ethnic violence led to the Battle of Gaza.

5.3.4 An Opportunity to Challenge the Leadership

*Israel and America Say No to Hamas, What Do You Say?*
*Hamas Election Banner, January 2006*

Although Hamas won the 2006 Legislative Elections, Fatah refused to cede power and instead chose to challenge the Hamas-led government. According to the theory presented in this dissertation, ethnic violence can provide factions with an opportunity to challenge the leadership by shifting the distribution of power away from the ethnic leadership and toward rival factions. There are three ways in which ethnic violence can shift the distribution of power. First, ethnic violence can target the leadership, causing leaders to be arrested, kidnapped, or killed. This produces disarray and can weaken the leadership to the point that rival factions believe they can issue an effective challenge. Second, if the leadership appears to be losing the conflict, it can suffer a loss of confidence and lose the support of smaller factions. Third, rival factions can shift the distribution of power toward themselves by turning to the ethnic opponent for support. In the following analysis of the Battle of Gaza, I find evidence to support the first and third causal mechanisms.

In January 2006, Hamas swept the Parliamentary elections and won 76 out of 132 parliamentary seats. The elections were monitored by several international observation groups, which deemed the elections competitive, free, and fair. Twenty-seven members of the European Parliament observed the elections, and the Parliament’s President, Josep Borrell, said he, “would like to salute the determination of the Palestinian people…who in spite of very difficult
conditions went in very large numbers to the polling stations to express their democratic choice” (European Union 2006).

Hamas offered to negotiate a unity government with Fatah, however Fatah was reluctant to cede power\(^{29}\). In Gaza, Fatah activists, under the leadership of Mohammed Dahlan, stormed the parliament building. In the West Bank, President Abbas tasked a team of legal experts with finding ways to shift powers away from the Parliament and toward the Presidency.\(^{30}\) Hamas formed a government without Fatah in March 2006, and over the next several months, Hamas and Fatah forces clashed repeatedly in the streets. In February 2007, Fatah eventually agreed to form a unity government during the Saudi sponsored Mecca Accord, however in Gaza, Dahlan’s forces continued to clash with Hamas (Steele 2007; Usher 2006).

The elections produced a dramatic power shift among Palestinian factions, but why did Fatah agree to elections when it was clearly not willing to cede power if defeated? For almost 50 years, Fatah had dominated the PA and everyone expected that the elections would provide Fatah with another victory. Hamas itself was surprised by the results. Publicly, the group claimed it had expected victory all along. Privately, leaders conceded that they had expected to spend some time in the opposition so they could adjust to the process of governance (Milton-Edwards and Farrell 2010). According to Usama Hamden, Hamas senior representative in Lebanon, “The result was a shock for us…we decided to go for elections, but we were not expecting that any great significance would come from it” (Milton-Edwards and Farrell 2010:261).

\(^{29}\) Abbas said he would agree to a unity government under the condition that Hamas accepted (1) all UN resolutions and Arab League summit resolutions pertaining to the Israeli-Arab conflict, and (2) also accepted all agreements signed between the Israel and the PLO (Usher 2006).

\(^{30}\) In the weeks following the election of Hamas, Abbas declared that the PA security forces, and information and finance ministries would report directly to the President. Abbas also created a general-secretary position to control PA human resources. The general-secretary was to be appointed by, and report directly to, the President, ensuring Abbas would have full control over the hiring of PA staff. Abbas was given the authority by the outgoing Fatah dominated Parliament to appoint a new constitutional court which had the right to ‘cancel any law approved by Parliament on the grounds that it is unconstitutional’ (Usher 2006).
The election of Hamas had also surprised American and Israeli officials. “I’ve asked why nobody saw it coming,” U.S. Secretary of State Condoleezza Rice told reporters, “I don’t know anyone who wasn’t caught off guard by Hamas’s strong showing” (Rose 2008). Both the U.S. and Israel had firmly stated that they would not work with a Palestinian Authority that included Hamas, which both considered a terrorist group. According to Rice, a party could not "have one foot in politics and the other in terror. Our position on Hamas has therefore not changed” (Wilson 2006). Foreign leaders were also wary of funding Hamas’ attacks on Israel. In response to the election, the U.S. cut funds to the Palestinian Authority, while Israel withheld the customs revenue it collected each month on behalf of the PA. However without these revenue streams, the PA was unable to pay salaries and meet other government costs. Israel also began to target Hamas, barring the movement of Hamas officials and detaining 64 Hamas officials, some of whom were Legislative Council members (Rose 2008; Usher 2006).

For Fatah, U.S. and Israel opposition to a Hamas-led government provided an excellent opportunity to gain outside support for an internal power struggle. Fatah officials used the opportunity to acquire weapons and training that could be used against Hamas. In May 2007, the Bush administration promised an $84 million aid package to Palestinian President Mahmoud Abbas, most of which was used to train an elite corps of Fatah fighter (Murphy and Mitnick 2007). Israel, in turn, permitted American training exercises to take place in the West Bank (Murphy and Mitnick 2007).

Israel also lifted restrictions on the flow of weapons and people across the Egyptian-Gaza border. In late December 2006, a convey of four trucks was permitted to cross the border with a weapons shipment of 2,000 AK-47 rifles, 20,000 magazines and two million rounds of ammunition (Harel and Issacharoff 2006). The trucks carrying the weapons were accompanied
by IDF military police, and the weapons were handed off to PA security personnel (Harel and Issacharoff 2006). In May 2007, one month before the Battle of Gaza, Israel allowed 500 Fatah fighters to cross into Gaza from Egypt, where they had been receiving U.S. training (Murphy and Mitnick 2007). This was an unusual move for Israel, which typically restricts the number of fighting age men who are allowed to cross over the Egyptian-Gaza border.

Israeli and American officials, though, maintained that the purpose of the weapons and training was not to undermine Hamas. Amos Gilad, head of political military policy at the Defense Ministry, told Israel Radio, "The assistance is aimed at reinforcing the forces of peace in the face of the forces of darkness that are threatening the future of the Middle East" (Harel and Issacharoff 2006). According to Lt. Gen. Keith Dayton, U.S. Security Coordinator to Israel and the Palestinian Authority:

> We are involved in building up the Presidential Guard, instructing it, assisting it to build itself up and giving them ideas. We are not training the forces to confront Hamas…Hamas is receiving money and arms from Iran and possibly Syria, and we must make sure that the moderate forces will not be erased (Kalman 2006).

However despite official Israeli and American objections, few in the region believed that Israel and the U.S. intended anything other than the complete overthrow of Hamas. According to Omar Shaban, a former advisor to Abbas:

> Palestinians believe the American support to Abbas is to take out Hamas rather than help secure the border crossings…There is a big fear within Hamas that these weapons will be used against them, which makes them take the initiative to get more weapons and to protect themselves … you are promoting the competition between the Fatah generals and Hamas (Murphy and Mitnick 2007).

In a commentary for the Jerusalem Post, Palestinian Affairs correspondent Khaled Abu Toameh echoed those sentiments:
The U.S. believes that by giving Abbas more rifles and cash, it would be able to bring about regime change. But in the West Bank and Gaza, there is no shortage of weapons. Tons of explosives, rifles and missiles are smuggled across the Egyptian border nearly every day. What the Palestinians need is not more rifles -- which they never use to stop Hamas, Islamic Jihad or other militias anyway -- but good governance and credible leaders…American meddling in Palestinian affairs is backfiring, because many Palestinians are beginning to look at Abbas and Fatah as pawns in the hands of the U.S. and Israel.

Official American documents later uncovered in an investigative report reveal that despite protestations to the contrary, the U.S. goal in Palestine was indeed the overthrow of the Hamas led government (Rose 2008). Starting in late 2006, the Bush Administration began pushing Abbas to dissolve the government and hold new elections. If Hamas would not agree, then Abbas was to declare a state of emergency and form an emergency government. Knowing that Hamas would respond violently to these actions, Jake Walles, the consul general in Jerusalem, was told to tell Abbas, “If you act along these lines, we will support you both materially and politically” (Rose 2008).

The intent of the U.S. plan, which was approved by President Bush and implemented by Secretary of State Condoleezza Rice and Deputy National Security Adviser Elliott Abrams, was to force a confrontation between Fatah and Hamas. Under the plan, Fatah forces under Dahlan would be supplied with the weapons and training needed to win the confrontation and remove Hamas from power (Rose 2008). However the American plan backfired and instead of driving Hamas from power, the Hamas instead tried to preempt the coup by seizing complete control of Gaza (Steele 2007).

On April 30, 2007, a portion of an early draft of the plan, which was called, “An Action Plan for the Palestinian Presidency,” was leaked to the Jordanian newspaper, Al-Majd. For Hamas, [31] Some government officials ironically referred to the plan as “Iran-Contra 2.0” because Elliott Abrams, who was placed in charge of the Fatah coup, was also part of the Iran-Contra affair under President Reagan. Abrams was convicted, and later pardoned, of withholding information from Congress during that scandal.
the plan represented a blueprint for an American backed coup by Fatah (Rose 2008). According to Fawzi Barhoum, Hamas’s chief spokesman, the leak in Al-Majd convinced Hamas officials that “there was a plan, approved by America, to destroy the political choice” (Rose 2008).

Then on June 7, the Israeli newspaper, Haaretz, reported that senior Fatah officials had asked Israel to authorize another large arms shipment from Egypt. According to the article, this shipment was to include “dozens of armored cars, hundreds of armor-piercing RPG rockets, thousands of hand grenades and millions of rounds of ammunition for small caliber weapons” (Issacharoff and Harel 2007). The article also stated that in Gaza, Dahlan was organizing another paramilitary force of 1,000 fighters to “counter its synonymous rival in Hamas” (Issacharoff and Harel 2007). The Battle of Gaza began that very day, and after a week of bloody fighting, Hamas had completely taken over control of Gaza.

Although at the time many thought Fatah had a strong military advantage over Hamas, in reality Hamas had several important advantages. Fatah’s security institutions had never really recovered from Operation Defensive Shield, a massive Israeli incursion during the Second Intifada (Milton-Edwards 2008). Also, when the U.S. and Israel stopped the flow of funds to the PA, Fatah was hurt far more than Hamas. Hamas continued smuggling weapons through the Egyptian border, and received about $120 million in aid from Iran (Rose 2008). Using smuggled goods, Hamas was also able to arm its own police force in Gaza, the Executive Force, which functioned alongside Hamas’ armed wing, the Izz-a-din al-Qassam Brigades. These two armed groups were pivotal in Hamas’ takeover of Gaza (Milton-Edwards 2008).

Within the Bush administration, one of the fiercest critics of the Palestinian policy was the neoconservative, David Wurmser. A month after the coup by Hamas, Wurmser resigned as Vice President Dick Cheney’s chief Middle East adviser. According to Wurmser, Hamas had no
intention of forcibly taking control of Gaza until Fatah forced its hand. Wurmser claims the Bush administration was:

…engaging in a dirty war in an effort to provide a corrupt dictatorship [led by Abbas] with victory…It looks to me that what happened wasn’t so much a coup by Hamas but an attempted coup by Fatah that was pre-empted before it could happen” (Rose 2008).

The above analysis therefore concludes that ethnic violence provided Fatah with the opportunity to challenge Hamas because (1) Israel concentrated ethnic violence on Hamas, and (2) Fatah was able to receive weapons and training from the U.S. and Israel. Thus, the violence of May and June 2007 can be directly linked to U.S. and Israeli efforts to help Fatah overthrow Hamas.32 This analysis, though, does yet tell us why Fatah and Hamas engaged in a violent, rather than non-violent, power struggle. This puzzle will be addressed in the next section.

5.3.5 Creating the Conditions that encourage Violence

According to the theory in this dissertation, there are three ways in which ethnic violence can create conditions that make violence more likely. First, ethnic violence can create new cleavages in the ethnic group, around which competing factions can form. As the number of dyads along which conflict can occur increases, the probability of violence also increases. Second, ethnic violence can increase the probability that challengers will use violence by both (1) reducing non-violent pathways for protest such as regular elections and by (2) undermining institutions that had previously constrained factional violence. Finally, inter-ethnic violence makes it more likely

32 This case study also highlights the complexity of political violence because the case study reveals that there were several different conflicts being waged simultaneously in Gaza. First, there was a power struggle between Fatah and Hamas, and alongside this was an ideological war between the U.S. and Islamic extremism. The primary conflict, however, was the ethnic conflict between Israelis and Palestinians. The U.S. likely would not have been so deeply involved in Palestinian politics if not for the conflict between Palestinians and Israelis. Additionally, both Fatah and Hamas were created in opposition to Israel, and so their power struggle cannot be fully understood outside the context of the Israeli-Palestinian conflict.
that ethnic group leaders will respond violently to co-ethnic challengers. In the following analysis, I find evidence to support the second causal mechanism.

According to a report by the Palestine Center for Human Rights (2007), the security situation in Gaza had already been rather tenuous because of the corruption of the Palestinian National Authority, and its inability (and sometimes unwillingness) to uphold the rule of law. After the election of Hamas, the deterioration of the security situation in Gaza reached unprecedented levels because of both violence from the Israeli government and sanctions from other international actors. This state of lawlessness then created an environment in which rival factions could attack each other with impunity. According to a report by the Palestine Center for Human Rights:

> Israeli Occupation Forces escalated attacks against Palestinian civilians, the Palestinian government and the elected Palestinian Legislative Council. They killed many Palestinians, destroyed civilian facilities, abstained from transferring Palestinian tax revenues to the Palestinian side and further tightened the siege imposed on the Occupied Palestinian Territory. At the international level, the United States, the European Union, Canada and Japan decided to suspend financial aid to the Palestinian National Authority, which led to economic hardship and further suffering of Palestinian civilians. At the internal level, the state of lawlessness and assaults on the rule of law escalated, especially in the Gaza Strip (PCHR 2007:11).

These warnings were echoed by other international observers. In the U.S., Quartet envoy James Wolfensohn warned legislators that:

> Non-payment of salaries to some 73,000 security staff risks rising criminality, kidnapping, and protection rackets…the already highly charged environment needs no additional fuel for a spark to ignite (Wolfensohn 2006).

In the UN, a May 2007 report by Under Secretary General Alvaro de Soto, UN Special Coordinator for the Middle East Peace Process and Personal Representative of the Secretary-
General to the PLO, warned that the sanctions against Hamas had produced dramatic economic and institutional deterioration:

The propitious decline of the standard of living of Palestinians, particularly but by no means exclusively in Gaza, has been disastrous, both in humanitarian terms and with perilous weakening of Palestinian institutions. The underpinnings for a future Palestinian state have been seriously undermined, and the capacity of the Palestinian security apparatus to establish and maintain law and order has diminished tremendously (de Soto 2007).

The ultimate victims of the deteriorating security situation were the Palestinian people:

The population was often left cowering inside its homes as armed gangs took advantage of the deteriorating security situation and shot at each other from cars and balconies, carried out abductions and killings. Month after month, throughout the autumn and winter of 2006 and the spring and early summer of 2007, armed clashes, assassinations, assaults, attacks, and brutal bloody violence broke out between Hamas and its rivals. (Milton-Edwards and Farrell 2010:272)

In summary, the immediate cause of the factional violence was a power struggle between Fatah and Hamas for control of Gaza. The two sides brutally attacked each other without concern for the many civilians that were caught in the crossfire. However by deteriorating an already tenuous security situation, ethnic violence undermined the institutions that had previously constrained factional violence, allowing Fatah and Hamas the freedom to take their battle to the street.

5.3.6 Summary of Results

The highest number of fatalities from infighting occurred between May 2007 and June 2007, during a violent power struggle between Fatah and Hamas. Tensions between Hamas and Fatah rose dramatically after Hamas won a majority of seats in the Palestinian Legislative Council in the January 2006 elections. Fatah refused to cede power, leading to power struggle in Gaza. The
power struggle ended in July 2007, when Hamas forcibly removed Fatah from power after weeks of bloody infighting.

In this case study I find that at the factional level, ethnic violence provided both an opportunity to challenge the leadership, and created the conditions that made intra-group violence more likely. Ethnic violence provided Fatah with the opportunity to challenge Hamas because (1) Israel focused the ethnic violence on Hamas, and (2) Fatah was able to receive weapons and training from the U.S. and Israel. Also, by further deteriorating an already tenuous security situation, ethnic violence increased the probability that the leadership challenge would become violent.

In this case study, I therefore conclude that the evidence supports hypotheses one and two. This case study finds that at the factional level, ethnic violence did not increase Palestinian cohesion as much of the ethnic conflict literature would expect. Instead, ethnic violence provided an opportunity for Fatah to challenge the Hamas leadership, and also created conditions that made it more likely that the challenge would turn violent.

5.4 High Infighting: March 2002-April 2002

The second highest number of fatalities from infighting occurred between March 2002 and April 2002, about midway through the Second Intifada. The hypotheses claim that factionalism and the increased threat of collaboration are the pathways that link ethnic violence to infighting. If the hypotheses are correct then (1) we should see this increased period of infighting preceded by a spike in ethnic violence, and (2) in the following case study, process tracing should find evidence for the proposed causal mechanism.
5.4.1 A Look at the Data

The violence of March and April 2002 occurred mid-way through the Second Intifada, a Palestinian uprising that began soon after Ariel Sharon entered the Temple Mount in September 2000. The Second Intifada ended roughly around February 2005, when Palestinian President Mahmoud Abbas declared an end to violence and Israeli Prime Minister Ariel Sharon agreed to release 900 Palestinian prisoners. Figure 5.5 graphs the total number of Palestinian deaths during the Second Intifada.

![Figure 5.5: Palestinian Deaths during the Second Intifada](image)

The figure indicates that both ethnic violence and infighting reach their peak around March/April 2002. The peak in infighting, though, is rather unclear because the scale of ethnic violence and infighting is quite different: over the course of the Second Intifada, the average number of fatalities from ethnic violence is 60/month, while the average number of fatalities
from infighting is 3/month. In Figure 5.6, I therefore graph only infighting fatalities so that changes in infighting over time can be more clearly seen.

![Figure 5.6](attachment:image.png)

When we compare Figures 5.5 and Figure 5.6, we can more clearly see the significant increase in both ethnic violence and infighting during March/April 2002. Over the course of these two months, a total of 483 Palestinians were killed in ethnic violence, a number which is over four times the average number of fatalities from ethnic violence during the Second Intifada. Thirty-eight Palestinians were killed in infighting during these two months, which is over six times the average number of infighting fatalities. According to B’Tselem, each of the 38 deaths from infighting in March and April 2002 were due to suspected collaboration with Israel.

### 5.4.2 Theoretical Explanation for these Findings

According to the theory presented in chapter 3, ethnic violence not only leads to fragmentation at the factional level, but also creates pressure for fragmentation at the individual level. When
ethnic violence occurs, it acts as an external shock that presents individuals with both an incentive and an opportunity to collaborate against their ethnic leadership.

The incentive to collaborate can come from several sources, including (1) the opposing ethnic group which uses positive incentives and negative incentives, (2) internal violence which may lead individuals seek revenge or protection, (3) tribal or clan loyalties, (4) the need to provide daily necessities and take care of a family, (5) personal beliefs and ideology, which may conflict with those of the political leadership, and (6) self-interest and the desire to be on the winning side. Ethnic violence also provides an opportunity to collaborate because the confusion and disarray of ethnic violence allows behavior that might have previously aroused suspicion to instead be overlooked. Also during the violence, the ethnic opponent may arrest or detain members of the ethnic group, which presents an excellent opportunity to gather information.

Ethnic violence also increases the threat that collaboration poses to the ethnic leadership, and in order to reduce that threat and restore group cohesion, the ethnic leadership is likely to use violence against suspected collaborators. As the threat posed by collaboration increases, collaborator attacks are likely to become more public and violent. The following case study tests this causal mechanism.

5.4.3 What is Collaboration?

Collaboration is generally defined as working jointly with others. In the context of an occupation, though, collaboration means working with the occupying force against one’s own ethnic group. Jawwad (2001) has developed a classification of Palestinian collaborators. In his classification scheme, there is first the land dealer, who makes a profit off the occupation by purchasing land from Palestinians and then transferring that land to Israelis. Second is the intermediary, who serves as an intermediary between the Israeli administrative apparatus and the
Palestinian population. Some intermediaries have been known to require bribes from Palestinians before obtaining the necessary permits from Israel (Rigby 1996).

Next is the armed collaborator, who accompanies Israeli Special Forces on raids. Fourth is the informant, who provides general political information, such as ‘who hangs out with whom’, or who attended the recent rally. Next is the economic collaborator, whose function is to push Israeli products in the Palestinian market. Last is the infiltrator, which is usually the type of collaborator that first comes to mind for most people. The infiltrator provides information from within Palestinian organizations.

At various times, the definition of ‘collaboration’ has also been expanded to include criminals, such as drug-dealers, pimps, and prostitutes, on the ground that they undermine the morality of Palestinian society and therefore undermine the national struggle (Rigby 1996).

5.4.4 The Incentive and Opportunity for Collaboration

Israel relies heavily on a network of collaborators to gather military intelligence about the Occupied Territories. Collaborators can be recruited through a variety of methods. For example, collaborators can be offered monetary incentives, which are especially attractive in a society where fifty percent of families live below the poverty line (Luft 2003). Collaborators can also be recruited using other incentives, such as the permits needed to earn a livelihood, or the permits needed to take a sick relative overseas for medical treatment (Rigby 2001). The price of these incentives might initially be low, say meeting with Israeli officials once a month, but that initial compromise can easily become a way to blackmail collaborators into further compromises.
Another source of blackmail is the highly conservative morality of Palestinian society. Prominent Palestinian activists have inadvertently allowed themselves to become entrapped in schemes which combine prostitution and blackmail (Tamari 1990).

The Israeli prison system, which holds thousands of Palestinian security detainees and prisoners, is an especially important recruitment ground because many Palestinians who have been arrested and imprisoned have been pressured to become informants (Rigby 2001). Within the prison system, recruitment can occur through a number of paths. Petty criminals can be promised money or a reduced sentence in return for eliciting information from other prisoners (Tamari 1990). Others can be threatened with a life sentence, whether possible or not, and then released back into Palestinian society after they agree to become informants (Jawwad 2001). The Second Intifada provided an excellent opportunity to recruit informants because during the four years of the Second Intifada, roughly 7,300 Palestinians were rotated through the Israeli prison system (Elmer 2012).

Finally, some Palestinians become informants not because they have been coerced, but rather because they oppose the policies of the Palestinian government. In a recent documentary entitled, ‘The Collaborator and his Family’, Ibrahim, a Palestinian informant from the West Bank, reveals that he became a collaborator because he opposed violent attacks against Israel (Sherwood 2011).

5.4.5 The Threat Posed by Collaboration

Collaborators are a threat to the Palestinian leadership for several reasons. During the First Intifada (1987-1993), the wide-scale use of Israeli recruitment methods met with great success.
By mid-1989, bands of armed collaborators were roaming villages and assisting Israeli security forces in arresting and interrogating suspected Palestinian activists.

Collaborators have also participated in the targeted assassination of Palestinian leaders. In 1996, Yahya Ayyash, known as ‘the Engineer’ because of his skill in creating bombs, was assassinated by a bomb hidden inside a cell phone. The cell phone was given to Ayyash by a Palestinian collaborator who was working with Israeli intelligence services (Milton-Edwards and Farrell 2010:118).

The fear of collaboration often forces Palestinian leaders to be constantly on the move (Luft 2003). Salah Shihada, the founder of one of Hamas’ military wings, was assassinated when Israel dropped a bomb on the home where he was staying, killing Shidada along with fifteen civilians, nine of whom were children. Israel was able to determine the location of Shihada based on information supplied by a Palestinian informant. This dramatic event increased the fear of collaboration among Palestinians. According to one Palestinian journalist:

People are now looking for wanted men. They are stopping them in the middle of the street and will now begin asking for their identification before they enter a specific residential neighborhood. … No one feels safe. … How do you know who will be Shihada number two, and where the missile will come from? … Someone must have told the Shin Bet (GSS) that Shihada was visiting his house; that someone must live among us, and now everyone is looking for collaborators (Luft 2003).

5.4.6 The Punishment for Collaboration

In Palestinian society, the punishment for collaboration can range from public admissions of guilt, to torture and summary execution. The inconsistent punishment for collaboration is actually symptomatic of a larger issue. Under the Cairo Agreement (1994) and the Taba Agreement (1995), Palestinian negotiators agreed not to threaten or harm ‘Palestinians who have
maintained contact with the Israeli authorities’ (Rigby 2001). However popular sentiment often views collaboration as treason, and demands an appropriate punishment. According to Sheikh Yassin, the spiritual leader of Hamas:

Collaboration can be defined as a contagious disease, like cancer or gangrene. We excise the affected member in order to prevent the disease from spreading to the body’s healthy members. The collaborator declares a state of war between himself and his society, and passes on to the society’s enemies information about his people and the reality in which they live….it is absolutely and utterly forbidden to remain silent about this or ignore it (Milton-Edwards 2008:119).

The gap between public policy and popular sentiment has led to either vigilante groups taking the matter into their own hands, or to judicial procedures which lack sufficient protection for the accused (Rigby 2001). According to Lia (2006:395-396):

Vigilant policing may occur as a communal response to the ‘perceived shortfall in the maintenance of order in society.’ It spreads wherever state authorities are undermined by intercommunal or ethnic conflict and where significant segments of the population are prevented from resorting to the police in order to resolve conflicts and deal with crime.

The type of ‘justice’ meted out by vigilante groups is often linked to the perceived threat posed by collaboration. In the more extreme cases, collaborators have been assassinated by organizations, tortured by Palestinian security forces, killed by vigilante groups, or lynched by crowds (B’Tselem 2011). Some attacks have been especially brutal, with collaborators being tortured and killed and their bodies publically displayed in order to serve as a warning to other collaborators. Even when brought before the judicial system, collaborators are unlikely to be given a fair trial and have sometimes been condemned to death without the right to either defend themselves or appeal the conviction (Rigby 2001). In 2002, Amnesty International issued a report citing their concern over the unlawful killings of suspected collaborators. The report condemned the Palestinian Authority for not enforcing the rule of law by arresting the
perpetrators of these extrajudicial killings, and for committing human rights abuses by torturing collaborators arrested by the police forces (Amnesty International 2002). Even the families of collaborators have been penalized. The families have sometimes been required to denounce the collaborator, and are often ostracized by the rest of the community (Sherwood 2011).

In response to the growing number of collaborators during the First Intifada, both Hamas and the PLO began a counter-intimidation strategy that led to the deaths of hundreds of suspected collaborators. The definition of collaboration was much broader during that time, and included everything from working with Israeli security forces, to not participating in work strikes, or marketing banned Israeli products (B'Tselem 2011).

In the final three years of the Intifada, the creation of vigilante ‘strike forces’ to target collaborators combined with a broadened definition of what constituted collaboration, led to the killing of 150-200 suspected collaborators each year (Rigby 2001). Dr. Eyad Sarraj, a psychiatrist in Gaza, describes the fear caused by those strike forces:

I remember during the First Intifada when Hamas used to kill people and throw their bodies on the rubbish dump. They would say “this is a drug trafficker or collaborator” or something. Of course they were killing these people under torture. To my knowledge Hamas killed more people than the Israelis during the First Intifada, at least in Gaza. To the extent that I was sitting once with Haider Abdel Shafi in his house and there was a knock on the door and it was a masked Palestinian militia. I was hoping it was an Israeli soldier because you can deal with an Israeli soldier. And that was the wish of so many Palestinians at that time. We were too scared to open the door at night just in case it would be Palestinian militia, who would not have the time for discussion or argument, they would just shoot you and kill you (Milton-Edwards and Farrell 2010:119).

During the Second Intifada, the definition of collaboration was less broad, and was primarily defined as working with Israeli security forces. Many of the collaborators killed during the Second Intifada were killed in summary executions by small groups of armed gunmen.

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33 This quotation is interesting because it reflects the Dr. Sarraj’s perceptions of threat. The actual fatality numbers from the First Intifada, though, show that Israelis killed 1551 Palestinians (B’Tselem n.d.), while Palestinians killed 822 Palestinians (Human Rights Watch 2001).
When collaboration is not seen as a grave threat, though, the punishment meted out collaborators can be quite mild. Suspected collaborators are sometimes given the chance to repent by taking an oath of contrition on the Qur’an, or by confessing and asking for forgiveness through the loudspeaker at the mosque (Schanzer 2002). During the First Intifada (1987-1993), vigilante ‘strike forces’ forced hundreds of collaborators to recant and to publically surrender their weapons in mosques and churches (Tamari 1990).

Both Palestinians and Israelis have used violence against suspected ‘collaborators’ as a cover for other motives. Among Palestinians, for example, collaborator killings have sometimes been used to further local grievances and feuds. During the Palestinian Revolt of the 1930s, feuding clans and political factions used charges of collaboration to discredit rivals and justify violence (Rigby 2001).

Collaborator killings have also been used as part of disinformation campaigns by Israel. During the First Intifada, for example, Israeli security forces spread counterfeit bulletins which listed the names of collaborators who had already been exposed alongside the names of prominent Palestinians who were not collaborators (Tamari 1990).

5.4.7 A Closer Look at the Data

Figure 5.7 provides a closer look at the two months when both ethnic violence and collaborator killings were at their highest. The figure shows that there were actually two separate increases in ethnic violence. If the hypotheses are true, then each increase in ethnic violence will be closely followed by an increase in collaborator killings. The data confirms these expectations.
The first increase in ethnic violence occurred in early March with an IDF incursion into the West Bank. The purpose of the incursion was to pursue Palestinians who were carrying out attacks on Israel, and the incursion involved “the use of ground troops, attack helicopters, tanks and F-16 fighter jets in civilian areas, including refugee camps, causing significant loss of life among civilians” (U.N. General Assembly 2002). This incursion was followed a few days later by an increase in attacks against collaborators, with 11 Palestinians killed for suspected collaboration during mid-March. In the latter half of the month, ethnic violence decreased and there were no reported attacks on collaborators.

The second increase in ethnic violence began on March 29, when the Israeli government launched a second IDF incursion into the West Bank. Operation ‘Defensive Shield’ lasted from March 29 to May 3, and in the first nine days of the conflict 187 Palestinians were killed by Israel. No Palestinians were killed in infighting during the first three days of the operation, but then on April 1, eleven Palestinians were attacked and killed for collaborating with Israel, and
then three days later, another 11 Palestinians were killed for suspected collaboration. In the second half of the month, both ethnic violence and collaborator killings declined.

The data therefore supports the claim that ethnic violence leads to increased attacks against collaborators. Both Israeli incursions into the West Bank led to a high number of Palestinian deaths, and a few days after the incursions began, there was a wave of attacks against collaborators.

5.4.8 Endogeneity

In each of the graphs, a spike in collaborator killings is then followed by a period of time in which ethnic violence is either reduced or again at mean levels. This is important because it addresses the problem of reverse causality. If infighting actually led to ethnic violence through outbidding or predation, rather than the other way around, we would expect that increased infighting would then be followed by higher levels of ethnic violence. However, according to the data higher levels of ethnic violence always preceded infighting spikes. After the infighting spike, what then followed was a period of reduced ethnic violence. The data therefore does not support the argument for reverse causality.

5.4.9 A Natural Experiment: Gaza vs. West Bank

During March and April of 2002, the West Bank experienced almost three times as many casualties from ethnic violence as Gaza. This disparity allows us to conduct a natural experiment in which Gaza is used as a control group. If the hypotheses are correct, we should expect the number of fatalities from infighting in Gaza to be lower than the number of fatalities from infighting in the West Bank.
Figure 5.8 compares fatalities in Gaza and the West Bank. As a reference point, the average number of fatalities from ethnic violence over the entire time period studied is roughly 47/month, and the average number of fatalities from infighting over the entire time period is roughly 5/month.

In the figure, we can see that in the West Bank, ethnic violence was well over the average in both March and April. Infighting deaths were also above the average during these same months. In Gaza, ethnic violence was over the average in March, but under the average in April. Infighting, though, was below average in both those months. A summary of the results of the experiment are presented in Table 5.2.
Table 5.2: Summary of Findings

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<td>Infighting</td>
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Overall, the results of the natural experiment generally support the hypotheses. In the West Bank, the results of the experiment clearly support the hypotheses: when ethnic violence is high, infighting is also high. In Gaza, though, the results are more mixed. In Gaza, only the results from April support the hypotheses, while the results from March, in which ethnic violence was high but infighting was low, appear to contradict the hypotheses.

However, a closer look at the data might explain this anomaly. In general, deaths from infighting during the Second Intifada were almost three times higher in the West Bank than in Gaza. During the Second Intifada, 113 Palestinians were killed in infighting in the West Bank, whereas 40 were killed in infighting in Gaza. This means that on average, 2.1 Palestinians were killed per month in the West Bank, whereas in Gaza, the fatality rate from infighting was 0.7 per month. In March, the month that seems to challenge the hypotheses, ethnic violence was high, and 2 people were killed in infighting, which is almost three times the average for Gaza during this time period. If our reference point is the average number of fatalities during the Second Intifada in Gaza alone, rather than in both Gaza and the West Bank, then the results of the experiment in Gaza are actually consistent with the hypotheses.
5.4.10 Summary of Results

The second highest number of fatalities from infighting occurred between March 2002 and April 2002, in the midst of the Second Intifada. The Second Intifada was a period of increased ethnic violence and the case study reveals that this ethnic violence changed the role of collaborators in the conflict. The increased need for military intelligence led Israel to intensify recruitment efforts, while the increased danger posed by collaboration led Palestinians to violently target suspected collaborators. According to B’Tselem, every infighting death that occurred during these two months was due to suspected collaboration with Israel.

The data indicates that there were actually two separate spikes in ethnic violence during this time period, and each spike in ethnic violence was then closely followed by a spike in collaborator killings. Moreover, the ethnic violence was concentrated in the West Bank, which allows us to conduct a natural experiment in which Gaza becomes the control case that received lower levels of the treatment (ethnic violence). The results of the experiment suggest that spikes in ethnic violence are usually followed by spikes of collaborator killings, but when there is no spike in ethnic violence, there is also no spike in collaborator killings.

I therefore conclude that this case study provides evidence to support hypotheses three and four. At the individual level, ethnic violence did not increase ethnic cohesion. Instead, ethnic violence created opportunities and incentives for collaboration. Thousands of Palestinians were rotated through the Israeli prison system, where they faced heavy pressure to become informants. Some agreed to become informants out of greed, others because of fear, still others because they were trying to take care of their family. If discovered, informants were deemed traitors and often attacked by other Palestinians. In this case study I therefore conclude that at the individual level, ethnic violence led to infighting and division within Palestinian society, rather than unity.
5.5 Two Periods of Low Infighting

Finally, the chapter will test the hypotheses on two periods of low infighting in the Israeli-Palestinian conflict. To select the time periods when infighting was especially low, I select the two longest stretches of time when the number of Palestinian deaths from infighting was zero. Those two time periods are September 2009-March 2011, during which time no deaths were recorded for 19 months, and July 2011-May 2012, during which time no deaths were recorded for 11 months. If the hypotheses are true, then in both these time periods ethnic violence should also be low.

5.5.1 September 2009-March 2011

The longest period of time in which there were no reported fatalities from infighting occurred between Sept 2009 and March 2011. Figure 5.9 graphs Palestinian fatalities during this time period.

![Figure 5.9](image-url)
Over the course of these 19 months, the total number of deaths from infighting was zero, which is a large decrease from the average number of fatalities, which is roughly 5 per month. At the same time, the total number of deaths from ethnic violence was 127, or 6.7 per month, which is much lower than the average of roughly 47 per month. The evidence from this time period therefore supports the claim that periods of low ethnic violence are associated with periods of low infighting.

5.5.2 July 2011-May 2012

The second longest period of time in which there were no reported fatalities from infighting occurred between July 2011 and May 2012. Figure 5.10 graphs Palestinian fatalities during this time period.

![Figure 5.10](image)

Over the course of these 11 months, the total number of deaths from infighting was zero, which is a large decrease from the average number of fatalities, roughly 5 per month. At the
same time, the total number of deaths from ethnic violence was 96, or 8.7 per month, which is much lower than the average of roughly 47 per month. I therefore conclude that this time period, along with the one examined above, provide evidence that periods of low ethnic violence are associated with periods of low infighting.

5.6 Summary

While the previous chapter tested the claim that ethnic violence leads to infighting, the present chapter tested the claim that factional violence and collaborator killings are the mechanisms through which ethnic violence leads to infighting. This argument was tested using a case study of Palestinian infighting.

The chapter began with a statistical regression which found evidence that ethnic violence leads to infighting. To test how ethnic violence led to this outcome, the analysis then used process tracing on a set of comparative case studies. The case studies provided evidence that at the factional level, ethnic violence increased infighting due to leadership challenges. At the individual level, ethnic violence increased infighting due to collaboration. The next two sections summarize these findings.

5.6.1 Factionalism

The highest number of fatalities from infighting occurred between May 2007 and June 2007, during a power struggle between Fatah and Hamas. Tensions between Hamas and Fatah rose dramatically in January 2006 when Hamas won a majority of seats in the Palestinian Legislative Council. Fatah refused to cede power, leading to leadership struggle in Gaza. The leadership
struggle ended in July 2007, when Hamas forcibly removed Fatah from power after weeks of bloody infighting.

In this case study, I find that ethnic violence both provided an opportunity to challenge the leadership, and created the conditions that made intra-group violence more likely. Ethnic violence provided Fatah with the opportunity to challenge Hamas because (1) Israel concentrated the ethnic violence on Hamas, and (2) Fatah was able to receive weapons and training from the U.S. and Israel. Also, by further deteriorating an already tenuous security situation, ethnic violence undermined the security institutions that might have restrained violence. In this case study, I therefore conclude that the evidence supports hypotheses one and two.

5.6.2 Collaboration

The second highest number of fatalities from infighting occurred between March 2002 and April 2002, about midway through the Second Intifada. The Second Intifada was a period of increased ethnic violence between Israelis and Palestinians, and this ethnic violence changed the role of collaborators in the conflict. The increased need for military intelligence led Israel to intensify recruitment efforts, while the increased danger of collaboration led Palestinians to brutally attack suspected collaborators. The number of infighting deaths during the Second Intifada spiked during March and April 2002, and every infighting death during those two months was an attack against a suspected collaborator. I therefore conclude that this case study provides evidence to support hypotheses three and four.

This chapter therefore finds that ethnic violence did not increase Palestinian cohesion, as much of the ethnic conflict literature would expect. Instead, at the factional level, ethnic violence helped create an opportunity for Fatah to challenge the Hamas leadership, while also creating
conditions that made it more likely that the challenge would turn violent. At the individual level, ethnic violence created opportunities and incentives for collaboration. If discovered, collaborators were deemed traitors by other Palestinians and often killed. As the hypotheses predicted, the case study finds that ethnic violence did not push the ethnic group toward cohesion but rather toward fragmentation.
Chapter 6: Conclusion

6.1 The Puzzle of Ethnic Infighting

Why, during an ethnic conflict, would an ethnic group turn its weapons against itself? That is the question that has motivated this dissertation. Such behavior is puzzling because as an ethnic group devotes valuable time, energy, and resources on an intra-group conflict, it reduces the total amount of resources the group can draw on to effectively wage the ethnic conflict. Instead of focusing attention and resources on fighting the opponent, ethnic leaders turn their weapons on the very group in whose name they are supposedly fighting.

6.2 Literature Review

With few notable exceptions, the ethnic conflict literature does not see infighting as problematic. This is because the literature generally assumes that violence ‘hardens’ ethnic boundaries and increases group cohesion (Coser 1956). In Chapter 2, I found that scholars actually mean three different things when they use the term ‘hardened boundary’: (1) increased loyalty to one’s ethnic group, (2) greater hostility between ethnic groups, and (3) the external imposition of ethnicity. I then examined each of these three arguments and found that while ethnic violence has sometimes produced group cohesion, under other conditions it can produce the exact opposite outcome: ethnic violence (1) can decrease loyalty to an ethnic group, (2) can decrease hostility between ethnic groups, and (3) can remove externally imposed ethnic identities.
The ethnic conflict literature therefore provides limited clues into the puzzle of infighting during ethnic conflict. Instead, we turned to the civil conflict literature, which has made recent inroads into the problem of rebel fragmentation during civil conflict. This literature tends to locate the causes of infighting in three different locations: combatant characteristics, power shifts between factions, and the context in which factions operate. This dissertation focuses on the last of these, and develops a theory which examines the wide range of consequences that ethnic violence can have on factions.

6.3 Theory of Ethnic Infighting

According to the theory outlined in Chapter 3, infighting during an ethnic conflict is the irrational macro-level outcome produced by rational micro-level choices. At the micro-level, individuals and factions are responding to incentives and opportunities generated by the ethnic violence itself. First, at the factional level, ethnic violence encourages fragmentation by providing incentives and opportunities to challenge the ethnic leadership. Incentives to challenge the leadership can certainly exist prior to the outbreak of ethnic violence, however existing theories assume that the outbreak of ethnic violence then encourages the ethnic group to overlook these differences and unite against a common threat. Instead, this dissertation finds that ethnic violence actually creates new areas of contention such as the type of strategy (terrorism vs. non-violence) the ethnic group should employ against their opponent. By placing new issues on the table, ethnic violence provides factions with more reasons and opportunities to contest the current leadership.

As the level of ethnic violence increases, ethnic violence pushes the ethnic group toward violent infighting for at least two reasons. First, intense ethnic violence lowers the cost and
increases the benefits of infighting by eroding institutions that maintain law and order, such as police forces, and by eroding non-violent pathways toward regime change, such as elections. Second, intense ethnic violence increases the cost of bargaining and negotiation. As the casualties from ethnic violence begin to mount, rivals begin to fear for their survival. The threat to their survival increases the costs of a time-consuming bargaining process, and makes the efficiency of violence a more attractive option.

At the individual level, ethnic violence encourages fragmentation by providing group members with incentives and opportunities to collaborate with ethnic rivals. The rival ethnic group might, for example, offer rewards or reduce penalties for collaborators. During an ethnic conflict, the prison system offers an excellent opportunity to gather information and recruit new collaborators.

As the level of ethnic violence increases, ethnic violence pushes the group toward violent infighting because increased ethnic violence also increases the threat collaboration poses to the leadership. Since the leadership cannot know the identity of collaborators, they instead respond to the increased threat by using demonstrative violence against suspected collaborators in order to generate fear in all group members, deter further collaboration, and ensure group cohesion. The end result of these rational micro-level decisions is an irrational macro-level outcome: infighting during an ethnic conflict.

6.4 Empirical Findings

The theory was used to generate five hypotheses, which were tested using a wide variety of quantitative and qualitative methods. In Chapter 4, the hypotheses were tested using panel data on 274 ethnic groups in 115 countries over the time period 1990-2006. First, an Ordinary Least
Squares regression of the data found a positive correlation between ethnic violence and infighting, and also found that this relationship only holds when an ethnic group is geographically concentrated. Among ethnic groups that are geographically dispersed, on the other hand, there is no relationship between ethnic violence and infighting.

Second, a Markov probit regression found that the effect of ethnic violence on infighting depended on the level of infighting in the previous year. Ethnic violence actually had a different impact on infighting when the ethnic group was not engaged in infighting in the prior year, when the ethnic group was engaged in moderate infighting, and when infighting in the group had been high.

While Chapter 4 provided evidence that ethnic violence and infighting were positively related, the mechanism through which ethnic violence led to infighting still needed to be tested. In Chapter 5, the dissertation tested the claim that ethnic violence leads to infighting by creating incentives and opportunities for factional violence and collaboration. The test was conducted using a case study of Palestinian infighting. Using data from the human rights group B’Tselem, the chapter conducted both a negative binomial regression and a natural experiment comparing Gaza with the West Bank. Both tests provided evidence that ethnic violence and infighting were related. The chapter then used process tracing on two periods of high and low infighting, and found evidence that ethnic violence did indeed lead to infighting by increasing the incentive and opportunity for factional violence and collaboration.

6.5 Discussion and Further Research

This dissertation began by asking why an ethnic group would engage in infighting during an ethnic conflict. To answer this question, the dissertation offered a theory that explored the ways
a context of ethnic violence shaped and changed the behavior of factions. A wide range of quantitative and qualitative empirical tests then provided evidence to support the theory.

There are, however, still several questions which have yet to be answered. In the Palestinian case study, factional violence was the primary cause of infighting in the first case study, while collaboration was the primary cause of infighting in the second case study. What caused this difference? Under what conditions will ethnic violence increase factionalism, and under what conditions will it increase the threat of collaboration? Future research might test the two mechanisms against each other in order to determine the conditions that favor one mechanism over the other.

Second, are there conditions under which ethnic violence will increase group cohesion? While the dissertation found that ethnic violence tends to increase infighting, there are exceptions in which ethnic violence was not accompanied by infighting. In Iran, for example, Christians and Aziris have engaged in low levels of violence, but both groups have managed to remain cohesive and have not engaged in any intra-communal conflict. In Bangladesh, there has been sporadic violence between Hindus and Bengali Muslims, but neither group has engaged in any intra-communal fighting. What makes these groups different, and why have they not engaged in infighting? Are there conditions in which we might have expected to see Palestinians united under a cohesive social movement without any internal conflict?

Finally, the theory outlined in this dissertation might be tested on a larger range of cases. First, the dissertation tested the theory using a series of cases from the 20th century, but the theory could also be tested using case studies of ethnic conflicts in different eras, for example on wars of colonization such as the American-Indian wars. Second, the case study looked at Palestinian infighting, but a natural extension would be to test the theory in Israeli society, which
would be particularly interesting because a case study of Israel would allow us to examine how the impact of ethnic violence is mediated by democratic institutions. Berrebi and Klor (2008), for example, examine the effect of Palestinian terrorist attacks on the percentage of votes received by Left/Right parties in Israeli parliamentary elections. They find that Palestinian violence contributes to the ideological polarization of the electorate because in Right leaning localities terrorism leads to more support for Right parties. In Left leaning localities, though, terrorism only increases support for the Right if the attack occurred in that specific locality. If not, the attack increases support for the Left. We might then link electoral polarization to infighting because as Berrebi and Klor (2008:292) write:

…polarization causes centrifugal pressure that shifts away the support for centrist parties and inhibits the formation of stable parliamentary majorities. This directly leads to fragmentation and destabilization of democratic regimes. In addition, the polarization of the population is likely to cause both social conflict and marked fluctuations of public policies, thus undermining the country’s political and economic performance.

6.6 Policy Recommendations

The findings presented in this dissertation have several important policy implications, both specifically for the Israeli-Palestinian conflict and for conflict resolution more broadly.

6.6.1 Israel and Palestine: The Problem of Factionalism

The U.S. and Israel have repeatedly stated that their goal in the Israeli-Palestinian conflict is the creation of a democratic Palestine alongside a democratic Israel. However this goal is undermined when the U.S. attempts to overthrow freely elected governments. The attempted
coup in Gaza resulted in two months of bloody infighting, devastated the economy, and undermined democracy in Palestine.\footnote{In the democratic peace literature, the claim that democracies do not fight one another is seen as one of the few law-like propositions in International Relations (Brown, Lynn-Jones, and Miller 1996). However the mechanism that underlies this empirical finding is only imperfectly known (Rosato 2003). Perhaps one way to shed light on the causes of the democratic peace would be to examine cases such as these, where democracies do not overtly attack each other but rather covertly attempt to undermine and overthrow each other’s regimes.}

The attempted coup may also have been unnecessary. Although Hamas officially supports the right of armed resistance and the establishment of greater Palestine, the group has also shown evidence of pragmatism in its willingness to adopt unilateral ceasefires and negotiate a ‘long-term truce’ with Israel based on the 1967 borders (Baumgarten 2005; Norton and Roy 2007). Even the decision by Hamas to participate in the 2006 elections, after boycotting the 1996 elections, is evidence of a more pragmatic shift (Lovlie Forthcoming). According to the former head of Mossad, Ephraim Halevy, there is a strong moderate wing within Hamas that could be strengthened if Hamas were to be included in the peace process (Rose 2008).

Indeed, the inclusion of Hamas in negotiations might even be a necessary prerequisite for peace. According to Israeli negotiator Shlomo Ben-Ami, one important reason Arafat was limited in his ability to compromise at Camp David was because he feared compromise would lead to a civil war against Hamas and Islamic Jihad (Ben-Ami 2005). As one scholar writes, “a lasting agreement is impossible unless it actively involves those with the power to bring it down by violence” (Darby 2001:118-119). A more pragmatic Hamas, moderated by the practice of governance, may be the only group that has the legitimacy to make the hard compromises that Arafat could not.

However we cannot completely discount the possibility that Hamas would have refused to negotiate with Israel. If they had, it would have been up to the Palestinian electorate to decide whether they supported the new policy. By refusing to negotiate with Hamas, U.S. policy
displayed the same ideological rigidity of which it accused Hamas. The more pragmatic approach would have been to wait and see how Hamas chose to govern.

### 6.6.2 Israel and Palestine: The Problem of Collaboration

In their recruitment and treatment of collaborators, both Israelis and Palestinians are in violation of international law. Israel is in violation of the Fourth Geneva Convention, which prohibits an occupying state from recruiting informants from the local population through the use of threats, coercion, or force (International Committee of the Red Cross 1949). The Palestinian Authority is in violation of the Geneva Convention, which prohibits the torture and the extrajudicial killing of civilians (International Committee of the Red Cross 1949).

One of the many problems faced by the Palestinians on the issue of collaboration is the lack of a coherent policy for dealing with collaborators. Under the Cairo Agreement (1994) and the Taba Agreement (1995), the PA has agreed not to kill, attack, or otherwise harass collaborators. However popular sentiment, which sees collaboration as treason, usually demands some form of retribution or justice when someone is accused of collaboration. The absence of a coherent policy toward collaborators has led to either vigilante groups taking the matter into their own hands, or to judicial procedures which lack sufficient protection for the accused (Rigby 2001). Feuding families and political parties have also taken advantage of this gap in justice and used accusations of collaboration to further their own, personal political struggles. The lack of a coherent policy toward collaborators is therefore a continued source of unrest and internal conflict in Palestinian society, and is therefore a problem which must be addressed.

As Palestinians move toward statehood there is a desperate need in Palestinian society for good political leadership. Many Palestinians are disillusioned by the obvious corruption of Fatah
and the PA (McGreal 2006). In a recent Doha Debate over the future of Palestine, for example, one audience member criticized PA officials for building luxury villas in Gaza while the people struggled to find food (Qatar Foundation 2008). The viability of a future Palestinian state depends in large part on the ability of Palestinian leaders to place the good of the people above narrow self-interest. International actors can help in this process by encouraging democratic institutions in Palestine, rather than undermining them.

### 6.6.3 Conflict Resolution more Broadly

The findings in this dissertation also have important policy implications for conflict resolution more broadly. First the study challenges the common wisdom that violence hardens ethnic boundaries. This is important because the belief that violence hardens ethnic boundaries underlies controversial policy recommendations, such as partition as a solution to ethnic conflict (Kaufmann 1996; Kaufmann 1998; Muller 2008). Partition theory is based on belief that differences between people are a source of conflict, and that by sorting people into groups based on ethnicity we can eliminate differences and therefore eliminate conflict.

However such arguments are flawed because as this dissertation has shown, people have multiple identities and so sorting people into groups based on one identity will not eliminate differences due to other identities. For example, even if groups are sorted based on ethnicity, religious or social differences can still be a source of conflict. By examining infighting within an ethnically homogenous group, this dissertation shows that partition by itself is not a solution to the problem of organized violence.

Second, one might be tempted to conclude from this dissertation that the way to win an ethnic conflict is to forcefully attack the ethnic opponent. The increase in ethnic violence will then lead
to infighting within the opposing ethnic group, and once the opposing group is fragmented, faction leaders can be co-opted and offered incentives to end the war (Driscoll 2012). Even if faction leaders initially refuse to be co-opted, as fratricide increases, faction leaders may become more likely to turn to the ethnic opponent or to outside groups for support (Staniland 2012).

That conclusion, though, is imprudent. Although ethnic violence increases group fragmentation, multiple studies have examined the consequences of group fragmentation and have concluded that fragmentation can create incentives for outbidding and militancy among competing factions. To attract support from the populace, factions will try to outdo each other in their violence against the ethnic opponent (Cunningham, Bakke, and Seymour 2012). Additionally, spoilers are an important problem in peace negotiations. Fragmentation, then, can lead to an increase in ethnic violence.

Instead, a more plausible policy conclusion is that when ethnic violence occurs, the resolution of the ethnic conflict may not be possible until both sides are able to achieve some degree of intra-ethnic cohesion. As long as once side is fragmented under multiple leaders who have the ability and the incentive to spoil the peace, a long-term resolution to the ethnic conflict will be extremely unlikely.

Finally, when faced with wide-spread violence which cannot be explained using readily available theories, there is a tendency to simply dismiss those involved in the violence as ‘irrational’, or to attribute their behavior to a ‘culture of violence’. Under such circumstances, external intervention becomes futile. This study seeks to counter this tendency by trying to make sense of what seems, on the surface, as senseless behavior. Why would a group attack itself during an ethnic conflict? This dissertation has argued that ultimately, infighting during ethnic conflict is the irrational macro-level outcome produced by rational micro-level choices.
Appendix

This section briefly describes the results of some robustness tests conducted on the multilevel model. First, table A.1 presents the results of models run without the interaction terms. In each model, ethnic violence is significant and its substantive impact on infighting remains roughly the same.

Table A.1: Multilevel Model  
Dependent Variable: Level of Infighting

<table>
<thead>
<tr>
<th>variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>.214*** (.039)</td>
<td>.071 (.075)</td>
<td>-.191 (.108)</td>
<td>-.651*** (.222)</td>
</tr>
<tr>
<td>Ethnic violence</td>
<td>.098*** (.014)</td>
<td>.100*** (.014)</td>
<td>.095*** (.016)</td>
<td>.094*** (.017)</td>
</tr>
<tr>
<td>Geographic concentration</td>
<td>.071** (.075)</td>
<td>.054 (.034)</td>
<td>.050 (.035)</td>
<td></td>
</tr>
<tr>
<td>Kin across borders</td>
<td>.104*** (.040)</td>
<td>.117*** (.041)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polity score</td>
<td>.002 (.006)</td>
<td>.004 (.006)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discrimination Level</td>
<td>.035*** (.012)</td>
<td>.039*** (.013)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log Population</td>
<td></td>
<td></td>
<td>.059** (.025)</td>
<td></td>
</tr>
<tr>
<td>Different Race</td>
<td></td>
<td></td>
<td>-.017 (.041)</td>
<td></td>
</tr>
<tr>
<td>Different Belief</td>
<td></td>
<td></td>
<td>-.001 (.042)</td>
<td></td>
</tr>
<tr>
<td>Different Language</td>
<td></td>
<td></td>
<td>.011 (.056)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>1816</td>
<td>1816</td>
<td>1547</td>
<td>1458</td>
</tr>
</tbody>
</table>

***p<0.01, **p<0.05, *p<0.10
Table A.2 then tests the robustness of the regression results by running the same four models using an ordered logit regression. If the results of the analysis are robust, they should not change too dramatically in response to a different model specification.

<table>
<thead>
<tr>
<th>variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnic violence</td>
<td>.248***</td>
<td>.203***</td>
<td>.128</td>
<td>.034</td>
</tr>
<tr>
<td></td>
<td>(.031)</td>
<td>(.077)</td>
<td>(.087)</td>
<td>(.092)</td>
</tr>
<tr>
<td>Geographic concentration</td>
<td>.261***</td>
<td>.128</td>
<td>.142</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.087)</td>
<td>(.100)</td>
<td>(.104)</td>
<td></td>
</tr>
<tr>
<td>Ethnic violence * group concentration</td>
<td>.028</td>
<td>.064*</td>
<td>.084**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.031)</td>
<td>(.035)</td>
<td>(.036)</td>
<td></td>
</tr>
<tr>
<td>Kin across borders</td>
<td></td>
<td>.383***</td>
<td>.387***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.076)</td>
<td>(.080)</td>
<td></td>
</tr>
<tr>
<td>Polity score</td>
<td>.021*</td>
<td>.034***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.012)</td>
<td>(.013)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discrimination Level</td>
<td>.087***</td>
<td>.123***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.027)</td>
<td>(.030)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log Population</td>
<td></td>
<td></td>
<td>.212***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.050)</td>
<td></td>
</tr>
<tr>
<td>Different Race</td>
<td></td>
<td></td>
<td>-.160*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.082)</td>
<td></td>
</tr>
<tr>
<td>Different Belief</td>
<td></td>
<td></td>
<td>.050</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.078)</td>
<td></td>
</tr>
<tr>
<td>Different Language</td>
<td></td>
<td></td>
<td>-.076</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.110)</td>
<td></td>
</tr>
</tbody>
</table>

\(N = 1816 \quad 1816 \quad 1547 \quad 1458\)

***p<0.01,  **p<0.05,  *p<0.10

The results suggest that the effect of ethnic violence on infighting is influenced by geographic concentration. To further explore that relationship, I sort the data by level of geographic concentration.
concentration and run an ordered logit regression on each subset of data. Table A.3 presents the results of that analysis.

**Table A.3: Effect of Ethnic Violence at Different Levels of Geographic Concentration**

Dependent Variable: Level of Infighting

<table>
<thead>
<tr>
<th>Geographic Concentration</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Widely Dispersed)</td>
<td>.177</td>
<td>.162</td>
<td>.174</td>
</tr>
<tr>
<td>1</td>
<td>.346***</td>
<td>.185</td>
<td>.160</td>
</tr>
<tr>
<td>2</td>
<td>.251***</td>
<td>.317***</td>
<td>.362***</td>
</tr>
<tr>
<td>3</td>
<td>.275***</td>
<td>.331***</td>
<td>.264***</td>
</tr>
<tr>
<td>(Highly Concentrated)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***p<0.01, **p<0.05, *p<0.10

The results of the ordered logit regression are actually quite similar to the results from the multilevel linear model, which suggests that the results of the analysis are not overly dependent on model specification. The table tells us that ethnic violence does not lead to infighting among widely dispersed ethnic groups. However as group concentration increases, ethnic violence is associated with infighting. One difference between the two models is that in the Multilevel linear model, the effect of ethnic violence was greatest when geographic concentration was at level 2. In the ordered logit model, though, there is no analogous pattern.

Next, the robustness of the regression is again tested by dichotomizing the dependent variable in the Multilevel model into infighting/ no infighting. If the results of the regression are robust, they should not change dramatically when the dependent variable is dichotomized. The result of the robustness check is presented in table A.4, and then in table A.5, the data is sorted by level of
geographic concentration. The results of these analyses are similar to those presented in Chapter 4, suggesting that the findings in this chapter are fairly robust and not overly dependent on model specification.

Table A.4: Multilevel Regression with Binary Dependent Variable

<table>
<thead>
<tr>
<th>variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>.106***</td>
<td>.045</td>
<td>-.002</td>
<td>-.195**</td>
</tr>
<tr>
<td></td>
<td>(.014)</td>
<td>(.030)</td>
<td>(.042)</td>
<td>(.082)</td>
</tr>
<tr>
<td>Ethnic violence</td>
<td>.030***</td>
<td>.026**</td>
<td>.016</td>
<td>.015</td>
</tr>
<tr>
<td></td>
<td>(.005)</td>
<td>(.011)</td>
<td>(.013)</td>
<td>(.013)</td>
</tr>
<tr>
<td>Geographic concentration</td>
<td>.029**</td>
<td>.013</td>
<td>.011</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.012)</td>
<td>(.014)</td>
<td>(.014)</td>
<td></td>
</tr>
<tr>
<td>Ethnic violence * group concentration</td>
<td>.003*</td>
<td>.008</td>
<td>.008</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.005)</td>
<td>(.005)</td>
<td>(.006)</td>
<td></td>
</tr>
<tr>
<td>Kin across borders</td>
<td></td>
<td>.036**</td>
<td>.042***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.015)</td>
<td>(.015)</td>
<td></td>
</tr>
<tr>
<td>Polity score</td>
<td>.004</td>
<td>.005**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.002)</td>
<td>(.002)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discrimination Level</td>
<td>.003</td>
<td>.004</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.004)</td>
<td>(.005)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log Population</td>
<td></td>
<td></td>
<td>.023**</td>
<td>(.009)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.009)</td>
<td></td>
</tr>
<tr>
<td>Different Race</td>
<td></td>
<td></td>
<td>- .007</td>
<td>(.015)</td>
</tr>
<tr>
<td>Different Belief</td>
<td></td>
<td></td>
<td>.012</td>
<td>(.016)</td>
</tr>
<tr>
<td>Different Language</td>
<td></td>
<td></td>
<td>.014</td>
<td>(.020)</td>
</tr>
</tbody>
</table>

| N                            | 1816     | 1816     | 1547     | 1458     |

***p<0.01, **p<0.05, *p<0.10
Table A.5: Effect of Ethnic Violence at Different Levels of Geographic Concentration
Binary Dependent Variable

<table>
<thead>
<tr>
<th>Geographic Concentration</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Widely Dispersed)</td>
<td></td>
<td></td>
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***p<0.01, **p<0.05, *p<0.10
References


Minorities at Risk Project. 2009. “Minorities at Risk Dataset.” Center for International Development and Conflict Management, College Park, MD.


