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Third-Party Peace Enforcement and Civil War Termination Bargaining

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THE FLORIDA STATE UNIVERSITY
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THIRD-PARTY PEACE ENFORCEMENT AND CIVIL WAR TERMINATION
BARGAINING

By

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To my parents, my brother, and David

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ABSTRACT

This dissertation examines the interactive effect of power and third-party peace operations on the bargaining offers made by warring groups during civil war. Chapter 1 sets up the motivation for the research and provides a broad overview of the dissertation. Chapter 2 discusses previous lines of research that shed light on the relationship between power and bargaining and draws two hypotheses about the relationship between power and bargaining offers. Based on previous research on civil war and third party operations, chapter 3 explores how the expectation of successful implementation affects warring groups' bargaining offers. The hypothesis is drawn from a game theoretic model. Chapter 4 provides the research design for a statistical analysis and a case study. This chapter includes detailed information about definitions of concepts and measurement. Chapter 5 presents the results of the statistical analysis using ordinary least squares. Chapter 6 conducts a case study of civil war termination bargaining between warring groups in the Sierra Leone civil wars. Chapter 7 discusses the contribution of this dissertation for both the academic and policy realms, as well as the future plan for this line of research.

CHAPTER 1

INTRODUCTION

Over a decade of civil war, the Sierra Leone government and the Revolutionary United Front (RUF) attempted five bargains to terminate their civil war, three of which reached a peace agreement. Until the final bargain, the stronger group made a less demanding offer than it did when it was the weaker group; the government made a larger concession in the three bargains of 1996, when it was stronger than the RUF, than it did in 1999, when the RUF was stronger than the government. In 2000, relative to 1999, the circumstances had changed: the RUF became weaker than the government. In the 2000 bargain, the warring groups revealed their true preferences, as prescribed by their respective relative power: the stronger group pursued a larger share of the post-settlement institutions, and the weaker group made a larger concession.

Given extant explanations, this is puzzling. Why would a stronger group ever make a larger concession, and why would a weaker group ever make a more demanding offer, than would be expected according to each group's relative power? Further, can groups' behavior at the bargaining table explain variation in the actual implementation of negotiated settlements? These questions are extremely important for a better understanding of civil war resolution, but existing studies have exclusively focused on either the factors that lead warring groups to begin negotiations or the outcomes of those negotiations (e.g., signing and implementation of negotiated settlements; e.g., Zartman 1989; Walter 2002; Mukherjee 2006; Hartzell and Hoddie 2007; and Fortna 2008).

I build on existing theory that suggests that warring groups strategically consider the likelihood that a negotiated settlement will actually be implemented through the lens of the existence or absence of third-party peace enforcement (e.g., Walter 2002; Fortna 2008), and show that this strategic consideration affects groups' bargaining behavior. More specifically, my theory shows how expectations about third-party peace enforcement influence the specific offers warring groups make. In reality, many times the role of third-party peace operations is discussed during civil war termination bargaining in conjunction with other issues of the conflict. Therefore, it is likely that a forward-looking strategic actor would form some estimation of the probability of third-party peace enforcers' deployment, and then use this information along with the anticipated action plan from its counterpart to calculate the most desirable offer in a given civil war termination bargaining situation.

When groups expect the absence of an enforcement mechanism, a stronger group has an incentive to provide an attractive deal to its opponent by which the former would not

ultimately abide. That is, the stronger group would be expected to make a smaller offer to itself than it actually wants based on its power in order to reach an agreement because it believes that it will be able to take back as much as it wants at a later time by reneging. Additionally, the stronger group may plan to rebuild its military power for the possibility that the weaker group resumes fighting after the stronger group's violation of the settlement terms. At the same time, a weaker group may plan to use the bargaining situation as an opportunity to save time and rebuild its military forces for the case that the stronger group reneges on the settlement. And when the weaker group makes an offer to share institutions and resources, it may make a more demanding offer than it would actually expect based on its power in order to delay a bargain and secure its survival, with the hope that the stronger group's reneging outcome is bearable if an agreement is reached and then the stronger group reneges.¹

Third party actors, however, may provide an enforcement mechanism where self-enforcing mechanisms are less likely to work. In some cases, the international community (e.g., the UN or non-UN organizations) is deployed or promises to deploy to a civil war country in order to enforce the provisions of a negotiated settlement. Under the expectation of the presence of third-party peace enforcement, warring groups recalculate the cost of reneging, and groups who violate a peace deal will expect to incur some cost for this breach (e.g., Walter 2002; and Fortna 2008). Accordingly, strategic actors will understand this dynamic, and therefore will believe that the promises made at the bargaining table should be kept when a third party enforcer with a strong mandate is expected. Once the prospect of strong third-party peace enforcement arises, groups that may have otherwise viewed reneging as a strong possibility might no longer feel the same. Now the expected cost of reneging might exceed the expected cost of implementation. In this situation, if the stronger groups make offers that are different from what they actually expect to receive based on their power, they understand that they will likely be forced to adhere to the settlement terms once a bargain is signed. At the same time, the weaker groups expect that they do not need to seek more than what the stronger groups would accept. Therefore, keeping this expectation in mind, when third-party peace enforcement is likely to be deployed, both groups should make sincere demands in accordance with what they actually expect to receive given their relative power.

The next chapters examine the factors that warring groups participating in civil war termination bargaining consider prior to making decisions about bargaining offers and demands. Chapter 2 discusses previous lines of research that shed light on the relationship between power and bargaining. There are two groups of scholars suggesting two opposite relationships between power and bargaining offers. One group of scholars assumes that groups do not necessarily intend to reach an agreement when they are at the bargaining table (e.g., Wallihan 1998) and focuses on the behavioral implications of relative power on the bargaining offer. The logic of these studies is that participants in a negotiation use their strength to determine how much they will offer their opponent, and whether they will accept or reject an offer from their opponent. On the other hand, another group of scholars assumes that warring groups prefer to reach an agreement once they start negotiation rather than to continue negotiation without an agreement (e.g., Schneckener 2002; Walter

¹For a more detailed discussion of risk acceptive behavior in bargaining, see Holl 1993.

2002; Butler and Gates 2009; Ghosn 2010; and Gent 2011) and focuses on the veto power of the weaker group, which would fear for its security given the power disadvantage. The empirical implications from these two groups of scholars on the relationship between power and the bargaining offer are discussed.

Chapter 3 begins with the body of civil war studies that tells us that the failure of implementation occurs frequently because warring groups cannot credibly commit to the terms reached at the bargaining table. Similar to prisoner's dilemma situations, once an agreement is reached, actors are concerned about whether the other groups will comply if they themselves comply. In these situations, groups might reasonably think that the short-term gains from defection outweigh the long-term benefits of agreement implementation. Even worse, unlike disagreements within stable political systems, warring groups cannot guarantee that a reneging group will be punished. Under conditions in which groups cannot trust each other, and thus it is difficult to develop a self-enforcing commitment, scholars have suggested that a third party can provide an outside enforcement mechanism. The basic logic is that once the prospect of a strong third party that will enforce a settlement deal has arisen, groups that may have otherwise viewed reneging as a strong possibility might no longer feel the same, because now the expected cost of reneging might exceed its expected benefit. This may lead groups to reconsider the possible violation of settlement terms. The expectations regarding agreement implementation have a significant implications for the bargaining process itself. One group of scholars suggests that the expectations of implementation affect warring groups' decisions to sign an agreement (e.g. Leeds 1999).

In this project, based on previous research on civil war and third party operations, I posit that the expectation of successful implementation affects warring groups' bargaining offers. To draw empirical implications, I use the traditional game theoretic bargaining model as a platform from which to develop a model of civil war termination bargaining. More specifically, considering the specific circumstances of civil war termination bargaining, I vary the basic bargaining model in several ways. First, I add the option for the stronger group to renege on the deal after any acceptance. Reneging involves keeping the amount of the pie specified in the original settlement, while attempting to acquire an additional quantity. Second, if the stronger group chooses to renege, there are two possibilities: a third party comes in to enforce the original deal; or no third party comes in to enforce the deal. When no third party comes in, the stronger group's reneging is successful, and it acquires the extra gain in addition to its original settlement amount, while the weaker group suffers a loss from its original settlement amount. On the other hand, if a third party comes in to enforce the original deal, each group receives its original settlement payoffs and a cost is incurred by each group. I solve the game using the equilibrium concept of subgame perfection. From the comparative statics, I draw the following hypothesis: When a third party is likely to enforce the negotiated settlement, the stronger group will demand a larger share of the pie for itself, while the weaker group will demand a smaller share of the pie for itself, than when groups expect no third party to enforce the agreed-upon terms.

Chapter 4 begins with a discussion of the choice of a multi-method approach. Then, I discuss the research design for both a statistical analysis and a case study. The unit of analysis for both is the bargaining participant. Additionally, I provide detailed discussion of the concepts relevant to the empirical tests, that is, civil war termination bargaining, political power-sharing bargaining, bargaining offers, group type, and third party operations. While

the operationalization of concepts is shared between the statistical analysis and the case study, some concepts employed in the statistical analysis are operationalized in a slightly more limited way due to a lack of quantifiable information. When it is helpful, descriptive statistics for measurements are provided. Following the discussion of operationalization, the choices made for statistical estimation and case selection are provided with a detailed discussion of the reasoning behind the choices.

Chapter 5 presents the results of a statistical analysis using ordinary least squares. Given my hypothesis about the differing effects of group strength on the bargaining offers according to third-party peace enforcement, the main interest in the analyses involves an interaction term. The interaction effect from the regression results shows that the weaker group is expected to make a larger demand when there is no third-party peace operation, and a smaller demand when there is a third-party peace operation with an enforcement mandate; and the stronger group is expected to make a smaller demand when there is no third-party peace operation, and a larger demand when there is a third-party peace operation with an enforcement mandate. The statistical results support this hypothesis. However, the hypotheses dealing only with the relationship between group strength and the bargaining offer were not statistically supported. Following this, to address possible concerns in using ordinary least squares estimation stemming from the structure of the political power-sharing bargaining dataset, I report regression diagnostics tests.

To examine the causal mechanisms underlying observable phenomena and tease out the complexities of civil war termination bargaining, Chapter 6 reports the results from a case study of Sierra Leone. During their recent civil war, the Sierra Leone government and the country's most prominent rebel group, the Revolutionary United Front (RUF), engaged in bargaining multiple times. Among them, they reached agreements three times: in 1996, 1999, and 2000. In the 1996 and 1999 bargaining attempts, the stronger group, whether the Sierra Leone government or the RUF, tended to make larger concessions, while the weaker group tended to make more demanding offers, than would be expected according to traditional bargaining theory. However, the bargaining attempt in the year 2000 seems to follow traditional bargaining theory. Using only the information about relative power, we face a situation in which the variation in bargaining offers cannot be explained according to traditional bargaining theory. However, as suggested by the regression results, once information about a third-party peace enforcer comes into play, the variation in bargaining offers is easily explained by my theoretical model (presented in Chapter 3). Specifically, according to the model, when there is no third-party peace enforcement, as in 1996 and 1999, the stronger group is expected to make relatively large concessions. This is because without a third party to enforce the deal, the stronger group expects that it can renege on an agreement and attempt to take more later. On the other hand, when there is a third party to enforce an agreement, as in the year 2000, both parties expect that any agreement reached will be implemented. Therefore, groups are expected to make demands in line with their relative power, as predicted by traditional bargaining theory. This is what we observe in Sierra Leone. Like the predictions of the statistical model, in Sierra Leone the demands of the stronger group increase, and the demands of the weaker group decrease, when the bargaining participants move from a situation with no third party to a situation with a third party enforcer. And once their offers reached an agreement on November 10, 2000, it was successfully implemented.

Chapter 7 discusses the contribution of this study for both the academic and policy realms, as well as the future plan. First, in terms of academic research, the novel theoretical developments and the development of a publicly available dataset are discussed. Second, in terms of policy development, the results from the statistical analysis and the case study lead to suggestions for the international community on how peace operation strategies must be tailored to specific civil war termination bargaining situations in order to be more effective. In recent decades, the international community has become actively and deeply involved in civil war resolution, devoting substantial human and material resources. Given the potential loss of human lives and resources that may result from ineffective efforts, the importance of understanding how the international community can be most effective cannot be overstated. The timeliness of this argument is particularly noteworthy given recent outbreaks of civil war leading to international intervention (e.g., Cote d'Ivoire, Libya and Syria).

CHAPTER 2

POWER AND BARGAINING OFFER

2.1 Introduction

What explains variation in the bargaining offers of groups involved in sequential bargaining to end a civil war? Due to scholarly efforts both theoretically and empirically, we have a better understanding of the conditions under which warring groups begin negotiation, reach agreements, and successfully implement those agreements (e.g., Zartman 1989; Mason, Weingarten and Fett 1999; Filson and Werner 2002, 2004; Schneckener 2002; Walter 2002, 2003; Bapat 2004; Mukherjee 2006; Hartzell and Hoddie 2007; Balch-Lindsay, Enterline and Joyce 2008; Fortna 2008; Ghosn 2010; Gent 2011; and Cunningham, Gleditsch and Salehyan 2012). By contrast, we do not know much about why governments and rebel groups make offers and counteroffers in specific ways.¹

To overcome this lack of knowledge about bargaining offers during civil war, Chapters 2 and 3 provide a new approach to the warring groups' bargaining offers during civil war termination bargaining by combining features of three existing literatures on civil war: literature on power and bargaining, literature on the commitment problem, and literature on strategic behavior. Starting with characteristics of negotiation in the context of civil war, Chapter 2 focuses on the effect of the relative power relationship between strategic warring groups on the bargaining offer.

Chapter 3 builds on existing theory that suggests that when warring groups make offers and counteroffers, they strategically consider the likelihood that a negotiated settlement will actually be implemented through the lens of the existence or absence of third-party peace enforcement (e.g., Walter 1997, 1999, 2002; and Fortna 2008). Here I develop a formal model and show that the strategic consideration of third-party peace enforcement influences the specific offers groups make at the bargaining table.

¹Even though they do not provide a unified explanation for the bargaining offers of both governments and rebel groups, there are several exceptional works on government concessions at the bargaining table (e.g., Schneckener 2002; Butler and Gates 2009; Gent 2011; and Thomas 2012).

2.2 Civil War and Negotiation

Conventional wisdom is that civil wars are less likely to end with negotiated settlements (Ikle 1971; and Pillar 1983). Specifically, Pillar (1983) points out the problem of issue indivisibility as being a non-negotiable characteristic of civil war, arguing that,

the likelihood that the two sides in any dispute can negotiate a settlement depends greatly on whether compromise agreements are available. If the stakes are chiefly indivisible, so that neither side can get most of what it wants, negotiations are less apt to be successful. Stakes are usually less divisible in civil war than in other types of war: the issue is whether one side or the other shall control the country (Pillar 1983, 24).

Scholars in this line argue that due to the problem of issue indivisibility, civil wars are more likely to be “all-out” war (Ikle 1971, 95) and are not likely to end until one side is demolished (Pillar 1983, 24). However, recent studies show empirically that some civil wars end with negotiated settlements, and theoretically that the stakes of civil war are not always indivisible.

Since these early theoretical studies on civil war, many scholars have attempted to compile lists of civil wars that have ended with various outcomes (Stedman 1991; Licklider 1995; Walter 1997; Wallensteen and Sollenberg 1999; and Hartzell and Hoddie 2007). Scholars writing in this area use different data, different definitions of civil war, different categorizations of war outcomes, and they focus on different time periods. Not surprisingly, the variety of choices made means that the empirical record shows variation in the distribution of civil wars that ended with certain outcomes. For example, covering the longest time span, Stedman (1991) shows that 26 out of 68 civil wars during the period from 1990-1989 were settled with some kind of negotiations. Focusing mostly on the period of Cold War, by comparison, Walter (1997) shows that among 40 civil wars that ended during the period from 1940-1990, 8 civil wars ended with negotiated settlements. Similarly, Licklider (1995) shows that during the period from 1945-1993, of 46 civil wars that ended during that period, 12 were terminated with negotiated settlements. Hartzell and Hoddie (2007) show that during the period from 1945-1999, 53 civil wars ended with some type of negotiation while 55 civil wars ended with military victory. And mainly covering the period after the Cold War, Wallensteen and Sollenberg (1999) show that from 1989 to 1998, 21 out of 75 wars ended with peace agreements.² These studies commonly show that not a small number of civil wars ended in negotiated settlements. Table 2.1 summarizes the comparisons between previous studies on civil war outcomes.

Even though the number of civil wars that ended with negotiation is smaller than the number that ended with other outcomes, the actual number of efforts to reach a negotiated settlement will be much larger for two reasons. First, it is common that there are usually multiple offers and counteroffers before a civil war ends with negotiated settlement. For example, Hartzell and Hoddie (2003) show that the Cambodian civil war of 1970-1991

²Note that they do not distinguish between war outcomes in interstate war and intrastate war. During the time period of their study, 94% were intrastate.

Table 2.1: Previous Studies on Civil War Outcomes

	Stedman (1990-1989)		Walter (1940-1990)	Licklider (1945-1993)	Hartzell & Hoddie (1945-1999)	Wallenstein & Sollenberg (1989-1998)†
Negotiation	14	Settlement	8	Negotiated Settlement	38	Peace Agreement
Negotiated Surrender	5	Victory by Rebels	16	Military Victory	11	Victory
Unstable Negotiation	7	Victory by Government	16		4	Other Outcomes
Elimination	26				55	
Capitulation	16					

†: Note that Wallenstein and Sollenberg's war outcome variable is combined interstate and intrastate war outcome. During the time period of their study, 1989-1999, 6% of cases were interstate wars and 94% were intrastate.

ended with political power-sharing agreement. However, to observe one political power-sharing agreement, warring groups should meet multiple times. Specifically, warring groups in Cambodia met ten times from 1989-1991 to discuss the sharing of political power.³

Second, there are cases in which civil war did not end with negotiations even after a sequence of bargaining rounds because the war ended before some party's offer could be accepted (e.g., Walter 1997; and Nilsson 2010). For example, Walter (1997) shows that 40 civil wars ended during the period from 1940-1990. Among these, 17 civil wars experienced negotiations. Again only 8 reached a negotiated settlement, while 9 civil wars that experienced negotiations at least once during civil war still ended with a decisive victory by one side. This leads to the expectation that the number of exchanges of bargaining offers and counteroffers between warring groups during civil war should be much greater than the number that ended in negotiated settlements. Without understanding the details of the various rounds of bargaining and only observing a negotiated settlement as the final outcome, we cannot fully understand the dynamics of civil war termination bargaining.

As these examples show, even though warring groups might have started a war with the idea that it is not possible for them to live together in the same territory, and thus compromise is unattainable (Ikle 1971; and Pillar 1983), they might nonetheless attempt to negotiate to end a war and sometimes reach an agreement. According to many, the reason that warring groups sometimes attempt to negotiate to end war is because of military outcomes on the ground (Goemans 2000; Wagner 2007; and Ramsay 2008).

According to scholars who focus on the information problem to explain war, when civil war starts, both the government and rebel groups have optimistic expectations about the probability of winning because of the uncertainty regarding one another's capability and resolve (e.g., Smith and Stam 2004; and Walter 2006, 2009a). However, at some point during fighting, both groups experience stalemate when they perceive that a "significant change in the nature of the conflict in the direction of increased violence" (what Zartman (1995) refers to as escalation) is not likely to produce their desired outcomes.⁴ In addition to the structural condition of stalemate, when groups start to become aware of the impossibility of definitively defeating their counterpart (what Zartman (1995) refers to as the turning point), the bargaining space is created and it becomes a ripe moment for warring groups to pursue negotiated settlements (Hopmann 1996; Zartman and Touval 1997; Guelke 2003; Slantchev 2003; Crocker, Hampson and Aall 2004; Ramsay 2008; and Ghosn 2010). This "turning point" can be produced by sources like "a conciliatory gesture by a moderate political leader" (Sisk 1996, 24) or "a loss of foreign support or an increase in foreign pressure"

³The government and the Coalition Government of Democratic Kampuchea (CGDK) that was composed of three anti-government groups, the National United Front for an Independent, Neutral, Peaceful, and Cooperative Cambodia (FUNCINPEC), Khmer People's National Liberation Front (KPNLF), and Khmer Rouge, met to discuss political power-sharing, specifically cabinet power-sharing, on February 19-21, 1989, May 2-3, 1989, July 24-26, 1989, July 30-August 30, 1989, February 26-28, 1990, June 4-5, 1990, September 9-10, 1990, June 2-4, 1991, June 22-26, 1991, and July 16-17, 1991.

⁴For more detailed discussion on escalation, see Zartman (1995, ch. 1) and Zartman and Faure (2005, ch. 1).

(Zartman 1995, 18).⁵ That is, when escalation is no longer perceived as being worthwhile and the turning point is provided, warring groups see that the cost of entering negotiation with counterparts, compared to the cost of continuing fighting to achieve their goals, might be bearable (Hopmann 1996; Zartman and Touval 1997; Guelke 2003; Slantchev 2003; Crocker, Hampson and Aall 2004; and Ghosn 2010).

2.3 Negotiation for Power-sharing

When warring groups cannot achieve their goals through violent means, they might find that a negotiated settlement is a possible option to resolve their conflicting interests. However, the problem of civil war resolution is not simply the problem of ending the fighting between warring groups. Since the current warring groups have to live together in the same territory, they should negotiate the creation of a new state. The negotiations to reach a peace agreement and create new state many times include discussions of power sharing in the postwar state.

According to scholars such as Schelling (1960), Midgaard (1983), Pfetsch (2007), and Wagner (2007), negotiations can be roughly divided into two types.⁶ One type of negotiation is cooperative. The participants in a negotiation of this type attempt to solve the problem in a way that participants altogether find to be a “mutually profitable outcome.” This type of negotiation is referred to variously as “cooperative” (Midgaard 1983, 154) and “soft or integrative” (Pfetsch 2007, 36-37), and the behavior that produces cooperative outcomes are referred to as the “efficiency aspect of” bargaining (Schelling 1960, 21). The other type of negotiation is competitive. In competitive negotiations, participants do not expect the outcomes for all participants to be mutually beneficial. Rather, participants perceive that the amount of benefit that one group earns from the bargain necessarily means a loss to the other group. This type of negotiation is variously called “tug-of-war” (Midgaard 1983, 154) and “hard or confrontational” (Pfetsch 2007, 36-37), and the behavior that produces competitive outcomes are referred to as the “distributional aspect of” bargaining (Schelling 1960, 21). The main concern of this project will be the competitive aspects of negotiations to share power between warring groups, where resources and institutions to share are limited.

The term “power sharing” has been defined by scholars including Lijphart (1977) and Stedman (1991). According to them, power sharing is an arrangement that provides all the relevant groups in a society the power of some degree of influence over decision making, and gives them the expectation that societal decisions over issues of importance will reach some level of consent from all groups. In addition, power sharing has been used in the literature in roughly two ways. One group of scholars focuses on political power-sharing and discusses issues with respect to the design of political systems to reduce conflict (Lijphart 1977;

⁵For more detailed discussion of turning points, see Zartman (1995, ch. 1), Sisk (1996, ch. 2) and Zartman and Faure (2005, ch. 1).

⁶In addition to its type, another factor that distinguishes negotiations is the participants. Negotiations can take the form of bilateral negotiations between direct disputants and trilateral negotiations via the participation of a third party mediator. Since this aspect of negotiations is not the main interest of this project, it is mentioned only briefly. For a more detailed discussion, see Pfetsch and Landau (2000) and Pfetsch (2007).

and Horowitz 1985).⁷ Lijphart’s consociational power-sharing emphasizes the role of elite cooperation and aims to secure the participation of the leaders of all relevant groups. And it relies on four basic characteristics: (1) a grand coalition through which a minority group is not excluded from political power; (2) a mutual veto through which minority groups have a guarantee that they will not be outvoted by the majority groups when their essential interests are in danger of being threatened; (3) proportional representation to give the minority group participation in the society according to its overall size; and (4) segmental autonomy and federalism to provide “rule by the minority over itself in the area of the minority’s exclusive concern (41)” (Lijphart 1977, 25-47).⁸

On the other hand, Horowitz’s power sharing in the context of ethnic conflict, which is called the “integrative approach” by Sisk (1996), emphasizes the roles of both elite and constituency and suggests three institutional features—federalism, vote pooling, and a presidential system—that are thought to aid in the dispersion of power, transformation of competition from intergroup competition to intragroup competition, and the creation of policies to help intergroup cooperation, and also to encourage alternative alignments, and the reduction of disparities between groups.

Recently, a group of scholars has rejected the idea of seeing power sharing exclusively in terms of political power, and instead has proposed a multidimensional conceptualization of power (e.g. Walter 2002; and Hartzell and Hoddie 2003), and has adopted the idea of the multi-dimensionality of power sharing into civil war studies (e.g., Mukherjee 2006; Jarstad and Nilsson 2008; DeRouen, Lea and Wallenstein 2009; and Gent 2011). Scholars in this group argue that the institutions and resources that warring groups want to control are more complex than a one-dimensional view. For example, in the postwar state, warring groups are eager to have some kind of control over military power for security reasons (e.g., Esman 1994; and Hoddie and Hartzell 2003). In addition, though not as frequent as political or military power-sharing, the sharing of economic and territorial power is also an important issue between warring groups.

Even though the multidimensional approach to power is convincing, the focus of this project will be on the single dimension of political power-sharing for two reasons. Studies show (1) that political power-sharing is the most serious issue in conflict and bargaining, and (2) that historically, political power-sharing negotiations are much more frequent than other types of power-sharing negotiations.

Studies that tout the multidimensional nature of power primarily aim to explain the relationship between the design of power sharing and lasting peace. Therefore, examining political power-sharing in the same manner as Nordlinger (1972), Lijphart (1977), and Horowitz (1985) might be problematic for explaining peace through power sharing design. However, my project focuses on what happens during the actual bargaining process. The reason that I focus only on political power-sharing is that in the context of civil war, political power remains the most significant issue (e.g., Hartzell and Hoddie 2003). Even though civil wars are generally conflicts over access to a country’s political institutions or for national autonomy and self-determination, the root cause of this tension lies in the fact that groups

⁷For a detailed summary and comparison of these two approaches to power sharing, see Sisk (1996).

⁸Similarly, Nordlinger (1972) proposes a consociational power-sharing approach.

have been rejected from involvement in political decision-making over issues of interest to them e.g., territory and economic policy.

Recently, scholars have attempted to compile information about civil wars that ended with negotiated settlement over multidimensional issue areas (e.g., Hartzell and Hoddie 2007). However, according to the data that has thus far been collected, civil wars have overwhelmingly ended with political power-sharing arrangements than with power-sharing arrangements in other issue areas. Specifically, according to Hartzell and Hoddie (2007), among 38 civil wars that ended with negotiated settlements from 1945 to 1998, 30 ended with political power-sharing arrangements, while only 8 ended without.

A political power-sharing arrangement specifies the allocation of political power among warring groups to end fighting. This project limits the definition of political power-sharing to positions in the three branches of government (executive, legislative, and judicial). In his book “The Spirit of the Law,” Montesquieu (1989) argues that it is best to divide power in the executive, legislative, and judicial branches of government among groups in order to prevent one group’s infringement on another group’s security. Influenced by Montesquieu’s principle, modern countries tend to have the tripartite political power structure. Under the circumstance of absence of war, representation in executive, legislative, and judicial positions in democratic countries are distributed according to the votes that each party wins through election. However, in constructing a new state after civil war, warring groups engaged in negotiation discuss the ways in which political power within each branch of government body should be allocated without election.

2.4 Power-sharing Negotiation and Power

Once warring groups decide to negotiate the allocation of political power to end civil war, the next question to ask is what affects their decisions to make demands for specific allocations of political power. While scholars have theoretically and empirically examined the factors that lead warring groups to attempt negotiation, to sign negotiated settlements, and to implement successfully agreed upon terms (e.g., Zartman 1989; Mason, Weingarten and Fett 1999; Filson and Werner 2002, 2004; Schneckener 2002; Walter 2002, 2003; Bapat 2004; Mukherjee 2006; Hartzell and Hoddie 2007; Balch-Lindsay, Enterline and Joyce 2008; Fortna 2008; Ghosn 2010; Gent 2011; and Cunningham, Gleditsch and Salehyan 2012), the issue of the specific behaviors of actors at the bargaining table remains severely understudied.⁹ However, the decisions made by groups at the bargaining table, specifically, making offers and counteroffers and rejecting or accepting offers and counteroffers from adversaries, are key factors in understanding the dynamics of civil war termination bargaining and future peace after civil war termination. For example, the pattern of bargaining offers can provide an explanation for the signing of negotiated settlements. Even if it is not their primary interest, scholars including Schneckener (2002) and Butler and Gates (2009) have

⁹There are some studies that examine the conditions under which a specific group, mainly the government, makes a smaller or larger concession. See, for example, Schneckener (2002), Butler and Gates (2009), Gent (2011), and Thomas (2012). But they do not make any claim of a unified explanation for the patterns of offers that would be applicable to both the government and the rebel group.

argued that overcompensation of the minority group by the majority group is required for warring groups in ethnic conflict to reach a negotiated settlement. Further, the patterns of negotiated settlements might be able to provide an alternative explanation for the success of implementation given that scholars show that the factors affecting the signing of negotiated settlements also influence whether the signed agreement will be successfully implemented (e.g., Walter 2002).

Power has generally been considered the dominant influence on decisions in negotiations (Rubin and Brown 1975; Bueno de Mesquita and Lalman 1992; Pfetsch and Landau 2000; Wagner 2000; Zartman and Rubin 2000; Guelke 2003; Powell 2004; Preston 2004; Pfetsch 2007; and Gent 2011). The logic behind this is that power is present in any kind of bargaining situation, and it in fact determines the type of relationship that exists between the bargaining groups (Hopmann 1997; Pfetsch and Landau 2000; Zartman and Rubin 2000; and Pfetsch 2007). Therefore, differences in power are reflected both in the process and the outcome of the bargaining.

However, I take the position that the relationship between power and actors' behavior at the bargaining table is not as straightforward as this previous work suggests. Power itself is a somewhat vague concept. According to the context and time period of interest in a given study, different aspects of the concept of power might be appropriate for explaining the phenomenon of interest. For example, the concept of power that is the main factor in explaining the occurrence of interstate conflict might not be applicable to the concept of power in the context of civil war.¹⁰ Or it may be the case that the concept of power that is appropriate for explaining the occurrence of civil war is not ideal for explaining other aspects of civil war such as duration and outcomes. For example, in the context of civil war, the repressive power of government (e.g., Fearon and Laitin 2003), administrative power of government (e.g., Humphreys 2005), and rebel groups' power to infiltrate the population (e.g., Butler and Gates 2009) have been used to explain the occurrence of civil war. And repressive power of the government, measured as the size of the government army (e.g., Svensson 2009) or the size of the government as the percentage of a state's population (e.g., Hartzell and Hoddie 2007), has been used to explain civil war occurrence by civil war scholars. However, once seemingly appropriate to the context of civil war occurrence, these concepts of power are not necessarily the appropriate concepts and measures of power that are relevant for explaining the demands of warring groups during civil war termination bargaining. Specifically, these concepts capture power symmetry by looking at the characteristics of either the government (e.g., Fearon and Laitin 2003; and Humphreys 2005) or the rebels (Butler and Gates 2009) instead of examining all of the participants at the bargaining table. Therefore, as Cunningham, Gleditsch, and Salehyan (2009) claimed, they are not appropriate for capturing the relational aspects of power (dyadic power relationship in the case of Cunningham, Gleditsch, and Salehyan (2009)).

In his book, "The Strategy of Conflict," Schelling (1960) provides a conceptualization of power that is used to explain bargaining offers. Based on the assumption that each group,

¹⁰There are vast literatures on the conceptualization of power in bargaining not explicitly in the context of civil war. In the international context, scholars have focused on time preferences (see, for example, Blaydes 2004), asymmetrical interdependence (see, for example, Wagner 1988), and perceived relations (see, for example, Zartman and Rubin 2000).

in his case a state, is not a unitary actor, he suggests that “the power to bind oneself” (22) is a significant source for groups’ decisions to make concessions at the bargaining table.¹¹ Specifically, in the context of interstate negotiations, he argues that negotiations under circumstances in which the executive branch has total decision-making power are different from circumstances in which the executive branch is bargaining under the legislative authority of the home country. In the former case, a bargaining partner is likely to believe that its counterpart would rather concede than come home without a negotiated settlement. On the other hand, in the latter case, the bargaining partner would likely believe that its counterpart’s position is constrained, meaning that they have a firm negotiating position. Therefore, one who is bound domestically is stronger than one who is not.

Schelling (1960) provides a unified explanation for patterns of bargaining offers among all relevant participants. Such a unified explanation is better suited to explaining the effect of the power relationship on bargaining offers than the explanations provided in most civil war studies, which focus only on government’s power and its concessions (e.g., Schneckener 2002; Butler and Gates 2009; Gent 2011; and Thomas 2012). However, Schelling’s (1960) notion of “the power to bind oneself” seems not totally appropriate in the context of civil war. Specifically, in the context of civil war termination bargaining, it might not be appropriate to assume that in a state of war, one branch of the government has the same constraints that it would in a state of peace. In addition, it is difficult to assume that the rebel side will have the same type of binding constraints that the government side has. Even though one can assume that the rebel group is not a unitary actor, it seems unrealistic to assume that factions within a rebel group have the check-and-balance power that the government usually has. Therefore, binding power does not seem to be appropriate for explaining why one group can get more from the other at the bargaining table.

Building on scholars including Binmore, Rubinstein, and Wolinsky (1986), Fearon (1995, 2004) and Hopmann (1996), who see the existence of an outside option as power, in the context of civil war termination bargaining, one’s power to demand more than its counterpart at the bargaining table might be related to its preference for going back to war. In the context of civil war, if negotiations break down, fighting usually follows. Therefore, if bargaining breaks down and war resumes, each group has to pay the cost for fighting, e.g., casualties. However, the cost of fighting is not the same for every group (e.g., Slantchev 2003; and Butler and Gates 2009). Therefore, if one group has to pay more than its counterpart by going back to war, that group might prefer to concede at the bargaining table rather than pay the cost of returning to fighting. And the cost to pay for resuming fighting is closely connected to one’s military strength (e.g., Goemans 2000; Wagner 2000, 2007; and Ramsay 2008). Therefore, one’s military strength should affect the demands made by the various groups and the final settlement terms reached.

How does relative military strength affect the bargaining offers of warring groups engaged in political power-sharing bargaining? One group of scholars assumes that groups do

¹¹In addition, relying on a game theoretic approach, with respect to bargaining in general, scholars have previously introduced the concept of power by using discount factors (see, for example, Rubinstein 1982; and Admati and Perry 1987) and the existence of outside options (see, for example, Binmore, Rubinstein and Wolinsky 1986; Fearon 1995, 2004; and Hopmann 1996).

not necessarily intend to reach an agreement when they are at the bargaining table (e.g., Wallihan 1998) and focuses on the behavioral implications of the relative power situation. Another group of scholars assumes that warring groups prefer to reach an agreement once they begin negotiating (e.g., Schneckener 2002; Walter 2002; Butler and Gates 2009; Ghosh 2010; and Gent 2011) and focuses on the veto power of the minority group who would fear for their security due to their power disadvantage. In what follows, I explore the implications from these two groups of scholars for examining bargaining offers.

2.4.1 Power and Proportionality in Power-sharing

Most civil war studies have been based on the assumption of the dominant influence of non-strategic characteristics (e.g., national or structural characteristics such as state capacity) to explain a variety of phenomena related to civil war.¹² However, recently, scholars have begun pointing to the limitations of this approach, emphasizing that the outcomes of civil wars are the result of the combined decisions of warring groups engaged in civil war rather than solely by the state's characteristics (e.g., Cunningham, Gleditsch and Salehyan 2009). Therefore, in these decision-making environments, groups strategically consider their counterparts' possible decisions. One implication of this strategic-actor approach to civil war termination bargaining is that a group is expected to take into account other strategic groups' reasonable offers, given structural conditions, when it makes an offer.

According to Zartman (1989), the relative power relationship among warring groups affects the conditions under which groups will agree to sit down at the bargaining table and the outcome of the settlement agreement. However, this relative power relationship also has clear implications for the differing behaviors of groups during bargaining. One's relative power advantage translates into a greater ability to exert influence on its counterpart in the form of threats, promises and warnings (Hopmann 1996). In their experimental study, Zartman and Rubin (2000) found that under conditions of perceived power asymmetry among bargaining groups, the stronger group tended to behave exploitatively and manipulatively, whereas the weaker group tended to behave submissively. Similar to Zartman and Rubin (2000), Michener, Vaske, Schleifer, Plazewski and Chapman (1975) also found that the stronger subjects in experiments did not reciprocate concessions made by their counterparts, whereas subjects with weaker power did reciprocate.

Relative group strength should affect the decision-making of each group during bargaining over the allocation of political power in the three branches of government body. Participants of political power-sharing negotiations use their own power relative to their opponent to determine how much they are willing to offer their opponent, and whether they will accept or reject an offer from their opponent or otherwise go back to fighting. Specifically, the stronger group attempts to leverage its strengths to benefit its own interests, while the weaker group attempts to reach equal terms with the stronger group, but still expects that it needs to make a bigger concession (Pfetsch and Landau 2000; Zartman and Rubin 2000; and Pfetsch 2007).

The general result is as follows: when one group is stronger than the other group, it is likely that the stronger group will continue to fight or threaten to go back to war until

¹²For example, studies on government concession including Schneckener (2002), Gent (2011), and Thomas (2012) fit this approach.

its demands have been met. The stronger group does so by adopting forms of a take-it-or-leave-it strategy toward its bargaining partner. If the weaker group hesitates, the stronger group takes a second pressure strategy: take-it-or-suffer, worsening the target's security point even further (Zartman and Rubin 2000, 275). And these threats from the stronger group to leave the bargaining table and resume fighting are effective due to the possession of actual military resources to realize act on them. On the other hand, the weaker group understands this power dynamic, and the high probability of the threat of implementation, and therefore when the weaker group makes a bargaining offer, it is likely that it will make a smaller offer to itself than it would if the two groups' strengths were closer to parity. The first hypothesis follows.

Hypothesis 1 (Proportionality Hypothesis): As one bargaining group is stronger than another bargaining group, it is more likely that the former will make a bigger demand, while the latter will make a bigger concession.

2.4.2 Power and Disproportionality in Power-sharing

Research on bargaining behavior in the context of civil war has primarily explained the strategic considerations of actors as a function of other actors' bargaining decisions, given the groups' relative power situation. Scholars who focus on the behavioral implications of the relative power situation suggest that the ability of stronger groups effectively to use threats, promises, and warnings gives them greater influence over the bargaining process, specifically, the bargaining offer. However, few existing studies consider the temporal aspects of strategic considerations. In particular, how does the expectation of a future interaction affect warring groups' bargaining offers? Scholars of civil war generally adopt a conceptualization of civil war termination bargaining that sees bargaining taking place in discrete phases (e.g., Walter 2002; Svensson 2007; and Ghosn 2010). According to them, the bargaining phases include the start of bargaining, the signing of the negotiated settlement, and the implementation of the negotiated settlement. If warring groups strategically consider the future, these temporal expectations should be expected to affect the warring groups' decisions at the bargaining table. As a first step, we can assume that warring groups, once negotiation has started, to consider the signing of the negotiated settlement. Specifically, like Fearon (1998) and Walter (2002), if we assume that once warring groups begin negotiation, both sides would prefer successful negotiations, how would each group be expected to make an offer given their relative power situation?

Based on the assumption that the rebel group is weaker at the time of a negotiation (e.g., Butler and Gates 2009; and Nilsson 2010), or the expectation that the government will regain its power while the rebel group will lose its power after an agreement is reached (e.g., Walter 2009a; and Gent 2011),¹³ some scholars expect that the government should overcompensate the weaker (or soon-to-be weaker) rebel group in order to reach a power-sharing agreement (e.g., Gent 2011), or some more general agreement (e.g., Butler and Gates 2009). Specifically, focusing on rebels' typical set of tactics, which are usually different than typical governments' conventional warfare tactics, scholars including Buhaug,

¹³Svensson (2007) expects the opposite of Gent (2011).

Gates, and Lujala (2009), Butler and Gates (2009), Walter (2009a) and Gent (2011) argue that the rebel group has the least to lose on the battlefield. According to this view, rebel groups are expected to achieve a higher marginal benefit than the government from returning to fighting. Therefore, to reach a negotiated settlement, government is expected to overcompensate rebel groups by conceding more positions in the significant branches of a potential post-war government body.

However, these arguments have several limitations. First of all, the expectation of who will regain power after the negotiation is not as clear as has been assumed by scholars such as Gent (2011). Specifically, Gent (2011) assumes that once a negotiated settlement begins to be implemented, the government will regain power while the rebel group will lose. However, because of a possible political power-sharing situation written into a negotiated settlement, the present government may not be the same as the previous government once an agreement is reached and begins to be implemented (e.g., Svensson 2007). Specifically, if power sharing was part of the agreement, the body in charge of implementing the agreement would include members from both sides of the bargaining table. In addition, the government army is also expected to be reshaped once negotiation ends successfully. Even though there is clearly variation across cases, through Disarmament, Demobilization, and Reintegration (DDR) programs, some ex-combatants of rebel groups are integrated into the government army. In this way, the pre- and post-negotiation government armies are expected to differ.

Focusing on the power shift after negotiations, Gent's (2011) expectation of the government's overcompensation of the rebel group(s) in power-sharing bargaining is based on the assumption that once negotiation ends and implementation begins, the rebel group will be the weaker group while the government will be the stronger group. Similarly, though not based on a future power shift, Butler and Gates (2009) also just assume that the weaker group is the rebel group while the stronger group is the government, and thus the government should be expected to overcompensate the rebel group in any given power-sharing situation. However, a plethora of empirical cases demonstrate that this perspective that views the power dynamic between government and rebel groups as fixed (rebel group=weaker group and government=stronger group), especially in a long war is not legitimate. In particular, the rebel group is not always the weaker side (e.g., Cunningham, Gleditsch, and Salehyan 2009). For example, the Liberian Interim Government's army size in the early part of 1990 was overwhelmed by soldiers of two rebel groups, respectively, the National Patriotic Front of Liberia (NPFL) and the United Liberation Movement of Liberia for Democracy (ULIMO), while they were negotiating for shared political power. Similarly, the number of fighters of the United Tajik Opposition (UTO), a Tajikistani rebel group, also outnumbered the Tajikistan government army in early 1990 during its political power-sharing bargaining. And these are just two examples of many.

Therefore, unlike Walter (2009a) and Gent (2011) suggest, if we cannot generally assume that the weaker group is the rebel group (with a higher marginal benefit from going back to fighting due to typical guerrilla tactics) while the stronger group is the government, we cannot assume that either the rebel group or the government is more likely to lose its power after an agreement is reached. However, we can still assume that the weaker group feels more insecure than the stronger group when signing an agreement (e.g., Butler and Gates 2009). As Butler and Gates (2009) said, the one way to assure that the weaker group will not be eliminated from a political decision is concession by the stronger group. Without

assuring the weaker group by conceding more seats in post-war political positions, the stronger group cannot reach an agreement. Therefore, the stronger group might be willing to overcompensate the weaker group. Since the weaker group knows that the stronger group prefers a negotiated settlement rather than continuing war, and that the weaker group can reject the offer and therefore kill a possible agreement, the weaker group would demand more than what could obtain by force given its relative power. The second hypothesis follows.

Hypothesis 2 (Disproportionality Hypothesis): To reach a negotiated settlement, it is likely that the stronger group will make a larger concession, while the weaker group will make a larger demand.

In this chapter, I examined two implications of power and the strategic behavior of warring groups engaged in civil war termination bargaining in order to explain each group's bargaining offer. One implication leads to the expectation of proportionality between warring groups' power and bargaining offers, while the other leads to the expectation of disproportionality between them. However, these expectations are limited in their ability to fully reflect the strategic environment surrounding warring groups engaged in civil war termination bargaining. In the next chapter, I introduce an important strategic consideration—the expectation of agreement implementation—to explain the bargaining offers made by warring groups.

CHAPTER 3

POWER, THIRD-PARTY PEACE ENFORCEMENT, AND THE BARGAINING OFFER

3.1 Introduction

In the previous chapter, I introduced the idea of bargaining groups as forward-looking strategic actors and explored some of the theoretical implications for the bargaining offer. Specifically, I examined how the expectation of reaching a negotiated settlement affects the bargaining offers of warring groups. The implication led to the expectation that if the stronger group wants to reach an agreement, then it needs to make a larger concession to assure the weaker group's cooperation.

Bargaining has been extensively studied in the game theory literature. Applying a game-theoretic perspective to civil war termination bargaining, the idea of sub-game perfection takes the form that only commitments that are rational to carry out, given the relevant circumstances that arise, should be allowed to influence the solution of a bargaining game. In a sub-game perfect equilibrium, the groups' strategies must represent best responses to one another—not only as long as the agreement is complied with, but also after violations have occurred. In other words, the requirement of sub-game perfection implies that the strategies pursued by each group are best responses to the other group for the remainder of the game (Hovi 1998). This perspective is in line with the idea that the expectations about the implementation phase—whether groups will implement or renege on a political power-sharing agreement—should be considered by warring groups prior to the bargaining decisions. That is, expectations regarding the actual implementation of the bargained settlements become critical for understanding each group's decisions at the bargaining table, e.g., making, accepting, and rejecting offers and counteroffers.

A well-developed literature exists that explores the conditions that lead warring groups to implement signed agreements (Walter 1997, 1999, 2002; Filson and Werner 2002, 2004; Mukherjee 2006; Hartzell and Hoddie 2007; and Fortna 2008). Many of these studies suggest that one important factor that may influence whether groups implement an agreement is the presence or absence of third-party peace enforcement. Additionally, studies on third-party peace operations provide the idea that the presence or absence of a third party that will enforce the original settlement deal is likely to have a substantial impact on both parties'

prospective views of the eventual realization of the deal, i.e., implementation or renegeing (Walter 1997, 1999, 2002; and Fortna 2008). Accordingly, strategic actors will take this into consideration when making offers and responding to offers by their adversaries at the bargaining table. The degree to which a third party can be expected to enforce the agreement should thus alter the offers made at the bargaining table between subjective utility maximizers. Groups that may have otherwise viewed renegeing as a strong possibility might no longer feel the same once the prospect of strong third-party peace enforcement has arisen. Now the expected cost of renegeing might exceed its expected benefit, leading groups to reconsider possible violations of the settlement terms. As a consequence, the agreement, once reached, is more likely to be implemented (Walter 1997, 1999, 2002; and Fortna 2008). Therefore, one can expect that the existence of third-party peace enforcement influences expectations about implementing or renegeing on the agreement, and thus decisions about the bargaining offers of warring groups.

In the following subsection, first I briefly discuss how the expectation of implementation affects warring groups' decisions to reach an agreement. Then, I discuss how the expectation of agreement implementation changes the decision-making process in such a way that warring groups make offers that reflect their true preferences at the bargaining table.

3.2 Commitment Problem and Implementability

It has been argued that the commitment problem is a critical barrier for opposing groups to end civil war (Hartzell and Hoddie 2003, 2007; Walter 1997, 1999, 2002; and Matanock 2012). In civil war-torn countries, the commitment problem essentially means that both state and non-state groups who experienced civil war cannot credibly commit to their promises due to security concerns. Similar to prisoner's dilemma situations, following the signing of an agreement actors are concerned about whether the other groups will comply if they themselves comply. This is especially concerning in an environment where groups should give up their arms in order to comply with the agreed-upon terms. In these situations, groups might reasonably think that the short-term gains from defection outweigh the long-term benefits of implementation. Even worse, unlike disagreements within stable political systems, warring groups might not be able to enforce an agreement themselves if anyone defects.

Under conditions in which groups cannot trust each other, and thus it is difficult to develop a self-enforcing commitment, scholars have suggested that a third party can provide an outside enforcement mechanism (Walter 1997, 1999, 2002; Fortna 2004, 2008; and Bell 2008). According to them, under the threat of an enforcement mechanism that will impose costs on the defector, actors will carefully calculate the costs and benefits of renegeing and reach the conclusion that renegeing is not a desirable option.

3.3 Implementability and Signing of Negotiated Settlement

Once warring groups sign a political power-sharing agreement, they face the decision of whether they will actually implement the promised allocation of political power according to the agreement. If any group that signed a political power-sharing agreement attempts

to renege, it is highly likely that the agreement will not be implemented. Specifically, if one group rejects the idea of power sharing once an agreement is signed, and if both the victim of the renegeing and a possible third party have no enforcement power, the agreement will not be implemented. On the other hand, if one group attempts to renege and either the counterpart of the renegeing actor or a third party or both can credibly impart sufficient punishment costs, the agreement will be implemented.

Given these circumstances, what would affect a group's decision to renege? Whether a group wants to renege depends on two conditions: the settlement outcome and power. According to scholars including Pfetsch and Landau (2000) and Pfetsch (2007), satisfaction with the signed agreement will certainly vary. Specifically, while some groups would be satisfied with the promised allocation of political power, other groups would face some kind of disappointment once their delegates actually experience the process of participating in the governing process. Therefore, the latter type of group has more of a motivation to renege than the former. However, if the group that is dissatisfied with the outcome of a negotiated settlement does not have the power to express its dissatisfaction by violating the agreement, it is less likely that the dissatisfied group will actually renege on the agreement. On the other hand, in cases in which groups are satisfied with the negotiated settlement, the power dynamic between warring groups does not matter for explaining renegeing. Therefore, the most dangerous scenario for possible renegeing is the situation in which the stronger warring group is not satisfied with the negotiated settlement.

However, the power dynamic between warring groups affects not only the decision to renege, but also the ability to impose costs on a renegeing group, and thus enforce a political power-sharing agreement. When self-enforcement is not available because the weaker victim of the stronger renegeing group does not have the power to impose sufficient costs for the violation, a third party can come into play to enforce an agreement on behalf of the victim of the renegeing group. Therefore, when other conditions are equal, if there is a third party to enforce a political power-sharing agreement, it is more likely that the agreement will be implemented.

The probability of successful implementation has significant implications for the bargaining process. First, one group of scholars suggests that the expected probability of successful implementation significantly affects the decisions of warring groups to sign agreements (e.g., Hampson 1996; Leeds 1999; and Walter 2002). According to Leeds (1999), if warring groups expect that the chance that an agreement is implemented in the future is low, they would not want to agree to the settlement terms. This can happen when warring groups have gathered together to negotiate because both sides have increased their level of violence ("escalation," as discussed in the previous chapter) but neither can win the war in the short term and they are under pressure from the international community to negotiate ("turning point," as discussed in the previous chapter). However, they might come to the bargaining table with the aim of disagreement (e.g., Wallihan 1998). That is, even though warring groups might reach a ripe moment to discuss their conflicting interests, they might expect that they themselves cannot enforce any possible renegeing on negotiated settlement, and at the same time cannot find outside help to enforce the terms of the agreement. Therefore, they continue to make offers and counteroffers that can only be rejected by their counterpart until they find a solution to the enforcement problem.

Why, then, would understanding the implications of implementability be important for

understanding political power-sharing bargaining? While any negotiated settlement faces the possibility of renegeing by warring groups, there have been many studies suggesting that each power-sharing arrangement has implications for different levels of the cost for renegeing, and thus differing effects on the ability to decrease the commitment problem (Mukherjee 2006; Jarstard and Nilsson 2008; DeRouen, Lea and Wallenstein 2009; and Gent 2011). Generally, it has been said that political power-sharing is the least effective means of decreasing the commitment problem, and thus is more likely to lead to a low probability of successful implementation compared to other types of power-sharing arrangements. The basic logic is two-fold. First, the cost of renegeing varies over different types of power-sharing agreements. Generally, if a warring group wants to change the agreed-upon terms of military power-sharing, for example, changing from a 50-50 composition in a new government army to the elimination of the one groups, it might have to take up arms to do so. However, if one group wants to gain more positions within the branches of government than what was agreed to at the bargaining table, one might not necessarily go back to fighting. In addition, when the renegeing of one group is successful, the cost of being a victim of renegeing is much lower in political power-sharing than in military power-sharing. In summary, once reached, political power-sharing agreements are less likely to be implemented than other types of power-sharing agreements.

Once signed, political power-sharing agreements are more at risk of renegeing than other types of power-sharing. And warring groups still discuss the sharing of political power with or without the intention of reaching an agreement and with or without a third party to enforce the agreement. Given this argument, how would each group involved in political power-sharing bargaining make decisions about offers and counteroffers?

3.4 Implementability and Bargaining Offer

To develop a causal theory of third-party peace enforcement, I start by considering the factors that warring groups involved in bargaining would consider when they make decisions. Here I argue that participants in bargaining do not only consider present interactions, but also future interactions. This means that warring groups at the bargaining table consider whether future interactions would favor the implementation of a bargained settlement.

Even though previous studies pay close attention to the implications of future events (in this case, the expected implementation of negotiated settlements) on past events (in this case, the signing of negotiated settlements; e.g., Leeds 1999), studies on civil war in general do not adequately consider the settlement implementation phase (Pfetsch and Landau 2000; Zartman and Rubin 2000; Cetinyan 2002; Slantchev 2003; Gleditsch and Beardsley 2004; Powell 2004; and Pfetsch 2007), and, more importantly, do not consider its implications for bargaining offers. Essentially, they ignore intergroup interactions after agreements are reached, and therefore implicitly assume that agreements reached at the bargaining table are implemented perfectly. According to this view, if groups expect that agreements will not be implemented, they will not sign the agreement. However, a negotiated settlement is actually an imperfect road map to the future in a country stricken by civil war. Although there may have been a mutual will to implement the negotiated settlement and to pursue peace when the bargain was signed, this does not mean that the groups will necessarily

fulfill their commitments under the negotiated settlement. Perhaps most importantly, even when bargaining representatives are sincere, the act of signing a bargain does not mean that groups will immediately lay down their weapons, stop fighting, and follow the provisions of a negotiated settlement. Rather, after signing an agreement, the previous warring groups may justify a return to fighting by claiming that the opposing group has broken the negotiated settlement first (Hampson 1996; Walter 1997, 1999, 2002; and Fortna 2008).

There is ample anecdotal evidence to suggest that both the signatories to a bargained settlement as well as their followers may be reluctant to abide by a signed settlement once the costs associated with implementation have become better clarified (Hoddie and Hartzell 2003; and Hartzell and Hoddie 2007). Previous research has provided two general classes of implementation costs that signatories to a bargained settlement and their followers face: political and economic. With respect to political costs, two explanations have been provided. First, there is the cost of conceding the loss of war aims and the necessity of compromise with rivals (Hoddie and Hartzell 2003). The action taken by the Union for the Total Independence of Angola (UNITA) party leader Jonas Savimbi, following the signing of the Bicesse Accords, is the commonly cited example of a leader who in his actions during the implementation stage of the peace process demonstrated a lack of credibility vis-à-vis his former adversaries. When it became clear to Savimbi that he was not the popular choice for president in initial postwar elections, he chose a return to war over submission to the loss of personal power that would have resulted from continued adherence to the agreement's provisions (Hoddie and Hartzell 2003; and Preston 2005).

The second explanation of political costs stems from the literature on spoilers. According to this explanation, it is likely that the very act of negotiating to reach a settlement creates schisms within a group between those who are more and less reluctant to conform to the compromises that have been reached (Hampson 1996; Stedman 1997; Atlas and Licklider 1999; Hoddie and Hartzell 2003; and Findley 2007). In addition, during the implementation phase, certain groups or factions feel that they have not received their just shares from the settlement or that the terms of the bargained settlement threaten their interests. More militant interests resistant to compromise may condemn the settlement. In some instances, those most dissatisfied with the agreement may even seek to challenge the continued leadership of settlement signatories (Hoddie and Hartzell 2003). In Rhodesia, previous combatants increasingly felt ignored by their wartime leaders, and began to regret their active participation in the war. Some members of Muzorewa's Security Force Auxiliaries (SFA), declared ineligible for integration into the Zimbabwe National Army (ZNA) or for demobilization benefits, took up arms against the government in a concerted response (Preston 2005). In the case of Rwanda, eight months after the Arusha accords to terminate the civil war there were signed, hardliners within the majority Hutu group, who were dissatisfied with the signed terms, began to kill Tutsis and moderate Hutus.

With regard to economic costs, even though fighting on the battlefield may have ended with economic resources redistributed by provisions of a negotiated agreement, if former soldiers who have come back from a war lack jobs they may find readjustment to civilian life extremely difficult. Additionally, if weapons are still easily available, the former soldiers may use violence to meet their economic needs and/or to take out their frustrations. Also, when one side or another can control a state's natural resources to the exclusion of the other side, the violation of settlement terms is sometimes highly attractive (Murshed 2002).

These difficulties make settlement implementation far from straightforward (Cilliers 1995; Berdal 1996; Stedman 1997, 2003; Lewis, Harris and dos Santos 1999; Murshed 2002; and Spear 2002). In Angola’s civil war, for example, as the two sides, the Popular Movement for the Liberation of Angola (MPLA) and the National Union for the Total Independence of Angola (UNITA), tried to implement a bargained settlement to the conflict, UNITA’s reluctance to concede the diamond mines it used to finance its war effort made clear to UNITA the high cost of implementation (Hartzell 1999).

3.5 Causal Mechanism of Third-party Peace Enforcement

The explanations mentioned above lead to the implication that the implementation phase is uncertain because of ongoing interactions after a bargain is signed: the cost of settlement implementation might sometimes outweigh the cost of renegeing on the settlement as those costs are better realized over time. Thus, at least one warring group might consider renegeing as a strong possibility after an agreement is signed. Therefore, scholars have argued that given the fact that warring groups expect increased implementation costs, if they do not have an outside guarantee to enforce a bargained settlement, it is less likely that they will reach a settlement at all; and even if a bargained settlement is reached, it is likely to break during the implementation phase (Walter 1997, 1999, 2002; Leeds 1999; Snyder and Jervis 1999; and Fortna 2004, 2008). According to these studies, third-party peace enforcement serves to decrease uncertainty about the future and thus diminish the incentive of warring groups to renege. Specifically, the presence or absence of a third party to enforce the original settlement deal is likely to have a substantial impact on the cost of renegeing and thus to influence warring groups’ prospective views of the eventual outcome of the bargained settlement (Rothchild 1997; Zartman 2001; and Zahar 2003).

But how exactly does the presence of a third-party peace enforcement mission affect the cost of renegeing on a signed agreement, and thus the expectation of whether the bargained settlement will be implemented or renegeed upon? To examine this mechanism, I use the term “third-party peace enforcement” to refer to the deployment of international personnel to a third country in order to enforce the provisions of a bargained settlement, where the third party is an actor that is not part of any organization within the civil war country. Further, the third party is an actor that may become involved in a civil war country to help the warring groups resolve conflicting interests, to control violence, and/or to act as an intermediary between the government and rebel organizations.

There are two characteristics of peace enforcement that distinguish it from other peace operations: (1) the use of military force; and (2) lack of consent required to use that force. According to the UN’s *Agenda for Peace* (1992), Doyle and Sambanis (2000), Walter (2002), and Fortna (2004, 2008), peacekeeping refers to the deployment of international personnel, with the consent of all the parties concerned, involving army and/or police personnel as well as civilians. The mission of peacekeeping has been expanded to include peace enforcement by adding the condition that consent from all the groups concerned is not required to actively pursue the mission, which typically involves security and compliance with a signed agreement.

According to Walter (1997), strong third-party peace enforcement deploys huge ground forces in order to impose a bargained settlement, should the settlement break down. To increase credibility, as violations occur, third-party peace enforcement is supposed to have the capability of carrying out its mission within a short time and with appropriate force to be able to impose a bargained settlement. Through third-party peace enforcement, warring groups would feel secure in their survival during the implementation phase, expecting that violations of a bargained settlement will be detected and promises will be kept (Bailey 1969; Wiseman 1987; Azar 1990; Kaufman and Schrijver 1990; and Walter 2002).

However, it is not clear from the literature that all warring groups feel the same degree of vulnerability. Some scholars assume that due to the privileged power that the government has—specifically, army and police forces—the rebel organizations are more likely to believe that the government will use its forces for its own sake during the implementation phase (Fortna 2008).¹ However, it is not always the case that the government has such power after several years of war (and sometimes even before a war occurs). Therefore, as Schmidt (2009) suggests, more generally, without third-party peace enforcement we can expect that the weaker group would be much more vulnerable to possible violations during the implementation phase, while the stronger group would be more likely to renege on a bargained settlement.

Without third-party peace enforcement, a stronger group has no reneging costs, and thus the implementation costs necessarily outweigh reneging costs. Therefore, a stronger group would have an incentive to provide an attractive deal to the opponent by which they would not ultimately abide. The stronger group would be expected to make an insincere offer (a smaller offer to itself than what it would actually expect) in order to reach an agreement because it believes that it will be able to take back as much as it wants at a later time by reneging. And the stronger group would plan to rebuild its military power for the possibility that the weaker group would resume war after the stronger group's violation.

At the same time, since a weaker group also sees the lack of a third party enforcer to impose a bargained settlement, it would also plan to use the bargaining situation as an opportunity to save time and rebuild its military forces for the case that the stronger group reneges on the settlement. And when the weaker group makes an offer to share institutions and resources, it would also be expected to make an insincere offer—a bigger offer to itself than what it would actually expect—in order to delay a bargain and/or secure its survival, with the hope that the stronger group's reneging outcome is bearable.

However, once the prospect of strong third-party peace enforcement arises, groups that may have otherwise viewed reneging as a strong possibility might no longer feel the same. Now the expected cost of reneging might exceed the expected cost of implementation. This leads groups to reconsider possible violations of the settlement terms. Also, in this situation, if warring groups make insincere offers—offers that are different from what they actually expect to receive—they should adhere to the settlement terms once a bargain is signed. As a result, when third-party peace enforcement exists, warring groups would likely be better off not misrepresenting their true preferences in order to reach a settlement. Therefore, the

¹On the subject of the credibility issue, see Svensson (2007), who points out rebel groups' credibility issues, Fearon (1998, 2004) and Walter (2009b), who point out governments' credibility issues, and Walter (2002), who points out both groups' credibility issues.

expectation of high renegeing costs leads groups to reconsider their bargaining decisions in a way that reveals their true preferences.

Therefore, when third-party peace enforcement exists, a weaker group, i.e., a group being protected from renegeing, will ask for a smaller portion of the pie for itself compared to the condition in which there is no enforcement power. On the other hand, a stronger group, i.e., a group being deterred from renegeing, will ask for a bigger portion of the pie for itself than when there is no or lower third party enforcement power.

3.6 The Model

To study warring groups' behavior during civil war termination bargaining, I make several assumptions. First, all warring groups that participate in bargaining have preferences over the size of their share of post-settlement resources and institutions, and these are the issues over which warring groups bargain. Second, each group, based on its preferences, makes offers and responds to offers from its opponent, either accepting the offer or rejecting it and making a counteroffer. Third, I assume that the stronger group can renege after any agreement is reached. Some scholars assume that due to the privileged position of power that the government has—specifically, army and police forces—it will be more likely to defect after an agreement is reached (e.g., Fortna 2008; Reinold 2011). However, it is not always the case that the government has such power after prolonged periods of civil war (and sometimes even before a war occurs).² This leads to the expectation that if governments are not strong, they also could be vulnerable to possible renegeing by a rebel group. Therefore, in general, one can expect that the weaker group would be much more vulnerable to possible renegeing by the stronger group during the implementation phase, while the stronger group would be more likely to renege on a negotiated settlement. Notice that I define renegeing in terms of the actions of the whole group (represented by a group leader), not for individual members of a group. I assume that even though members within a group may have different preferences (Cunningham 2006), the ultimate bargaining and renegeing/compliance decisions are the outcomes of preference aggregation, and are made by a group's leader.³ In addition, I assume that all groups have complete information about

²There are ample examples illustrating that the government is not always the stronger group during civil war termination bargaining. As a case in point, the National Union for the Total Independence of Angola (UNITA) controlled more than two thirds of the country when it bargained with the government over seat sharing in 1992.

³In the context of civil war termination bargaining to reach a comprehensive agreement including political power-sharing provisions rather than cease-fire agreement, renegeing (that is, not following a settlement deal struck to form a new political system) is more likely to be defined by a group leader's decision. An examination of political power-sharing bargaining in civil war countries from 1989 to 1994 suggests that dissatisfaction among group members regarding leaders' decisions at the bargaining table typically leads to in-group fighting or the formation of a new bargaining groups (for example, the National Patriotic Front of Liberia-Central Revolutionary Council, NPFL-CRC) rather than simply breaking the settlement deal.

third-party peace operations and bargaining participants' relative power.⁴

The basic framework for the model of civil war termination bargaining is Rubinstein bargaining model (Rubinstein 1982; and Osborne and Rubinstein 1990). This model includes two warring groups in a civil war who have come to the bargaining table, $i \in \{1, 2\}$, where 1 denotes a stronger group and 2 denotes a weaker group. The two groups bargain over a division of post-settlement institutions and resources which is normalized to one. They alternate offers indefinitely: the game starts with an offer from the stronger group, $x^1 = (x_1^1, x_2^1)$, where for x_j^1 the superscript 1 indexes the stronger group, the player making an offer, and the subscript j represents the player to whom an offer is being made, where $j \in \{1, 2\}$. For example, x_1^1 is the offer that the stronger group makes to itself, while x_2^1 is the offer that the stronger group makes to the weaker group. After the stronger group makes an offer, the weaker group must decide to accept or reject. If the weaker group rejects the offer, the payoffs are discounted, and the weaker group makes a counteroffer, $x^2 = (x_1^2, x_2^2)$, where x_1^2 is the offer that the weaker group makes to the stronger group and x_2^2 is the offer that the weaker group makes to itself. Here, discount factors for each group are δ_1 and δ_2 . This offer-reject-counteroffer pattern continues until anyone accepts an offer from her counterpart.

In the ordinary Rubinstein bargaining model, the game ends whenever any offer is accepted as shown in Figure 3.1. Each group gets payoffs distributed according to the accepted offer. I vary this basic form of the bargaining model by allowing the stronger group to consider renegeing after any bargained settlement is reached. If the stronger group decides not to renege, each group receives the payoffs from the original settlement. However, if the stronger group decides to renege, there are two scenarios: (1) with probability q , a third-party peace operator comes in to enforce the original bargained settlement; or (2) with probability $1 - q$, no third-party peace operator steps in to help the victim of the renegeing. In the second scenario (no deployment of third-party peace enforcers), the stronger group keeps the amount of the original bargained terms. At the same time, it adds the additional gain from successfully renegeing, $\alpha_1 > 0$ (for example, additional territory and government positions). And the weaker group suffers a loss of $\alpha_2 > 0$ (for example, decreased or destroyed resources during the process in which the stronger group attempts to add additional gains. In the first scenario (the deployment of third-party peace enforcers), both groups suffer costs (c_1, c_2). These costs represent negative payoffs to them whenever the third-party peace enforcer becomes involved after renegeing. The costs for the stronger

⁴In the premise of complete information, the player who has to move knows at least as much as ones who moved before him/her. Even though scholars including Fearon (1995) suggest that private information leads to war initiation, recent literatures on learning during war provide reason to assume groups' complete information about relative power (see, for example, Wagner 2000; Slantchev 2003; and Powell 2004). Also examination of political power-sharing bargaining during civil wars from 1989 to 1994 suggests that bargaining participants actively discuss the role of third-party peace operations while they are bargaining over seat sharing in the post-war political system. There is, therefore, a good reason to believe that the existence of a third party that may potentially enforce the agreement deal is a common knowledge among the participants, and that they make estimates of the likelihood of actual deployment.

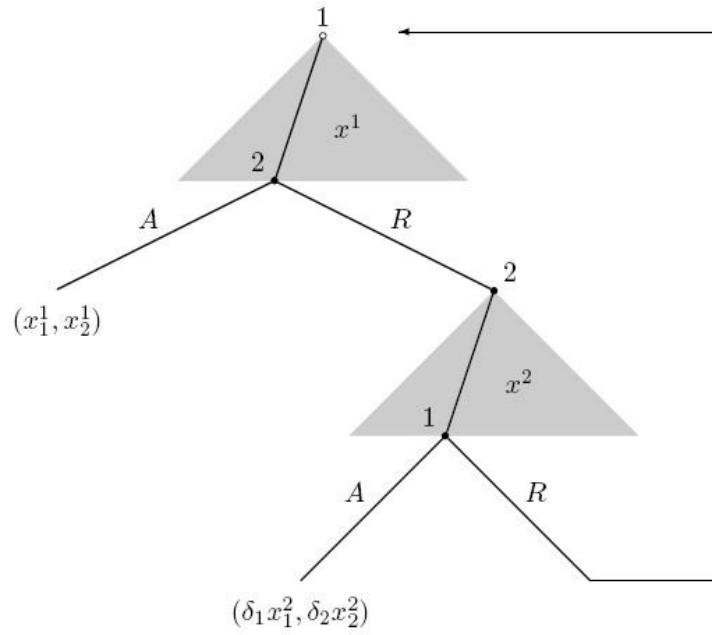


Figure 3.1: Ordinary Bargaining Model

group might be due to violent military confrontation with a third-party peace enforcer with a strong military mandate, or due to the penalty imposed on the violator by the international community or relevant neighboring countries. The costs for the weaker group might be due to a decrease of internal cohesion caused by being the victim of the reneging,⁵ or a less-than-optimal trade accord (for the case that the weaker group is a government) that acts as a payment for aid provided. Figure 3.2 shows the bargaining game with reneging option after agreement is reached.

The offer of the group depends on its expected utility not only for reaching an agreement, but also for implementing or reneging on a negotiated settlement. And each group's expected utility is linear in: (1) the offers from each group, (2) payoffs from the stronger group's successful reneging, and (3) the costs caused by third-party peace enforcement. But each group's expected utility is decreasing in the discount factor as the game continues. In the next subsection, I solve the game using the equilibrium concept of subgame perfection.

3.6.1 Equilibrium

I first utilize backward induction on the bargaining game with reneging option. I begin with the stronger group's reneging decision. The stronger group calculates the expected utility of gains from reneging and gains from not reneging whenever a bargained settlement is reached. If the latter outweighs the former, $(1 - q)(x_1^i + \alpha_1) + q(x_1^i - c_1) < x_1^i \Rightarrow \phi_1 \leq 0$ (where $\phi_1 \equiv (1 - q)\alpha_1 - qc_1$), the stronger group does not renege. Therefore, the game reduces to the ordinary Rubinstein bargaining model: (1) the stronger group makes an offer of $x^1 = \left(\frac{1 - \delta_2}{1 - \delta_1 \delta_2}, \frac{\delta_2(1 - \delta_1)}{1 - \delta_1 \delta_2}\right)$ and this offer is accepted in equilibrium; and (2) the weaker group makes an offer of $x^2 = \left(\frac{\delta_1(1 - \delta_2)}{1 - \delta_1 \delta_2}, \frac{1 - \delta_1}{1 - \delta_1 \delta_2}\right)$ and this offer is also accepted.

However, if the gains from reneging outweigh the gains from not reneging, $(1 - q)(x_1^i + \alpha_1) + q(x_1^i - c_1) > x_1^i \Rightarrow \phi_1 > 0$, the stronger group always reneges after any settlement is reached. Let V_1 be the expected utility of the subgame to the stronger group in the stage in which it makes an offer, and let V_2 be defined similarly for the weaker group. To solve for equilibrium, I use backward induction beginning with the weaker group's offer. In equilibrium, the stronger group knows that it can reject the weaker group's offer and receive the expected payoff of $(\delta_1)^2 V_1 = (\delta_1)^2(x_1^1 + \phi_1)$ in the next period. The weaker group gets $\delta_2(1 - x_1^2 + \phi_2)$, where $\phi_2 \equiv -(1 - q)\alpha_2 - qc_2 < 0$, if the stronger group accepts the offer, while it gets $(\delta_2)^2(1 - x_1^1 + \phi_2)$ if the stronger group rejects. Therefore, the weaker group must offer the stronger group an appropriate amount to prevent the latter

⁵For example, after reaching an agreement on the composition and chairmanship of the Supreme National Council of Cambodia (SNC) between the Phnom Penh government and National Government of Cambodia (CNG) coalition that consisted of Armme Nationale Sihanoukiste (ANS), the Khmer Rouge (KR) and the Khmer People's National Liberation Front (KPNLF) in July of 1991, the then-stronger group, the Phnom Penh government, broke the agreement and attacked the rebel-held areas about 10 days after the agreement. As the power-sharing was not implemented, the tension between the ANS and the KPNLF on one hand and the KR on the other increased. Even though the groups tried to minimize the tension, it kept growing and later the ANS and the KPNLF joined the government, while the KR fought alone.

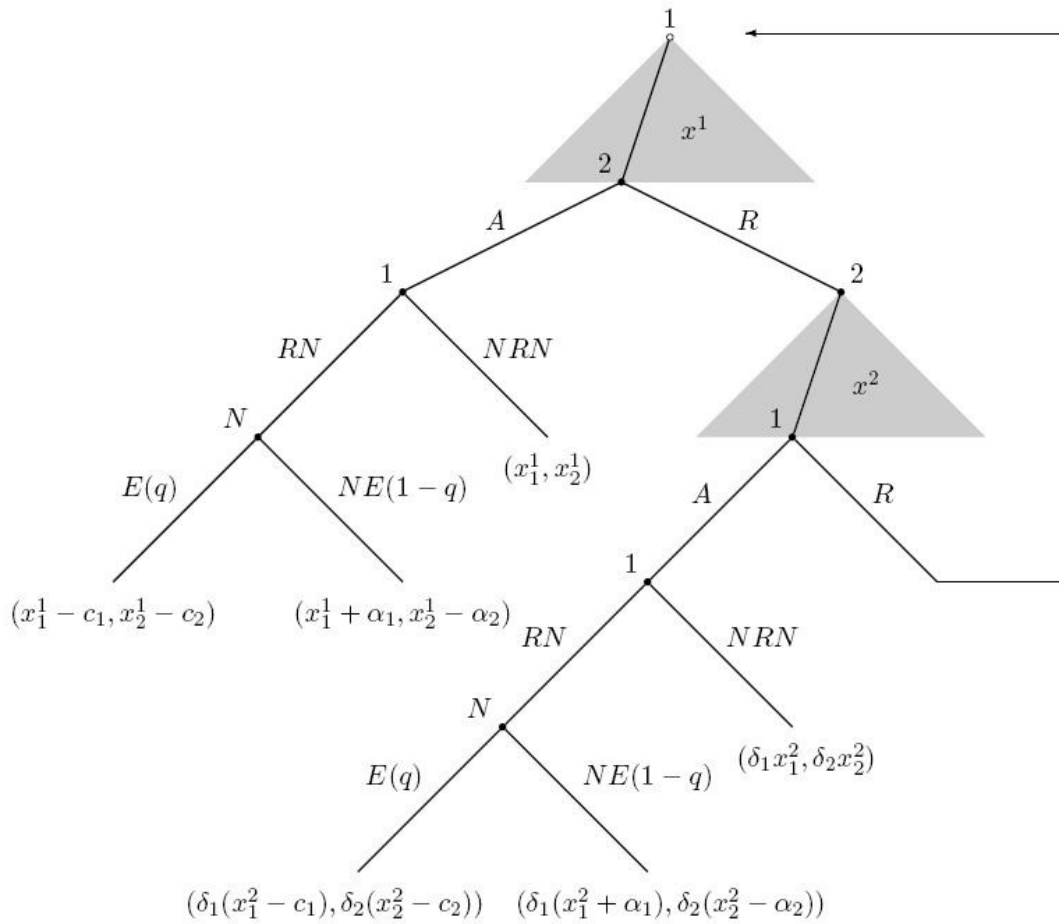


Figure 3.2: Bargaining Model with Reneging Option

from rejecting. Additionally, since both groups know that the stronger group will renege after any settlement, the weaker group should offer the minimal amount that the stronger group would accept, which is $\delta_1(x_1^2 + \phi_1) = (\delta_1)^2(x_1^1 + \phi_1)$, or $x_1^2 = \delta_1 x_1^1 - (1 - \delta_1)\phi_1$.

In the above comparison of the payoffs of the weaker group according to the stronger group's decision, it is possible that the weaker group would strategically prefer to delay reaching the settlement, and thus makes an offer that the stronger group would not accept because the cost incurred by the stronger group's reneging, $\phi_2 < 0$, is discounted by δ_2 . This situation would be likely when the weaker group's expected payoff from its offer being rejected in the present period and then receiving the offer from the stronger group in the following period is larger than the expected payoff from its offer being accepted in the present: $\delta_2(1 - x_1^1 + \phi_2) > 1 - x_1^2 + \phi_2$, or $(1 - \delta_2)(1 + \phi_2) + (1 - \delta_1)\phi_1 + (\delta_2 - \delta_1)x_1^1 < 0$, where $x_1^2 = \delta_1 x_1^1 - (1 - \delta_1)\phi_1$. However, since $\phi_1 > 0$ and x_1^1 would be positive, whether the weaker group strategically makes an offer that is not acceptable to the stronger group depends on δ_1 , δ_2 , and ϕ_2 .

On the other hand, if $(1 - \delta_2)(1 + \phi_2) + (1 - \delta_1)\phi_1 + (\delta_2 - \delta_1)x_1^1 \geq 0$, the weaker group makes an offer that the stronger group would accept and receives $1 - \delta_1 x_1^1 + \phi_2 + (1 - \delta_1)\phi_1$ in period 2. Therefore, the minimum offer that the weaker group would accept in the previous period should guarantee that this amount diminishes by the discount factor. This leads to the expectation that the stronger group makes an offer of $V_2 = \delta_2(1 - \delta_1 x_1^1 + \phi_2 + (1 - \delta_1)\phi_1)$, where $V_2 = x_2^1 + \phi_2$. Given $x_1^1 + x_2^1 = 1$, this equation can be solved for the stronger group's offer to itself in equilibrium, $x_1^1 = \frac{(1 - \delta_2)(1 + \phi_2) - \delta_2(1 - \delta_1)\phi_1}{1 - \delta_1 \delta_2}$. This is smaller than the equilibrium offer in the ordinary Rubinstein bargaining model, given $\phi_1 > 0$ and $\phi_2 < 0$. It also means that the stronger group has to make a bigger offer in order for the weaker group to accept, given the stronger group's potential to renege. The stronger group receives the expected payoff of $\frac{(1 - \delta_2)(1 + \phi_1 + \phi_2)}{1 - \delta_1 \delta_2}$. This means that whenever $\phi_1 + \phi_2 > 0$, reneging after a settlement is better for the stronger group, while if $\phi_1 + \phi_2 \leq 0$, reneging results in a worse outcome for the stronger group. That is, the existence of the option to renege makes the stronger group worse off.

Now using the stronger group's offer in equilibrium, I find that when $1 + \phi_1 + \phi_2 \geq 0$, the weaker group makes an offer acceptable to the stronger group. And when $1 + \phi_1 + \phi_2 < 0$, the weaker group would rather make an offer that will be rejected by the stronger group. Given $x_1^1 \in [0, 1]$, if the stronger group would be willing to make an offer of $\phi_2 > -1$, then it will make a minimally acceptable offer to the weaker group, $x_2^1 + \phi_2 = \delta_2(x_2^2 + \phi_2)$, or $x_1^1 = 1 + \phi_2$. From these, I draw the following proposition.

Proposition: If $\phi_1 \leq 0$, the stronger group makes an offer of $x^1 = (\frac{1 - \delta_2}{1 - \delta_1 \delta_2}, \frac{\delta_2(1 - \delta_1)}{1 - \delta_1 \delta_2})$, and the weaker group offers $x^2 = (\frac{\delta_1(1 - \delta_2)}{1 - \delta_1 \delta_2}, \frac{1 - \delta_1}{1 - \delta_1 \delta_2})$. In equilibrium, all the offers are accepted, and the stronger group does not renege. However, if $\phi_1 > 0$, the stronger group always reneges. Given that the weaker group knows that the stronger group would renege after a settlement is reached, there are two possibilities. One possibility is where the weaker group makes an offer that the stronger group would always reject. If $1 + \phi_1 + \phi_2 < 0$, the stronger group makes an offer of $x^1 = (1 + \phi_2, -\phi_2)$, which is always accepted, and the weaker group proposes an amount smaller than $\delta_1(1 + \phi_2) - (1 - \delta_1)\phi_1$ to the stronger group and larger than $1 - \delta_1(1 + \phi_2) + (1 - \delta_1)\phi_1$ to itself, which is always rejected by the stronger group.

The other possibility is where all offers are accepted. If $1 + \phi_1 + \phi_2 > 0$, the stronger group makes an offer $x^1 = \left(\frac{(1-\delta_2)(1+\phi_2)-\delta_2(1-\delta_1)\phi_1}{1-\delta_1\delta_2}, \frac{\delta_2(1-\delta_1)(1+\phi_1)-(1-\delta_2)\phi_2}{1-\delta_1\delta_2} \right)$, and the weaker group makes an offer $x^2 = \left(\frac{\delta_1(1-\delta_2)(1+\phi_2)-(1-\delta_1)\phi_1}{1-\delta_1\delta_2}, \frac{(1-\delta_1)(1+\phi_1)-\delta_1(1-\delta_2)\phi_2}{1-\delta_1\delta_2} \right)$.

3.6.2 Comparative Statics

From the proposition, I identified three separate conditions to consider: (1) $\phi_1 \leq 0$, (2) $\phi_1 > 0$ and $1 + \phi_1 + \phi_2 < 0$, and (3) $\phi_1 > 0$ and $1 + \phi_1 + \phi_2 > 0$. Note that among seven parameters, δ_1 , δ_2 , α_1 , α_2 , c_1 , c_2 , and q , I will focus on q , the probability that the third-party peace operator comes into play to enforce the original settlement if any violation occurs. As a first step, I consider how q affects the additional payoffs from the reneging option. The derivative of ϕ_1 with respect to q is negative, which means that as q increases ϕ_1 decreases. Therefore, when there is third-party peace enforcement, the payoff to the stronger group decreases. However, the derivative of ϕ_2 with respect to q is conditional on the sign of $\alpha_2 - c_2$ which means that the cost of reneging to the weaker group depends on α_2 and c_2 . If I assume that $\alpha_2 < c_2$, the cost of third-party peace enforcement outweighs the gain to the weaker group caused by the stronger group's reneging, and therefore the weaker group would prefer no third-party peace enforcement. This means that the warring groups expect that the third party will send its enforcement power where the weaker group prefers not to have third-party peace enforcement after the stronger group reneges. Since this is very unlikely, this probability can be set aside. Now, if I assume $\alpha_2 > c_2$, the derivative of ϕ_2 with respect to q is positive. This implies that when there is third-party peace enforcement, the payoff to the weaker group increases. Under this condition, as q increases reneging becomes less likely.

Through derivation, I find that under condition (1), q does not influence either group's offer in equilibrium. This makes a great deal of substantive sense: in the portion of the parameter space where the stronger group never prefers to renege, intuitively, whether a third party would enforce the agreement does not matter for the group's decision. However, under conditions (2) and (3), the stronger group's offer to itself increases while its offer to the weaker group decreases as q increases. Unlike the situation where no third party enforcement is expected, in which the stronger group makes a favorable offer to the weaker group and then later reneges, the stronger group should make demands in line with what it really wants and can abide by under the condition of third-party peace enforcement. Additionally, it can be shown that under condition (3), the weaker group's offer to itself decreases while its offer to the stronger group increases as q increases. Importantly, this is because the weaker group expects that the third party will send troops to enforce the original settlement if a violation occurs. Thus, the weaker group might believe that there is no need to demand more than what it actually deserves in order to protect itself from the stronger group's potential reneging. This leads us to the following hypothesis.

Hypothesis 3 (Commitment Hypothesis): When a third party is likely to enforce the negotiated settlement, the stronger group will demand a larger share of the pie for itself, while the weaker group will demand a smaller share of the pie for itself, than when groups expect no third party to enforce the agreed-upon terms.

In this chapter, I examined the implications of expected agreement implementation on the decisions made by warring groups at the bargaining table. Specifically, the hypothesis drawn from the bargaining model, reflecting the strategic consideration of the agreement implementation phase, leads to the expectation that the existence of a third party to enforce agreed-upon terms leads warring groups to make offers and demands in a way that reflects their relative power dynamic. In the next chapter, I discuss how I will test the hypotheses from Chapters 2 and 3.

CHAPTER 4

RESEARCH DESIGN

4.1 Introduction

The model from the previous chapter leads to a better understanding of warring groups' behavior at the bargaining table during civil war by incorporating more realistic assumptions about the agreement implementation phase. And it produces a testable hypothesis about the offers of bargaining participants. The next step is to test empirically the hypothesis drawn from the model presented in Chapter 3 and the two hypotheses from Chapter 2. I examine the implications by employing a multi-method approach, which can help correct for the weaknesses of various methods while taking advantage of their strengths (Ragin 1987; and Laitin 2003). More specifically, I test these hypotheses by using both a statistical analysis and a case study. When employed together, these methods may serve to buttress one another and provide a more comprehensive understanding of the relationship between theory and data. More specifically, the statistical analysis is useful for providing broad probabilistic statements about causal mechanisms, while the case study is useful for further unpacking the identified causal pathways between phenomena (Bates, Greif, Levi, Rosenthal and Weingast 1998; and Gerring 2004).

In studying civil war termination bargaining, the multi-method approach is particularly useful. Datasets on civil wars are still in their infancy, and there has been difficulty in even reaching agreement about definitions and appropriate measures of civil war (Stedman 1991; Walter 1999; Sarkees 2000; and Sambanis 2004). Further, since existing studies focus on initiation and outcomes of civil wars, the issue of data availability is even more troublesome when considering phenomena such as bargaining attempts between warring groups that occur within civil wars (Stedman 1991; Walter 2002; and Hartzell and Hoddie 2003, 2007). This issue raises caution about the causal inferences that can be drawn from the empirical analysis. In order to account for this issue, I connect the game theoretic model with the statistical analysis (in Chapter 5) and the case study (in Chapter 6). In the two following subsections, a detailed research design for the statistical analysis and case study are provided.

4.2 Research Design for Statistical Analysis

To guide the statistical analysis, this subsection provides the unit of analysis, and definitions and measurements of concepts along with descriptive statistics.

Unit of Analysis

There are several types of actors that are involved in the bargaining process during civil wars. These are the direct bargaining participants, outside military supporters, and third-party peace operators. To empirically test the implication from the game theoretic model, the unit of analysis for this study is the direct bargaining participant in political power-sharing bargaining. Direct bargaining participants are defined as the actors who both fight over a country's political institutions and negotiate over them.

4.2.1 Operationalization of the Concepts

Civil War Termination Bargaining

Similar to Walter (1999), civil war termination bargaining is defined as a face-to-face talk between warring groups engaged in civil war with the intention to end war. To identify cases of civil war termination bargaining, however, I first need to define civil war. To do so, I rely on the cases identified in the *Uppsala Conflict Data Program* (UCDP)'s Armed Conflict Dataset. The reason for this choice is that UCDP's dataset provides detailed information about warring groups engaged in civil war while other datasets (e.g., Stedman 1991; Sarkees 2000; and Walter 2002) do not. Information about warring groups is critical for constructing the larger dataset, and this will be dealt with in more detail when I introduce the measures of bargaining participants. For a case of domestic conflict to be considered a civil war, I require the conflict to (1) reach 1,000 cumulative casualties; (2) be a conflict that occurs between the government of a state and one more internal opposition group(s), with or without intervention from other states; and (3) be fought over government issues, as opposed to only territorial issues. Criterion (1) is common to most civil war studies. In criterion (2), cases with interventions from other states are incorporated to provide a relatively inclusive definition of civil war. Criterion (3) was used because the primary interest of the present study is political power-sharing bargaining to end war. This will be explained in more detail when political power-sharing bargaining is defined. Using these criteria, I identified 28 countries that experienced civil wars during the period from 1989 to 1994.¹

The next step is to define civil war termination bargaining. There has been a great deal of theoretical and empirical work on bargaining during civil war (e.g., Stedman 1991; Walter 2002; and Hartzell and Hoddie 2003, 2007). However, because most previous studies take

¹These include Afghanistan (1989-1994), Algeria (1993-1994), Angola (1989-1994), Cambodia (1989-1994), Chad (1989-1994), Colombia (1989-1994), El Salvador (1989-1991), Ethiopia (1989-1991), Guatemala (1989-1994), India (1990-1994), Iran (1991-1993), Iraq (1991-1994), Laos (1989-1990), Lebanon (1989-1990), Liberia (1990-1994), Mozambique (1989-1992), Myanmar (1990-1992, 1994), Nicaragua (1989), Paraguay (1989), Peru (1989-1994), Philippines (1989-1994), Rwanda (1991-1994), Sierra Leone (1994), Somalia (1989-1994), Sri Lanka (1989-1990), Sudan (1989-1994), Tajikistan (1992-1994), Uganda (1989-1992, 1994).

Table 4.1: Previous Bargaining Study I: Stedman (1991), Table 1.1. Civil Wars, 1990-1989

Country	Year	Termination
Nicaragua	1981-1989	Negotiation (with Mediation)

Table 4.2: Previous Bargaining Study II: Walter (2002), Table A.1. Civil Wars that Began between 1940 and 1992

Civil War	Active Negotiations	Signed Bargain	Outcome
Nicaragua, 1982-1990	Yes	Yes	Successful Settlement

the country or the civil war as the unit of analysis, they will lead us to miss cases of multiple bargaining attempts during a civil war within a country (e.g., Stedman 1991; and Walter 2002). For example, Tables 4.1 and 4.2 list the unit of analysis and several recorded variables of interest from two prominent studies on bargaining during the civil war in Nicaragua. Taking the unit of analysis to be either the country, as in Stedman (1991), or the civil war, as in Walter (2002), these studies aggregate all bargaining attempts during the entire civil war. They provide no information about how many bargaining attempts occurred nor the possibility that the nature and goals of different attempts may have varied. In reality, Nicaragua had two bargaining attempts during 1989 alone. From November 9 to 15, 1989, the Nicaraguan government and the Contras met to talk about the implementation of the Tela Accord (August 7), but the talk was suspended when the Contra delegation walked out (*New York Times*, November 16). The parties met again from November 20 to 21 in regards to a new proposal by the government related to cease-fire and demobilization of the Contra force, but failed to reach an agreement (*New York Times*, November 22).

To avoid aggregating distinct bargaining attempts within a civil war in a country, I collected and coded whether there were face-to-face talks between warring groups engaged in civil war using *Keesing's World News Archive* and news articles available through *Lexis-Nexis*. The choice of face-to-face talks between warring groups eliminates cases that were characterized only by the simple exchange of proposals or mediators shuttling proposals between groups where warring groups are not present in the same place at the same time.² This qualification also eliminates talks that do not include government on one side and at least one rebel group on the other. They include three possibilities: talks that do not

²For example, in mid-September, and from November to December in 1991, the El Salvador government and the Farabundo Marti National Liberation Front (FMLN) rebel group held indirect talks. Because at least one side was not willing to discuss the issues directly, Alvaro de Soto, Perez de Cuellar's special envoy, was shuttling between the two teams of negotiators with proposals and counter-proposals while the two sides were in separate rooms.

include the government on one side;³ talks that do not include at least one rebel group on the side opposite the government;⁴ and talks that do not include any warring groups.⁵ The requirements of face-to-face meetings and warring groups as participants on both sides are intended to account for whether groups involved in talks can take meaningful action to resolve the underlying issues of the conflict and terminate war.

The coding rules mentioned thus far are similar to the definitions used by the UCDP, but differ in two respects. First, the UCDP defines a splinter group as a separate group, independent from its original group, only if the splinter group reaches 25 battle-related deaths in fighting against the government. I define a splinter group as a separate group if the group engages in a battle independently with the government after it has claimed to be independent from its original group. Second, UCDP defines a meeting between the direct warring group and the third party on behalf of the direct warring group as bargaining while I do not. This is because talks between direct warring groups and indirect warring groups might not be suited for taking meaningful steps to resolve the underlying issues of a conflict.

Another drawback of the UCDP coding rules is that the definition of negotiation does not provide a clear way to delineate the start and end of negotiation. I define the start of bargaining as the actual date that bargaining participants begin discussion rather than the date of ceremonial events (e.g., opening ceremonies), and the end of bargaining as the actual date that bargaining participants ended discussion because the talks collapsed or were suspended indefinitely. Additionally, if the discussion leads to an agreement, the end of bargaining is coded as the date that the discussion reached an agreement, rather than the date that the agreement reached at the bargaining table was signed. For more detailed coding rules, see Appendix A. The start and end of bargaining is coded based on news articles available in *Lexis-Nexis* and *Keesing's World News Archive*.⁶ These coding

³This includes three possibilities: (1) talks between only rebel groups (e.g., the talk between Liberia's two rebel groups, the National Patriotic Front of Liberia (NPFL) and the Independent National Patriotic Front of Liberia (INPFL) on February 20-21 1991 did not include the government. This was a meeting between the rebel groups to discuss whether they would negotiate on the same terms prior to the talk with the Liberian government beginning on February 27 of the same year; (2) talks between rebel groups and non-warring groups (e.g., the Rwandan talks from February to March 1993 between opposition political parties and a rebel group, without the government); and (3) talks between rebel groups and third parties (e.g., the Sierra Leone talks in 1998 between the Armed Forces Revolutionary Council (AFRC) and the Economic Community of West African States Monitoring Group (ECOMOG) on behalf of the ousted government).

⁴For example, the Algerian bargaining attempts from 1993 to 1994 between the government and recognized opposition political parties, not including rebel groups.

⁵There are two possibilities: (1) talks between third parties (e.g., the talk between the representatives from Portugal, the USA and the USSR in Lisbon on March 4th of 1991 was to set a date for the next round of talks between the Angolan government and UNITA (the National Union for the Total Independence of Angola)); and (2) talks between political parties (e.g., the talk between Algerian political parties to discuss the participation of rebel group in the bargaining in 1993).

⁶However, the exact time might be an issue due to the lack of clarity across different time zones in which news articles are published. Many periodic articles do not specify whether

Table 4.3: Previous Bargaining Study III: Hartzell and Hoddie (2003), A1. Negotiated Civil War Settlement, 1945 and 1998

Case	Type of Power-Sharing Bargaining			
	Political	Military	Territorial	Economic
Rwanda, 1990-1993	1	1	0	1

decisions lead to 179 bargaining attempts in 15 countries that experienced civil war from 1989 to 1994: Afghanistan, Angola, Cambodia, Chad, Colombia, El Salvador, Guatemala, Liberia, Mozambique, Nicaragua, Philippines, Rwanda, Somalia, Sudan, and Tajikistan.

Once the civil war termination bargaining information was collected, I coded whether bargaining was non-political or political power-sharing. More specifically, to be considered political power-sharing bargaining, the talks should be over the specific seat shares in a post-war cabinet, parliament, and/or court. Hartzell and Hoddie (2003, 2007) began the process of trying to understand the issue of multiple bargaining topics by providing a dataset in which the topics of civil war negotiations are coded as political, economic, military, or territorial. Their dataset delivers more information on the type of bargaining compared to other civil war bargaining datasets (Stedman 1991; and Walter 2002). However, due to the structure of their dataset—the country involved in a civil war as the unit of analysis—it carries at least two drawbacks. First, they do not provide information about whether multiple bargaining topics are discussed at the same time, or rather simply at some point, during a civil war. Table 4.3 shows relevant information from Hartzell and Hoddie’s dataset on bargaining during the civil war in Rwanda. According to Hartzell and Hoddie (2003), Rwanda experienced bargaining over various issues, i.e., political, military, and economic power-sharing during the civil war from 1990 to 1993. However, from this, it is not clear if these issues were discussed at the same time or simply at some point during the period. In reality, Rwanda had eight negotiations in 1992 alone. Among these bargaining attempts, the Rwandan government and the Rwandan Patriotic Front (FPR) talked about political power-sharing for three of these negotiations (September 7-18, November 25-December 22, December 25-January 9, 1993). Second, their dataset does not provide information about which type of political power-sharing is discussed. For example, during the last bargaining attempt in Arusha, Tanzania, the two groups talked not only about political power-sharing with respect to the cabinet, but also with respect to the parliament and the court system.

To identify political power-sharing bargaining, I collected the statements made by bargaining groups or personnel related to negotiations (i.e., mediators) that were published in print news sources before, during, or after the talks. These statements typically provide information about the bargaining attempt, i.e., the issues being discussed, the participants,

they mean the local time zone or the time zone where the article distributor is located when they write about an event. In many cases, there is a difference of one or two days. Whenever available, the local time information is used. Otherwise, the most commonly used dates are used.

and the location. These statements are compiled using *Keesing's World News Archive* and *Lexis-Nexis*. Likewise, I code a bargaining attempt as non-political power-sharing if the talk does not include discussion of seat shares, even if the talk is over some aspect of political issues, e.g., elections or political reform.⁷ The detailed coding rules for both civil war termination bargaining and political power-sharing bargaining are provided in Appendix A. Figure 4.1 shows graphically the distribution of non-political and political power-sharing bargaining during 1989-1994. 37 (21%) of the total number of bargaining attempts were political and 142 (79%) were non-political bargaining. The complete list of 37 political power-sharing bargaining attempts is listed in Appendix B.

Dependent Variable

The dependent variable, the political power-sharing bargaining offer, is coded as verbal or written statements on the seat shares that a bargaining participant demands in an interim or new central government, i.e., cabinet, parliament, and/or court. Each position within the three branches is counted equally.⁸

The number of seats being demanded is measured as the percentage of the total number of seats suggested or agreed upon. In actual negotiations, the political power-sharing offer is sometimes expressed as a percentage, while other times it is expressed as a specific number of seats. If a case is the latter, the total number of seats being bargained over is also collected to use as the denominator in a percentage calculation, and the percentage statement from each bargaining participant is recorded based on the current composition of a branch's total membership if there is no mention of a new composition. This information is found in news articles in *Lexis-Nexis*, where representatives, e.g., spokespersons, group leaders or mediation officials, make statements about what a group or groups want in exchange for cessation of hostilities. More detailed coding rules for political bargaining

⁷Topics that are political but do not meet the criteria of political power-sharing include the following: status of the rebel leader or rebel group (e.g., Angola's talk on June 22, 1989 and Mozambique's talk on July 8-10, 1990); elections (e.g., Sudan's talk on August 19-20, 1989, Angola's talk on June 16-18, 1990, Afghanistan's talk on May 7-25, 1992, and Guatemala's talk on May 21-25, 1994) and ; constitutional and political reforms (e.g., Sudan's talk on August 19-20, 1989, El Salvador's talk on May 16-21, 1990, Rwanda's talk on August 11-18, 1992, Sudan's talk on May 26-30, 1992, and Chad's talk on February 22-25, 1994).

⁸A potential issue arises about whether each position can be treated equally. For example, in general, the President has more influence than other cabinet positions, and some cabinet positions, e.g., military, economy, or foreign-affairs related, are more attractive than other positions. However, other times (e.g., Cambodia's bargaining of July 16-7, 1991) the bargaining participants explicitly or implicitly intend the power of President to be limited or symbolic. Therefore, determining an appropriate weighting scheme that is comparable across cases is not a straightforward task. Therefore, this dissertation project will treat each position equally. This decision means that the President and each minister, or a member of parliament or the court is counted as one seat in the cabinet, parliament, or court, respectively.

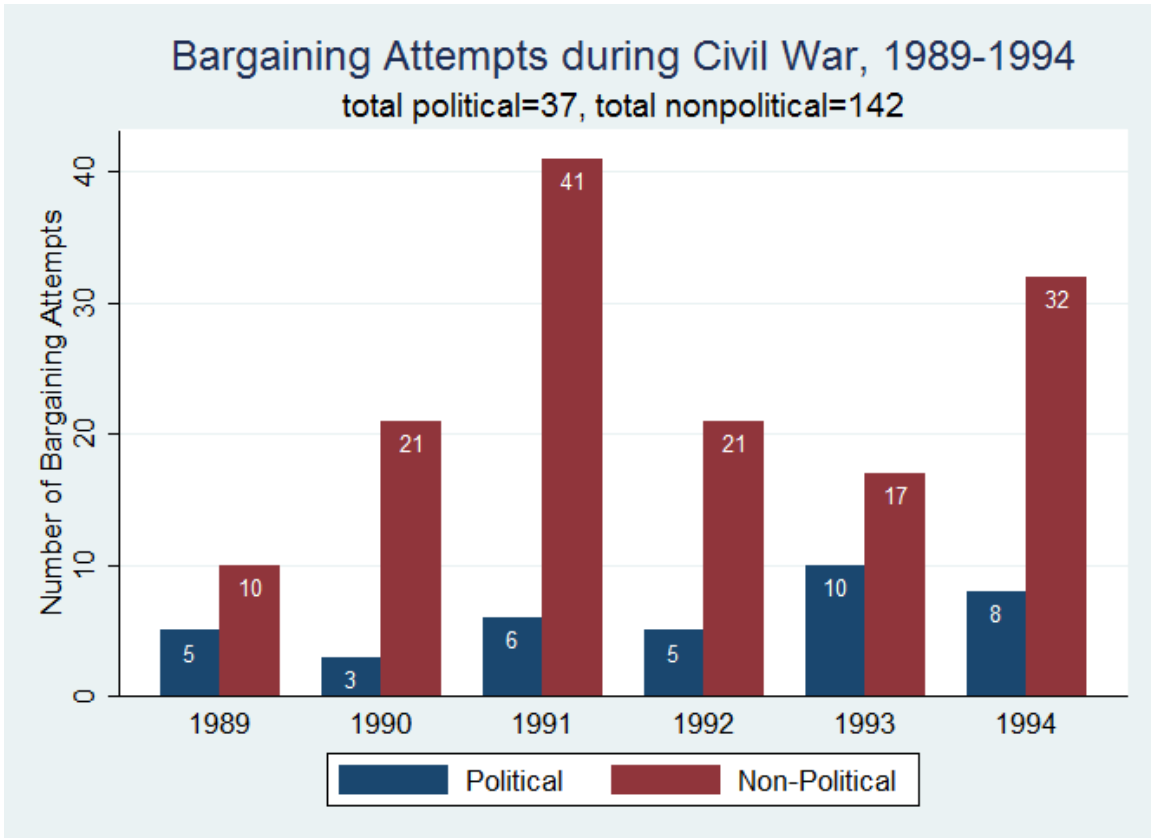


Figure 4.1: Bargaining Attempts during Civil War, 1989-1994

offers are provided in Appendix A.

Independent Variables

The hypothesis drawn from the model predicts differing effects of group type (stronger vs. weaker) on the bargaining offer as third-party peace operation changes. The primary explanatory factors in the game theoretic model relate to the power dynamic between groups involved in bargaining and the possibility that a settlement deal will be enforced after the failure of implementation. Therefore, the empirical analysis focuses on the interaction effect between group type and the likelihood of implementation.

To capture the group type, I focus on measuring the capabilities of bargaining participants. According to bargaining theories of war, a bargaining participant's share of the distribution of the capabilities will be reflected in its share of the pie in a negotiated settlement. That is, the stronger group in terms of capabilities would be expected to seek and receive the larger share of the settlement deal than the weaker group. Even though there has been a scholarly effort to create various indicators to measure capability in the intrastate context, this effort remains at an elementary stage for two reasons.

First, many civil war studies have focused on measuring state capability to capture the power dynamic when the civil war or the country is adopted as the unit of analysis (e.g., Mason and Fett 1996; Mason, Weingarten and Fett 1999; Fearon and Laitin 2003; and DeRouen and Sobek 2004). Recently, to study the dyadic nature of civil war, scholars have measured the symmetry or asymmetry between groups (e.g., Cunningham, Gleditsch and Salehyan 2009). However, this approach is still limited in its ability to provide micro-level information about the capabilities of individual groups engaged in civil war within a year. Therefore, it is difficult to capture empirically the micro phenomena that occur at a lower level than a country or a year or a dyad. Second, even though additional aspects of groups' capabilities have been suggested (e.g., Findley and Edwards 2007),⁹ quantifiability remains difficult.

To determine the group type, I use several measures to capture each individual bargaining participant's capabilities. First, I use a measure of the military might of the bargaining participant, operationalized as the number of armed personnel that the group commands. I utilized *Military Balance* as the main source and *Stockholm International Peace Research Institute (SIPRI) Yearbook* as a secondary source for this information.

In addition, I also use a measure of the military capabilities of outside parties used to aid the groups involved in civil war termination bargaining. These external supporters are countries or groups of countries that take the side of either a government or a rebel group(s) to carry out military operations against other groups. Once an external supporter is identified, I use a measure of the military might of the external supporter, and operationalize it by the number of armed personnel that the external supporter sends. The detailed coding rules for the military might of bargaining participants and external supporters are provided in Appendix A. To collect this information, I rely on multiple resources including *Keesing's World News Archive*, *Lexis-Nexis*, and *SIPRI Yearbook*.

⁹Findley and Edwards (2007) suggest groups' institutionalized conflict systems as a measure of group strength.

Once information about group strength is collected, I order bargaining participants by using groups' military strength. Then, these values are normalized between 0 and 1 to measure group type. For example, if there are three bargaining participants, the weakest group would receive a score of 0, the strongest group would receive a 1, and the group between them would receive a 0.5.

Additionally, I use two measures of third-party peace operation to capture the likelihood of enforceability of a settlement deal. There have been a variety of previous efforts to measure third-party peace operations (e.g., Walter 2002; Fortna 2004; and Doyle and Sambanis 2006), and due to these efforts, a great deal of information about third-party peace operations, i.e., type of operator, type of mandate, and strength of mandate, have been identified. However, these studies take the country or the civil war as the unit of analysis. Therefore, as in the previous discussion of the definition of bargaining, information is too aggregated for this project. For example, most studies adopt the highest strength of a peace operation for a given war or a country, even though there may have been several changes in the operation within a war or a country. Therefore, without a closer examination of this aggregated information, inferences about the effect of third-party peace operations on some outcome will be biased. Further, since the theory does not suggest that there should be a different dynamic depending on the type of third-party peace operator, I will not distinguish between UN and non-UN peace operations.¹⁰ I identified UN and non-UN peace operation in force during civil wars from 1989 to 1994 based on sources including Heldt (2008), *Military Balance*, *SIPRI Yearbook*, *Yearbook of the United Nations*, UN (1996), and online sources of the UN for peacekeeping and Security Council Resolutions. For this dissertation, I measured the type of peace operation: 0 for none; 1 for a third-party peace operation with a non-enforcement mandate; and 2 for a third-party peace operation with an enforcement mandate. When there is more than one peace operation in effect at the same time as a given political power-sharing bargaining situation, the highest value of the mandate is used.

In addition to this ordinal measure, I also employ a measure of the strength of a third-party peace operation. Walter (1997, 2002) distinguishes third-party peace operations by the number of peace operation troops deployed to a civil war country. The basic logic behind this is that the larger the number of troops deployed, the stronger the signal the third party shows to the warring groups. If there is more than one peace operation deployed to a civil war country during a bargaining attempt, the combined number of troops is used. Further information about third-party peace operations is provided in Appendix A.

Though not directly drawn from the theory presented here, several important background factors about bargaining participants are expected to be important for bargaining outcomes of interest. These background factors might affect the bargaining progress by directly or indirectly influencing the considerations of bargaining participants making decisions at the bargaining table (See Appendix A). For one thing, if bargaining participants engage in negotiations over multiple branches of government at the same time, the decision-

¹⁰Breaking down the 1989-1994 period by UN vs. non-UN peace operations adds very little information as there was a very small number of non-UN peace operations. More specifically, in my dataset, there is only one country that had a non-UN peace operation (i.e., ECOMOG sent to Liberia).

making environment of the bargaining participants would be expected to be more complex, and perhaps bring in different strategic considerations, than if bargaining participants consider only a single branch of government. The theory makes a prediction about changes in bargaining offers as a function of the interactive effect of group strength and third-party peace operations. In the model, the bargaining offer is conceptualized as existing in a one-dimensional issue space. However, in reality, bargaining participants may bargain over three different branches of a post-war government—cabinet, parliament, and court—and they are being forced theoretically into a one-dimensional issue space. Empirically, I do not differentiate between the three branches of government, and my reasoning is twofold.

First, among the 37 political bargaining attempts identified, there were only 3 bargaining attempts that included political power-sharing bargaining over more than one branch of government. These cases are the following: Rwandan warring groups discussed seat shares in the cabinet, parliament, and the court system in the December 25, 1992-January 9, 1993 bargaining attempt; the Tajikistan government and the United Tajik Opposition (UTO) discussed seat shares in the cabinet and parliament in the May 6-12, 1992 negotiation; and in the May 13-19 and May 25-June 17, 1994 negotiations, the Angolan government and UNITA discussed political power-sharing in the cabinet and parliament.

Second, by simple observation, the relationship between group type and the offers of bargaining participants in negotiations over different branches was not reversed, though the substantive effect may be different. In other words, the group that made a higher demand in negotiations over one branch also made a higher demand in negotiations over other branches. Given these considerations, I use a simple binary measure (1 for bargaining over multiple branches; 0 for bargaining over one branch) to capture the effect of multi-dimensional negotiations. When each issue being negotiated is considered as a separate case of political power-sharing bargaining, the total number of political power-sharing bargaining attempts is 41.

The theory does not suggest whether the type of political power-sharing bargaining (i.e., cabinet, parliament, or court) directly affects the bargaining offers of participants. However, it might affect the environment in which bargaining participants make decisions. For example, when the same Liberian bargaining groups met for negotiations over seat shares in different branches of government, with only a short gap in between, they made quite different offers. Given that there were no changes in the main factors—power dynamic and third-party peace operation—between these attempts, the theoretical expectation is that the offers should remain the same across attempts. When three Liberian warring groups, the government, United Liberation Movement of Liberia for Democracy (ULIMO), and National Patriotic Front of Liberia (NPFL) bargained over the distribution of a five-member Council of State in Cotonou, Benin in July 23-25, 1993, they reached an agreement in which each would receive one seat, (or 20%). However, when the same groups met to discuss the distribution of seats in a 35-member parliament in the same place in August 14-17, 1993, they reached an agreement in which 13 seats each would be given to the Government and NPFL, with the 9 remaining seats going to ULIMO. Looking at the larger sample of cases in the study, Figure 4.2 shows the distribution of types of political power-sharing bargaining. Out of 41 political power-sharing bargaining attempts, there was only one case in which cabinet power-sharing was not discussed (in August 14-17, 1993, the Liberian government, NPFL, and ULIMO bargained only over power-sharing in parliament).

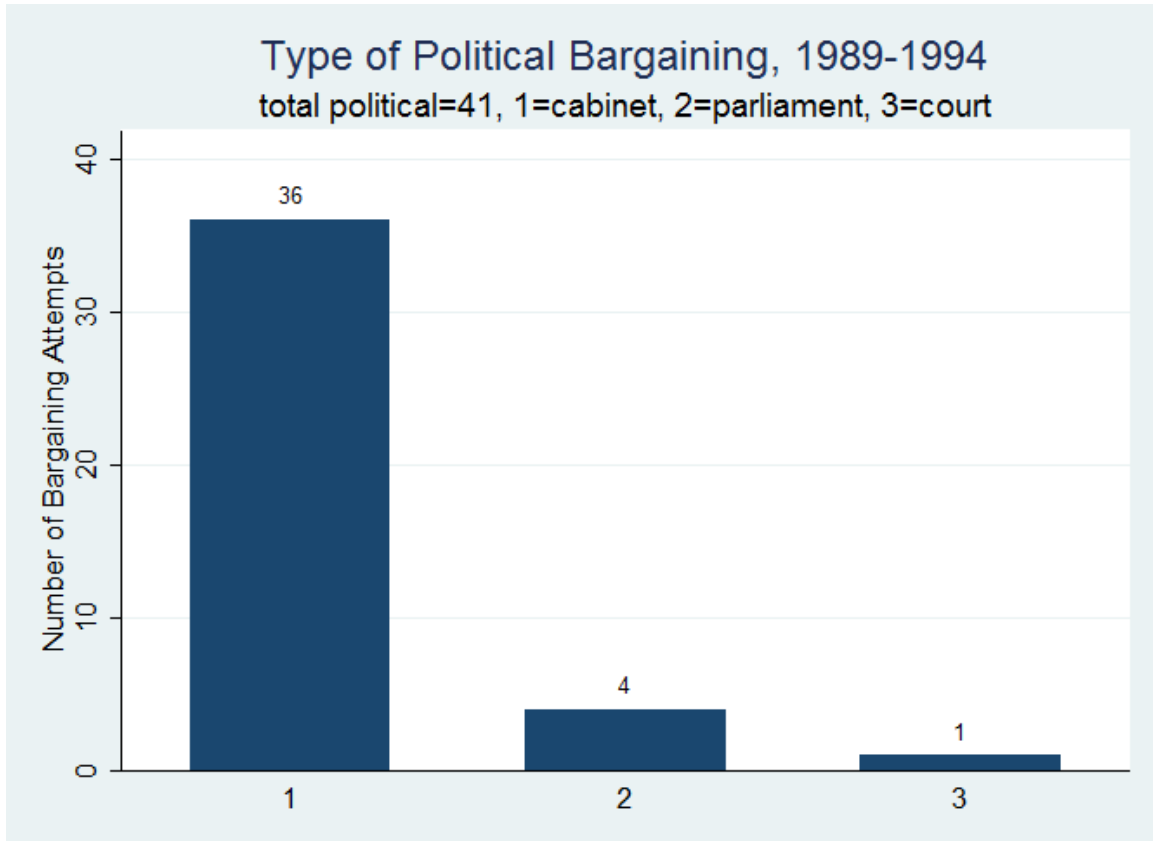


Figure 4.2: Type of Political Bargaining, 1989-1994

In the vast majority of cases of political power-sharing bargaining, discussion was over the composition of the cabinet: 36 (88%) of cases concerned the distribution of cabinet seats, 4 (10%) of cases concerned seats in parliament, and 1 (2%) concerned the court system.

In addition to the type of political power-sharing bargaining, the composition of participants engaging in political power-sharing bargaining might be expected to affect the decision-making environment of bargaining participants. For example, it might be the case that the same bargaining group may make different strategic calculations depending on the number of participants required to reach an agreement. For example, when the Liberian government engaged in bargaining with the NPFL and INPFL from March 15 to 27, 1991 the government and INPFL demanded to keep all cabinet seats. However, when the bargaining round reopened without the NPFL, from March 27 to April 19, 1991, both groups made concessions, demanding a 50:50 split of seats in the cabinet. This example suggests that the composition of the bargaining participants might be one factor that affects the decision-making of bargaining participants. Figure 4.3 presents the distribution of the number of bargaining participants, clearly showing that the majority of bargaining attempts were bilateral (32, 78%).

An additional factor is recent battlefield outcomes. The logic behind this is that the

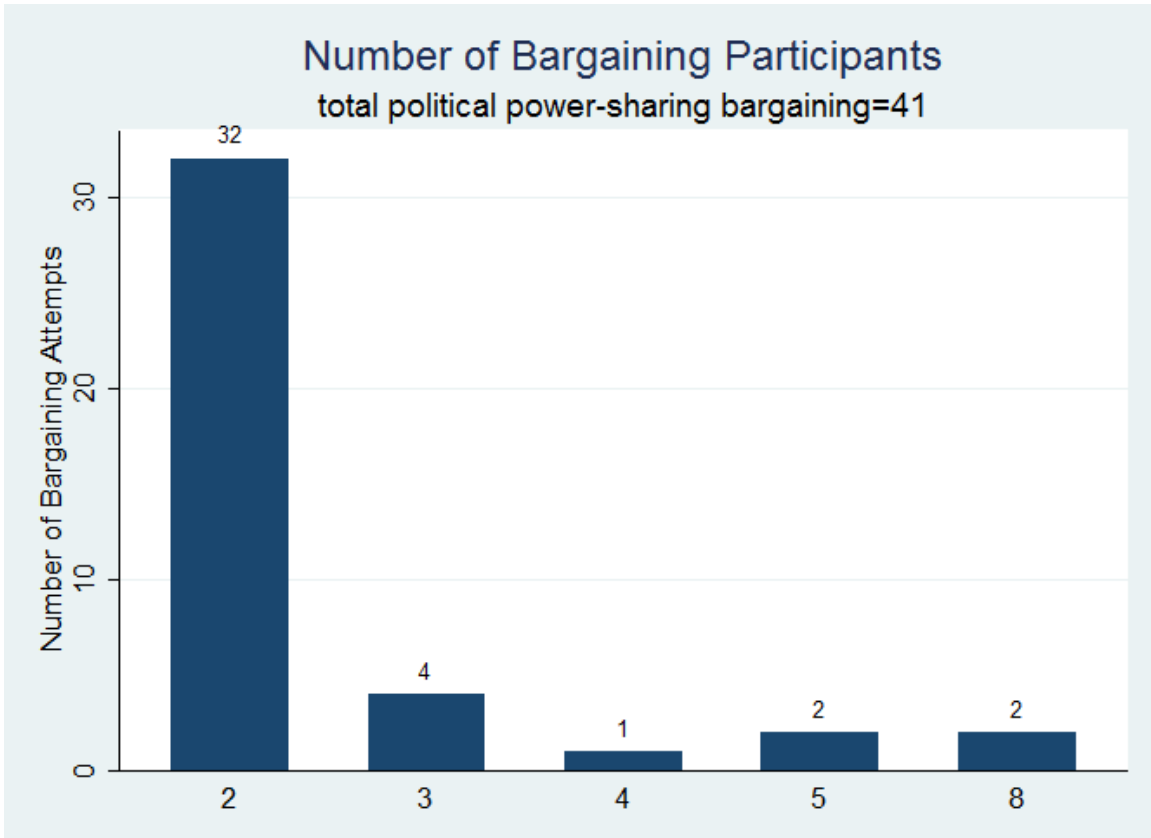


Figure 4.3: Number of Bargaining Participants, 1989-1994

bargaining participants, whether they are strong or weak in terms of the total number of troops, will use recent battlefield successes against their counterparts to take an upper hand in bargaining situations. The militarily stronger group would want to solidify its power, while the militarily weaker group would want to overcome its weakness through short-term battlefield victories. It is important to note that battlefield successes can occur regardless of a particular group's relative military capability against its opponent. Many times, civil war revolves around a series of localized battlefields, and the simple number of troops, therefore, does not necessarily translate into an upper hand on the battlefield. In addition, unlike the number of troops, which bargaining participants cannot change in a short period of time, battlefield outcomes have potential to change in relatively short order, based on a variety of factors that may not be totally under the participants' control. In media reports, battlefield outcomes are sometimes described using terms such as "winning," "gaining," "losing," "victory," "defeat," "performs better," "stalemate," "impasse," and these terms are used to code battlefield outcomes as follows: 1 when a bargaining group's battlefield outcome is described as "winning," "victory," "performs better," "advances," "steps up," "recaptures."; 0 if the recent battle is described as "stalemate," "impasse," or if the cease-fire announced by bargaining participants is in force, and no battles between them have been reported since that time; and -1 when a bargaining group's battlefield outcomes are described as "losing" or "defeat." When battles are reported without a clear outcome, they are coded as follows: 1 if a bargaining group is only on the attacking side; 0 if a bargaining group is both on the attacking and the attacked side; and -1 when a bargaining group is only on the attacked side. For more detailed coding rules, see Appendix A.

4.2.2 Statistical Estimation

The dependent variable, the political power-sharing offer, is continuous, ranging from 0 to 100, and is operationalized as the percentage of seats in the post-war government, cabinet, parliament, or court, being demanded. Given that the dependent variable is a continuous measure, I use the ordinary least squares (OLS) regression estimator. Additionally, I performed a series of model diagnostics to determine whether the other assumptions of OLS are met with these data. The details of these diagnostics are presented in Appendix C. The assumptions of homoscedasticity and independence require further explanations while other assumptions do not.

The assumption of independence requires that the errors associated with one observation are not correlated with the errors of any other observations. This assumption might be questioned on the grounds of the characteristics of my research question and the characteristics of the data structure, respectively. My research question asks whether group strength, measured at the level of the bargaining participant, affects the bargaining offers of individual bargaining participants differently according to the presence or absence of third-party peace operations, which are measured at the level of the bargaining attempt. To answer this research question, the dependent variable and main independent variables are measured and collected at two different levels of analysis.

The dependent variable, the political power-sharing offer, is unique to the individual bargaining participants within a political power-sharing bargaining attempt and thus is measured at the *bargaining-participant level*. The basic information needed to determine

Table 4.4: Description of Variables

Variable	Level*	Min	Mean	Max
Offer	1	0	43.302	100
Internal Power	1	0	0.5	1
Combined Power	1	0	0.5	1
Third-Party Peace Operation Mandate	2	0	0.962	2
Third-Party Peace Operation Troops	2	0	4,543.151	19,368
Multiple Bargaining	2	0	1.189	1
Type of Political Power-sharing	2	1	1.123	3
Number of Participants	2	2	3.377	8
Battlefield Outcome	1	-1	0	1

*:1 for bargaining-participant level; 2 for bargaining-attempt level

the power dynamic of individual bargaining participants, the internal and combined power of bargaining participants, is gathered from information available on an annual basis. That is, the sources available to measure the number of troops of individual bargaining participants, as well as alliance partners, aggregate this information by year. Given that in principle and in reality there can be more than one bargaining attempt by the same bargaining participants within a given year, the same information about bargaining participants' and alliance partners' troop sizes would be used whenever those groups are involved in a political power-sharing bargaining attempt between the dates at which the relevant publications update their figures. However, when this detailed information is converted to an ordinal measure capturing the relative strength of groups involved in a bargaining attempt, due to situations in which groups participate in bargaining attempts with different bargaining partners, as well as different total numbers of bargaining participants within the same year, the measure for group type (relative strength) varies both at the *bargaining-participant level* and the *bargaining-attempt level*. However, the main independent variable, third-party peace operation, is shared by all groups participating in a bargaining attempt and thus is measured at the *bargaining-attempt level*, and therefore all bargaining participants within a bargaining attempt receive the same value on this measure. Table 4.4 shows a summary of the levels of analysis of the measures used in this study

To bring together this information from different levels, one possible approach is to fit a multilevel model that simultaneously estimates the impact of measures recorded at both the bargaining participant and bargaining attempt levels (Gelman and Hill 2007). However, diagnostic tests regarding the between-cluster variance (in my case, between-bargaining attempts) indicate that there is no need to include a random intercept in the model. More specifically, the null hypothesis of no need for a random intercept is not rejected. The results of using a generalized least-squares estimate, in particular, indicate that the between-cluster variance is not different from 0, and thus the *bargaining-attempt level* does not explain much of the variance in bargaining offers at the *bargaining-participant level*. Therefore, we have evidence that a multilevel model is not required. Another approach

is to include dummy variables for the bargaining attempts into an ordinary least squares model. But this might be problematic because the model also includes *bargaining-attempt level* variables. If they are included in the statistical model at the same time, the dummy variables for the bargaining attempt and *bargaining-attempt level* variables might be highly collinear. Therefore, noting the possible problem of dependence between observations, I proceed using ordinary least squares.

4.3 Research Design for Case Study

4.3.1 Case Selection Strategy

The statistical analysis addresses the hypothesis about the causal effects of group strength on bargaining offers according to variation in third-party peace operations. However, statistical analyses are limited in their ability to adequately deal with the complexities of causal relationships between phenomena that we are able to observe (e.g., Tarrow 1995; Gerring 2004; and George and Bennett 2005). Complexities in the civil war termination bargaining context include interaction effects and the effects of actors' expectations. To examine the causal mechanisms underlying observable phenomena and tease out these complexities, I also conduct a case study.

The research design of the case study will rely on a “most similar systems” design (Przeworski and Teune 1970). In selecting cases, Przeworski and Teune (1970) introduce what they call the “most different systems” design and the “most similar systems” design. The former takes as its starting point that cases differ on particular attributes at the subsystem level. In the latter, cases are chosen based on a set of similar characteristics in as many respect as possible except for the main factors of interest. The basic logic of selecting cases based on this design is to allow oneself to control for alternative explanations. If cases truly can be selected that differ only on the the main factor of interest, differences in outcomes between the cases can appropriately be attributed to that factor.

The choice between most similar systems and most different systems designs depends on the purpose of the study. Przeworski and Teune (1970) advocate the most different systems design, arguing that “most similar systems” designs limit the researcher's ability to make generalizations. However, as scholars including Skocpol and Somers (1980) suggest, not all studies should be interested in generalization. In this study, I want to provide a stepping stone to generalization by demonstrating that my theory holds up when applied to two or more relevant historical paths. It is worth noting that the potential problem with the “most similar systems” design is that in the real world we are of course limited in our ability to obtain cases so similar on relevant characteristics as to mimic laboratory conditions. Sorting out potentially confounding explanations is a difficult problem, yet we can have greater confidence in establishing causality when the same results obtain in very similar cases. In what follows, I provide a detailed explanation of how I carry out the most similar systems design for the context of civil war termination bargaining in order to assess the causal mechanisms posited in the theoretical model.

4.3.2 Case Selection

I identified cases on the basis of variation in my main independent variables, with relevant control variables held constant to the extent possible. To ensure variation in my main factors of interest, group strength and third-party peace operations, with other factors remaining constant, I use an existing dataset on civil war (Gleditsch, Wallensteen, Eriksson, Sollenberg and Strand 2002). The population of interest is civil wars that occurred for any reason. Since there is no existing systematic data about bargaining attempts during civil wars, without a careful selection strategy, we might end up with cases with no bargaining attempts. To avoid this potential problem I utilized data on whether there were multiple civil wars within a country (Stedman 1991; Walter 1999, Sarkees 2000; and Sambanis 2004) and whether a civil war ended with bargaining (e.g., Stedman 1991; Walter 2002; and Hartzell and Hoddie 2003) to choose from cases that have done so. On the expectation that cases that ultimately reached a bargained settlement would be likely to have experienced more than one round of bargaining leading up to the final settlement, looking at civil wars that ended in bargains is expected to be a good starting point to select cases that experienced multiple bargaining attempts and, by extension, varied contexts under which bargaining occurred.

It is said that the main weakness of a “most similar systems” design is that when one compares more than one country, it is likely that all potential factors of explanation cannot be kept constant (Collier and Mahoney 1996). As a way to control for factors that are not the main factors of interest, I limit my selection to a single country measured at multiple time points. The basic logic is simply that the cases of civil war termination bargaining attempts within a country are expected to be closer on the relevant control variables than cases between countries. Among the identified civil wars that ended in bargained settlements, I focused on the cases where there seemed to be sufficient variation in third-party peace operations (none, third-party peace operation without enforcement mandate, and third-party peace operation with enforcement mandate) across bargaining attempts, and whether the relative group strengths of actors differed across bargaining attempts. Considering these criteria, e.g., multiple civil wars in one country, variation in main independent variables, I chose Sierra Leone.

Unit of Analysis

To begin, it will be useful to summarize the actors involved in the Sierra Leone civil wars and negotiations. There are three types of actors involved in the bargaining process during civil wars: direct bargaining participants, outside military supporters, and third-party peace operators. The unit of analysis is the direct bargaining participant. Direct bargaining participants are the actors who fight over a country’s institutions and resources and negotiate over them. Outside military supporters are other countries and organizations that are actively involved in war to help their chosen side gain victory. On the other hand, third-party peace operators are outside countries and the international organizations who are involved in a civil war country with various mandates to help facilitate peace.

After five years of fighting, the Revolutionary United Front (RUF) leader, Foday Sankoh, and the leader of the National Provisional Ruling Council (NPRC), Maada Bio, started their first face-to-face peace talk on March 25-6, 1996 (e.g., Reno 1998; Abraham 2004; Keen

2005). This talk failed to reach a negotiated settlement. As a result of two elections on February 26 and March 15 (a run-off election), 1996, Bio transferred power to Ahmed Tejan Kabbah, a newly elected president, on March 29, 1996. Following Bio, Kabbah continued talks with Sankoh on April 22-3 and October 24-5 of the same year. Therefore, Sankoh's RUF and the Bio/Kabbah governments are considered direct negotiating groups in civil war termination bargaining in Sierra Leone.

After the Sierra Leone Army's military coup on May 25, 1997, President Kabbah fled to Conakry, Guinea and Johnny Paul Koroma became the leader of the Armed Forces Revolutionary Council (AFRC). Until Kabbah returned to Sierra Leone in 1998, there were no peace talks between the government and the rebellion. After coming back from Conakry in March 1998, Kabbah engaged in one more peace talk with RUF leader Sankoh, which led to the Lome Peace Agreement on July 7, 1999 (e.g., Reno 1998; Abraham 2004; Keen 2005).

After the implementation of the Lome Peace Agreement was interrupted and Sankoh was detained in prison, the new RUF leader, Issa Sessay, opened talks with Kabbah's government (e.g., Reno 1998; Abraham 2004; Keen 2005). Therefore, these two actors are considered the direct bargaining partners in the most recent peace talks in Sierra Leone. The AFRC and the West Side Boys (a small faction of AFRC soldiers who did not follow Koroma after the Lome Peace Agreement) were actively engaged in war along with the RUF, but did not participate in any negotiations with the Sierra Leone government. Kamajor forces and the Civil Defence Forces (CDF) fought for the government but were never engaged in negotiation with the RUF. Therefore, the AFRC, the West Side Boys, Kamajor, and the CDF are considered direct warring groups during a portion of the war, but were never the direct negotiating groups. Their role in bargaining was primarily to affect the internal power and battlefield conditions between the direct negotiating actors, which in turn affected bargaining conditions as the latter engaged in peace talks to reach a negotiated settlement. Both the rebels and the successive governments during the civil war heavily relied on outside military supporters. This support was a critical factor in determining power dynamics and battlefield conditions. Liberia, Burkina Faso, and Libya were supporters of the RUF rebels, while Nigeria, Guinea, Executive Outcomes and the UK (later in the war for a short time) fought on the side of the government.

There were also several third-party peace operators with various mandates over the course of fighting and bargaining between the Sierra Leone warring groups: the Organization of African Unity (OAU), the Commonwealth, the Economic Community of West African States (ECOWAS), ECOWAS Cease-Fire Monitoring Group (ECOMOG), International Alert, the International Committee of the Red Cross (ICRC), the UN, the US, the UK, and neighboring African countries.

Variables

The statistical analysis frequently relies on rather indirect measures of concepts due to the limitations of quantifying them. On the other hand, the case study is a better way to explore the various, possibly qualitative, aspects of the concepts posited in the model. In my case study, I examine whether my theory is applicable more broadly, and whether qualitative aspects of variables provide alternative measures. In so doing, I am able to reach a more

holistic understanding of civil war termination bargaining.

CHAPTER 5

STATISTICAL ANALYSIS

5.1 Introduction

I have argued that the expectation that a third party will enforce a bargained settlement once it has been reached will affect the offers of the participants engaged in political power-sharing bargaining. More specifically, the model set forth in Chapter 3 predicts differing effects of power (stronger vs. weaker) on the bargaining offer as third-party peace operations change (from non-existent to existent). Using the dataset introduced in Chapter 4, this chapter presents results from statistical analyses of three hypotheses set forth in Chapter 2 and Chapter 3 about the behavior of bargaining participants.

The chapter proceeds as follows. First, I present the results of Ordinary Least Squares (OLS) regression analyses to test the three hypotheses. Overall, the results strongly support *Hypothesis 3 (Commitment Hypothesis)* drawn from the theoretical model in Chapter 3, while they do not support *Hypothesis 1 (Proportionality Hypothesis)* or *Hypothesis 2 (Disproportionality Hypothesis)*. More specifically, the interaction term between power and third-party peace operations used to test *Hypothesis 3* is found to affect strongly the bargaining offers of participants in the expected direction. However, power alone does not seem to have significant impact, which indicates a lack of support for *Hypothesis 1* and *Hypothesis 2*. Among the factors intended to capture the environment under which the actors bargain, only the number of bargaining participants strongly and consistently impacts the bargaining offer, and does so in a negative direction.

Following this, I discuss the results of detailed diagnostic tests of how well the OLS regression assumptions are met with these data and model specifications. Testing the assumptions underlying OLS is critical to assure that my data on political power-sharing bargaining are appropriate. Diagnostic results are presented graphically and/or numerically. Whenever serious violations were found, appropriate corrections were made.

5.2 Results of Statistical Analyses

Hypothesis 1 and *Hypothesis 2* state the expected independent effect of power on bargaining offers. More specifically, *Hypothesis 1 (Proportionality Hypothesis)* predicts that the stronger bargaining participant will demand a larger share of the pie for itself, while the weaker bargaining participant will make a bigger concession to the stronger participant,

given the relative power dynamic. On the other hand, *Hypothesis 2 (Disproportionality Hypothesis)* expects that to reach an agreement, the stronger group needs to make a bigger concession to the weaker group while the weaker group makes a more demanding offer than would be expected according to their relative power situation.

Table 5.1 displays the results of the OLS regression of bargaining offers on the set of relevant covariates with robust standard errors.¹ Among 106 observations of bargaining participants engaged in political power-sharing bargaining from 1989 to 1994, 10 observations were dropped due to missing information on combined power.² The regression results do not support *Hypothesis 1* and *Hypothesis 2*.³ More specifically, as the bargaining participant moves from the weakest (Combined Power Type=0) to the strongest (Combined Power Type=1), the bargaining offer is expected to increase by about 10%. When all other variables are held at their mean values, the coefficient estimates indicate that the weakest bargaining participant (Combined Power Type=0) is expected to make a demand of about 39.8% of the seats in a given governmental branch for itself while the strongest bargaining participant (Combined Power Type=1) is expected to make a demand of about 49.3% of the seats for itself. However, this estimated effect is not statistically significant within the 90% confidence level. In addition, the results show that the number of bargaining participants at the bargaining table significantly affects bargaining offers (at the 99% confidence level). For example, if there are only two bargaining participants, the bargaining participant makes an offer of about 53% for itself when all other variables are held at their mean values. However, if there are three bargaining participants (mean value of bargaining participants is 3.2), each bargaining participant is expected to decrease its demand to about 46% for itself.

On the other hand, *Hypothesis 3* states an interactive effect between power and third-party peace operations on the offers of participants engaged in political power-sharing bargaining. Specifically, it lays out the expectation that when a third party is not expected to enforce the agreed-upon terms, the stronger group is expected to make a bigger concession to the weaker group, while the weaker group is expected to make a more demanding offer for itself which is the same outcome expected from *Hypothesis 2*. Conversely, when a third party is expected to enforce the negotiated settlement, the stronger group is expected to demand a larger share of the pie for itself, while the weaker group is expected to demand a smaller share of the pie for itself which is the same outcome expected from *Hypothesis 1*. Table 5.2 displays the results of the OLS regression of bargaining offers being made

¹Diagnostic testing will be explained in more detail in the next section. But in brief, testing revealed an indication of the violation of homoscedasticity as well as reason to believe that the assumption of independence of observations does not hold. This is the reason for the presentation of robust standard errors.

²These are five bargaining participants engaged in two different political power-sharing bargaining attempts in Liberia: the Interim Government, the National Patriotic Front of Liberia (NPFL), the United Liberation Movement of Liberia for Democracy (ULIMO), the Armed Forces of Liberia (AFL), and the Coalition Forces in the bargaining attempts of November 5-12th and 21-29th, 1994 and December 20-21st, 1994, both at Accra, Ghana.

³To test *Hypothesis 3*, I need an interaction term. However, if a model includes an interaction term, the independent effect of the variable(s) included in the model are not easily interpretable (Braumoeller 2004). Therefore, I used separate models to test *Hypothesis 1* and *Hypothesis 2*.

Table 5.1: Regression Results of Bargaining Offer I: All Participants w/out Interaction Term

Variables	Coefficient	Robust S.E
Combined Power Type	9.545	5.835
PKO Mandate Type	-0.459	3.036
Battlefield	-3.361	3.422
Multiple Bargaining	-12.248	9.226
Type of Political Bargaining	0.576	12.334
Number of Participants	-7.217***	0.785
Cons	64.982***	13.974
Number of Observations	96	
R-squared	0.303	

by bargaining participants on a set of covariates, with robust standard errors.⁴ The estimated coefficients show that only two variables—the interaction term (Combined-PKO Type) between combined power and third-party peace operation and the number of bargaining participants (Number of Participants)—affect the bargaining offer at a conventional level of statistical significance, while power, third-party peace operation, and three factors capturing the bargaining environment (battlefield, multiple bargaining, and type of political bargaining) do not independently affect bargaining offers. More specifically, the results show a significant decrease in the bargaining offer of bargaining participants as the number of bargaining participants increases (99% confidence level). Additionally, when all other variables are held at their mean values, if there are only two bargaining participants, a participant is expected to make an offer of about 53% of the seats. However, with three bargaining participants, each bargaining participant is expected to decrease its demand to about 46% of the seats for itself.

In addition, the results indicate that the interaction term between power and third-party peace operation (Combined-PKO Type) is statistically significant at the 90% confidence level. However, since the value of the coefficient estimate for the interaction term is not easily interpretable on its own (Braumoeller 2004), for ease of understanding Figure 5.1 presents the results graphically. In the figure, the X-axis represents combined power and the Y-axis represents the bargaining offer. The figure shows how the expected bargaining offer changes over the range of group strength, measured by combined power, under no third-party involvement (PKO Mandate Type=0) and third-party peace enforcement (PKO Mandate Type=2).⁵ According to the figure, when all other variables are held at their mean values, the weakest group in a given bargaining situation (Combined Power Type=0)

⁴For the same reason as stated above, to deal with violations of the homoscedasticity and independence assumptions, an OLS model with robust standard errors is presented.

⁵Lines are used to connect the points between Combined Power Type=0 and Combined Power Type=1 for aid in visualizing changes along the y-axis. Interpreting values along these lines, however, should be done with extreme caution (if at all) since they are the result of an imposed linear fit rather than empirical data.

Table 5.2: Regression Results of Bargaining Offer II: All Participants with Interaction Term

Variables	Coefficient	Robust S.E
Combined Power Type	-0.853	6.908
PKO Mandate Type	-6.321	4.955
Combined-PKO Type	11.754*	6.296
Battlefield	-0.989	3.301
Multiple Bargaining	-12.245	8.320
Type of Political Bargaining	0.577	10.965
Number of Participants	-7.257***	0.792
Cons	70.256***	13.284
Number of Observations	96	
R-squared	0.331	

is expected to make a larger demand (45.3% of the seats for itself) under the condition of no third-party involvement, and a smaller demand (32.7% of the seats for itself) under the condition of a third party with an enforcement mandate. Likewise, the strongest group in a given bargaining attempt (Combined Power Type=1) is expected to make a smaller demand (44.4% of the seats for itself) under the condition of no third-party involvement, and a larger demand (55.3% of the seats for itself) under the condition of a third party with an enforcement mandate. The results of the analysis therefore strongly support *Hypothesis 3*.

Even though the results of the statistical analysis presented in Table 5.2 and Figure 5.1 support *Hypothesis 3*, I also examine the posited relationships using only the subset of cases in which the bargaining participants were engaged in bilateral political power-sharing bargaining. The reasoning behind this is as follows. First, the vast majority of bargaining attempts involved only two bargaining participants. Specifically, about 70% (64 out of 96) of bargaining participants were engaged in bilateral political power-sharing bargaining. Second, theoretically, the bilateral setting most closely reflects the model setting put forth in Chapter 3. In the game theoretic model of political power-sharing bargaining, there are only two groups. Therefore, the logic and empirical implications from the model might not fit as well when more than two groups are involved. Table 5.3 presents the results of an OLS regression of bargaining offers on the relevant independent variable profile with robust standard errors using only the subset of participants involved in bilateral political power-sharing bargaining.⁶ Unlike in Table 5.2, the results in Table 5.3 indicate that third-party peace operation (PKO Mandate Type) has a statistically significant negative effect on the bargaining offer. Again, however, the total substantive impact is not clear until the interaction term is considered (Braumoeller 2004). The table shows that when only par-

⁶Unlike the previous two models presented, the standard regression model using only the bilateral cases is not found to violate the homoscedasticity assumption. However, since I still have theoretical reasons to expect that there may be a violation of the independence assumption, I again present robust standard errors.

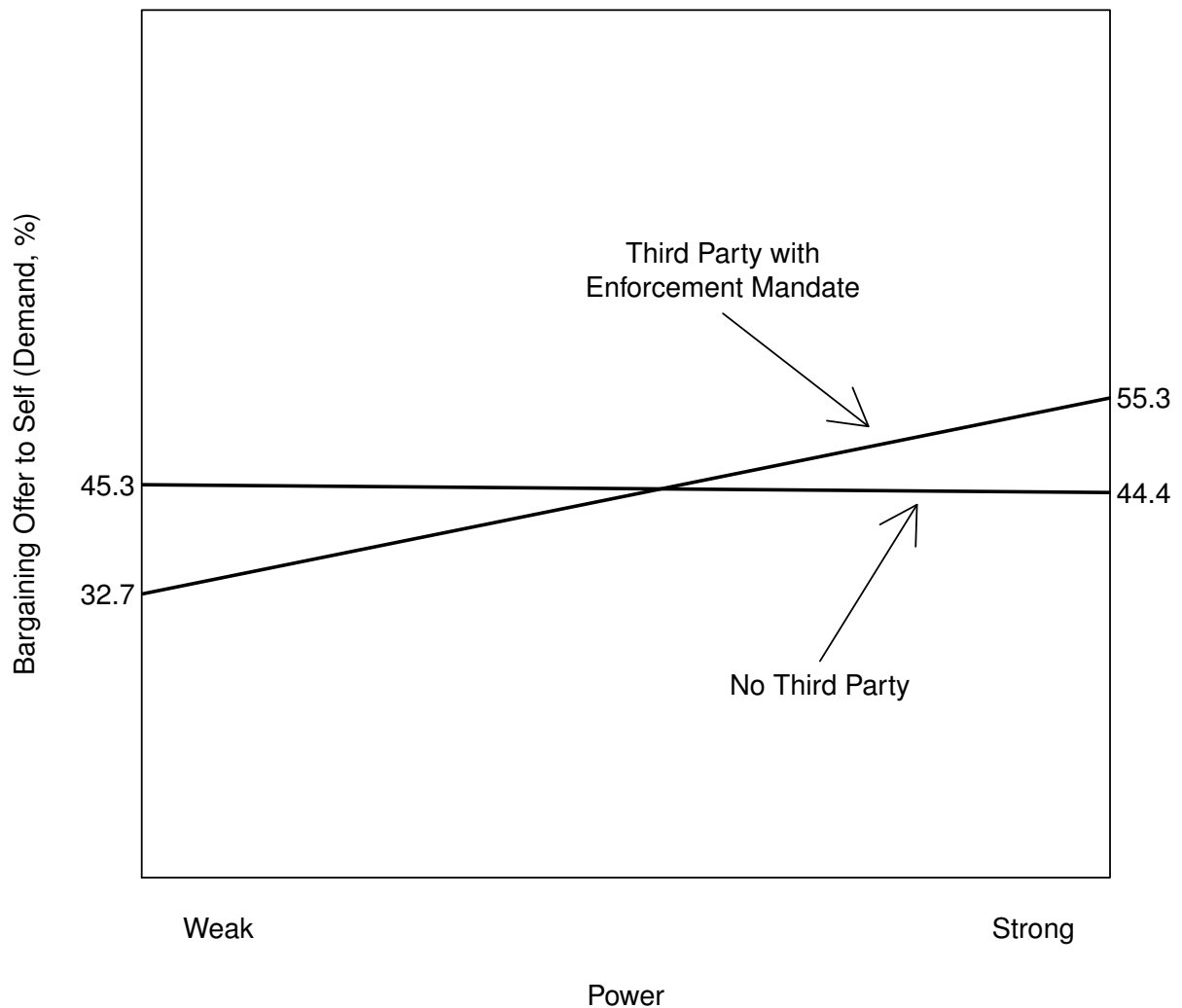


Figure 5.1: OLS Regression with Robust S.E.: All Participants

Participants engaged in bilateral political power-sharing bargaining are considered, statistical significance of the interaction term of power and third-party peace operation (Combined-PKO Type) increases to the 99% confidence level (as compared to only the 90% confidence level when all bargaining participants are considered).

Again, since the coefficient estimates for the combined impact of the interacted terms is not easily interpretable, I present the results graphically in Figure 5.2. As previously, the X-axis indicates combined power and the Y-axis indicates the bargaining offer. The direction

Table 5.3: Regression Results of Bargaining Offer III: Participants in Bilateral Bargaining with Interaction Term

Variables	Coefficient	Robust S.E
Combined Power Type	-2.273	8.528
PKO Mandate Type	-12.991**	4.944
Combined-PKO Type	23.567***	6.729
Battlefield	-1.044	3.229
Multiple Bargaining	-3.471	8.787
Type of Political Bargaining	-4.114	12.475
Cons	60.065***	14.112
Number of Observations	64	
R-squared	0.255	

of the relationship remains the same as in the model where all bargaining participants are considered. More specifically, when a bargaining participant is the weaker of the two groups in a given bilateral bargaining attempt (Combined Power Type=0), it is expected to make a larger demand (63.7% of the seats in a governmental branch) for itself under no third party involvement (PKO Mandate Type=0), and a smaller demand (37.7% of the seats) for itself under a third-party operation with an enforcement mandate (PKO Mandate Type=2). Likewise, when a bargaining participant is the stronger of the two groups in a given bilateral bargaining attempt (Combined Power Type=1), it is expected to make a smaller demand (61.4% of the seats) for itself under no third-party operation, and a larger demand (82.6% of the seats) for itself under third-party peace enforcement.

In addition, compared to the results from the model using all observations (as in Figure 5.1), Figure 5.2 illustrates more dramatic differences in bargaining offers between the conditions of no third-party peace operation and third-party peace enforcement. For the bargaining participants with weaker power (Combined Power Type=0), the difference in expected bargaining offers between the condition of third-party peace enforcement (PKO Mandate Type=2) and no third-party involvement (PKO Mandate Type=0) is substantially larger when only participants engaged in bilateral political power-sharing bargaining are considered (26%) than that same difference when all bargaining participants are considered (about 13%). For the bargaining participants with stronger power (Combined Power Type=1), the difference in bargaining offers between the conditions of third-party peace enforcement and no third-party involvement is about two times larger (about 21%) when only bilateral participants are considered than that same difference when all bargaining participants are considered (about 11%).

Another result worthy of note is that under the condition of no third-party involvement, the difference in bargaining offers between the stronger group and weaker group is nil, while that same difference is substantial when a third party is present to enforce settlement terms. More specifically, under the condition of no third-party involvement, when all observations are considered, the difference in the bargaining offers between the bargaining participant with the weakest power and the bargaining participant with the strongest power is about

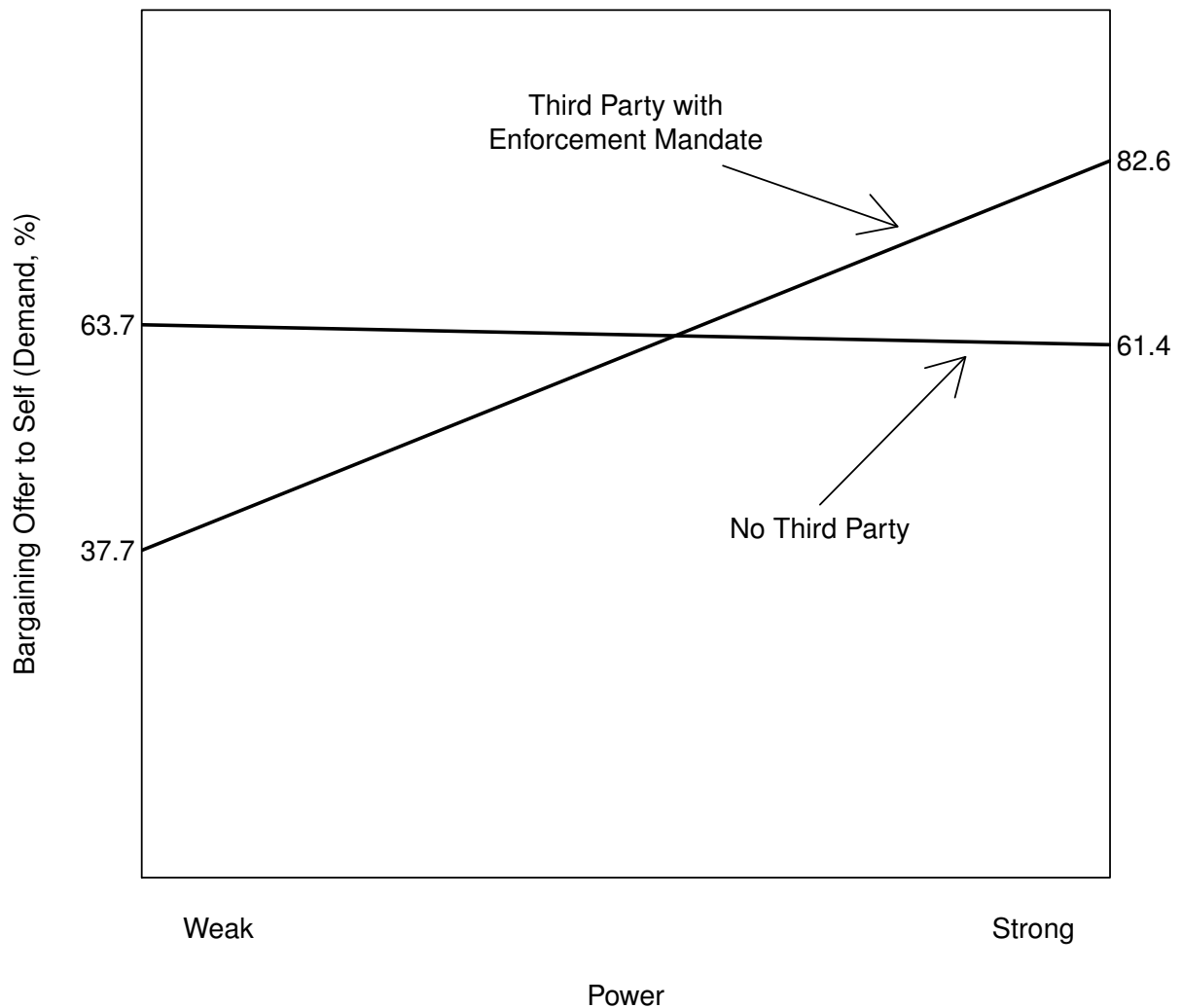


Figure 5.2: OLS Regression with Robust S.E.: Participants in Bilateral Bargaining

1%. Similarly, when only participants in bilateral political power-sharing bargaining are considered, the difference between the bargaining offers by weak and strong bargaining participants is about 2%. On the other hand, when there is a third party present to enforce the terms of peace, the difference in bargaining offers between by the weaker (or weakest) bargaining participant and the stronger (or strongest) bargaining participant is dramatic. Specifically, under the condition of third-party peace enforcement, when all observations are considered, the difference in bargaining offers between bargaining participants with the

weakest power (Combined Power Type=0) and strongest power (Combined Power Type=1) is about 23%. And when only participants in bilateral political power-sharing bargaining are considered, the difference in bargaining offers between by participants having the weakest power and those having the strongest power is about 45%.

These results lead to at least two interesting implications: (1) Power does not have an independent effect on bargaining offers but does have an interactive effect when combined with third-party peace operations; and (2) Bargaining participants with stronger (or strongest) power substantially increase their demands under the condition of third-party peace enforcement, while those with weaker (or weakest) power adjust substantially to lower their demands. On the other hand, under the condition of no third-party enforcement, bargaining participants with stronger (or strongest) power are expected to make a larger concession to the weaker partner, while those with weaker (or weakest) power are expected to make a more demanding offer to stronger partner, than would be expected given the groups' relative power.

5.3 Assumptions and Diagnostic Tests of OLS Regression

In this section, I present the results of some diagnostic tests of the OLS regression assumptions to assure readers that the results presented previously are reliable, and not merely driven by irregularities in the data. The OLS assumptions tested in this section include linearity, collinearity, measurement error, normality, model specification error, homogeneity of variance, and independence.⁷ In the subsection for each assumption, I briefly state what the assumption means, what the implications of assumption violation are, how I test each assumption, and how I deal with the violations when necessary. Both graphical and numerical methods are used. The results of the diagnostic tests are discussed in each subsection and are presented numerically and/or graphically in Appendix C.

5.3.1 Linearity

When using OLS regression, it is assumed that the relationship between the independent variable(s) and the dependent variable is linear. If this assumption is not satisfied, the method nonetheless fits a straight line to data that does not actually approximate a straight line, and this can bias the OLS estimator. Although the linearity assumption should generally be met in order to use OLS, under certain specific circumstances deviations are allowed. For example, if the theory suggests that the change in the expected value of dependent variable due to an increase in independent variable depends on the value of one or more of the other independent variables, nonlinearity might be appropriate. The theoretical expectation from Chapter 3 fits this situation: the effect of bargaining participants' power on the bargaining offer depends on the level of third-party peace operation. According to Berry (1993), when a nonlinear specification is necessary, one can choose to either abandon or keep OLS, and the decision rests on the possibility of a mathematical transformation. In this study, a multiplicative function of power and third-party peace operations is included as a mathematical transformation to reflect this theoretical expectation.

⁷The models used to test the assumptions are the standard regression models.

If there is only one independent variable, checking the linearity assumption is straightforward. One simply examines a scatter plot between the dependent variable and the independent variable to determine whether a non-linear pattern is apparent. However, checking the linearity assumption in multiple regression is less straightforward. Among the techniques generally used, one is to check the plot of the standardized residuals against each independent variable in the model. And if there is a nonlinear pattern in the residual plot, there might be a nonlinearity problem. In general, the residual plots do not clearly indicate a violation of the linearity assumption. Since it is not always easy to judge the violations, in addition, I present augmented component partial residual plots and check to see whether the smoothed line is located close to the original regression line. This method also does not indicate a clear violation. For presentation purposes, the graphical results of the residual plots are presented in Figures 1-3 in Appendix C.

5.3.2 Multicollinearity

When one or more independent variables are highly linearly related, (multicollinearity), the regression estimates cannot be computed uniquely. The main concern of the presence of multicollinearity is that as the degree of multicollinearity increases, the estimates of the coefficients become unstable and the standard errors for the coefficients tend to be inflated. This can happen under at least three conditions (Berry 1993): (1) when one includes a series of independent variables that are by definition linearly related to one another; (2) when one includes all categories of a discrete variable as dummy variables in the model; and (3) when the sample size for estimation is considerably small compared to the number of independent variables. These conditions do not seem to be prominent in these data at first glance. However, to check for multicollinearity, I calculated the variance inflation factor (*VIF*).⁸ The results indicate no significant sign of multicollinearity in the standard regression models. The detailed *VIF*s are presented in Table 5.1 in Appendix C.

5.3.3 Non-measurement Error

The assumption of non-measurement error is that the variables are measured precisely. If some independent variables are measured with error, estimation based on the standard assumptions leads to inconsistent coefficient estimates. To detect measurement errors, an

⁸*VIF* is a scaled version of the multiple correlation coefficient between one independent variable and the other independent variables ($VIF_j = \frac{1}{1-R_j^2}$, where R_j is the multiple correlation coefficient). When there is a high correlation between one independent variable and the other independent variables, R_j and VIF_j both increase. On the other hand, when there is a low correlation between one independent variable and the other independent variables, R_j and VIF_j both decrease. Additionally, R_j becomes 0 and VIF_j becomes 1 if there is no correlation between one independent variable and the other independent variables. According to Neter, Wasserman and Kutner (1989), a *VIF* value larger than 10 is indicative of a potential multicollinearity problem.

errors-in-variables regression model was also used,⁹ and the results of the coefficient estimates from the errors-in-variable model and those from the standard OLS model are compared to see if there is a significant difference.

When all bargaining participants are considered without an interaction term between power and third-party peace operations, the significance level of the coefficient estimates remains similar, while the standard errors for coefficient estimates are bigger in errors-in-variables regression model than in standard OLS regression model. And the result supports *Hypothesis 1* while not supporting *Hypothesis 2*. When all bargaining participants are considered with an interaction term between power and third-party peace operation, the results are similar. The significance level remains similar in both the errors-in-variables regression model and standard regression model, and standard errors are larger in the errors-in-variables regression model. However, there are some changes in the magnitude of the coefficient estimates (without changes in the direction), and the results support *Hypothesis 3*. When only participants in bilateral political power-sharing bargaining are considered, the significance level of coefficient estimates remains similar in both errors-in-variables regression models and standard regression models. However, the standard errors are consistently bigger in errors-in-variables regression models than in standard regression models. Again, the coefficient estimates from the errors-in-variables regression model are bigger than those from the standard regression model, but without changes in direction, with the results again lending support to *Hypothesis 3*. The detailed results of errors-in-variables regression models are presented in Table 5.2 in Appendix C.

5.3.4 Normality

OLS regression also assumes that the errors are normally distributed. Even though this is not required for obtaining unbiased estimates of the regression coefficients, satisfying the normality assumption is a necessary condition for hypothesis tests to be valid. That is, the normality assumption is instrumental in assuring that the p -values for significance tests are valid. To detect violations of normality, both graphical and numerical methods are used. Graphically, kernel density estimates are calculated and presented alongside the calculated normal kernel density function to visualize possible deviations. It seems that there is a minor deviation from normality in all cases: where all bargaining participants without an interaction term is considered, where all bargaining participants with an interaction term between power and third-party peace operation is considered, and where only bargaining participants in bilateral political power-sharing bargaining are considered. The detailed results are presented in Figures 4-6 in Appendix C. Since it is advised to check for observations that may be outliers if the normality assumption is not met, two numerical methods are used.

As a numerical method to detect outliers, first, the interquartile range (IQR) is used. IQR is the distance between the 75th percentile and the 25th percentile and assumes symmetry of the distribution. It is advised that in the presence of severe outliers one should reject the normality assumption at a 95% confidence level. The results are in Tables 3-5 in

⁹Errors-in-variables models account for measurement error in the independent variables while the standard regression model assumes that those independent variables have been measured exactly. For testing, a 0.9 reliability threshold is used.

Appendix C. In all cases, the results indicate few mild outliers and no severe outliers. In addition, a Shapiro-Wilk test was used to test normality. It is the ratio of the best estimator of the variance to the usual corrected sum of squares estimator of the variance (Shapiro and Wilk 1965). The statistic ranges from 0 to 1, and values closer to 1 indicate a distribution closer to normality. Test results (about 0.98) fail to reject normality.

5.3.5 Model Specification

OLS regression also assumes that the statistical model is properly specified. A violation of this assumption occurs when one or more relevant independent variables are excluded in the model or when one or more irrelevant variables are included in the model. If it is the former case and the omitted variables significantly explain the dependent variable, or if it is the latter case, the coefficient estimates will be unreliable. There are several numerical methods to test model specification error. For specification error due to omitted variables, the Ramsey RESET test is used. This test creates new variables based on the independent variables and refits the model. In all cases, the test results indicate that we cannot reject the null hypothesis that there are no omitted variables in the model.

Another method to test for the possibility of specification error is the link test. The link test creates two variables: one is the variable of prediction (\hat{y}) and the other is the variable of squared prediction (\hat{y}^2). Using these two new variables, the model is refit. If there is no significant specification error in the model, the variable of squared prediction should not be statistically significant in explaining the dependent variable. In all cases, the values of the variable of squared prediction are not statistically significant, indicating that the link test fails to reject the null hypothesis that the model is incorrectly specified. The detailed results of the link test are in Table 6 in Appendix C.

5.3.6 Homoscedasticity

OLS regression requires that the error variance be constant. If the data fit this assumption well, the residuals plotted against the fitted values should not follow any discernible pattern. That is, they should resemble a random cloud. This is the definition of homoscedasticity. A violation of homoscedasticity (i.e., the presence of heteroscedasticity) can occur when there is measurement error in the dependent variable (Berry 1993). In the present study in particular, if the amount of measurement error were to vary systematically across bargaining participants, this would represent a violation of homoscedasticity. For example, it is plausible to think a priori that the government side could more accurately reveal the offers it made at the bargaining table than the rebel side due to greater access to media outlets. When heteroscedasticity is present, OLS regression estimates are not biased, but the OLS estimator is no longer the best linear unbiased estimator (BLUE). That is, among all the unbiased estimators, in the presence of heteroscedasticity OLS does not provide the estimate with the smallest variance.

There are numerical and graphical methods for detecting heteroscedasticity. The graphical method is to simply check the residual plot against fitted values. Examining these plots, there is an apparent pattern in which the cloud of points becomes narrower on the left side of the distribution when all bargaining participants are considered, as in Tables 5.1 and 5.2. On the other hand, except for a few data points that seem to be influential cases, there

seems to be no apparent pattern when only participants in bilateral political power-sharing bargaining are considered. The residual plots are presented in Figures 7-9 in Appendix C. Even though the visual depiction is helpful, the interpretations of the plots cannot be free of subjective judgments. Therefore, to numerically test the null hypothesis that the variance of the errors is constant, two tests—the Breusch-Pagan/Cook-Weisberg test and the White test (Cameron and Trivedi’s decomposition of IM-test)—are considered.¹⁰ When only participants engaged in bilateral political power-sharing bargaining are considered, the test fails to reject the null hypothesis of constant variance of the errors in both numerical tests, as in the graphical method. When all bargaining participants are considered and an interaction term is included (as in Table 5.2), while the Breusch-Pagan/Cook-Weisberg test shows that the null hypothesis of constant error variance cannot be rejected, the result of the White test indicates a heteroscedasticity problem. On the other hand, when all bargaining participants are considered without an interaction term (as in Table 5.1), both numerical tests indicate an issue with heteroscedasticity.

To deal with heteroscedasticity problem in the two models (one with all observations but without an interaction term and the other with all observations and with an interaction term), several methods are recommended. One is to remove outliers. To detect outliers, a leverage method that assesses the overall impact of an observation on the regression results was used. When all bargaining participants are considered without an interaction term between power and third-party peace operation, I found that at least two observations are very unusual. These are the Rwanda Government (yid=331 in Figure 10 in Appendix C) and the Rwandan Patriotic Front (FPR), (yid=332 in Figure 10 in Appendix C) participating in the bargaining attempt of December 25th of 1992-January 9th of 1993 at Arusha, Tanzania. Comparing the coefficient estimates from the standard regression model with and without outliers, when these two observations are removed from the dataset, the results generally remain the same, even though the significance level for power increases to 95% from 90%.

When all bargaining participants are considered in a model with an interaction term between power and third-party peace operation, at least four observations seem to be unusual. These are the two observations mentioned above as well as the Liberia Government (yid=233 in Figure 11 in Appendix C) at the bargaining attempt of March 15-27th of 1991 at Monrovia, Liberia and the Liberia Government (yid=259 in Figure 11 Appendix C) at the bargaining attempt of September 7-12th of 1994 at Akosombo, Ghana. The coefficient estimates from the regression model with and without outliers are compared to see if there is a significant difference. When the four outlier observations are removed from the analysis, there are two significant changes: the direction of the estimated relationship between power and offers changes from negative to positive, and the third-party peace operation becomes statistically significance at a conventional confidence level. Since the independent effect of variables that were included in the interaction term is not easily interpretable, I present the relationship in a graphical way. According to Figure 5.3, the strongest bargaining participant (Combined Power Type=1) is expected to make a larger demand (48%) under

¹⁰The Breusch-Pagan test is based on the expectation that the variance of the error terms is linearly related to a series of two or more variables (Berry 1993). Therefore, the test does not work well if non-linear forms of heteroscedasticity exist in the dataset. It is also problematic if the errors are not normally distributed. The White test regresses the squared error term from the OLS specification on the independent variables in the regression model.

Table 5.4: OLS Models Treating Heteroscedasticity Issue: All Participants w/out Interaction Term

Variables	Standard Regression	Regression w/out Outliers	Regression with Robust S.E.	Robust Regression
Combined Power Type	9.545* (5.675)	11.872** (5.587)	9.545 (5.835)	9.624 (5.952)
PKO Mandate Type	-0.459 (2.878)	-0.559 (2.821)	-0.459 (3.036)	-1.766 (3.019)
Battlefield	-3.361 (3.977)	-3.536 (3.867)	-3.361 (3.422)	-4.511 (4.171)
Multiple Bargaining	-12.248 (8.734)	-12.974 (8.892)	-12.248 (9.226)	-13.626 (9.160)
Type of Political Bargaining	0.576 (8.827)	2.778 (11.745)	0.576 (12.334)	4.696 (9.258)
Number of Participants	-7.217*** (1.271)	-7.225*** (1.238)	-7.217*** (0.785)	-7.433*** (1.333)
Cons	64.982*** (11.580)	61.739*** (13.540)	64.982*** (13.974)	61.672*** (12.145)
Number of Observations	96	94	96	96
R-squared	0.303	0.328	0.303	

Table 5.5: OLS Models Treating Heteroscedastity Issue: All Participants with Interaction Term

Variables	Standard Regression	Regression w/out Outliers	Regression with Robust S.E.	Robust Regression
Combined Power Type	-0.853 (7.786)	2.461 (7.084)	-0.853 (6.908)	-3.545 (7.646)
PKO Mandate Type	-6.321 (4.168)	-10.183*** (3.890)	-6.321 (4.955)	-10.486** (4.093)
Combined-PKO Type	11.754* (6.125)	14.587** (5.615)	11.754* (6.296)	16.364*** (6.014)
Battlefield	-0.989 (4.109)	-0.855 (3.658)	-0.989 (3.301)	-1.388 (4.035)
Multiple Bargaining	-12.245 (8.605)	-10.626 (8.016)	-12.245 (8.320)	-10.773 (8.450)
Type of Political Bargaining	0.577 (8.697)	2.778 (10.565)	0.577 (10.965)	1.885 (8.540)
Number of Participants	-7.257*** (1.253)	-7.587*** (1.116)	-7.257*** (0.792)	-7.471*** (1.230)
Cons	70.256*** (11.735)	67.532*** (12.445)	70.256*** (13.284)	70.834*** (11.524)
Number of Observations	96	92	96	96
R-squared	0.331	0.430	0.331	

the condition of third-party peace enforcement than under the condition where there is no third-party involvement (39.1%). On the other hand, the bargaining participant with the weakest power (Combined Power Type=0) is expected to make a greater demand (36.7%) under no third-party involvement than when it expects a third party to enforce the settlement terms (16.3%). Therefore, the results of this OLS specification still support *Hypothesis 3*. However, compared to Figure 5.1, there is a noticeable difference in bargaining offers between the strongest and weakest groups under the condition of no third-party involvement. When outliers are included, as in Figure 1, the weakest group's demand for itself (45.3%) is estimated to be larger than the strongest group's demand for itself (44.4%). On the other hand, when outliers are removed from the statistical analysis, the strongest group's demand (39.1%) is larger than than the weakest group's (36.7%).

Another method for dealing with the possibility of heteroscedastic error variance is to use robust standard errors. The use of robust standard errors will change the standard errors and significance tests, while maintaining coefficient estimates. In the model where all bargaining participants are considered and the interaction term between power and third-party peace operation is not included, after the model was re-estimated with robust standard errors, standard errors and robust standard errors are found to more or less remain

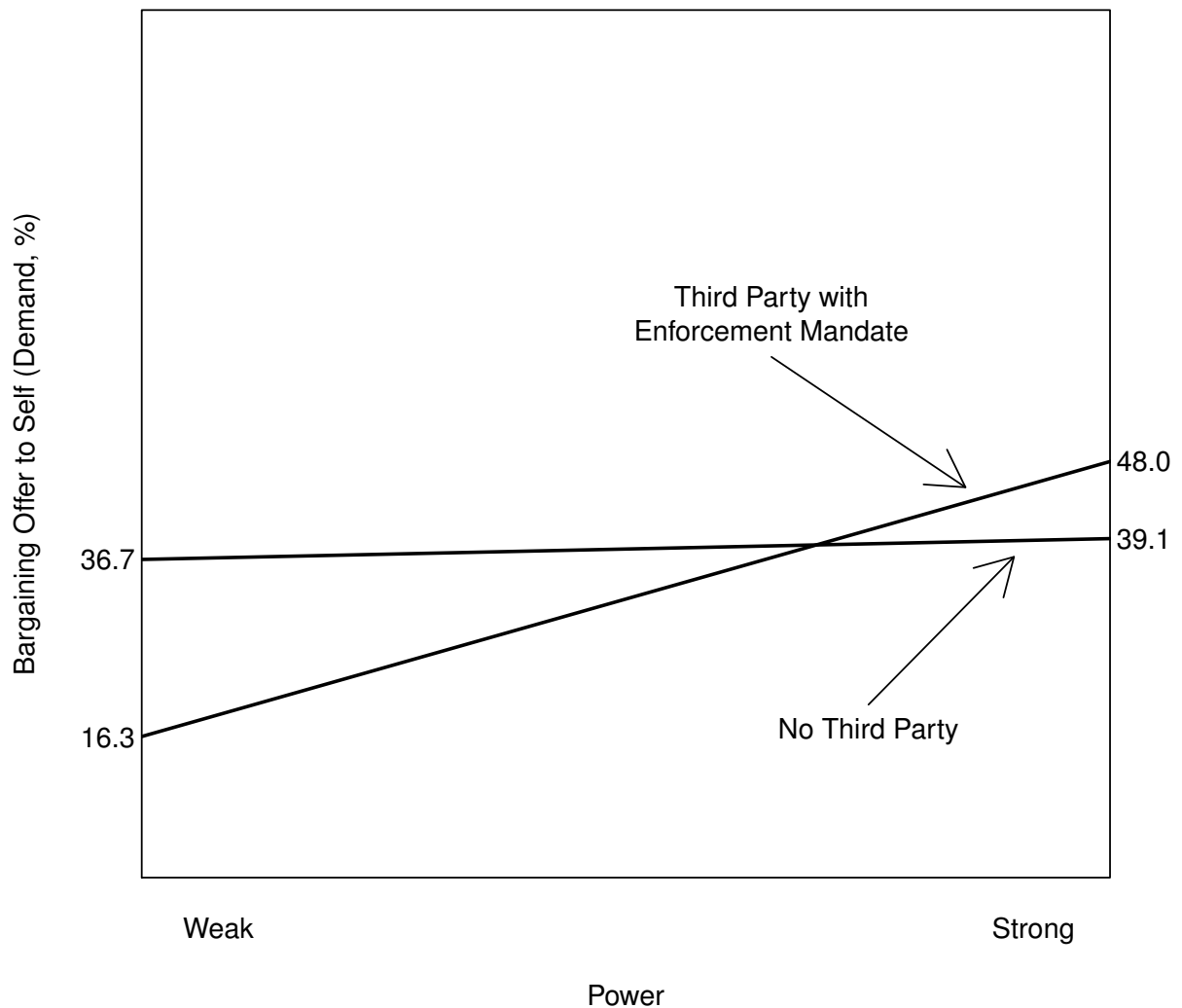


Figure 5.3: Standard OLS Regression w/out Outliers: All Participants

similar. However, both *Hypothesis 1* and *Hypothesis 2* are not supported. Where the interaction term is included and all bargaining participants are considered, significance levels and standard errors remain similar, and *Hypothesis 3* is supported.

In addition, robust regression is also used to deal with heteroscedasticity in the two models. Robust regression employs a weighting criterion that causes influential observations to have less impact on the coefficient estimates of the OLS regression. Therefore, unlike the method of using robust standard errors method, using robust regression will alter the coeffi-

cient estimates. The coefficient estimates from the standard regression model and the robust regression model are compared to see if there is a significant difference. When all bargaining participants are considered without an interaction term between power and third-party peace operations, *Hypothesis 1* and *Hypothesis 2* are not supported. On the other hand, when the interaction term is included, third-party peace operation becomes statistically significant at the 95% confidence level, and the interaction term becomes more significant (changing from 95% confidence to 99%). Additionally, according to Figure 5.4, *Hypothesis 3* is supported. More specifically, the strongest group (Combined Power Type=1) is estimated to make a larger demand (50.6% of the seats for itself) under third-party peace enforcement than without third-party involvement (38.8% of the seats for itself), while the weakest group (Combined Power Type=0) is expected to decrease its demand (21.4% of the seats for itself) under third-party peace enforcement as compared to the situation in which no third party is present (42.3% of the seats for itself). However, as in Figure 1 (and opposed to Figure 3), under the condition of no third-party involvement, the weakest group's (Combined Power Type=0) demand (42.3% of the seats for itself) is larger than the strongest group's (Combined Power Type=1) demand (38.8% of the seats for itself), which is different from the estimate when outliers are removed.

5.3.7 Independence

The assumption of independence—the errors associated with one observation are not correlated with the errors of any other observations—can be violated under various circumstances. One particular situation is especially concerning given the process of collecting the political power-sharing bargaining dataset. The data structure captures the same nominal units at different points in time, but cannot be classified as either time-series or cross-sectional. The variables are measured irregularly in terms of both time and subject because in order to test my specific hypotheses, information was needed for the same bargaining participant over time whenever it was engaged in political power-sharing bargaining. Therefore, it is likely that a bargaining participant engaged in a series of bargaining attempts will behave similarly over time, and will behave differently from other bargaining participants. When data are clustered in some way, in my case the same bargaining participant appearing multiple times over a series of political power-sharing bargaining attempts, it is reasonable to think that the errors from one observation might be correlated with the errors for other observations.

To deal with this potential violation of the independence assumption, two methods were used (regression with robust standard errors and robust regression) and the results compared to those of the standard regression model. Since the two models with all bargaining participants (with and without an interaction term) are discussed in the homoscedasticity section, here I will only focus on the models using only those participants engaged in bilateral political power-sharing bargaining. Table 5.6 shows that the coefficient estimates are very similar across the three specifications: the interaction term between power and third-party peace operation, as well as the number of bargaining participants, significantly affect the bargaining offers, and this lends support for *Hypothesis 3*.

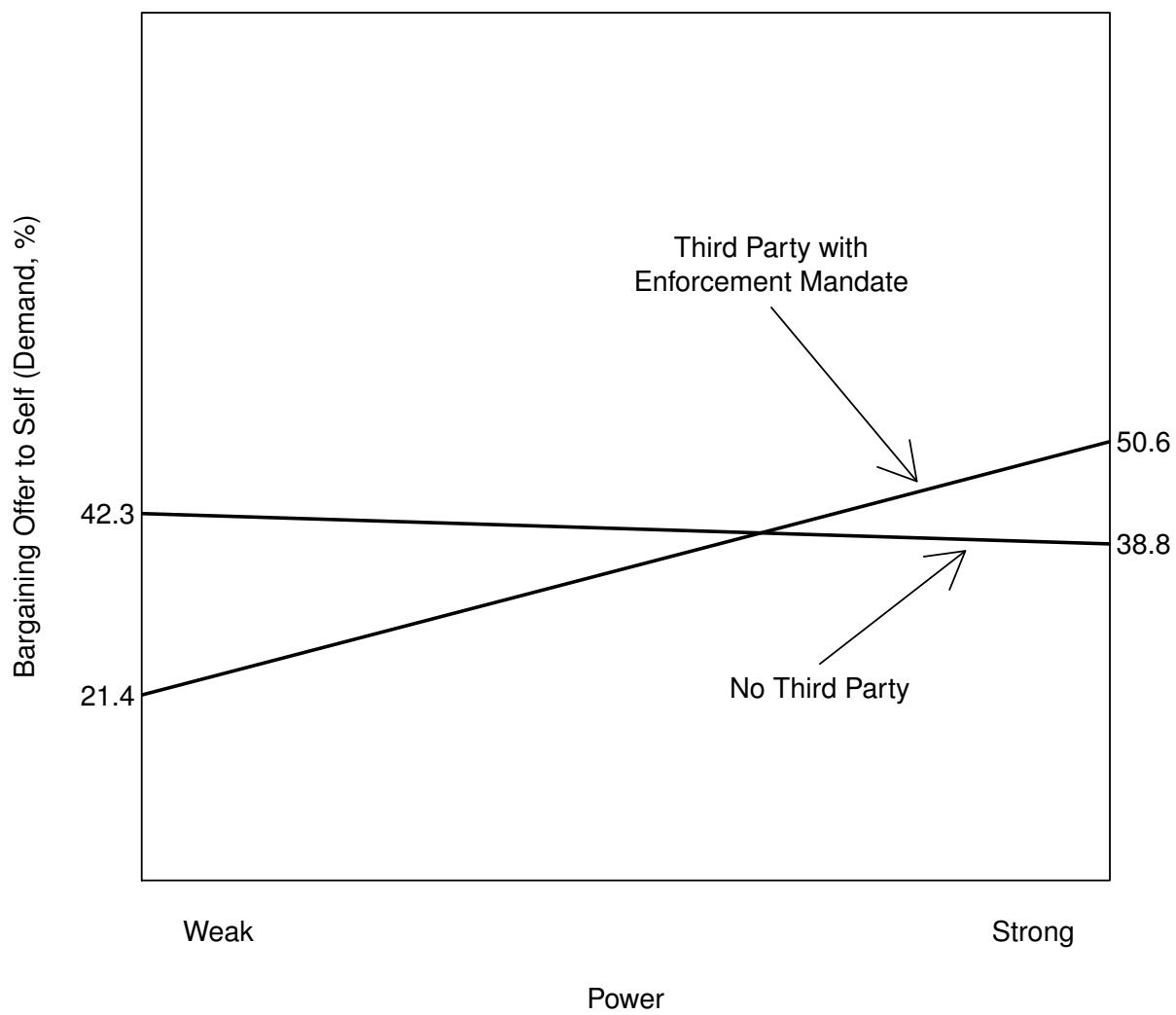


Figure 5.4: Robust Regression: All Participants

Table 5.6: OLS Models Treating Independency Issue: Participants in Bilateral Bargaining with Interaction Term

Variables	Standard Regression	Regression with S.E.	Robust Regression
Combined Power Type	-2.273 (8.830)	-2.273 (8.528)	-5.208 (9.288)
PKO Mandate Type	-12.991** (4.972)	-12.991** (4.944)	-14.626*** (5.230)
Combined-PKO Type	23.567*** (7.135)	23.567*** (6.729)	26.619*** (7.505)
Battlefield	-1.044 (4.643)	-1.044 (3.229)	-1.725 (4.883)
Multiple Bargaining	-3.471 (10.342)	-3.471 (8.787)	-2.878 (10.878)
Type of Political Bargaining	-4.114 (9.733)	-4.114 (12.475)	-3.360 (10.237)
Cons	60.065*** (11.858)	60.065*** (14.112)	60.247*** (12.473)
Number of Observations	64	64	64
R-squared	0.255	0.255	

CHAPTER 6

CASE STUDY: SIERRA LEONE'S CIVIL WAR TERMINATION BARGAINING

6.1 Introduction

I argued that the expectation of third-party peace enforcement will affect the offers of the participants engaged in political power-sharing bargaining. In the previous chapter, I tested statistically the hypotheses put forth in Chapter 2 and Chapter 3 about the behavior of bargaining participants statistically using the dataset introduced in Chapter 4. Results indicate a differing effect of power (stronger vs. weaker), in the expected direction, on the bargaining offer as the third-party peace operation changes (from non-existence to existence), and thus support *Hypothesis 3 (Commitment Hypothesis)*. This chapter applies the same logic to the Sierra Leone warring groups' bargaining behavior during the bargaining attempts to end war in that country.

6.2 First Civil War to Abidjan Peace Agreement

6.2.1 First Peace Talk (March 25-6, 1996)

After years of effectively refusing to hold peace talks with Valentine Strasser's NPRC regime, the RUF dropped all preconditions for a peace talk a week after Bio came to power on February 7, 1996. Various sources stated that when the RUF first launched a rebellion, the initial rebel group size was relatively small, roughly between several dozens and several hundred.¹ The Sierra Leone Army (SLA) was also very small. Because previous President Siaka Stevens was afraid of a military coup, he kept army size minimal.² After Strasser took power through a coup in April 1992, the army began to expand gradually, and it eventually

¹Pham (2006, 83) stated that the initial attack was performed by several dozen Sierra Leoneans; Koroma (1996, 139) says rebels attacking Kailahun numbered about 100; and Huband (1998, 206) puts the initial number at 300.

²According to Bundu (2001, 51), a Sierra Leonean who was then-ECOWAS Secretary-General and later served as foreign minister, the SLA was "about 3,694 soldiers in total, largely ceremonial and ill equipped to counter the insurgents." According to other sources, before the civil war resumed, the Sierra Leone government had some 1,500 professional soldiers and another 1,500 non-commissioned reserves. When the rebels attacked, a big

numbered over 17,000 in early 1996 when the NPRC government handed over power to the civilian ruler, Kabbah.³

However, since war started, both the rebels and the government have heavily relied on external military supporters (Abraham 2004; Keen 2005; Pham 2006; and Olonisakin 2008). Therefore, it is important to know how the external supporters influenced the power dynamics between the rebels and the government. RUF rebels were backed by Liberia, Libya, and Burkina Faso, while the NPRC government received military support from Nigeria, Guinea, and EO (Keen 2005, 116; and Olonisakin 2008, 135). After EO forces⁴ arrived, the government side began to retake the area that the government with only its other military support could not. This would lead to the assumption that EO's existence in the fight, from May of 1995 to early 1996, when the two groups started to talk, added significantly to the power of the NPRC government to fight the RUF rebels backed by external military supporters.

The battle started in the eastern and southern regions and then spread to all parts of Sierra Leone in early 1995 as the RUF rebels moved toward the capital, which is located in the far west of the country. However, after the appearance of the EO forces, the battlefield situation reversed. Within days of their arrival, they drove the RUF out of the locations surrounding Freetown. By the end of 1995, the government side, with support from Nigeria, Ghana, and EO forces recaptured the Sierra Leone diamond mines, and in early 1996 won big battles in the Kangari Hills in the center of Sierra Leone (Pham 2006, 111-2).

Several international organizations and outside countries came into play to observe and mediate the peace talks, but without providing a guarantee that any defector would be punished once a peace deal was made.

NPRC government leader Maada Bio and RUF rebel leader Foday Sankoh met in Yamoussoukro town in Cote d'Ivoire on March 25-6, 1996. Acknowledging the RUF's weakness, Sankoh sought guarantees from the international community to prevent the government's renegeing before and while two groups met. However, neighboring countries were unable or unwilling to provide such guarantees, and international organizations showed limited interest.

According to the theory put forth here, under the condition of a low expectation of third party peace enforcement, the weaker group should make a more demanding offer than its relative power would suggest. At this meeting, estimating that the probability of third party peace enforcement was very low, RUF rebel leader Sankoh (leader of the weaker group with respect to army size, external aid, and recent battle field outcomes) called for his own appointment as the vice president, RUF control of the country's natural resources (especially diamond mines) and the immediate withdrawal of EO (Pham 2006, 207), an exceedingly demanding set of proposals given the RUF's relatively weak position. NPRC government leader Bio rejected the demands. From the meeting, they only promised that

portion of the SLA was serving as part of the ECOMOG peacekeeping force in Liberia (Keen 2005, 83).

³Pham 2006; The Uppsala Conflict Data Program (UCDP) database indicates there were 14,200 government forces and about 3,000-5,000 RUF soldiers in 1996.

⁴It is said that EO forces averaged 160, highest at 350 in early 1996, and declining to about 80 by the time its operation ended in January 1997 (Reno 1998).

the RUF leader Sankoh and newly elected president Kabbah would continue the talks after Bio ceded power to him.

6.2.2 Second Peace Talk (April 22-3, 1996)

After the NPRC military rule ended in March, the transfer of power from a military government to a democratic government led to the removal of the top military officers of the NPRC from the Sierra Leone Army (Bangura 2002, 145). This somewhat reduced the power of the government. There was also tension between the remaining NPRC soldiers and the Kamajors, who helped the fight against the RUF. In summary, the government suffered from the loss of high ranking military officers and from factional problems. On the other hand, the RUF rebels did not have significant loss of military power after the first peace talk. The Kamajor force was estimated in the several thousands (Pham 2006). However, the government still had more soldiers than the RUF and thus there was no power symmetry change. In addition, between the two talks there was no significant change in the external military supporters' strength, the battlefield situation, or third party peace operations.

According to the theory presented here, under the condition of low expectation of third party peace enforcement, the weaker group, the RUF, should ask for a bigger concession from the stronger group. When Sankoh entered into negotiation, still having a relatively weak power position without any possibility of guarantors to enforce the peace agreement, he again made a demanding offer given his group's relative power. Part of the demand for a peace deal was that all foreign troops and mercenaries that aid the government should leave the country (Abraham 2004, 204-5). This demand was made for the purposes of diminishing the military power of the government while increasing that of the RUF (Abraham 2004, 117-8). Sankoh also wanted the vice-presidency, as he had revealed in the previous round of talks, as well as several ministerial positions for his rebel commanders (Abraham 2004). When the government secretly presented Sankoh with a list of possible appointments, he rejected the offer, raising the issue of foreign troops and mercenaries. They could not reach an agreement on peace, and only agreed that they would send their delegates to set up three joint committees so that they could continue the negotiations in Abidjan (Pham 2006).

6.2.3 Third Peace Talk (October 24-5, 1996)

After the peace talk between the RUF leader Sankoh and President Kabbah, the groups' delegates reached a definite cease-fire on May 15, 1996. The new peace talk was pending due to the RUF's demand of a withdrawal of foreign troops and mercenaries and a new election as the preconditions of further talks. The government diagnosed that the prolonged negotiations were significantly conditioned by situations on the battlefield (Abraham 2004, 118). As a cure, Kabbah appointed Chief Sam Hinga Norman, leader of the Kamajors, as the deputy defense minister in his coalition cabinet. Norman merged the Kamajors and other groups who fought against the RUF rebellion into CDF with a force estimated at over 30,000 soldiers. They were trained in automatic weapons and counter-insurgency techniques by EO.

The government not only increased its military power, but also took full advantage of already stationed foreign troops and mercenaries in order to win battles. In addition,

the offensive by EO and ECOMOG forces vastly increased the pressure on the RUF in August. Then, employing Kamajor's traditional hunter skills and EO's high-tech armory, the forces again took an offensive line against the RUF in September (Abraham 2004, 118, 207). The major offensive by the Kamajor forces and EO brought the destruction of several major training and operations bases of the RUF, leading to serious losses of rebel lives (Abraham 2004, 118). Most importantly, government forces captured and sacked the RUF's headquarters camp, the Zogoda, and several other key bases in southern and eastern Sierra Leone in September and October 1996. In general, it was said that the RUF was never under such stress from government attacks since the war started (Abraham 2004).

Even though the meeting was facilitated by third parties, their roles were limited to those of "moral guarantors that [the] Peace Agreement [would be] implemented with integrity and in good faith by both parties (Pham 2006, 118)." What the meeting produced was a small number of UN technical assessment missions after a peace agreement was reached. Their mission included evaluating "the need for a UN monitoring force in the implementation of peace accord between the Sierra Leone government and the RUF (Xinhua News Agency 1996)." However, like the previous talks, they did not provide any mechanism that would detect violations and punish the defectors (Pham 2006).

Sankoh observed how a new civilian government treated the previous NPRC leaders; the new government fired and imprisoned Strasser and Bio, who were leaders of previous military governments, in early September for an alleged coup attempt. Therefore, the RUF could not have felt secure about the government's potential to renege in the future and possibly put the RUF rebels in prison or to death. Therefore, the RUF wanted to secure its survival by attaining important positions within the post-war government through an agreement that would provide the institutional means to do so. As my theory suggests, the RUF made three specific demands under the condition that no third party to enforce the negotiated settlement was expected. First, they demanded the immediate withdrawal from Sierra Leone of foreign troops assisting the SLA, especially EO. Second, the RUF insisted that a national budgetary and debt committee be set up to evaluate and deal with Sierra Leone's debt. Third, the RUF would be transformed into a political party so that it could legally compete with the present government after Kabbah's term ended (Abraham 2004).

Finally, the Abidjan Peace Agreement was reached on November 30. Arthur Abraham, former professor at Fourdah Bay College, University of Sierra Leone, said that the Abidjan Peace Agreement was clearly generous to, and in some sense a victory by, the RUF. By giving amnesty to RUF rebels, it protected the RUF members from prosecution for war crimes (Abraham 2004). Additionally, the agreement made the RUF a legitimate political party. This would make the RUF a potentially important player in Sierra Leone's future political arena. Most importantly, as the RUF had long wished, EO was to be withdrawn. As for the issue of establishing a national budgetary and debt committee, the agreement did not include specific details, but in principle it met the RUF's demands. In summary, estimating that no third party was expected to enforce the settlement term, the government, the then-stronger group, made a bigger concession in political and military issues than it should have according to its power superiority.

6.3 Second Civil War to Lome Peace Agreement

6.3.1 Fourth Peace Talk (May 25-July 7, 1999)

The implementation of the Abidjan Peace Agreement was interrupted by a military coup on May 25, 1997. After the coup, Kabbah fled to Conakry, Guinea. Major Koroma assumed power as the leader of the AFRC. Koroma asked Sankoh, who was ousted and had stayed in Nigeria since March, to join the military government as the Vice Chairman. Since Kabbah's ouster, ECOMOG had fought and negotiated with the AFRC/RUF coalition to reinstate the Kabbah government. The Conakry Peace Plan was signed between ECOMOG and AFRC/RUF on October 23, 1997, and as a result, Kabbah returned to Sierra Leone on May 10, 1998. After the Conakry Peace Plan, the fighting became more intense because the Nigerian-led ECOMOG attempted to secure Sierra Leone before Kabbah's return. In particular, from February 8 to 14, 1998, Nigerian and Kamajor forces opened a full-scale offensive that eventually took over Freetown from the AFRC/RUF. Due to the efforts of Nigerians and Kamajors, by April 90% of Sierra Leone territory was under the control of the government (Gberie 2004). After coming back from Conakry, Kabbah brought Sankoh, who was being detained in Nigeria, back to Sierra Leone for a trial.

The returned president Kabbah adopted several strategic plans of action (Bangura 2002; and Pham 2006). The first laid out his dependence on ECOMOG. He evaluated highly ECOMOG's ability to recapture and defend the major locations from the AFRC/RUF before he came back. However, the death of Nigerian President Sani Abacha in June 1998, who had been the biggest supporter of the Sierra Leone government in its fight against the rebellion, led the Sierra Leone government to be uncertain about Nigerian support. After a big defeat in January 1999, the Nigerian government highly encouraged the Sierra Leone government to pursue a dialogue to end war. In contrast, the AFRC/RUF could keep receiving substantial assistance from Liberia and Burkina Faso, and indirectly from Libya (Pham 2006, 137, 141-2).

Second, Kabbah wanted to create new national army. The government transformed surrendered soldiers who were considered to be loyal to the government into the new army. As a result, the government had a hard time recruiting soldiers (Bangura 2002, 143). At this time, the newly recruited army consisted of 5,000 new soldiers and 200 surrendered soldiers (UCDP). From this policy, the size of the troop force on the government side sharply decreased compared to the time before Kabbah was ousted. On the other hand, the size of the rebel army was estimated at about 45,000 soldiers (UCDP), and they were able to replenish their military personnel by kidnapping youth from the locations where they attacked. When the government and the rebels signed a cease-fire on May 18, 1999, and started a peace talk on May 25, 1999, observers generally determined that the Sierra Leone government entered into negotiations considerably weaker than it had been during the 1996 negotiations, while the RUF entered the talk with a considerably stronger hand (Pham 2006).

Meanwhile, after Sankoh was convicted of treason and sentenced to death, rebels increased the level of offensive lines (Pham 2006, 138). With some successes in battle, rebels started to negotiate the release of Sankoh. As the government refused their demands, they intensified the offensive; AFRC/RUF forces drove ECOMOG troops out of the capital in January 1999 (Bangura 2002; Pham 2006; and Olonisakin 2008). Soon after, the Nigerian-

led ECOMOG recaptured Freetown. However, even though the rebels were pushed out of the city proper, the ECOMOG contingents were not able to defeat the rebels entirely (Pham 2006). During the peace talks on June 6, 1999, the government again lost Freetown and the entire Northern region and most of Kenema district, including Kono, one of the most productive diamond mines, to the rebels (Bangura 2002, 150). About 70% of the country, including the key diamond mines and the strategic highway between Freetown and the rest of the country, was under the control of the rebels (Bangura 2002).

Formal peace talks resumed one week after a cease-fire was signed on May 18, 1999. Given that there was no expectation of a third party to enforce an agreement during the talk, if the theory presented here holds, the stronger RUF should have made a larger concession than it actually desired because it would expect to renege to obtain a larger share later. The RUF's initial offer included a power-sharing arrangement with a four-year transitional government in which Sankoh was appointed vice president, ten ministerial positions in a proposed twenty-man cabinet in a transitional government, and a long list of senior positions. The government rejected the transitional government and made a counteroffer of four ministerial positions, which the RUF then rejected. As the time to reach an agreement came to a close, the role of the third party intervention in the post-war Sierra Leone became clearer: the UN would send troops only for the purposes of monitoring the peace agreement. Liberia's Charles Taylor had earlier experience with peace operators, and knew well the meaning of each specific type of mission. Taylor persuaded Sankoh that the UN interveners' role would be limited. Based at least partially on this advice, the RUF dropped the initial offer and accepted the government's proposal which was smaller than what the RUF could take according to its power superiority. This became known as the Lome Peace Agreement.

6.4 Third Civil War to Abuja Cease-fire Agreement with Reaffirmation of Lome Peace Agreement

6.4.1 Fifth Peace Talk (November 10, 2000)

The implementation of the Lome Peace Agreement was again halted in May of 2000 by the RUF's taking hostage of UN officials and the following non-compliance. Before the agreement was reached, the UN Security Council established the United Nations Observer Mission in Sierra Leone (UNOMSIL), a deployment of observers with the mandate to monitor the military and security situation, and to monitor the disarmament and demobilization of the former combatants. After a peace agreement was reached, the UN Security Council expanded the size and mandate of UN operations in Sierra Leone (Pham 2006; and Olonisakin 2008). On October 22, 1999, the United Nations Mission in Sierra Leone (UNAMSIL) supplanted the UNOMSIL (Resolution 1270) and deployed 6,000 military personnel. Again, on February 2, 2000, the UNAMSIL mandate was revised by Resolution 1289 to expand the military component to a maximum of 11,100 personnel. UNAMSIL could take any necessary action under Chapter VII of the UN Charter (enforcement mandate) to protect its personnel and civilians during the implementation period of the peace agreement.

After the Lome Peace Agreement, there was a small change on the government side. It still received support from the CDF and Kamajor forces. However, the sudden death of

Brigadier-General Maxwell Khobe, chief of defense, in April 2000 threw the leadership of the Sierra Leone Army into confusion (Olonisakin 2008, 138). The rebel side, on the other hand, experienced relatively large changes. Since the Lome Peace Agreement was reached, the AFRC had expressed discontent with the agreement because, they stated, their interests were not reflected in it. Finally, the rift between the RUF and the AFRC reached its peak. On May 7, 2000, the leader of the AFRC, Koroma, called on his soldiers to fight with the government against the RUF.⁵ In addition, the imprisonment of Sankoh slowly led some RUF rebels to break away from the rebellion.

While the rebels were backed by Liberia, Burkina Faso, and Libya, those countries had long denied any support. However, it was confirmed that these countries had provided a key lifeline in the rebels' procurement of weapons (Pham 2006). After sufficient evidence surfaced, the international community began applying sanctions on these countries. These international efforts to sanction the military supporters of the rebels led those supporters to limit military and logistic support, and some previous supporters in turn persuaded the rebel group to engage in talks with the government (Olonisakin 2008).

On the other side, the UK had been sending troops to Freetown since May of 2000 to help the government. UK forces were actively involved in a fight against the rebels and expressed a strong willingness to use force for peace (Associated Press Worldstream 2000). 250 UK soldiers trained and equipped Sierra Leonean troops, and about 400 other British troops were stationed in Sierra Leone (Farah 2000). In addition, with the outside party's assistance, the government could control about half of the Sierra Leone territory (Keen 2005).

By violating the Lome Peace Agreement, the RUF lost the benefits of the deal. The RUF became an illegitimate group, and Sankoh was put in prison with his vice presidency canceled. At this point, the relationship between the RUF and the government roughly reverted back to its status prior to the 1999 peace agreement. If my argument about third party enforcement holds, the government would not make a generous offer, while the RUF would not make a demanding offer, like they did in 1996.

A peace talk began on November 10, 2000. The talk was based on the Lome Peace Agreement but centered on some amendments. Key issues included an immediate cease-fire and the political agenda (UN IRIN 2000). At first, the RUF made demands for the formation of a provisional government that included some members of the RUF in a new cabinet, just as in the Lome Peace Agreement. However, the government expressed no willingness to offer any political positions in the new government after the RUF's previous renegeing on the Lome Peace Agreement. The talks eventually reached the Abuja cease-fire agreement by reaffirming the Lome Peace Agreement. In the end, the government calculated that renegeing would not be in its interest because a third party was likely to enforce the agreement if the government renegeed. Therefore, the government made an honest offer, an offer that it expected to abide by according to the power dynamic. The government did not offer any government positions to the RUF given the understanding of its stronger power and the expected enforcement by third party peace operators after signing. Likewise, the RUF also believed that renegeing by the government would be prohibitively costly given

⁵A small faction of about 200 AFRC soldiers, the West Side Boys, still joined the RUF to fight against government (McGreal 2000).

the likelihood of third party peace enforcement. In other words, both groups believed that whatever deal was reached would be implemented. Under these strategic considerations, the RUF generally accepted the government's demanding offer. The cabinet was reshuffled without the RUF in March, 2001, and the peace process generally proceeded smoothly until the war was pronounced to be over by UN officials and president Kabbah on January 18, 2002.

6.5 Summary

Three points should be made from the case study. First, the game theoretic model is based on the assumption that the stronger group will only renege after any agreement is reached. Some would ask whether this is reasonable assumption. The prediction from the model was tested with the civil war termination bargaining during the Sierra Leone civil wars from 1991 to 2002. They reached agreements three times. Until the final bargaining attempt under the existence of third party peace enforcement, it shows that the stronger group is more likely to renege. More specifically, in the third round (1996), the then-stronger group, the Government, did not comply with the agreed terms due to the coup within the government army. And in the fourth round (1999), the then-stronger group, the RUF, reneged simply to gain more than the agreed terms. This empirical evidence does not suggest that this assumption generally holds. Rather, it tells that in the Sierra Leone case, the assumption fits to the empirical evidence.

Second, findings with respect to the key independent variables, third-party peace enforcement and power (measured in two ways), and key control variables, battlefield outcome and number of bargaining participants, along with offers made at the bargaining table indicate that my hypothesis is largely supported by the series of bargaining attempts in Sierra Leone. More specifically, the stronger group, whether it was the government or the rebel group, increases its offer to itself while the weaker group decreases its offer to itself under the expectation of third-party peace enforcement. On the other hand, with no expectation of third-party peace enforcement, the stronger group makes larger concession while the weaker group makes more demanding offers than would be expected given their relative power dynamic.

Third, the negotiations from third (1996), fourth (1999), and fifth (2000) rounds suggest that whenever groups made offers and reached an agreement without third-party peace enforcement as in the third (1996) and fourth (1999) round, it is more likely that the stronger group does not comply with these agreed terms. On the other hand, whenever groups reached an agreement with third-party peace enforcement, the stronger group is more likely to comply to the agreed terms. There has been a great deal of third party peace operation studies. They suggest that third-party peace enforcement helps implementation. This study might provide an alternative mechanism, selection mechanism. The reason why agreement once reached is more likely to be implemented under the condition of third-party peace enforcement is because third-party peace enforcement leads warring groups to make offers that are in line with their relative power dynamic when they negotiated over the term. Table 6.1 presents a summary of the sequence of negotiations between the government and the rebels to end the Sierra Leone civil wars.

Table 6.1: Sequence of Negotiations in Sierra Leone Civil Wars

	March 25-6, 1996	April 22-3, 1996	October 24-5, 1996	May 25-July 7, 1999	November 10, 2000
Internal Power	Rebel < ** Gov.	Rebel < Gov.	Rebel < Gov.	Rebel > Gov.	Rebel < Gov.
Total Power (Internal+External)	Rebel < Gov.	Rebel < Gov.	Rebel < Gov.	Rebel > Gov.	Rebel < Gov.
Battlefield	Rebel < Gov.	-*	Rebel < Gov.	Rebel > Gov.	Rebel ≈ Gov.
Third Party Enforcement	No	No	No	No	Yes
Offer (demandingness)	Rebel > Gov.	Rebel > Gov.	Rebel > Gov. (in terms of military or other issues; not political power-sharing)	Rebel < Gov.	Rebel < Gov.
Outcome	No Agreement Reached	No Agreement Reached	Abidjan Peace Agreement and not implemented due to a military coup	Lome Peace Agreement and not implemented due to RUF's renegeing	Cease-fire Agreement with Reaffirming Lome Agreement and implemented

Note: The first row indicates the dates of five peace talks in Sierra Leone during the wars from March 23, 1991 to January 18, 2002. The first column indicates the independent and dependent variables of interest in the study.

** Relations indicate the balance of power between government and rebels.

* No significant information available.

CHAPTER 7

CONCLUSION

7.1 Contribution to Academic Research

This project provides a unified approach for the study of groups' behavior during political power-sharing bargaining. Many studies on bargaining suggest that power is the dominant influence on the decisions made by groups at the bargaining table. In this project, based on studies of third-party peace operations and civil war, I assumed that agreements are not always implemented after they are signed. The probability of implementation becomes higher whenever there is a third party to enforce an agreement. When warring groups negotiate for the allocation of political power, they estimate the probability of implementation through the lens of the existence or absence of third-party peace enforcement. If warring groups see that there is a third party to enforce the negotiated settlement, they would be more likely to have confidence in successful implementation. On the other hand, if they do not observe third-party peace enforcement, they would be less likely to expect actual implementation after an agreement is reached. And these expectations of successful or failed implementation efforts should affect the number of seats in political branches each warring group demands. Based on these considerations, using the bargaining model, I drew specific empirical implications about the relationship between power, the expectation of agreement implementation, and the bargaining offers made by warring groups engaged in political power-sharing bargaining.

I utilized both a statistical analysis and a case study of the Sierra Leone civil war to shed light on the limitations of explaining bargaining behavior within the traditional power and bargaining framework. To test statistically the empirical implications from the bargaining model, I developed a unique new data set, the Political Power-sharing Bargaining Dataset, that adopts the bargaining participant as the unit of analysis and includes detailed measures of political power-sharing offers with respect to seats in the executive, legislative, and judiciary branches made during civil war termination bargaining, warring groups' internal and external power, third-party peace operations, battlefield outcomes, type of political power-sharing bargaining, number of bargaining participants, and multiple branches of political power-sharing bargaining. Civil war studies have traditionally proceeded by adopting the civil war or the country engaged in civil war as the unit of analysis. Even though these approaches have great merit for examining certain questions related to civil war, they are significantly limited in their ability to help us better understand various phenomena that

occur between warring groups within civil wars. The Political Power-sharing Bargaining dataset can contribute to greater understanding of phenomena that are more appropriately examined at the level of the warring group rather than the country or civil war.

7.2 Contribution to Policy Development

To provide greater understanding of groups' behavior during civil war termination bargaining, I highlight the expectations of groups about future outcomes of peace agreements, e.g., the likelihood of implementation and reneging, and examine the effects of those expectations on each warring group's bargaining offers. The key to this approach is to establish a firm theoretical understanding of the mechanisms by which warring groups involved in bargaining develop expectations about future outcomes. Specifically, I show that some actions by the international community can affect the cost-benefit structure of bargaining decisions and thus change the motivations of warring groups in deciding whether to reveal their true preferences during civil war termination bargaining.

Theoretical predictions, a cross-national statistical analysis, and an in-depth case study of Sierra Leone all point toward the idea that the international community can have the greatest positive impact on the bargaining behavior of warring groups by demonstrating its commitment to enforcing signed settlements. The game theoretic bargaining model provides us with the expectation that forward-looking groups calculate the possibility of actual implementation of negotiated settlement through the lens of the existence or absence of third-party peace enforcement, and take this calculation into consideration for making bargaining decisions. As a group expects that a third party will enforce the deal, it will make a demand close to what its power allows. Under the condition of third-party peace enforcement, the stronger group will increase its demands and decrease its offers to the weaker group. On the other hand, the weaker group will decrease its demands and increase its offers to the stronger group. The case study of the Sierra Leone warring groups' bargaining over political power-sharing strongly suggests that once an offer is made according to the relative power dynamic between groups under the condition of third-party peace enforcement, it is more likely that the agreement will be implemented. On the other hand, counter to what scholars including Leeds (1999) expected, the results also suggest that warring groups still reach signed agreements even when they expect that those agreements will not be implemented. And, in many instances, the agreement is not actually implemented after its signing.

In many cases, third parties go to civil war countries only after agreements are reached, or their role is simply not discussed at the bargaining table. However, the results from the statistical analysis and the case study of Sierra Leone show the importance of discussing the third-party role during political power-sharing bargaining. In recent decades, the international community has become actively and deeply involved in civil war resolution, devoting substantial human and material resources. Given the potential loss of human lives and resources that may result from ineffective efforts, the importance of understanding how the international community can be most effective cannot be overstated. The timeliness of this argument is particularly noteworthy given recent outbreaks of civil conflict leading to international intervention (for example, Lybia, Syria, and Cote d'Ivoire).

7.3 Future Plan

I plan to expand the current dissertation project in at least three ways. First, to extend the theory, I can further improve the basic model by relaxing the assumption of complete information. As stated previously, I argue that it is reasonable to assume that once war has begun, groups at the bargaining table will have a good sense of the capabilities of their opponents. However, whether it is empirically realistic to assume that groups have complete information about the likelihood of third-party enforcement is not clear. A lack of clarity may arise in part due to a lack of ability of the warring groups to gather information during war time. Further, uncertainty might also arise because of the inability of the third party or other actors to deliver information about the extent to which third-party enforcement can be considered a guarantee. This idea leads to the consideration, in future research, of a bargaining model of civil war termination with incomplete information.

In addition, the data collection project will be expanded in scope, both in terms of the time period and the subject matter. In terms of the time period of the dataset, now that data collection practices and a clear set of coding decisions has been established, with additional time and effort, this dataset can be expanded to the time period prior to 1989 and after 1994 in a relatively straightforward manner. In terms of the subject matter, at this point, the dataset only focuses on political power-sharing bargaining. However, this can be expanded to multiple issue areas, e.g., military, territorial, and economic power-sharing. The current form of this dataset expansion will greatly contribute to our collective understanding of the dynamics of civil war bargaining, and the causes and effects thereof. Future expansion will further contribute by allowing researchers to test hypotheses on a larger number of cases, and hence a more diverse set of circumstances.

Additionally, several new research questions have emerged while working on the current project. First, while going through the data collection effort on bargaining behavior between warring groups engaged in civil war, I found that there are many cases of rebel groups forming alliances against the government. And the information that I gathered began pointing to the idea that the decisions to form alliances are related to the dynamics of civil war, such as battlefield outcomes and bargaining between the government and rebel groups. Using this as a starting point, I will further investigate how rebel groups choose alliance partners. Second, I also found a number of cases in which rebel groups transform into political parties before political power-sharing bargaining and after the signing of political power-sharing agreements. Analyzing these cases, I plan to examine what explains the successful transformation and its implication for democratization. Third, the results of the Sierra Leone case suggest that the patterns of agreed-upon settlements might be able to provide an alternative explanation for the success of agreement implementation. At this point, the number of observations in which the bargaining offers were accepted by bargaining participants is very small. However, once the data collection effort has been expanded, this can be easily examined.

APPENDIX A

CODING RULES

Unit of Analysis

Bargaining Participants

A bargaining participant is a warring group that participates in political bargaining during civil war over political issues.

- To be considered as a bargaining participant, an actor should also participate in civil war to resolve the difference of political point of views
 - UCDP Intensity: Cumulative Intensity→War
 - UCDP Type: 3&4→Civil War
 - UCDP Incompatibility: Government→Political Civil War
- If multiple warring groups make a coalition before and during the talk, saying that they decide to make a unified single decision, the coalition is considered to be one actor. However, if they restart their fighting later on, and then they do not mention that they maintain cooperation in a new bargaining attempt, they are coded as separate actors.

Time Period

From 1989 to 1994

Variables

(A) Bargaining Attempt

The start of a talk is the actual date that bargaining participants begin discussion, not the date of ceremonial events (e.g., opening ceremony). And the end of a talk is the actual date that bargaining participants ended the discussion because the talk is collapsed or ended or suspended indefinitely.

- (1) There are situations in which a negotiation is suspended for groups to have some (definite) time for internal discussion, this leads to two possibilities.

- (i) First, the talks resume later with no change in the participants and issues. This leads to two possibilities: after the talk resumes,
 - (a) If all groups in the bargaining situation do not change their bargaining offers, I consider it to be one negotiation instead of multiple negotiations.
 - (b) If any group changes their bargaining offer, I consider it as a separate bargaining attempt.
 - (ii) Second, there is a situation in which the talks resume later with changes in bargaining participants because some of the bargaining participants stay or come back after internal consultation for the current bargaining while others leave the bargaining table for a break and do not come back. I consider this as a separate bargaining attempt.
- (2) There are also situations that the talk suspends for allowing the bargaining participants to study the new proposal submitted during the talk, to increase flexibility, to clarify their bargaining position, to take holidays (e.g., Christmas, New Years), I count it as the end of the talk.

Sources: Articles from periodicals available in *Lexis-Nexis*, *Keesing's World News Archive*
 **Issue: Exact time might be an issue due to the lack of clarity across different time zones in which news articles are published.

(B) Political Power-Sharing Bargaining

Political power-sharing bargaining is a face-to-face talk between bargaining participants to discuss political power-sharing with the intention to end civil war (Binary: 0, 1). In articles found in Keesing's World News Archive and Lexis-Nexis, statements that bargaining groups or personnel related to negotiation, i.e., mediation country leaders, make before or during or after the talks typically include the participants and issues of the talk. If the characteristics of political power-sharing bargaining are found in a bargaining attempt, the variable is assigned an 1; otherwise, it is assigned a 0.

- (1) Participants: Bargaining includes a government (including interim government) on one side and at least one rebel group on the other side.
 - (i) It is considered to be bargaining even if all the warring groups in a civil war do not participate in the negotiation.
 - (ii) There are five possibilities that the talks do not include a government on one side and at least one rebel groups: (a) talks between only rebel groups; (b) talks between rebel group and non-warring groups; (c) talks between rebel group and third party; (d) talks that do not include at least one rebel group on the other side; and (e) talks that do not include any warring groups between third parties (one is talks between third parties and the other is talks between political parties).
- (2) Issue: Bargaining should be a discussion over political power-sharing.
 - (i) Talks are not considered as political power-sharing bargaining if warring groups only discuss the future talk, the terms of cease-fire or the withdrawal of foreign troops.

- (ii) It is not considered to be political power-sharing bargaining if the talk is only over political issues, e.g., political reform or elections, which do not specify political power-sharing without election.
- (3) Formality: Talks should be direct.
- (i) It is not considered to be a bargaining situation of interest if groups does not meet face-to-face (e.g., simple exchange of proposal and shuttling by mediator between groups).

Sources: Articles from periodicals available in *Lexis-Nexis*, *Keesing's World News Archive*

Dependent Variable

(C) Political Bargaining Offer

Political bargaining offer is a verbal or written statement on what a political bargaining group wants to have a role in an interim or new cabinet or parliament or court (Continuous, Percentage, Range: 0-100).

From information found in news articles in Lexis-Nexis, representatives (spokespersons, group leaders, or mediation country leaders) many times make and explain claims about what a group or groups want for an interim or new central government or parliament or judiciary in exchange for ceasing fighting. This variable codes the percentage of seats in the cabinet (or institution functioning as the cabinet) or parliament or court that one bargaining party wants to guarantee will be held by that party, regardless of election outcomes.

- (1) Counting Cases: There are situations in which bargaining participants bargain over more than one type of political power-sharing within one bargaining attempt.
- (i) If bargaining participants discuss only one issue (either cabinet or parliament or court power-sharing) in one bargaining attempt, it is coded as one case.
 - (ii) On the other hand, if bargaining participants negotiate more than two types of political power-sharing, it is coded as separate cases.
- (2) Counting Offers
- (i) President and each minister in cabinet or a member of parliament or court is counted as one seat in cabinet or parliament or court, respectively.
 - (ii) It is often expressed as a specific number of seats in cabinet or parliament or court. Other times, it is expressed as a percentage of seats.
 - (a) If it is the former case, the total number of seats in cabinet or parliament or court prior to bargaining is also collected to be placed in the denominator for a percentage calculation.
 - (b) If it is the latter case, the percentage statement from each political bargaining group is recorded.
- (3) Offers: The offer is coded as a stated percentage. Values are assigned as follows:

- The offer is coded as 0 if the rebel group does not demand any seats in the cabinet or parliament or court (or does not respond to the government offer) or if the government gives up all seats entitled to the current cabinet or parliament or court.
- The offer is coded as 100 if the government demands a status quo (or does not respond to the rebel offer or respond but reject the rebel offer without counteroffer), or if all seats in the cabinet or parliament or court are requested by the rebel group(s).
- If multiple groups not considered a recognized coalition share some seats and thus select the representatives to those posts collectively, the offer is coded as the total number of seats assigned to them divided by the number of groups. Offers to each group to which this applies are coded as equal.
- If a bargaining participant makes a demand to share seats in the cabinet or parliament or court with other bargaining participant(s), the offer ranges from 0.1 - 99.9.
- The combined value from all bargaining participants in one bargaining attempt may not sum to 100 because of the situations in which there are parties outside of the bargaining table that are assigned some seats in a cabinet or parliament or court. There are two possibilities under this situation: if these parties outside of the bargaining table (e.g. political party) are forming a coalition with the government actor, the seats assigned to these parties are counted as seats to the government actor, otherwise, it is not counted as seats to government actor.

(4) Additional coding rules: There are situations in which parties involved in bargaining do not specify the total number of seats in a cabinet or parliament or court and discuss only the potential number of seats for each actor. First, in determining the total number of seats, there can be two possible situations.

- (i) If the bargaining participants do not imply structural changes in the cabinet or parliament or court, I code the total number of seats in the cabinet or parliament or court.
- (ii) if the bargaining participants imply structural changes from the cabinet or parliament or court, I rely on the total number of seats in the immediate future to determine the number of total seats.

Second, in determining the number of seats assigned to each actor using the potential number of seats assigned to them, I collect information about the number of recipients of seats bargaining participants specify, or the number they imply when they consider the distribution of seats.

- When it is implied instead of specified by saying "all warring groups" or "all political parties," I code the total number of bargaining participants following the information gathered before and during the bargaining period.

Third, when bargaining participants bargain over the possible number of seats (e.g., maximum or minimum specification of seats) instead of the real number of seats for each actor, I

code each actor as demanding the same number of (specified maximum or minimum) seats. Then, the bargaining offer of the seats for each bargaining participant is calculated using the total number of seats and the seats for each actor.

Sources: News articles from periodicals available in *Lexis-Nexis*

**Issue: The Presidency is treated as equal to other ministers in the government.

Group Strength Variables

Once information about group strength (E, G, and H) is collected, I order bargaining participants by using groups' military strength. Then, these values are normalized between 0 and 1 to measure group type.

(D) Internal Power (Integer)

Internal power refers to the military might of the bargaining participant, and I operationalize it by the number of armed personnel that the group commands. Coding rules are following:

- (1) The army size includes total armed forces including paramilitary.
- (2) Whenever warring groups in civil war form a coalition and engage in unified decision-making during bargaining, the army sizes of the groups involved in the coalition are combined. Even if some part of coalition member does not participate in the talk or show the discrepancy with other coalition members but does not claim the withdrawal from the coalition, their power is included.
- (3) The army size is coded by information available close to the starting date of the bargaining attempt.
- (4) The midpoint of the range is chosen, if information is only available with a range rather than an exact number of troops.

Sources: *Military Balance* (as a main source) and *SIPRI* and *Lexis-Nexis* (as a secondary source)

(E) External Supporter

External supporter is an outside party to aid the groups involved in civil war by sending troops. An external supporter is defined as a country or group of countries that takes the side of either a government or rebel group(s) to carry out military operations for its favored group against other groups.

Source: *Keesing's World News Archive*, *Lexis-Nexis*, and *SIPRI*

(F) External Power (Integer)

External power refers to the military might of any external supporter of the political bargaining group. It operationalized by the number of armed personnel that the country commands.

- (1) The army size includes total military personnel.
- (2) The army size is coded by information available close to the starting date of the bargaining attempt.
- (3) The midpoint of the range is chosen, if main sources give me a range rather than an exact number of troops.

Sources: *Keesing's World News Archive*, *Lexis-Nexis*, *Military Balance* and *SIPRI*

(G) Combined Power (Integer)

I measure combined power by summing Internal Power and External Power.

Third-party Peacekeeping Operation Variables

Source: Online source of UN for peacekeeping (<http://www.un.org/en/peacekeeping/>) and the Security Council's Resolutions (<http://www.un.org/en/documents/index.shtml>), *Yearbook of the United Nations*, *Blue Helmet*(1996), *SIPRI* (various years), *Military Balance* (various years), *Encyclopedia of Violence, Peace and Conflict*, *Lexis-Nexis*, and Heldt (2008).

(H) Third-party Peacekeeping Operation Name (PKO Mandate)

The name of UN and non-UN peacekeeping operations with a variety of missions during a bargaining attempt.

(I) Chapter (PKO Mandate Type)

0 - None

1 - Peacekeeping operations without enforcement mandate

2 - Peacekeeping Enforcement Mandate including the mechanisms of sanction (Article 41) and/or the threat of use of force (Article 42) under chapters VII or VIII of the United Nations Charter

When there is more than one peacekeeping operation in a civil war country, the highest value of PKO mandate type is used.

(J) Third-party Peacekeeping Operation Strength (PKO Strength)

PKO strength is measured by the total number of military personnel sent to a civil war country. When there is more than one peacekeeping operation in a civil war country, PKO strength is the combined number of PKO military personnel from all peacekeeping operations.

Control Variables

(K) Battlefield Outcome (Trichotomous Ordinal: 1, 0, -1)

Battlefield outcome measures the military status quo prior to or during the bargaining attempt.

- (1) Battlefield outcomes are sometimes described using terms such as "winning," "gaining," "losing," "victory," "defeat," "performs better," "stalemate," "impasse." When these descriptions for the battlefield are available, values are assigned as follows:

- (i) 1: A bargaining groups battlefield outcomes are described as “winning,” “victory,” “performs better,” “advances,” “steps up,” “recaptures.”
 - (ii) 0: If the recent battle is described as “stalemate,” “impasse,” or if cease-fire announced by bargaining participants is in force and no battle between them has been reported since the cease-fire announcement.
 - (iii) -1: A bargaining groups battlefield outcomes are described as a “loss,” or “defeat.”
- (2) Other times, battles are reported without a clear outcome. In these cases, values are assigned as follows
- (i) 1: A bargaining group is on the attacking side
 - (ii) 0: A bargaining group is both on the attacking side and the attacked side due to attack and counterattack by bargaining groups
 - (iii) -1: A bargaining group is on the attacked side.
- (3) Based on the specific participants at the bargaining table, there are two possibilities: all the bargaining groups are engaged in fighting or only a fraction of bargaining participants are engaged in fighting. If the former, battlefield outcomes follow the rules in (2). If only a fraction of the total number of groups is engaged in fighting, battlefield outcome is coded as follows:
- (i) The outcomes for bargaining groups who were engaged in fighting are coded following the rules in (2).
 - (ii) The outcomes for bargaining groups who were not engaged in fighting are coded as *stalemate*.
- (4) To capture the most proximate battlefield outcome, when there is a discrepancy between the battlefield outcome prior to the bargaining attempt and the battlefield outcome during the bargaining attempt, the battlefield outcome during the bargaining attempt takes precedent.

Sources: News articles from periodicals available in *Lexis-Nexis*, *Keesing's World News Archive*, and *SIPRI*. **Note: Reports whose only source of information on battlefield outcomes are unilateral claims by a combatant are not coded. To be coded, reports must be confirmed by noncombatant actors or they should be clarified by more than one of the parties engaged in fighting.

(L) Type of Political Power Sharing

Type of political power-sharing is a type of political power-sharing that bargaining participants discuss in a bargaining attempt. There are three types of political power within a political system that the bargaining participants discuss for sharing: cabinet, parliament, court (Nominal: Cabinet 1; Parliament 2; Court 3).

(M) Multiple Bargaining

This variable measure whether there were more than one type of political power-sharing in one bargaining attempt. (Binary: Yes 1; No 0)

(N) Number of Participants

This variable counts the number of bargaining participants.

APPENDIX B

LIST OF POLITICAL POWER-SHARING BARGAINING, 1989-1994

Table B.1: List of Political Power-sharing Bargaining

Country	Bargaining Attempt	Location	Bargaining Participants	Type of Political Bargaining
Afghanistan	Mar. 3-7, 1993	Islamabad, Pakistan	Government, Hezb-e-Islami	Cabinet
Afghanistan	Mar. 20-21, 1993	Jalalabad, Afghanistan	Government, Hezb-e-Islami, Harkat-e-Inqilab-e-Islami, Jabha-e-Nijat-e-Milli, Mahaz-e-Milli Harkat-e-Islamic, Hizb-e-Wahdat-e-Islami Ahmadzai Ittehad-e-Islami	Cabinet
Afghanistan	May 1-20, 1993	Jalalabad, Afghanistan	Government, Hezb-e-Islami, Harkat-e-Inqilab-e-Islami, Jabha-e-Nijat-e-Milli, Mahaz-e-Milli Harkat-e-Islamic, Hizb-e-Wahdat-e-Islami Ahmadzai Ittehad-e-Islami	Cabinet
Angola	Jun. 28-30, 1989	Kinshaha, Zaire	Government, UNITA	Cabinet
Angola	Nov. 26-Dec. 7, 1992	Namibe, Angola	Government, UNITA	Cabinet
Angola	Apr. 17-18, 1993 Apr. 29-May 3, 1993	Abidjan, Ivory Coast	Government, UNITA	Cabinet
Angola	Nov. 15-Dec. 13, 1993	Lusaka, Zambia	Government, UNITA	Cabinet
Angola	Jan. 6-Feb. 2, 1994	Lusaka, Zambia/Sao Tome-Principe, Democratic Republic of Sao Tome and Principe	Government, UNITA	Cabinet
Angola	Feb. 14-Mar. 10, 1994	Lusaka, Zambia	Government, UNITA	Cabinet
Angola	Mar. 16-28, 1994	Lusaka, Zambia	Government, UNITA	Cabinet
Angola	Mar. 13-19,	Lusaka, Zambia	Government, UNITA	Cabinet,

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Country	Bargaining Attempt	Location	Bargaining Participants	Type of Political Bargaining
	May 25–Jun. 17, 1994			Parliament
Angola	Sep. 5–28, 1994	Lusaka, Zambia	Government, UNITA	Cabinet
Cambodia	Feb. 19–21, 1989	Jakarta, Indonesia	Government, CGDK Coalition	Cabinet
Cambodia	May 2–3, 1989	Jakarta, Indonesia	Government, CGDK Coalition	Cabinet
Cambodia	Jul. 24–26, 1989	La Celle-St. Cloud, France	Government, CGDK Coalition	Cabinet
Cambodia	Jul. 30–Aug. 30, 1989	Paris, France	Government, CGDK Coalition	Cabinet
Cambodia	Feb. 26–28, 1990	Jakarta, Indonesia	Government, CGDK Coalition	Cabinet
Cambodia	Jun. 4–5, 1990	Tokyo, Japan	Government, CGDK Coalition	Cabinet
Cambodia	Sep. 9–10, 1990	Jakarta, Indonesia	Government, CGDK Coalition	Cabinet
Cambodia	Jun. 2–4, 1991	Jakarta, Indonesia	Government, CGDK Coalition	Cabinet
Cambodia	Jun. 22–26, 1991	Pattaya, Thailand	Government, CGDK Coalition	Cabinet
Cambodia	Jul. 16–17, 1991	Beijing, China	Government, CGDK Coalition	Cabinet
Cambodia	Jul. 13, 1993	Phnom Penh, Cambodia	Government, KR	Cabinet
Liberia	Mar. 15–27, 1991	Monrovia, Liberia	Government, NPFL, INPFL	Cabinet
Liberia	Mar. 27–Apr. 19, 1991	Monrovia, Liberia	Government, INPFL	Cabinet
Liberia	Jun. 30, 1991	Yamoussoukro, Ivory Coast	Government, NPFL	Cabinet
Liberia	Jul. 23–25, 1993	Cotonou, Benin	Government, NPFL, ULIMO	Cabinet
Liberia	Aug. 14–17, 1993	Monrovia, Liberia	Government, NPFL, ULIMO	Parliament
Liberia	Nov. 3–6, 1993	Cotonou, Benin	Government, NPFL, ULIMO	Cabinet
Liberia	Sep. 7–12, 1994	Akosombo, Ghana	Government, NPFL, AFL, ULIMO	Cabinet
Liberia	Nov. 5–12, 21–29, 1994	Accra, Ghana	Government, NPFL, AFL, ULIMO, Coalition Forces	Cabinet
Liberia	Dec. 20–21, 1994	Accra, Ghana	Government, NPFL, AFL, ULIMO, Coalition Forces	Cabinet

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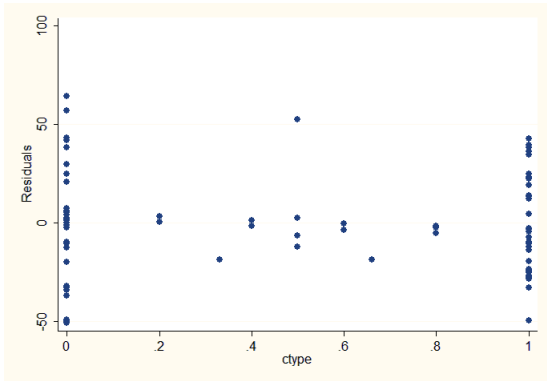
Country	Bargaining Attempt	Location	Bargaining Participants	Type of Political Bargaining
Rwanda	Sep. 7–18, 1992	Arusha, Tanzania	Government, FPR	Cabinet
Rwanda	Nov. 25–Dec. 22, 1992	Arusha, Tanzania	Government, FPR	Cabinet
Rwanda	Dec. 25, 1992– Jan. 9, 1993	Arusha, Tanzania	Government, FPR	Cabinet, Parliament, Court
Somalia	Mar. 14–17, 19–27, 1993	Addis Ababa, Ethiopia	Somalia Government Alliance, USC-Aidid Alliance	Cabinet
Tajikistan	May 6–12, 1992	Dushanbe, Tajikistan	Government, UTO	Cabinet, Parliament

APPENDIX C

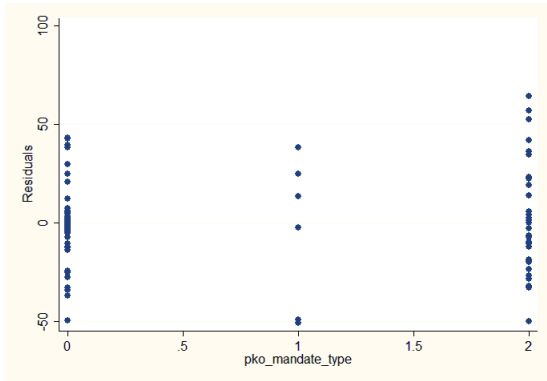
DIAGNOSTIC TESTS OF OLS REGRESSION ASSUMPTIONS

Table C.1: Multicollinearity Test: Variance Inflation Factors

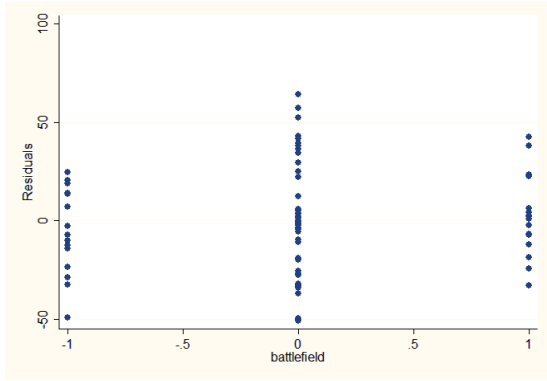
Variables	All Participants w/out Interaction Term	All Participants with Interaction Term	Participants in Bilateral Bargaining
Combined Power Type	1.01	1.96	1.94
PKO Mandate Type	1.11	2.40	2.11
Combined-PKO Type		3.28	2.94
Battlefield	1.01	1.11	1.14
Multiple Bargaining	1.84	1.84	1.82
Type of Political Bargaining	1.81	1.81	1.83
Number of Participants	1.14	1.14	



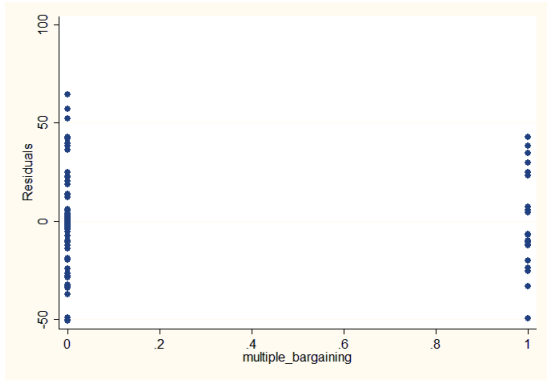
(a) Residual Plot: Combined Power Type



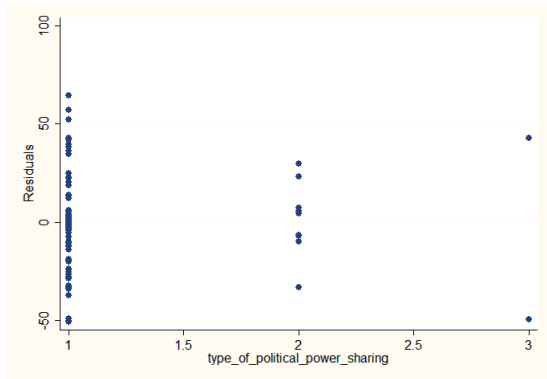
(b) Residual Plot: PKO Mandate Type



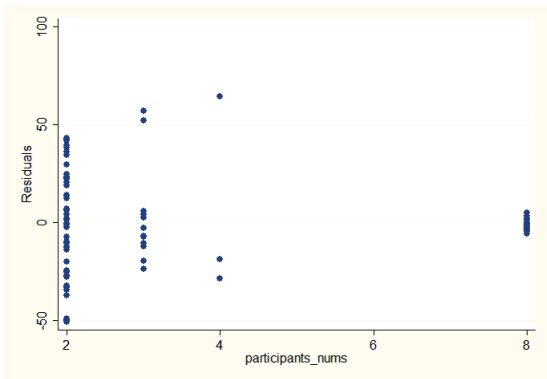
(c) Residual Plot: Battlefield



(d) Residual Plot: Multiple Bargaining

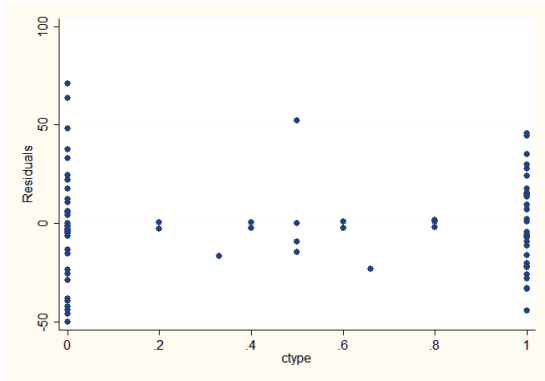


(e) Residual Plot: Type of Political Bargaining

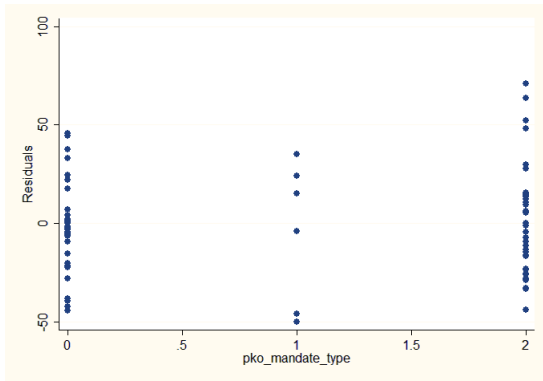


(f) Residual Plot: Number of Participants

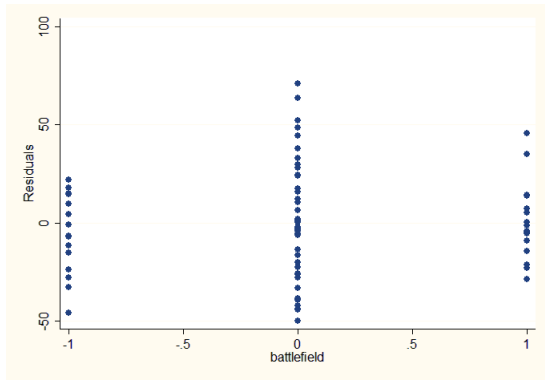
Figure C.1: Linearity Test: All Participants w/out Interaction Term



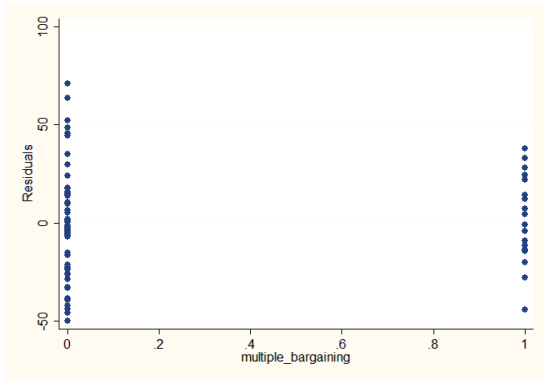
(a) Residual Plot: Combined Power Type



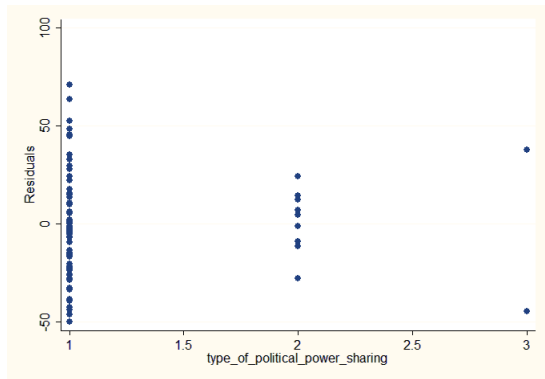
(b) Residual Plot: PKO Mandate Type



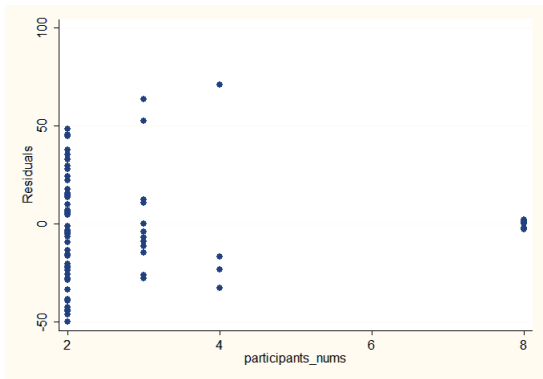
(c) Residual Plot: Battlefield



(d) Residual Plot: Multiple Bargaining

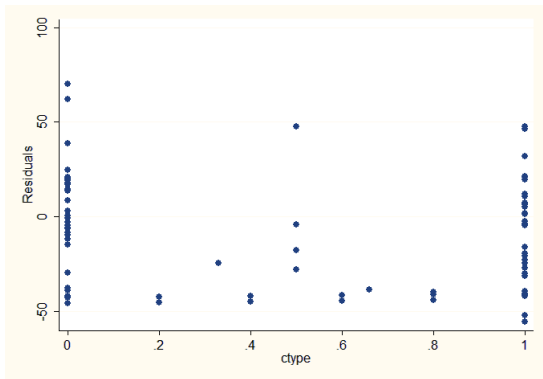


(e) Residual Plot: Type of Political Bargaining

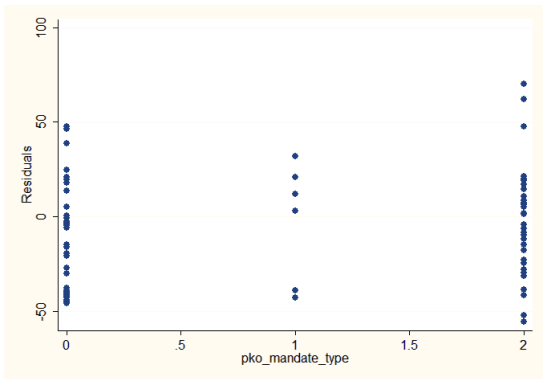


(f) Residual Plot: Number of Participants

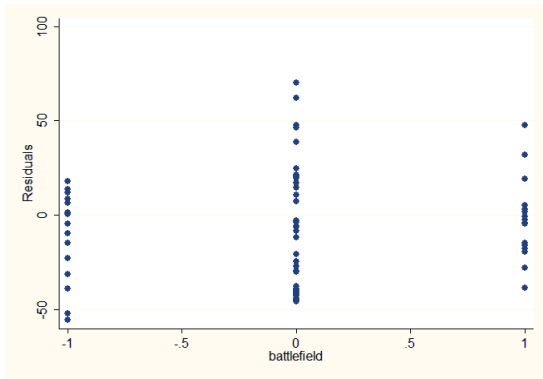
Figure C.2: Linearity Test: All Participants with Interaction Term



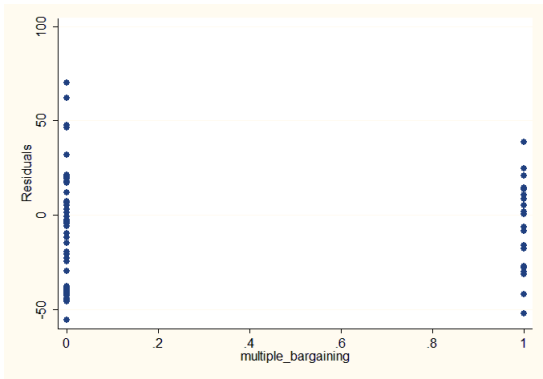
(a) Residual Plot: Combined Power Type



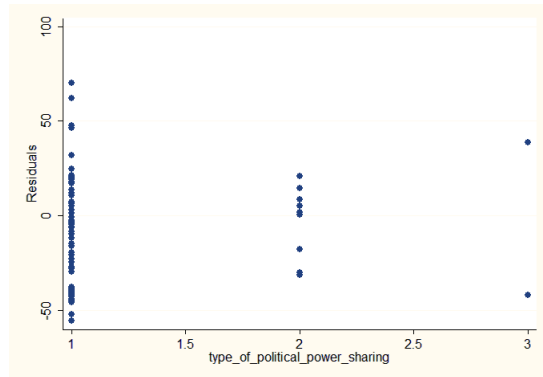
(b) Residual Plot: PKO Mandate Type



(c) Residual Plot: Battlefield



(d) Residual Plot: Multiple Bargaining



(e) Residual Plot: Type of Political Bargaining

Figure C.3: Linearity Test: Participants in Bilateral Bargaining

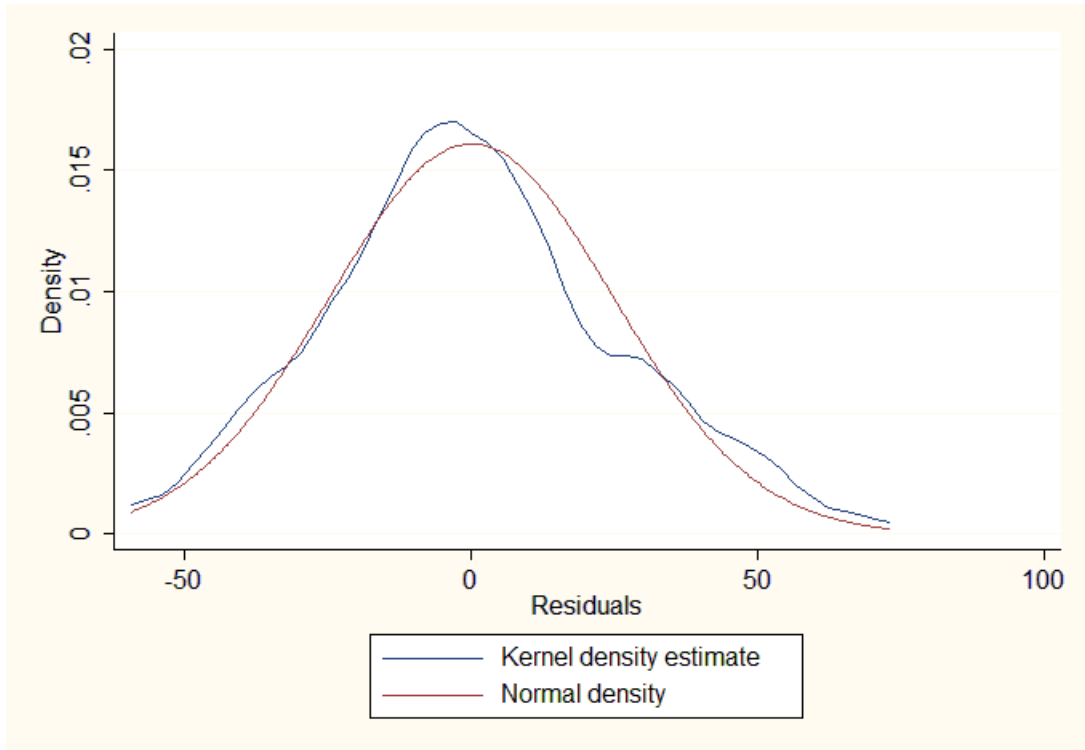


Figure C.4: Normal Density Function vs. Kernel Density Function: All Participants w/out Interaction Term

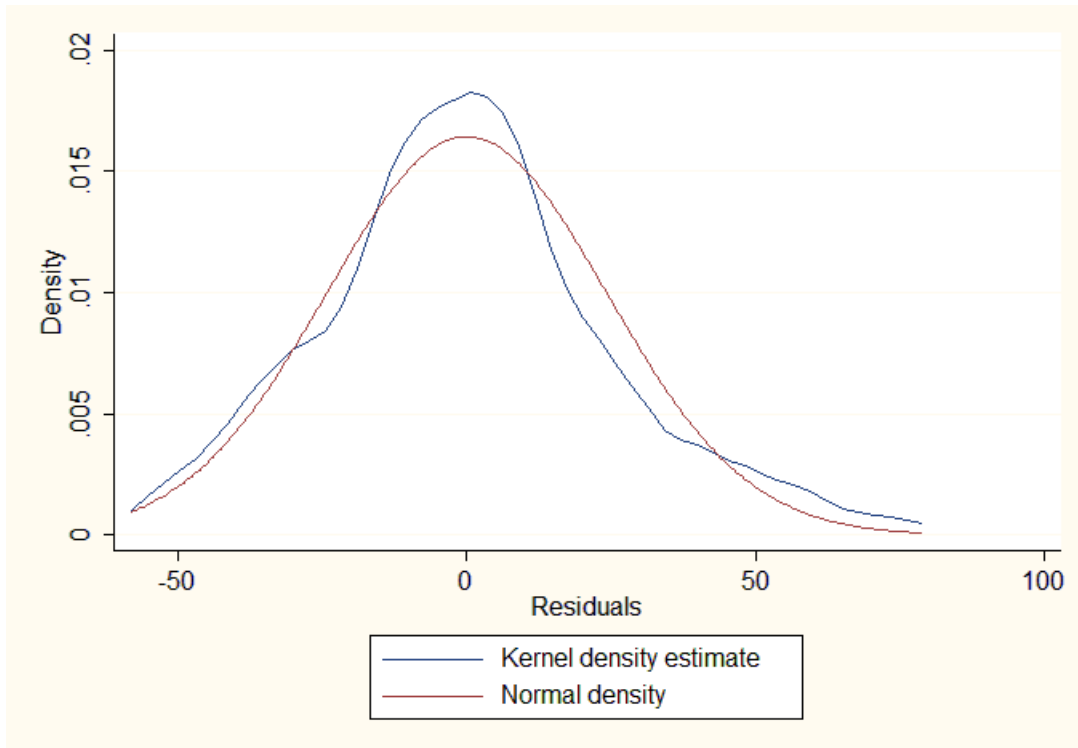


Figure C.5: Normal Density Function vs. Kernel Density Function: All Participants with Interaction Term

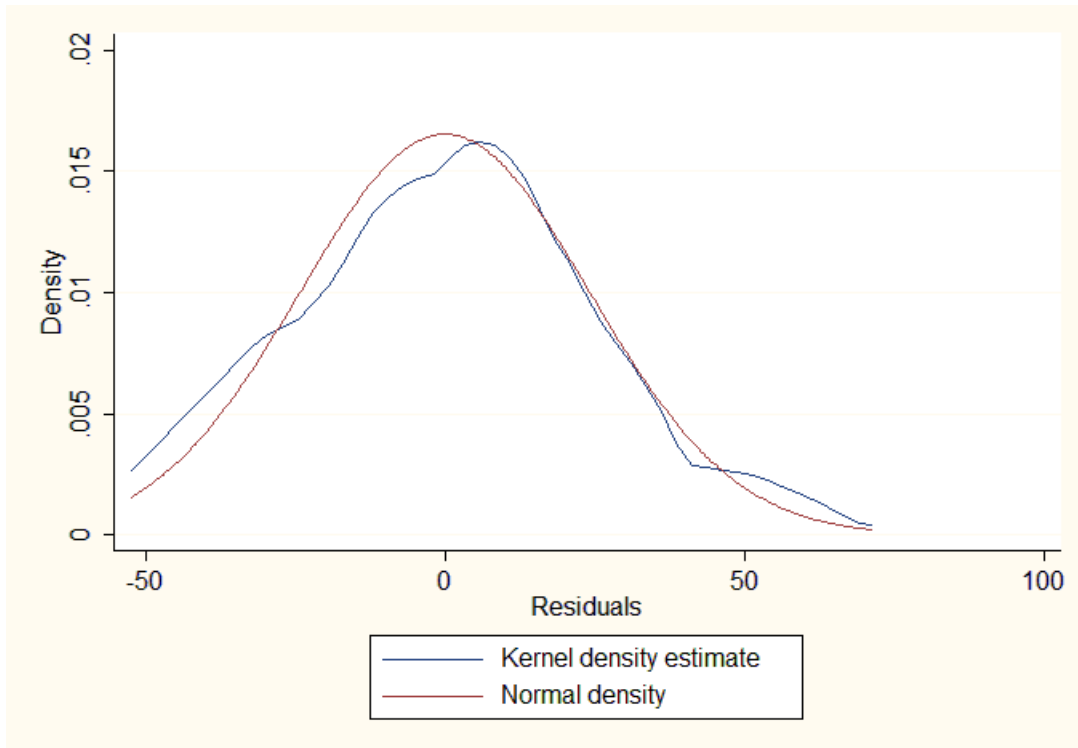


Figure C.6: Normal Density Function vs. Kernel Density Function: Participants in Bilateral Bargaining

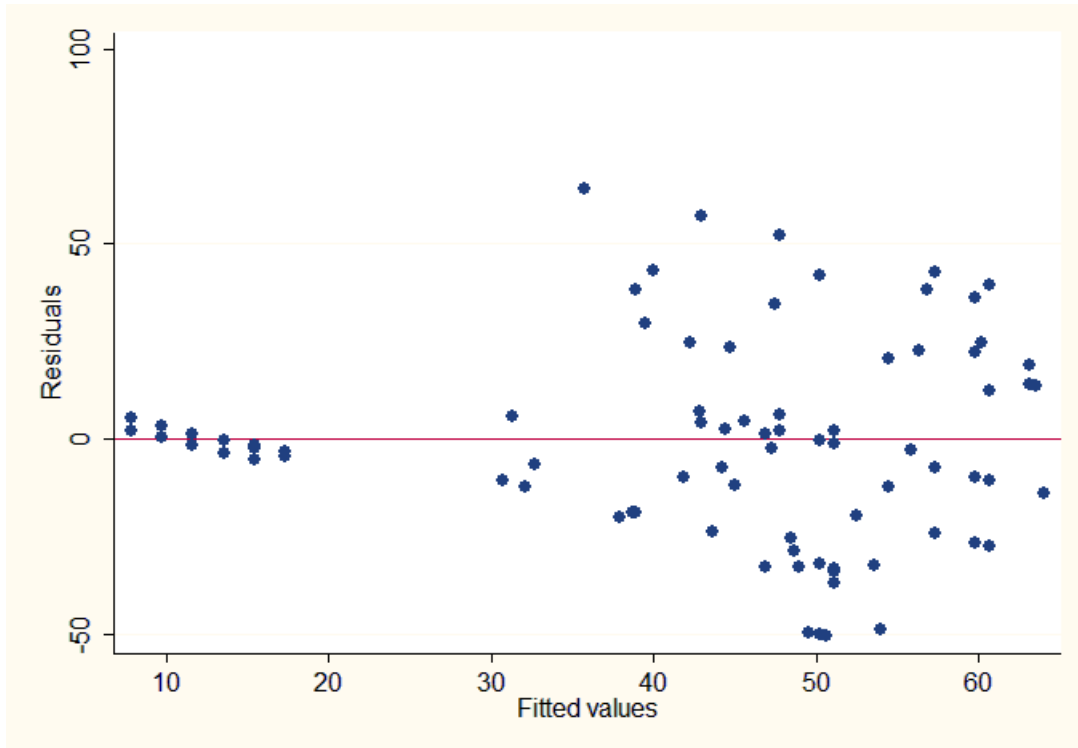


Figure C.7: Homoscedasticity Test: Residual Plots (All Participants w/out Interaction Term)

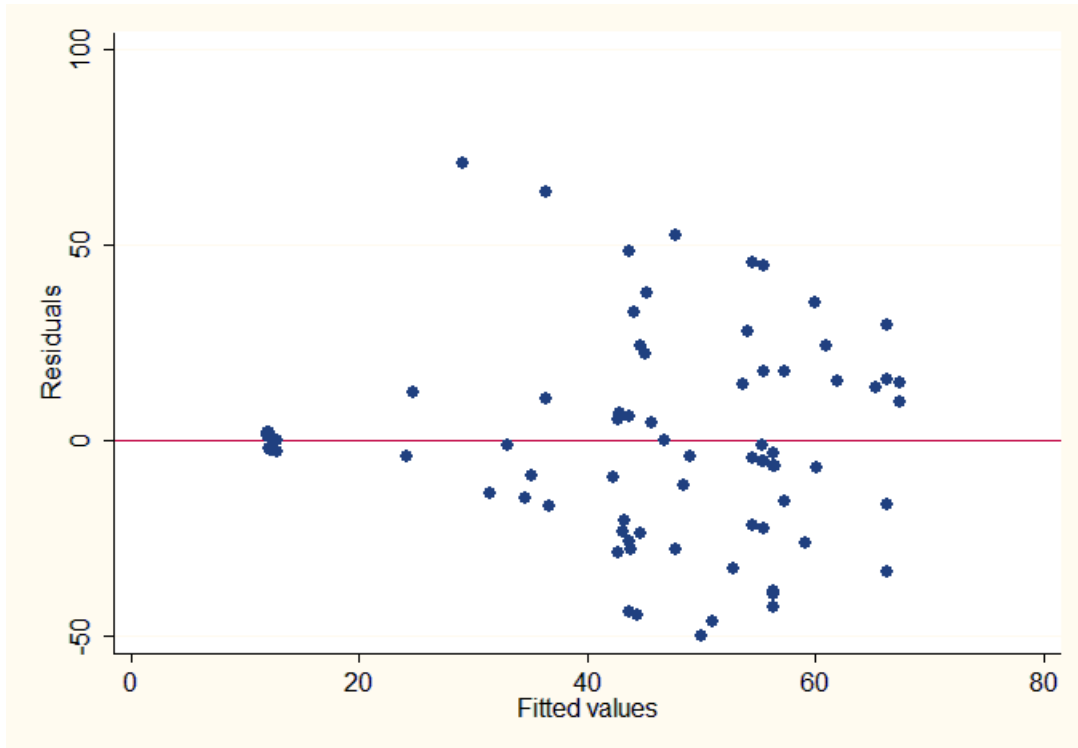


Figure C.8: Homoscedasticity Test: Residual Plots (All Participants with Interaction Term)

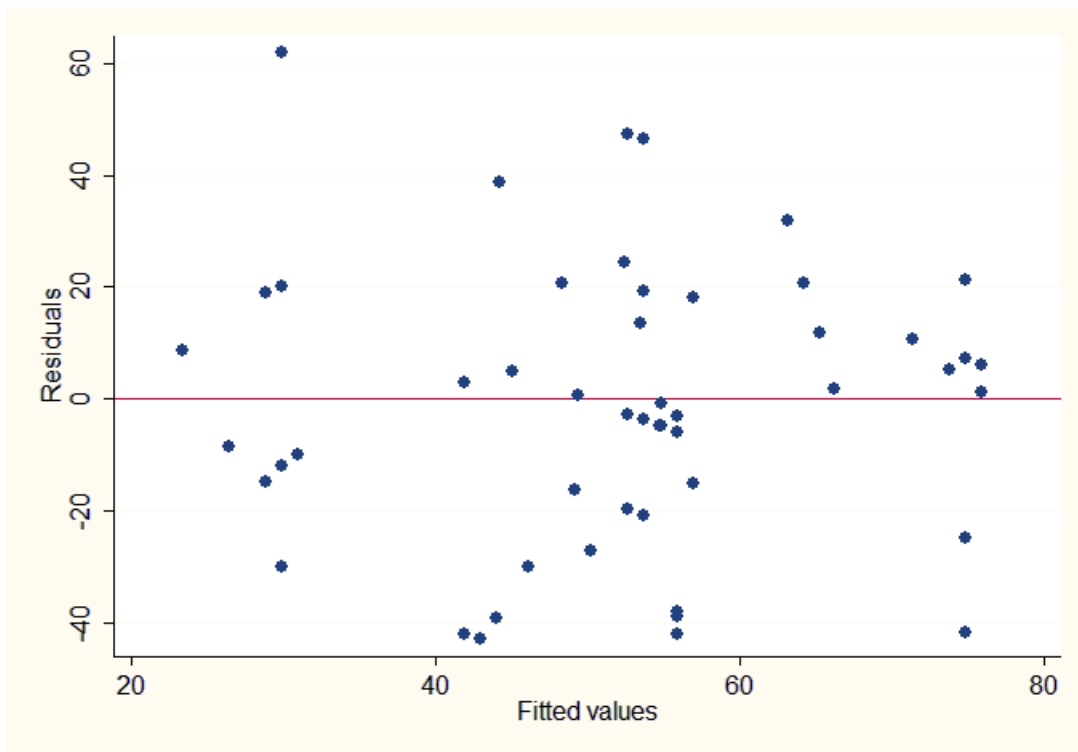


Figure C.9: Homoscedasticity Test: Residual Plots (Participants in Bilateral Bargaining)

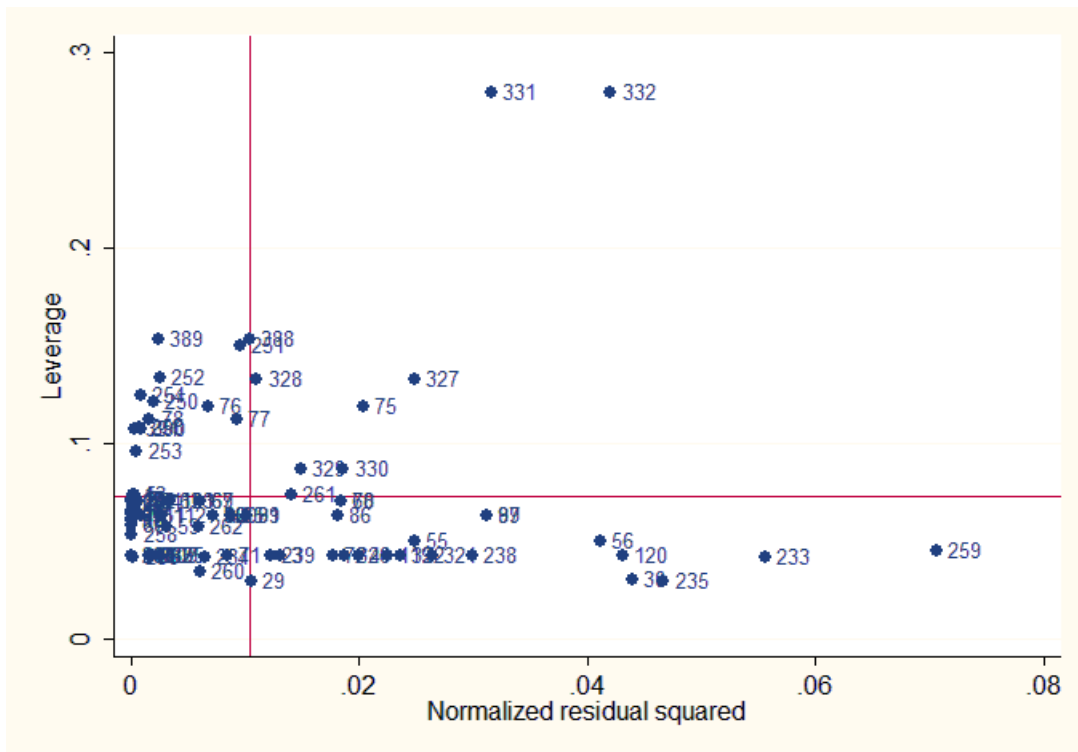


Figure C.10: Leverage Test: All Participants w/out Interaction Term

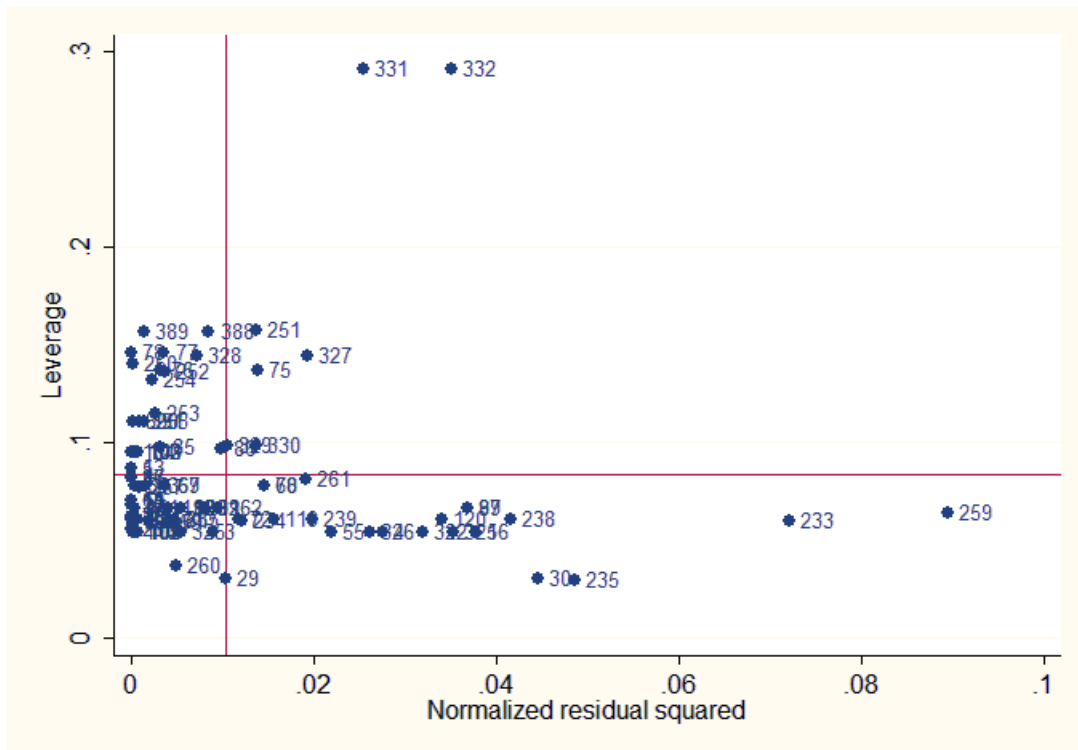


Figure C.11: Leverage Test: All Participants with Interaction Term

Table C.2: Errors-in-variables Regression Model

Variables	All Participants w/out Interaction Term	All Participants with Interaction Term	Participants in Bilateral Bargaining
Combined Power Type	10.687* (6.293)	-14.679 (16.454)	-22.975 (15.463)
PKO Mandate Type	-0.399 (3.246)	-14.809 (9.263)	-26.557*** (8.908)
Combined-PKO Type		25.673* (14.806)	45.251*** (13.968)
Battlefield	-3.830 (4.410)	2.148 (5.607)	3.640 (5.674)
Multiple Bargaining	-15.423 (11.998)	-14.757 (11.593)	-4.540 (11.569)
Type of Political Bargaining	2.980 (12.115)	2.172 (11.711)	-4.278 (9.840)
Number of Participants	-7.263*** (1.283)	-7.564*** (1.258)	
Cons	62.444*** (14.368)	78.112*** (17.159)	72.967*** (13.934)
Number of Observations	96	96	64
R-squared	0.309	0.364	0.375

Table C.3: Normality Test: Result of Interquartile Range (All Participants w/out Interaction Term)

	Low	High
Inner Fences	-63.41	68.26
Mild Outliers	0	0

Outer Fences	-112.8	117.6
Severe Outliers	0	0

Table C.4: Normality Test: Result of Interquartile Range (All Participants with Interaction Term)

	Low	High
Inner Fences	-61.57	60.43
Mild Outliers	0	2

Outer Fences	-107.3	106.2
Severe Outliers	0	0

Table C.5: Normality Test: Result of Interquartile Range (Participants in Bilateral Bargaining)

	Low	High
Inner Fences	-65.95	68.38
Mild Outliers	0	0

Outer Fences	-116.3	118.8
Severe Outliers	0	0

Table C.6: Model Specification Test: Link Test

Bargaining Offer	All Participants w/out Interaction Term	All Participants with Interaction Term	Participants in Bilateral Bargaining
hat	0.620 (0.762)	0.589 (0.713)	0.921 (1.329)
hatsq	0.005 (0.010)	0.005 (0.009)	0.001 (0.013)

Note: Top number is the coefficient estimate; standard errors are in parentheses.

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