Information, Bias, and Mediation Success: Evaluating the Effectiveness of Mediation of International Conflicts

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ABSTRACT

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Why do some mediation activities produce favorable outcomes while others fail to achieve success? I investigate this question by focusing on the type and characteristics of mediators of international conflicts. Are some types of mediators more able to facilitate negotiated settlements between the disputants than others? Drawing on the bargaining theory of war and building upon Kydd (2003)’s game-theoretical model of mediation, I argue that mediators that have information about the military capabilities and/or resolve of the disputants are more likely to induce negotiated settlements between the disputants than those without such information. I develop operational measures of mediator’s information about the disputants and mediator’s bias towards the disputants and find that having relevant information about the disputants increases a mediator’s likelihood of success. However, I do not find empirical support for the argument that a mediator needs to be biased towards one of the disputants in order to credibly convey information. The findings of this study increase our confidence in the usefulness and relevance of the bargaining theory of war, which perceives information imperfections as a central cause of conflict.
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<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of Tables and Figures</td>
<td>vi</td>
</tr>
<tr>
<td>Chapter One</td>
<td>1</td>
</tr>
<tr>
<td>Chapter Two</td>
<td>11</td>
</tr>
<tr>
<td>Chapter Three</td>
<td>20</td>
</tr>
<tr>
<td>Chapter Four</td>
<td>50</td>
</tr>
<tr>
<td>Chapter Five</td>
<td>64</td>
</tr>
<tr>
<td>Chapter Six</td>
<td>105</td>
</tr>
<tr>
<td>Bibliography</td>
<td>111</td>
</tr>
<tr>
<td>Appendix A</td>
<td>119</td>
</tr>
<tr>
<td>Appendix B</td>
<td>120</td>
</tr>
<tr>
<td>Appendix C</td>
<td>121</td>
</tr>
</tbody>
</table>
LIST OF TABLES AND FIGURES

Figure 3.1: The Bargaining Set 22
Figure 3.2: Kydd’s Bargaining Game 36
Figure 3.3: The Bargaining Space 38
Table 5.1: Censored Probit Model of State Mediation Success – Hypothesis 1 76
Table 5.2: Substantive Interpretation of the Results of the Censored Probit Model of State Mediation Success – Hypothesis 1 78
Table 5.3: Censored Probit Model of the Effects of the Individual Components of Information on Mediation Success 81
Table 5.4: Censored Probit Model of the UN Mediation Success – Hypothesis 2 84
Table 5.5: Substantive Effects of the Censored Probit Model of the UN Mediation Success – Hypothesis 2 85
Table 5.6: Distribution of Mediation Success in Mediation by Regional Organizations – Hypothesis 3 88
Table 5.7: Boolean Probit Estimates of State Mediation Success – Hypothesis 4 91
Table 5.8: Censored Probit Model of State Mediation Success – Hypothesis 4 93
Table 5.9: Substantive Effects of the Censored Probit Model of State Mediation Success – Hypothesis 4 94
Table 5.10: The Censored Probit Model of the Effects of Individual Components of Bias on Mediation Success 96
Table 5.11: Censored Probit Model of the UN Mediation Success – Hypothesis 5 98
Table 5.12: Substantive Effects of the Censored Probit Model of the UN Mediation Success – Hypothesis 5 99

Table 5.13: Censored Probit Model of Regional Organization Mediation Success – Hypothesis 6 101

Table 5.14: Substantive Effects of the Censored Probit Model of Regional Organization Mediation Success – Hypothesis 6 102
CHAPTER 1: INTRODUCTION

When states are in disagreement, they can adopt various approaches to manage their conflicts. They can negotiate their differences at the bargaining table, they can use violence to compel each other to give in, or they can request an outsider to mediate or adjudicate their disputes. Although states reserve the right to resort to violence, there is a strong normative commitment to the peaceful resolution of disputes in the international system. Article 2 of the United Nations Charter captures this universal desire: “All member states shall settle their international disputes in such a manner that international peace and security are not endangered.” For various reasons that I will discuss later, sometimes states cannot solve their differences on their own and thus, seek a solution that includes the help of a third party. This dissertation is about one of the most commonly used third party conflict management techniques: mediation.

Mediation of international conflicts by third parties is as old and common as international conflict itself. Throughout history, belligerents have repeatedly turned to the aid of third parties to help them to terminate their hostilities and to reach peaceful settlements. In some instances, mediation serves as a crucial catalyst by providing the opportunity for the belligerents to reach a negotiated settlement, such as the Dayton Accord that ended the war in Bosnia in 1995 (Holbrooke 1998), while in other cases it fails to produce a successful outcome, such as the Camp David negotiation between Israel and the Palestinians in 2000 (Ross 2005). Why do some mediation activities produce favorable outcomes while others fail to achieve success? This is the general research question that motivates this study.

1 I use international conflict, international dispute and international crisis interchangeably.
I investigate this question by focusing on the type and characteristics of mediators. Are some types of mediators more able to facilitate negotiated settlements between the disputants than others? What kinds of characteristics make a mediator an effective one? What kinds of state mediators have a better chance of facilitating agreements between the disputants? Are regional and international organizations equally good at terminating hostilities as mediators?

Although mediation of international disputes is a common practice, our theoretical understanding of mediation outcomes is rather weak: we do not have a compelling theory of mediation success. Admittedly, mediation success is a complex phenomenon. Various factors, from the nature of the disputants to the nature of the mediators, are empirically shown to influence the likelihood of mediation success (e.g., Bercovitch et al. 1991, Bercovitch and Langley 1993, Kleiboor 1996). The mediation literature provides us with a cluster of independent variables that predict mediation success; yet, the micro-foundations of the existing explanations of mediation success are weak or non-existing. We do not have a compelling theory of mediation outcomes that can provide us with a systematic explanation of why some mediation attempts are successful while others are not. Therefore, there is ample room for theoretical improvement in the mediation outcomes literature.

The fact that only 39 % \(^2\) of mediation attempts of international conflicts between 1945 and 1995 produced successful \(^3\) outcomes provides an additional impetus for further scholarly research on mediation outcomes. Mediation of international conflicts is an

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\(^2\) The percentage of success is calculated using the International Conflict Management Dataset (Bercovitch, 1999).

\(^3\) Successful outcomes include partial and full settlements but exclude ceasefires. If ceasefires are included in the definition of success, the success rate increases to 48 %.
important phenomenon: mediation can make the difference between a prolonged and costly war and a peaceful settlement. Using a trial and error method in deciding which international actor should serve as a mediator in a given international conflict is obviously dangerous as conflicts are life-threatening situations, posing potential material and economic damages to the actors involved. Wasting too much time to find a competent conflict manager might result in the loss of human life, escalation of the crisis and other adverse consequences. If it is our goal to increase the success rate of mediation activities in the international system so that we have a more secure and peaceful world, we need to develop a more complete theoretical understanding of the process of mediation. A more successful mediation policy requires us to formulate a more compelling theory of mediation outcomes.

I intend to make a contribution to our theoretical understanding of mediation outcomes by studying the type and characteristics of mediators. One might argue that an exclusive focus on the type of mediators to understand mediation outcomes might obscure our understanding of the topic as mediation outcomes are also influenced by factors other than mediator characteristics. I do not disagree that other factors, such as the characteristics of disputes and/or disputants, influence the likelihood of mediation outcomes. I actually include such additional factors as control variables in my empirical models. However, I believe that there is more value-added in examining the characteristics of mediators to understand mediation outcomes than focusing on the nature of disputes or disputants. The reason is that the latter factors are usually fixed. There is not much we can do about to change the nature of disputes or disputants. On the other hand, the decision to mediate a given international crisis requires an active choice
and such choices are manipulable. International actors can choose who should mediate a given international crisis. If we improve our understanding of what kinds of mediators are good at facilitating settlements between the disputants, we may be able to provide some useful insights that will increase the likelihood that policy makers make more optimal choices in mediation of international conflicts.

The basic contention of my thesis is that any systematic understanding of the effectiveness of mediation as a conflict resolution technique must be built on an analysis of what causes war and what mediators can do about it. Therefore, in order to provide a compelling explanation to the question of what kinds of mediators are better, we need to understand how and under what conditions different types of mediators are able to ameliorate the fundamental causes of conflict between states. To the extent that a mediator is able to help the disputing states to cope with the conditions that lead to militarized conflicts, such a mediator is considered an effective one.

One important cause of conflict that is amenable to mediation is uncertainty regarding the disputants' preferences and capabilities. Blainey (1988) argues that war occurs when states disagree about their relative power and ends when their expectations converge. Similarly, in the bargaining framework, it has been argued that when states have private information about their resolve and military capabilities, they may have an incentive to misrepresent such information to each other in an attempt to get a better deal in any negotiated settlement (Fearon 1995). The failure to disclose such private information, in turn, prevents states from recognizing the possibility of mutually acceptable solutions and thus leads to bargaining failures.  

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4 According to the bargaining theory of war, commitment problems and issue indivisibility are two other explanations of war (Fearon 1995).
A useful approach to establishing the micro-foundations of the effectiveness of mediation is to draw from the literature that sees wars as bargaining failures (e.g., Kydd 2003, Schmidt 2004). The bargaining framework has proved to be a useful and powerful tool to analyze international conflict. Given the high quantity and quality of studies examining different aspects of inter-state conflict using a bargaining model, it is reasonable to argue that many scholars of international conflict have found bargaining models a compelling framework to analyze war (e.g., Morrow 1989, Morgan 1994, Fearon 1995, Werner 1998, Powell 1999, 2002, 2004, Wagner 2000, Filson and Werner 2002, Smith and Stam 2001, Reed 2003, Schultz 2003, Slantchev 2003).

Drawing on the bargaining theory of war, I argue that the likelihood that a mediator produces a successful outcome is a function of her ability to reduce uncertainty that causes bargaining failures. Kydd (2003) argues that mediators that have relevant information about one of the disputants and are biased toward the other are more likely to be successful in reducing uncertainty and thus facilitating agreements between the disputants than other kinds of mediators. Drawing on and building upon Kydd’s game theoretical model of mediation, I contend that some mediators may have a comparative advantage in reducing uncertainty because they have more opportunity to elicit information about the belligerents and carry more credibility to convince the belligerents that the information they provide is reliable.

Although the bargaining theory of war sees information imperfections as a major cause of conflicts, the effect of information provided by mediators to disputants on mediation success is a contested topic in the literature. On the one hand, some scholars argue that information provision is an important and effective mediation strategy (e.g.,
Fisher 1972, Buton 1972, Dixon 1996, Kydd 2003). On the other hand, others contend that mediators need to apply leverage and use side payments to facilitate successful outcomes and the supply of information by mediators does not necessarily facilitate cooperation (e.g., Morgan 1994, Bercovitch 1996, Smith and Stam 2003). This is a puzzling situation. Given the widespread reliance on the bargaining theory to study and understand war, one might argue that the major implication of the bargaining theory – that reduction in uncertainty reduces bargaining failures – should hold in the mediation context as well. That is, mediators should be able to facilitate negotiated settlements between the disputants by providing them relevant information if information imperfections are the central cause of bargaining failures as the bargaining theory of war suggests.

By providing a systematic study of the relationship between the types of mediators that use information provision strategies and mediation outcomes, my dissertation intends to make four contributions. First, I intend to shed some light on the debate over the effectiveness of information provision strategies on mediation success. I argue and show that mediators that have relevant information about the disputants are more likely to be successful than those without information. My findings provide empirical support for the main implication of the bargaining theory of war - bargaining failures occur because states do not share their private information with each other and any reduction in private information facilitates cooperation.

Second, by using insights from the bargaining theory of war and building on an existing game-theoretical model of mediation by Andrew Kydd (2003), I develop

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5 None of these scholars, with the exception of Kydd (2003), uses the bargaining theory of war to explain why information provision matters.
theoretical predictions about the relative effectiveness of different types of mediators and empirically evaluate the validity of these predictions. My predictions are based on an assessment of whether different types of mediators are able to reduce uncertainty that causes bargaining failures.

Third, I provide the first large-N empirical evaluation of the implications of Kydd’s (2003) game theoretical model of mediation success. Kydd’s (2003) model of mediation success produces a counter-intuitive yet an interesting proposition: in order to be successful a mediator needs to be both biased in favor of one of the disputants and have information about the other. Drawing on the cheap talk literature (e.g., Farrell 1993, Austen-Smith & Banks 2000, Calvert 1985, Myers 1998), Kydd (2003) argues that in order to be able to credibly convey information to the disputants, a mediator needs to be biased towards the receiver of the information. According to Kydd (2003), the effect of mediator’s information on mediation success is moderated by mediator’s bias. Although Kydd’s proposition provides a theoretical improvement over the existing studies of mediation outcomes, its empirical validity has not been assessed yet.

In order to be able to evaluate Kydd’s proposition, I develop empirical measures of bias and information. First, I establish a conceptual distinction between absolute and relative bias. I contend that the degree of bias a mediator has towards one of the disputants depends not only on the relationship between the mediator and the disputant but also on the mediator’s relationship with the other disputant. Then, I create an additive index of relative bias based on a mediator’s conflict history, trading relationship and alliance ties with both of the disputants. Third, I emphasize that it is not any kind of information that matters for mediation success. Drawing upon the bargaining theory of
war, I contend that a mediator needs to have information about the resolve and/or military capabilities of the disputants to be able to help them to reduce uncertainty responsible for bargaining failures. Fourth, I develop a new measure of information based on a mediator’s diplomatic representation in the disputants’ territory, her trading relationship, and her institutionalized military alliance ties with the disputants.

A fourth and final contribution of my dissertation is policy prescriptions implied by the empirical findings of this study. I find that mediators need to have relevant information about the disputants in order to be effective. If information is key to mediation success, we need to develop policies that encourage and facilitate the dissemination of information about nation-states. The bargaining theory of war teaches us that particular type of information matters for the facilitation of negotiated settlements between the belligerents: information about resolve and/or military capabilities of states. One particular type of institution that facilitates the exchange of such information is military alliances. Another way to increase the facilitation of information is through diplomatic channels. In particular, military attaches, who are responsible for gathering intelligence about military capabilities of the state they are stationed in, are important sources of human intelligence.

This dissertation evolves in 6 chapters. Chapter 2 provides conceptual and operational definitions of the key concepts: mediation, mediation tactics and mediation effectiveness. Chapter 2 also introduces the analytical distinction I establish between exogenous and endogenous mediation. This distinction is based on whether a particular mediation strategy intends to change the parameters of the bargaining between the
disputants. The focus of this dissertation is the effectiveness of exogenous mediation. Providing information to the disputants is an example of exogenous mediation strategies.

Chapter 3 presents the theoretical argument of this study. In the first part of Chapter 3, I explain why and how the information provided by mediators to the disputants facilitates conflict resolution. I use the insights from the bargaining theory of war to illustrate what kind of information is relevant and how mediators can address the information imperfections responsible for bargaining failures. Then, I discuss what kinds of mediators are more likely to have relevant information about the disputants and derive hypotheses about the type of mediators and their effectiveness based on information they have about the disputants. The second part of Chapter 3 discusses the role of bias in a mediator’s ability to convey relevant information to the disputants using insights from Kydd’s (2003) game theoretical model of mediation. I examine what kinds of mediators are more likely to be biased and hence have more credibility in conveying information to the disputants and derive relevant hypotheses.

In Chapter 4, I explain how I conceptualize and operationalize the two factors that Kydd (2003) posits as the required features of a successful mediation: bias and information. I discuss the distinction between relative bias and absolute bias and explain why relative bias is more relevant for the credibility of a mediator. Then, I address how I operationalize relative bias and discuss possible ways one can measure the ability of states to elicit information about others.

Chapter 5 undertakes the empirical assessment of the hypotheses derived in Chapter 3. I find mixed support for my hypotheses. The first three hypotheses, which posit the role of information in mediation success, receive more empirical support than

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6 By parameters of a bargaining situation, I refer to the costs and benefits of a conflict for a disputant.
the other three hypotheses, which consider the combined effects of information and bias on mediation success. I find that informed mediators are more likely to be successful than uninformed mediators. Similarly, biased mediators are more effective than unbiased ones. I also find that although international and regional organizations are more likely to mediate a given international crisis than state mediators, the success rate of mediations undertaken neither by international organizations nor by regional organizations is statistically different from that of state mediators.

Chapter 6 concludes this study by summarizing the theoretical arguments and empirical results and discussing the implications of the findings. At the end of this chapter, I discuss possible avenues for future research. In this study, I focus on exogenous mediation strategies. The next step is to systematically examine what I call the endogenous mediation strategies. Endogenous mediation strategies aim to change the costs and/or benefits of conflict and involve the use of economic sanctions, threat of military intervention, and arms embargos and offers such as side payments, economic favors, and diplomatic concessions by mediators. By analyzing under what conditions endogenous mediation works, how it interacts with exogenous mediation and what kinds of mediators are good at using such mediation strategies, we can have a more complete picture of mediation process.
CHAPTER 2: DEFINING MEDIATION, MEDIATION TACTICS and MEDIATION EFFECTIVENESS

2.1 What is Mediation?

I define mediation as a third party conflict management activity that can be undertaken by an individual, a state, groups of states, or an organization upon the approval of both of the disputing parties, with the aim of reducing the hostilities between the disputing parties, by facilitating the formulation and/or implementation of a negotiated settlement.

International mediation is a third party conflict management technique as it involves actors other than the disputants. If the disputing parties themselves fail to establish peace by their own means, outside parties might get involved in these disputes in various ways, such as mediation, military intervention, adjudication, etc., to help the disputing parties to manage their dispute. A mediator is not a direct party to a dispute but rather acts as an external entity by providing the disputants the opportunity and incentives to terminate their hostilities.

International mediation can be carried out by a heterogeneous set of actors. We see mediation by major powers (Soviet Union in Indian-Pakistani conflict over Kashmir, the US in Arab-Israeli conflicts), small states (Algeria in Iran Hostage Crisis), international organizations (UN in Iran-Iraq conflict), regional organizations (OAU in Chad-Libya Conflict), transnational organizations (Vatican in the Beagle Channel Dispute), and private individuals (Jimmy Carter between Uganda and Sudan). In this study, I examine mediation by states and international/regional organizations.
International mediation requires the approval of both disputants. Both disputants need to give their consent to mediation for a mediator to be able to assume the role of a mediator. This feature of mediation differentiates it from military intervention that is usually undertaken at the expense of one of the disputants.

International mediation aims to reduce hostilities between the disputants and seeks to help the disputants reach a negotiated settlement and implement such agreements. Involvement of third parties as mediators in international disputes may be in the agreement negotiation and/or implementation phases. That is, mediation activities encompass not only the attempts of third parties to help parties to reach an agreement but also their efforts to ensure the implementation of the agreement by verification and monitoring the compliance by the parties. In this study, I focus on mediators' attempts to help the disputants to reach a settlement. Mediation can take place in different phases of a conflict. Mediators can become involved in disputes between states that threaten each other with the use of force but have not used force yet. Mediation can also occur in disputes where the parties are already fighting and unable to stop fighting.

2.2 Mediation Effectiveness:

The dependent variable of this study is mediation effectiveness. Why do some mediation activities produce successful outcomes while others fail to produce favorable conditions? I use mediation effectiveness and mediation success interchangeably.

What makes mediation a successful one? The concept of success is a tricky one. Scholars define mediation success in various ways: in terms of disputing states’ acceptance of mediation (Frei 1976), conflict duration (Regan and Stam 2000), disputing states’ satisfaction with mediation (Bercovitch 1992), the conclusion of an agreement
promising the reduction of conflict (Touval and Zartman 1985), and concessions made by disputants (Kydd 2003). Some scholars adopt a goal-based approach and define success in terms of whether mediation has effectively fulfilled the objectives of the parties or the mediator (Smith 1985, Touval and Zartman 1985). The weakness of the last conceptualization is the difficulty of identifying the objectives of mediation as they may be vague, symbolic or changing. Unless the original objectives are correctly identified, it is hard to judge whether a mediator effectively fulfilled such goals.

I conceptualize mediation success in two ways: short-term success and long-term success. Short-term success refers to the ability of a mediator to induce the disputants to sign a negotiated settlement. Short-term success includes cease-fires, partial and full settlements signed between disputants. Long-term success refers to the ability of a mediator to help the disputants implement the negotiated settlement and thus make the negotiated settlement a durable one. The more durable a settlement between the disputants, the more successful a mediator is considered in the long-run. The focus of this dissertation is on the determinants of the short-term success of mediation, which is a prerequisite for any long-term success.

2.3 Mediation Styles:

One useful way to identify what mediation activities encompass is to conceptualize mediators' activities in terms of the specific strategies they use. Mediators employ a variety of strategies\(^7\) in their effort to resolve international conflicts. Scholars of international mediation have established different typologies of mediation strategies (e.g., Touval and Zartman, 1985, Princen 1992, Bercovitch and Houston 1996). One

\(^7\) I use mediation styles, mediation strategies, and mediation tactics interchangeably.
commonly employed typology categorizes mediation strategies into three groups: communication facilitation strategies, procedural strategies, and directive strategies (Bercovitch 1992, Bercovitch, Anagnoson, and Wille 1991). This categorization is based on a continuum ranging from the least intrusive to the most intrusive mediation style. In the first category, a mediator acts as a communicator by promoting a resumption of dialogue between the disputants by supplying information to each of them. In the second category, a mediator acts as an organizer by appointing the size and seating of the meeting, and preparing agendas, etc. The third category of strategies, where a mediator acts as a manipulator, entrusted a mediator with the most active role. Mediators using directive strategies intend to change the structure of the conflict by pressuring the disputants with penalties and/or positive inducements.

Drawing upon this commonly used taxonomy of mediation strategies, I categorize mediation styles into two groups. My classification criterion is based on whether mediators seek to change the parameters of the bargaining situation between the disputants: exogenous mediation activities and endogenous mediation activities. Exogenous mediation activities entail mediation tasks such as the provision of information to the disputants. Information provision is an exogenous mediation strategy as it does not have direct impact on the parameters of the bargaining between two disputants, i.e., it does not change the costs and benefits of a conflict for the parties. As I will discuss in detail in the next chapter, information provided by mediators enables the disputants to realize what kinds of mutually acceptable solutions to their dispute, if any, are available. In other words, given the costs and benefits of a conflict, if there are no

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\^ The aforementioned procedural mediation strategies fall under the exogenous mediation strategies as they do not intend to change the parameters of bargaining between disputants.
possible settlements that are acceptable to both parties, information provided by a
mediator does not create new acceptable settlements. Information provision strategies
clarify what is available but they do not create new settlements that did not exist before.

Susskind and Babbitt (1992) describe the goal of information provision strategies
as providing ‘reality check’ for the disputants. If the disputants miscalculate their
opponent’s probability of victory or resolve, a mediator can provide an objective
assessment of the balance of forces between the opponents. For example, Merrills (1991)
suggests that in the Falklands crisis, one of the US Secretary of State Alexander Haig’s
task as a mediator was to convince the Argentina government that Britain’s threat to use
force to recover the islands was not a bluff, and the price of fighting against the British
would be high (35). The following conversation between the US Special Envoy General
Walters and the Argentine President General Galtieri illustrates this point:

“I (Walters) said to Galtieri ‘General, they (England) will fight, and they will
win. They have technical means that you simply do not have. They have an experienced
career army in which everybody has been shot at, and everything else. You’ve got
seventeen-year-old conscripts, some of whom come from tropical areas to this very cold,
very unpleasant, very windy climate.’ But he (Galtieri) was absolutely, visceraally,
convinced that the British would not fight. At one time he said to me, ‘That woman would
not dare.’ I said, ‘Mr. President, “that woman”9 has let a number of hunger strikes10 of
her own basic ethnic origin starve themselves to death, without flickering the eyelash. I
would not count on that if I were you’ ” (Freedman and Gamba-Stonehouse 1990, 176).

9 Reference is to the British Prime Minister Margaret Thatcher.
10 The reference to hunger strikes was to IRA prisoners.
This example illustrates that the US as a mediator informs Argentina about two facts regarding Argentina’s opponent: England’s probability of victory and its resolve. The US mediators tell the Argentine President that if Argentina does not back down, England will fight and will win the war as England’s military capabilities are far superior to that of Argentina. In addition, the US mediator emphasizes that the costs of possible war for England are not very high as England has high resolve in the Falklands Islands Crisis, and thus is willing to bear the costs of fighting.

While exogenous mediation informs the disputants about the location of each other’s reservation points, endogenous mediation activities are intended to change the parameters of the bargaining between the disputants by manipulating the costs and/or benefits of a conflict. By offering negative incentives, such as economic and/or diplomatic sanctions, threat of military intervention, and arms embargos, mediators can increase the costs of non-agreement. The use of positive inducements, such as side payments, economic favors, and diplomatic concessions, increases the potential benefits of signing a settlement and thus makes the occurrence or continuation of a militarized conflict less appealing. By manipulating the costs and benefits of a conflict, mediators using endogenous mediation styles may be able to create new zones of mutually acceptable agreements that were not possible before.

The strategy that Kissinger most frequently used in the mediation of Arab–Israeli conflict falls under the category of endogenous strategies. In the Arab world, to make the terms of the settlement more attractive, Kissinger promised side payments, such as the American technological investment. For example, as a reward for signing the first disengagement accord, Egypt was given an American nuclear power plant in 1974. By
providing side-payments, US mediation increased the potential benefits of signing a negotiated settlement and thus made the conflict less attractive for Arabs. Kissinger did not shy away from imposing costs on the parties if they showed inflexibility in their positions. For example, in 1975, after the Sinai II talks had broken because of Israeli inflexibility, Kissinger told Defense Secretary Schlesinger to slow arms deliveries to Israel (Isaacson 1996, 558). This in turn increased the cost of non-agreement for Israel and made conflict less appealing.

Endogenous mediation activities also include promises made by mediators for monitoring the agreements as well as the guarantees for continuation of economic and/or other benefits if the parties comply with the agreement and the threats of future sanctions for failed compliance. Promises for future action made by mediators alter the incentives for reneging on any reached settlements: it makes recurrence of conflict costly (e.g., Walter 2002, Fortna 2004). For example, when the Republic of Cyprus was founded in 1959, Turkey, Greece, and the United Kingdom promised the Greek and Turkish Cypriots to act as guarantors of the settlement.  

In some cases, mediators use both exogenous and endogenous strategies together. US President Johnson’s letter to Turkish Prime Minister Inonu on June 4, 1964 provides an example in which a mediator uses both strategies. In 1959, the Republic of Cyprus was founded under a power-sharing constitutional system between the Greek and Turkish Cypriots. By 1964, however, this system proved impossible to operate due to inter-ethnic tensions and the Greek Cypriots’ pursuit of unification with Greece. When major powers failed to form a peacekeeping mission, on 2 June 1964, Turkish government decided to

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11 The guarantees extended by Turkey, Greece and the United Kingdom were not able to prevent the inter-ethnic violence in Cyprus a few years after the signing of the agreement.
launch a military intervention on the island. On 4 June 1964, Turkish Prime Minister Inonu received a letter from US President Johnson warning him that NATO members “had not had a chance to consider whether they have an obligation to protect Turkey against the Soviet Union if Turkey takes a step which results in Soviet intervention” (Hale 2000, 149-150) and that Turkey could not use US-supplied weapons in the invasion.

Johnson’s letter had two effects that kept the peace between Turkey and Cyprus. First, it changed Turkey’s assumptions about the consequences of the operation. Strong relations between Greek Cypriots and the Soviet Union ensured that Turkey would require the support of NATO in the aftermath of invasion. By informing Turkey that NATO’s support is not forthcoming, Johnson helped Turkey to realize that Turkey’s probability of victory in possible invasion of Cyprus is lower than Turkey’s initial expectations. By implying Turkey may have to face the USSR alone, Johnson changed Turkish estimates from gains to losses. Second, forbidding Turkey from using US supplied weapons in the operation constrained Turkey’s capabilities significantly and made war more costly for Turkey. In the end, Turkey decided not to invade the island (Hale 2000). 12

The focus of this study is exogenous mediation activities. 13 I am interested in the extent to which the information provided by mediators facilitates negotiated settlements, i.e., short-term mediation success, and whether mediators need to have certain features, such as credibility, to be able to convey information effectively.

12 In 1974, ten years later, Turkey invaded the northern part of Cyprus.

13 One might argue that isolating exogenous strategies from endogenous strategies for study may distort our understanding of mediation process. By studying one strategy at a time, we might be missing how these strategies interact. Although this might be true, I believe that we can build a more complete and compelling understanding of the mediation process as a whole by studying its parts first in isolation and then putting together the insights we gain from studying the individual parts to tease out their interactions.
In the next chapter, I will discuss how information provided by mediators enables the disputants to reach negotiated settlements. According to the bargaining theory of war, if the information provided by mediators pertains to the resolve and military capabilities of the disputants, we should expect to see that such information decreases bargaining failures. However, the mediation literature contends that information provision strategies are not effective (e.g., Bercovitch, Anagnoson, and Wille 1991, Bercovitch and Houston 1993, 1996, Smith and Stam 2003). It has been argued that unless mediators use what I call the “endogenous strategies”, they are unlikely to bring successful outcomes – both short-term and long-term (e.g., Morgan 1994, Smith and Stam 2003). For example, Smith and Stam (2003) argue that mediation rarely reveals relevant information to the disputants as the mediator is usually biased towards achieving an outcome that is closer to its ideal point and thus the disputants discount any information that is provided by mediators. On the other hand, Kydd (2003) contends that information provision can lead to effective mediation if the mediator is biased towards one of the parties.

Does information provided by mediators bring successful outcomes? Do mediators need to be biased to be able to credibly convey relevant information to the disputants? These questions will be addressed in the next chapter.
CHAPTER 3: EXOGENOUS MEDIATION

3.1 Why Does Information Increase Mediation Effectiveness?

I contend that exogenous mediation activities are likely to facilitate mediation success. In order to understand how information provided by mediators can induce negotiated settlements between the disputants, we need to re-visit what causes war. Drawing upon the bargaining theory of war, I argue that information provided by mediators induces negotiated settlements because the lack of information regarding the resolve and/or military capabilities of the disputants leads to bargaining failures in the first place. Therefore, by targeting the source of bargaining failures, i.e., information imperfections, mediators can facilitate settlements.

If states can (re)distribute the goods over which they disagree without resorting to violence, they do not have to pay the cost of war and thus the net benefits they derive from the settlement are higher. The question is, why do states sometimes fail to reach the Pareto superior solution, i.e., settlement of the dispute without war, even though war is always ex post inefficient? This puzzle lies at the heart of the bargaining theory of war. Using a bargaining framework, Fearon (1995) explains the conditions under which states fail to reach a peaceful settlement of disputes. According to Fearon (1995), one of the conditions under which states may fail to reach a Pareto superior solution is uncertainty, i.e., the incentives to misrepresent private information.

States do not come to the bargaining table with complete information about the other side's preferences, incentives, and capabilities. At times, lack of information prevents states from recognizing the possibility of mutually agreeable terms and thus leads to non-cooperation. Fearon argues that it is the incentives to misrepresent their true
positions that prevent states from disclosing their private information. The underlying reason for such an incentive is to obtain a favorable deal out of bargaining. States want to maximize their net benefits from cooperation and thus they adopt tactics that they hope will encourage the other side to give concessions. To this end, a state may exaggerate its power and the availability of its outside options to persuade the other side to give in. In this context, the presence of private information provides a suitable atmosphere for states to bluff in an attempt to get a better deal.

How exactly does the presence of private information lead to bargaining failure? Assume that there are two states, A and B, who have preferences over a set of issues represented by the interval $X = [0, 1]$. State A prefers issue resolutions closer to 1, while State B prefers outcomes closer to 0. The probability that state A wins if it fights a war against B is captured by the term $p$. As seen in Figure 3.1, A’s expected utility of war is $p - c_A$ where $c_A$ is state A’s utility for the costs of war. Similarly, B’s expected utility of war is $p + c_B$ where $c_B$ is state B’s utility for the costs of war. In other words, $c_A$ and $c_B$ represent each side’s resolve. The area between $p - c_A$ and $p + c_B$ represents the bargaining set. The bargaining set is the set of outcomes that are at least minimally acceptable to all parties. That is, any point in the bargaining set is preferred by both parties to going to war. If the bargaining set is empty, it means that at least one of the parties strictly prefers non-cooperation, i.e., war, to cooperation.\(^{15}\)

\(^{14}\) The illustration and discussion of the bargaining range are from Fearon (1995).

\(^{15}\) A nonempty bargaining set is a necessary but not a sufficient condition for an agreement under incomplete information.
Figure 3.1.

The Bargaining Set

If the status quo, q, lies within the bargaining range, both states are considered satisfied. In Figure 3.1, the status quo, q, lays outside the bargaining range. A state becomes dissatisfied\(^\text{16}\) if its payoff to living with the status quo is smaller than its expected payoff to attacking. State B prefers any point that is to the left of \(p+c_B\). Since q does not lie to the left of \(p+c_B\), i.e., \(q < p+c_B\), State B is considered dissatisfied with the status quo. State A is satisfied with the status quo since q lies to the right of \(p-c_A\), the area that gives state A higher utility than going to war.

Under complete information, i.e., when states are aware of the probability of winning (p) and each other's costs of war (c), war is unlikely.\(^\text{17}\) In a take-it-or-leave it scenario, State A gives the smallest acceptable concession to State B that makes the latter indifferent between fighting and accepting the deal, \(p+c_B\). Any concession less than \(p+c_B\) is unacceptable for State B as State B prefers fighting to accepting such a concession. Any concession larger than \(p+c_B\) is inefficient for State A as A can hold more without provoking resistance from State B.

However, if parties have private information about their own military capabilities and/or the cost of conflict, they will be uncertain about each other’s reservation points.

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\(^{16}\) Powell (1999, 91) defines a dissatisfied state as the one that is willing to use force to try to revise the status quo.

\(^{17}\) If commitment problems exist or issues are perceived to be indivisible, war is still possible (Fearon 1995).
That is, incomplete information makes states uncertain about the boundaries of the bargaining set as they need to know one another’s expected costs and probability of winning a war to be able to locate the acceptable set of outcomes. If one or both sides is/are not sure about the reservation point of the other side (i.e., the point that makes a party indifferent between accepting and rejecting a bargain), bargaining inefficiencies can occur. Unsure about the location of the other party’s reservation point, State A can no longer determine the smallest concession that is acceptable to State B. Uncertainty makes it difficult for State A to make an optimal concession as State A can make either too large a concession and end up with an inefficient outcome or too small a concession and provoke violence. The more uncertainty there is over the range of the bargaining set, the less likely that states will be able to agree upon a mutually acceptable outcome.

Therefore, the existence of private information may prevent states from locating a mutually preferable settlement. As the uncertainty decreases, states have a better chance of locating the range of the bargaining set and making offers that fall within this range.\textsuperscript{18}

The bargaining theory of war implies that information provision is an important task for mediators. This is definitely not a new insight that mediation scholars are unaware of. Over the years, mediation scholars emphasize that one of the tasks a mediator performs is to provide information to the disputants (Touval and Zartman 1985). Although most mediation scholars would agree that one of the roles of mediators

\textsuperscript{18} Recently, this logic has been extended to the continuation of conflict. Scholars show that conflicts terminate when the divergent expectations of the disputants converge, i.e., when the disputants learn about each other through fighting and overcome uncertainty (e.g., Wagner, 2000, Filson and Werner 2002, Smith and Stam 2001, Powell 2002, 2004, Slantchev 2003). This implies that the disputants may be able to learn about each other’s reservation points without going to conflict if mediators can supply this information. Convergence of expectation can also be achieved via mediation.
is to provide information to the disputants, they fail to explain what kind of information matters and how such information affects the disputants’ ability to reach a negotiated settlement.

International mediation may facilitate negotiated settlements between disputing states by providing information and thus reducing uncertainty. Mediators may have access to information regarding one or both of the disputing states’ costs of fighting and/or probability of winning that the disputants do not have about each other. By informing the disputants about each other’s reservation points, mediators may help the disputants to locate the bargaining set and thus increase the chances that the proposed settlement will fall within the bargaining set.

3.2 Types of Mediators and Information:

Not all international actors have equal access to information about disputing states. Given that the relevant information is about resolve and/or military capabilities of the disputants, only certain international entities have the opportunity to elicit such sensitive information. In addition, since information collection is costly, unless international actors are willing to spend their resources in the pursuit of sensitive information about other states, they may be unwilling to collect such information even if they have the opportunity to do so.

Which international actors are likely to have information about the resolve and/or military capabilities of disputing states? Three types of international actors that I consider in this study are nation-states, international organizations, and regional organizations. I do not think that one type of international actor is always the best collector of information.

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19 However, as I mentioned in the previous chapter, most mediation scholars argue that communication provision is not an effective strategy even though it is widely used (e.g., Bercovitch, Anagnoson, and Wille 1991, Bercovitch and Houston 1993, 1996, Morgan 1994, and Smith and Stam 2003).
or one type has always more information than other types. I make the following arguments and explain each in detail in the following sections:

1. States with certain characteristics, i.e., those with advanced intelligence systems, diplomatic representation and institutionalized alliance ties, are more likely to have relevant information about the disputants than states without such characteristics.

2. International organizations are more likely to have relevant information about disputants than states without the aforementioned characteristics.

3. Regional organizations are more likely to have relevant information about their member states than they do about non-member states.

3.2.1 States and Information Collection:

I argue that states with certain characteristics are more likely to have relevant information about other states than states without such characteristics. These characteristics include whether a state has strong intelligence gathering apparatus, diplomatic representation in other states, and whether it has highly institutionalized alliance ties with other states.

I expect that states possessing an advanced intelligence apparatus to be more able to elicit relevant information about the disputants' resolve and military capabilities than states not having such capacity. Having strong intelligence structure enables states to collect sensitive information about other states by using specialized satellites, airborne surveillance platforms, and other intelligence sources. 20

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20 Dorn (2001, 283) cites anecdotal evidence to demonstrate how lack of strong intelligence apparatus can be a major handicap for those states without information. During the Six-Day War in 1967, the Canadian Ambassador to the United Nations complained that the two superpowers were at a distinct advantage because they had regular reports on the situation in the Middle East through satellite reconnaissance and
States with diplomatic representations in disputants’ territory are also more likely to have relevant information about the disputants. Contrary to popular belief, most human intelligence collection is performed by overt collectors such as ambassadors and military/economic attaches. Government officials are expected to elicit information about the foreign state in which they are positioned. Diplomatic representatives interact with the politicians and government representatives of the host country on a regular basis. Through these interactions they are able to form an informed opinion about the preferences and policy positions of the host state. Therefore, states that have diplomatic representations in the territory of the disputants are likely to elicit relevant information about the disputants.

A third indicator of information is the existence of a highly institutionalized alliance structure between a state and a disputant. If a disputant and a mediator state share a highly institutionalized alliance, they will have more access to information about each other’s military capabilities. An alliance is said to have a highly institutionalized structure if it includes one of the following provisions: (a) requirement of an integrated military command during both peacetime and wartime; (b) the members are required to conduct a common defense policy; (c) provision for joint troop placements, mutual exchange of bases, or for one state to establish bases on the territory of another state (Leeds and Anac 2005, 188-189). Having an integrated command, a common defense policy or joint troop placements require states to share military information as these provisions are based on the idea of close policy coordination.

other intelligence sources while other states had to wait for the New York Times to find out what happened a day before.

In sum, I argue that states with certain characteristics, i.e., those with advanced intelligence gathering apparatus, diplomatic representation in the territory of the disputants and highly institutionalized alliance structures with the disputants, are more likely to have relevant information about the disputants than those that do not have such characteristics. Since such information is crucial for the disputants’ ability to locate each other’s reservation points, mediator states can convey this information to the disputants to facilitate a negotiated settlement between the disputants.

**Hypothesis 1:** Mediations of international conflicts by states that have relevant information\(^\text{22}\) about the disputants are more likely to be successful than those without such information.

### 3.2.2 International Organizations and Information Collection:

I argue that international organizations are more likely to have relevant information about disputing states than states without the aforementioned characteristics, i.e., advanced intelligence apparatus, diplomatic representation, and highly institutionalized alliance ties with the disputants. My argument as to why international organizations are better collectors of information than an uninformed state (i.e., a state without the aforementioned characteristics) is based on the institutional theory of International Relations (Keohane 1982, 1984).

Institutionalist theory provides important insights about how international organizations improve the quantity and quality of information available to states.

\(^{22}\) I use relevant information as a short-cut to refer to information regarding the resolve and/or military capabilities of disputants.
Keohane (1982, 1984) argues that international regimes are valuable to states to the extent that they are able to a) provide a clear framework for establishing liability for actions, b) provide information and, c) decrease transaction costs. By providing a framework for action, making information available and reducing transaction costs, international organizations foster cooperation between states.

Institutionalist theory teaches us that the demand for international organizations is a function of their ability to cope with information imperfections in the international system. By collecting and disseminating information, international organizations provide the opportunity for states to enter into cooperative agreements. In some instances, relying on their own devices, states gather information about other states themselves. However, gathering information is costly and sometimes impossible. Not all states have the necessary opportunity to elicit information about others. Even those that have the opportunity may prefer to spend their resources for other purposes and rely on international organizations for information. Therefore, information collection is a crucial service performed by international organizations.

I argue that international organizations are likely to possess more information about states than an uninformed state has about others. I provide three reasoning for my contention. First, I contend that international organizations have strong incentives to obtain information about states. If the demand for international organizations is a function of information provided by such organizations, it is reasonable to assume that international organizations are willing to spend considerable effort to elicit such information. States establish international organizations and pay the costs of maintaining

\[ ^{23} \text{The micro-foundations of this argument can be found in the Coase Theorem.} \]
them. The willingness of states to underwrite the costs of maintaining these organizations depends on whether international organizations make themselves useful. Therefore, international organizations are driven by inherent incentives to collect information about states.

Second, I argue that international organizations are more efficient information collectors than nation-states. Collecting information is costly. Compared to nation-states, it is more efficient for international organizations to obtain and provide information. Centralization enables international organizations to achieve efficiency gains from joint production. Through international organizations, nation-states can pull their resources together for a collective information collection effort. Therefore, having a comparative advantage in collecting information provides a further impetus for international organizations to be involved in information collection process.

A final reason as to why international organizations may have more information about states than an uninformed state has to do with the willingness of states to share information with international organizations. States may be more willing to share information with international organizations than with other states. International organizations may be seen a more legitimate collector of information than individual states. The acts of independent international organizations may be accorded special legitimacy because they are perceived as neutral actors in world politics (Abbott and Snidal 1998, 9). On the other hand, unilateral actions by states might be perceived to serve some underlying interests that might be detrimental to the interests of others. Furthermore, in some instances, member states are required to share relevant information
with the organizations they are members of, such as the International Atomic Energy Agency (IAEA).

International organizations not only accept submissions from governments but also are actively involved in gathering large volumes of information regarding international issues. How do international organizations collect information? The major sources of information for the UN are governments, the media, field missions and offices, other international agencies, non-governmental organizations and individuals (Dorn 2001, 276).

The most important sources of information for the UN are its member states (Dorn 2001, 277). Official speeches made in the General Assembly and the Security Council provide information about the current policies and positions of the states. A more important channel of information is the so-called “corridor diplomacy, which facilitates the informal exchange of information among diplomats and government representatives (Dorn 2001, 278). Keohane and Nye (1974) refer to this type of informal information exchange as transgovernmental interactions. International organizations usually provide suitable environment for face-to-face communications between state representatives and these communications often convey additional information about the expectations and preferences of states. International conferences and other activities of international organizations usually increase transgovernmental contacts and create opportunities for the exchange of information. As Keohane (1982, 349) argues:

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24 Keohane and Nye (1974, 43) define transgovernmental relations as “sets of direct interactions among sub-units of different governments that are not controlled or closely guided by the policies of the cabinets or chief executives of those governments.”
“Transgovernmental networks of acquaintance and friendship develop, with the consequences that supposedly internal documents of one government may be seen by officials of another; informal coalitions of like-minded officials develop to achieve common purposes... These transgovernmental relationships increase opportunities for cooperation in world politics by providing policy makers with high-quality information about what their counterparts are likely to do.”

Another major source of information for the United Nations is field operations and missions. Fact-finding is a central task of the field operations that are established in various parts of the world to watch and respond to events (Dorn 2001, 285). For a smooth running of peace-keeping operations, the United Nations established a Military Information Branch in 1961, which uses extensive means to gather intelligence about various regions of the world ridden with conflict. Such intelligence is likely to contain information about the military capabilities of states.

Several agencies within the UN system, such as the International Atomic Energy Agency (IAEA) and the Organization for the Prohibition of Chemical Weapons (OPCW), also provide valuable information to the UN. The IAEA sends out its inspectors to nuclear sites of states and the IAEA Director provides annual reports to the General Assembly about the nuclear activities of nations. Similarly, the OPCW carries out inspections at any site in the world (with as little as 12 hours notice) to locate any

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25 Dorn (2001, 285) provides an anecdotal example of how the UN collects information about the preferences of states. In 1970, in order to mediate a crisis between the United Kingdom and Iran, Secretary General U Thant sent a personnel representative to Bahrain to get information about the preference of the public regarding the status of their nation. The UN representative, upon his/her observation, reported that the people wanted an independent state and thus Bahrain was established as an independent state from Iran in 1971.
possible chemical weapons (Dorn 2001, 289-290). Both of these agencies elicit important information about the military capabilities of states.

If international organizations are more willing, efficient and able collectors of information about states than an uninformed nation-state in the international system, we can expect the mediation episodes undertaken by international organizations to produce successful outcomes more frequently than the ones undertaken by an uninformed state mediator. To test this argument, I develop the following hypothesis:

**Hypothesis 2: Mediations of international conflicts by international organizations are more likely to be successful than mediations by uninformed states.**

### 3.2.3 Regional Organizations and Information Collection:

I argue that regional organizations are more likely to have relevant information about their member states than they do about non-member states. Given their restricted membership and frequent interactions among their members induced by geographical proximity, regional organizations are likely to have more information about their members than non-members. Most regional organizations also include arrangements for coordination and cooperation in military affairs among their member states. For example, the Charters of the League of Arab States, the Organization of American States, and the North Atlantic Treaty Organization include alliance provisions.  

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26 According to the Alliance Obligations and Provisions (ATOP) dataset, the League of Arab States is a consultation and non-aggression pact, the Organization of American States is a defense, consultation and non-aggression pact, and the North Atlantic Treaty Organization is a defense, non-aggression and consultation pact (Leeds, Ritter, Mitchell, and Long 2002).
Union has a permanent Peace and Security Council that requires military cooperation among the members.

Cooperation in military affairs provides an additional opportunity for regional organizations to have access to information about military capabilities of their members. Therefore, if a regional organization mediates an international crisis between its member states, it can use the information it has about the disputing members to help them to locate each other's reservation points. Since information about the reservation points of the disputants reduces bargaining failures, we should expect to see such mediation episodes to produce successful outcomes.

**Hypothesis 3**: Mediations of international conflicts by regional organizations that are between two member states are more likely to be successful than those that are not between two member states.

### 3.3 Information and Credibility

The bargaining theory of war suggests that uncertainty regarding the resolve and/or military capabilities of the disputants leads to bargaining failures. Mediators that possess additional information about the disputants may alleviate this uncertainty by conveying such information to the disputants. In the previous section, I argue that certain international actors under specific circumstances are likely to have relevant information about the disputants and hence mediation by such actors are more likely to be successful than others.
Assuming that a mediator obtains information about the disputants, how can she credibly convey this information to the disputants? The important question is whether the disputants have any incentive to believe the information provided by a mediator. This is where bias becomes crucial. Drawing on the theory of cheap talk (e.g., Farrell 1993, Austen-Smith & Banks 2000, Calvert 1985, Myers 1998), Kydd (2003) argues that a mediator needs to be biased towards the receiver of the information in order to be able to credibly convey information to the disputants. Therefore, Kydd (2003, 598) contends that only a mediator who shares your policy preferences to some extent could be trusted to tell you if your adversary has low resolve and is likely to back down without a significant concession. Similarly, she could be trusted if she counseled the reverse, that the adversary has high resolve and you should therefore give in. Kydd derives this conclusion from a game theoretic model of mediation.

What does it mean for a mediator to be biased? A mediator is said to be biased if her preferences are aligned with one party or the other. A biased mediator cares not only for ending the hostilities but also for resolving the dispute in a particular way that is commensurate with her interests. Unbiased mediators, on the other hand, do not care about how an issue is resolved as long as peace is established. An unbiased mediator is ostensibly balanced.

Empirical and anecdotal evidence produce inconclusive results as to whether a biased mediator increases or decreases the likelihood of mediation success. Some researchers argue that biased mediation is detrimental to the success of mediation (e.g., Young 1967, Fisher 1995, Meek 2000). The proponents of this position argue that a

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27 The theory of cheap talk suggests that the sender’s (mediator’s) interests should be aligned with the receiver of the information for the truth-telling equilibrium to hold (Kydd 2003, 600).
mediator is more likely to be accepted and be more effective in persuading parties if she has no preference as to how a dispute is resolved. An unbiased mediator is likely to be successful because she is perceived to be fair and hence trusted by the disputants. Carnevale and Pruitt (1992) show that perceived fairness and trust in the mediator are important predictors of success. The opponents of this view contend that bias might actually increase a third party's ability to bring peace (e.g., Betts 1994). Mediators are accepted by the disputing parties not because they are unbiased but because of their ability to influence, protect, and extend the interests of each party (e.g., Kressel and Pruitt 1985, Smith 1985). If bias contributes to a mediator's capacity and desire to influence the outcome, a biased mediator is preferred to an unbiased one. There are still some other scholars who argue that bias is not essential to mediator effectiveness (e.g., Touval 1975, Brookmire and Sistrunk 1980).

Why is bias a necessary condition for effective mediation? Kydd (2003) demonstrates the necessity of bias for effective mediation by using a game-theoretical model of mediation. In Kydd's model, two states are bargaining over the distribution of a good (see Figure 3.2). Kydd assumes that one of the states (Player 1) is satisfied, i.e., prefers the status quo to conflict and other (Player 2) is potentially dissatisfied, preferring conflict to the status quo.\(^{28}\) The satisfied state can propose a division of the good. The potentially dissatisfied side can accept the proposal or reject it and fight.

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\(^{28}\) A state is considered as dissatisfied if its expected utility of war outweighs its benefits of the status quo.
Figure 3.2.
Kydd’s Bargaining Game

Notation in the Model

\[ p = \] player 1’s chance of winning
\[ c_i = \] player i’s cost of conflict
\[ c_m = \] mediator’s cost of conflict
\[ x = \] offer
\[ \beta = \] mediator’s degree of bias, for \( \beta > 0 \), the mediator is biased in favor of Player 1,
for \( \beta < 0 \), the mediator is biased in favor of Player 2, for \( \beta = 0 \), the mediator is unbiased

The problem is for the satisfied state is to judge how resolved the other state is. The satisfied state might be willing to give some concession to the dissatisfied state to prevent the latter from using force to change the status quo. The amount of concession that can buy a potentially dissatisfied state off depends on the costs of fighting for the dissatisfied state. In order to determine whether the other side is dissatisfied, the satisfied side needs to know the costs of fighting of its enemy in addition to the probability that it will win the war. In the model, both sides know the probability of victory but the satisfied state knows only its own costs of fighting whereas the potentially dissatisfied state knows both its own costs and its enemy’s costs of war. Since the satisfied state is uncertain about its enemy’s costs of fighting, it is not sure what concession to extend. This is where the existence of a mediator becomes crucial in reducing the likelihood of conflict.

In Kydd’s model, Nature determines player 2’s (dissatisfied state) type, i.e., high cost or low cost. Low cost types represent those that have high resolve and thus are less sensitive to the cost of war whereas high cost types have low resolve and thus are less
willing to pay the costs of war. Nature then informs the mediator about the type of player 2, although with a noisy signal. Uncertain about each other’s resolve and capabilities, the disputing states turn to the mediator for help. The mediator can communicate this information to Player 1 so that Player 1 knows how much concession it needs to make to Player 2 to make the latter indifferent between fighting and accepting the deal.

Kydd makes two assumptions about the mediator’s preferences. He assumes that the mediator prefers that there be an agreement rather than that the bargaining fail. This excludes the unlikely cases where the mediator gains benefit from prolonging the conflict. Second, Kydd assumes that the mediator may or may not favor the interest of one party or the other. Whether the mediator is biased influences her incentives to tell the truth. Depending on the information received from the mediator, Player 1 decides how much to offer to Player 2. If Player 1 proposes $x$ and Player 2 accepts the offer, Player 1 receives $x$ and Player 2 receives $y = 1-x$. The mediator receives $\beta x$. If the mediator is unbiased ($\beta = 0$), the mediator does not receive anything ($\beta x = 0$). If the mediator is biased towards Player 1 ($\beta > 0$), it receives a positive outcome ($\beta x > 0$), and a negative outcome ($\beta x < 0$) if it is biased towards Player 2 ($\beta x < 0$). If player 2 rejects the offer and fights, Player 1 receives $p - c_1$ while Player 2 receives $1 - p - c_2$ and the mediator receives $\beta p - c_m$. If the mediator is unbiased, she pays a cost if there is conflict, $- c_m$.

Nature starts the game by choosing Player 2’s costs from a uniform distribution $c_2 \in [0,k]$. Player 2’s reservation point ranges from $p$ ($c_2 = 0$) to $p+k$ ($c_2 = k$) as shown in Figure 3.3. The status quo is represented by $s$. Player 1 is satisfied because its likelihood

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29 Kydd (2003) does not assume that the mediator is perfectly informed about Player 2’s type. The mediator has some additional information about Player 2 that might be useful to Player 1. The likelihood that Nature’s message to the mediator is in error is $\varepsilon$ and $1- \varepsilon > \varepsilon$. Kydd’s results hold for cases in which $\varepsilon$ is less than or equal to 0.5.
of winning a conflict, p, is less than the status quo, s. Player 2 is dissatisfied if it has low
cost of fighting, i.e., its cost of fighting ranges from 0 to s-p. Types of Player 2 with \( c_2 \in [s-p, k] \) are satisfied as they have high cost of fighting. Player 1 can buy off all types of
Player 2 by making the maximum offer, \( x = p \). So all offers \( x < p \) are dominated by \( x = p \).
Any offer \( x > s \) will be rejected by Player 2 as player 2 prefers the status quo to \( 1-x \).
Therefore, Kydd (2003) concentrates on offers that fall between \( p \) and \( s \).

**Figure 3.3.**

**The Bargaining Space**

![The Bargaining Space Diagram](image)

If Player 1 receives the message from the mediator that “Player 2 has high costs (low
resolve)” and believes it, Player 1 will make a smaller offer than it would if it received a
message that “Player 2 has low costs (high resolve)” and believes it. The reason is that a
high cost Player 2 can be bought off with a smaller amount of concession than a low cost
Player 2. For example, if Player 2 is a high cost type, Player 1 can buy the Player 2 off by
offering the status quo distribution, \( s \), whereas Player 1 might need to offer \( p \), if Player 2
is a low cost type. The size of the offer in turn influences the likelihood of conflict. The
smaller the offer, the more likely a low cost Player 2 will reject the offer. Therefore, if a
mediator wants to reduce the likelihood of conflict, she has an incentive to tell Player 1
that Player 2 is a low cost type no matter what kind of message she received from Nature about the type of Player 2.

Kydd (2003, 606) argues that, to have an incentive to tell the truth, the mediator must be at least somewhat biased in favor of Player 1. If the mediator prefers issue resolutions closer to Player 1’s ideal point ($\beta > 0$), she will prefer that Player 1 makes the least possible concession that will satisfy the other side. Therefore, it is unlikely for a mediator to lie to Player 1 about the resolve of Player 2 to increase the likelihood of peace because the larger the offer Player 1 extends to Player 2, the lower the payoff ($\beta x$) the mediator receives from the resolution of issue. Knowing the policy position of the mediator, Player 1 is likely to trust any information provided by the mediator and act accordingly.

In sum, Kydd (2003) formally shows that if a mediator is unbiased, she is unlikely to have any credibility because she has an incentive to say anything that will minimize the probability of conflict. Similarly, a mediator who is biased against you is unlikely to have any credibility when she informs you that your adversary has high resolve. If a mediator prefers a solution that is closer to the ideal point of your opponent than that of yours, and if she believes that you will give in if you believe that your opponent has high resolve, the mediator has every incentive to tell you that your opponent has high resolve even though she knows that it is not the case. Therefore, only a mediator who is biased towards you is likely to be trusted.

3.4 Types of International Actors and Bias

What are the implications of Kydd’s model for different types of international actors? Which international actors are likely to credibly convey information to the
disputants? Which international actors are usually perceived to be biased and which are seen as unbiased actors?

Conceptually, bias can be defined in terms of having preferences about how two disputants distribute the contested resources (Kydd 2003). Why do mediators care about how a crisis is resolved between two disputants and how do mediators form their preferences regarding to how the disputants distribute the contested goods?

The way in which two disputants distribute the contested resources between each other may be consequential to the outside states in the international system because of the dependence among states. States interact with one another on various levels and the premises of comparative advantage and economies of scale have undoubtedly created an ever increasing interdependence among the sovereign states. The dependence between states may take one of two forms: negative dependence and positive dependence. Neorealism, the major theoretical framework in International Relations, focuses on the negative dependence between states (e.g., Waltz 1979, Grieco 1988, 1990). Neo-realists argue that states fear the possibility of gains by other states as the anarchic nature of the international system creates a permissive environment for states to use their gains to attack others to ensure their own survival and security. This projection is based on the assumption that states are likely to use the gains they accrue from their relationships with other states to the detriment of others. On the other hand, positive dependence implies that states may favor the gains of others. Werner (1997) argues that if relative gains earned at one point in a relationship can be turned to advantage at a later point as the neo-realists advocate, it is plausible that these gains can be also used as an immediate advantage in other relationships (293). Whether positive or negative dependence is likely
to prevail between any two states in the international environment is a function of the
nature of the relationship between two states and how they perceive each other (Wendt
1999). The more cooperative the types of relationship between two states are, the more
likely a positive dependence is to flourish. The more conflictual the types of relationships
between two states are, the more likely that a negative dependence is to prevail.

To the extent that a mediator and a disputant are related to one another, a
mediator’s interests are likely to be directly or indirectly affected by how the contested
resources are distributed between the disputant and its antagonist. By examining the types
of relationships between a disputant and mediator, we can have an estimate of how
closely a mediator’s preferences are aligned with that of a disputant, i.e., how biased a
mediator is towards a disputant.

However, an exclusive focus on the dyadic relationship patterns between a
mediator and a disputant is also problematic. Imagine that state B and state C disagree
about the ownership of a piece of territory and an international crisis ensues as a result of
their clash of interest. We would like to know whether state A is likely to mediate the
crisis between state B and state C. The theory suggests that one of the necessary
prerequisites of mediation is the degree of bias a mediator holds vis-à-vis the disputants.
If we focus only on the direct relationship between a potential mediator and a disputant,
what we will be measuring is the absolute bias. Absolute bias represents the degree of
closeness between two states, i.e., absolute bias is dyadic in nature. Absolute bias
captures the bias state A holds towards state B independently of the former’s relationship
with state C. However, I argue that it is the relative bias not the absolute bias that is more
relevant in a state’s decision to mediate an international crisis. Relative bias represents
the degree of closeness between two states in relation to a third state, i.e., relative bias reflects a triangular relationship. Relative bias implies that state A’s bias towards state B is not absolute, it depends on the kind of relationship between state A and the other disputant, state C. The degree of bias a mediator has towards one of the disputants depends not only on the relationship between the mediator and the disputant but also on the mediator’s relationship with the other disputant. Therefore, employing absolute bias as a predictor of mediation success is misleading because it misses an important part of the equation.

I demonstrate this with a hypothetical example. The question is how the US would behave towards Canada if the latter gets involved in a crisis with another state. If we use absolute bias as a predictor of whether the US would effectively mediate a crisis that involves Canada, we do not need to know the relationship between the US and Canada’s adversary. If this is the case, we can simply conclude that given their close economic and military ties, the US is likely to be biased in favor of Canada. However, I contend that it is erroneous to expect the US to effectively mediate any crisis that Canada is involved without any consideration to Canada’s opponent. If Canada were in a crisis with the UK, it would be difficult for the US to convince Canada that the US is totally on Canada’s side as the US has close economic and military ties with the UK as well. However, if Canada were in a crisis with Cuba, the US would have an easier time convincing Canada that the US is on its side. This implies that how the US acts in a dispute involving Canada depends not only on the US’s bias towards Canada but also on the US’s bias towards the state with which Canada is in conflict with.
After defining bias and establishing a distinction between absolute and relative bias, we are now in a position to discuss which international actors are usually perceived as biased. I make the following assumptions:

1. States are more biased towards other states with which they have close positive relationships than states with which they do not have close relationships. States are also biased against those with which they have a history of conflict than those with which they do not have a history of conflict.

2. International organizations are usually seen as unbiased actors in the international system.

3. Regional organizations are biased towards their members.

3.4.1 States and Bias

I start with the assumption that states are biased towards other states that have similar outlooks and share similar preferences and characteristics. A state is likely to favor another state if the latter’s interests seem to be in line or at least not incompatible with the former’s preferences. Various scholars attempt to measure the similarity of states’ preferences (e.g., Altfeld and Bueno de Mesquita 1979, Signorino and Ritter 1999). As latent preferences are difficult to identify, one way to measure states’ preference similarity is to compare their revealed policy positions. One can explore revealed preferences of states by examining their policy positions in various areas: who do states form their alliances with, how do they vote in the UN, who do they fight against, who do they trade with, etc.

To capture bias, I consider three types of relationship between states: alliance ties, economic relationship and conflict history. The first two components constitute positive
bias. I expect that if two states have military commitments to each other and/or have important trade ties, they are likely to benefit from each other’s gain from a conflict with another state and thus are likely to be biased towards each other. Alliances and trade relationships are forms of cooperation and states benefit from cooperative behavior. Therefore, they are likely to be positively affected if their alliance or trading partner is better off (e.g., Gowa 1994, Gowa and Mansfield 1993). In other words, alliance ties and trade links establish positive dependence between states.

Conflict history between two states constitutes negative bias. If a mediator state has been involved in a military conflict with a disputant, the mediator state may be more sensitive to how much its former enemy gains and thus is likely to be biased against it. The existence of conflict history is likely to induce negative dependence. A gain by a former enemy is likely to be construed as a threat whereas a gain by a cooperation partner is likely to be perceived as an asset to one’s well-being.

According to Kydd (2003), a mediator needs to be biased towards one of the disputants to be able to credibly convey information. Therefore, if a mediator is biased, i.e., it has strong military and economic ties with one of the disputants and has no conflict history with that disputant, she is likely to deliver a successful mediation. If we apply Kydd’s proposition to state mediators, we can derive the following hypothesis:

**Hypothesis 4:** Mediations of international conflicts by states that have relevant information about one of the disputing parties and are biased in favor of the other are more likely to be successful than those without such characteristics.
3.4.2 International Organizations and Bias:

International organizations are usually perceived as unbiased actors in the international system (e.g., Fretter 2002, Touval 1994). Given their universal membership and the emphasis they place on the equality of sovereign states, international organizations present themselves as unbiased protectors of peace and security in the international system. International organizations have an interest to be seen as unbiased actors because being neutral gives their acts special legitimacy (Abbott and Snidal 1998, 9). For example, the United Nations peacekeepers constitute their authority by arguing that they are independent and neutral actors who simply fulfill the Security Council Resolutions. As the image of being independent and objective constitutes the basis of their influence, the UN officials repeatedly emphasize that they are not the instrument of any great power but rather representatives of the international community (Barnett and Finnemore 1999, 709). In the same vein, Abbott and Snidal (1998, 18) assert that activities that may be unacceptable if undertaken by states become acceptable when run through an independent international organization. For example, states usually prefer to get loans from an international organization such as the IMF or the World Bank rather than from an individual state as they perceive that receiving aid directly from a state may create dependence.

Although being unbiased can be an asset for international organizations under certain circumstances, it constitutes a liability when it comes to providing information to the disputants. The implication of Kydd’s model for the effectiveness of mediations undertaken by international organizations is bleak. If bias is required to credibly convey relevant information, international organizations are simply not the best mediator choice.
Hypothesis 5: Mediations of international conflicts by international organizations are less likely to be successful than mediations by informed and biased state mediators.

3.4.3 Regional Organizations and Bias:

Unlike international organizations, regional organizations have restricted membership and such organizations are established to further the interests of their members. The members of regional organizations usually act as a unified front and hold similar foreign policy positions towards outside states. Given their close proximity and regular interactions with one another, one can safely argue that there is strong positive dependence among the members of the regional organizations. Therefore, regional organizations can be argued to be biased towards their members.

What does Kydd’s proposition imply for the effectiveness of mediation of international conflicts undertaken by regional organizations? Two conditions need to be met. First, regional organizations should be informed about one of the disputants to be able to convey this information to the other disputant. As I argued in the previous section, a regional organization is more likely to have information about its members than non-member states. This implies that at least one disputant needs to be a member state. Second, a regional organization should be biased towards the receiver of this information for the receiver to believe what the regional organization advises. A regional organization is likely to be biased toward its members. This means that the receiver of the information must be a member state and the other disputant should be non-member state.\(^\text{30}\) In other

\(^{30}\) If both disputants are member states, a regional organization’s bias will even out. That is, its relative bias will be zero.
words, the bias requirement implies that the disputant about which a regional
organization needs to have information should be a non-member state. This requirement
is at odds with the fact that regional organizations are more likely to have information
about their members. Therefore, there seems to be no easy situation in which both
requirements can work in tandem for regional organizations. In sum, Kydd’s model
implies a pessimistic conclusion about the effectiveness of regional organizations as
mediators.

**Hypothesis 6:** *Mediations of international conflicts by regional organizations are less
likely to be successful than by informed and biased state mediators.*

From the last three hypotheses, we can conclude that only state mediators can be
effective mediators if they fulfill certain requirements, i.e., they need to be biased
towards one disputant and have relevant information about the other. International and
regional organizations are unlikely to deliver successful mediation because they cannot
meet both conditions of Kydd’s model, i.e., information about one disputant and bias
towards the other. This conclusion leads to several interesting implications.

First, it creates a puzzle for the role of international organizations as the main
protector of peace and security in the international system. One of the major goals that
states pursue with the establishment of these institutions is the protection of peace and
security in the international system. By establishing these organizations and committing
to undertake the costs of their maintenance, nation-states have, among other things,
delegated the task of protecting the most valued commodity of the international system,
peace and security, to these organizations. Kydd’s model seems to imply that the delegation of management of international conflicts to international organizations may not be the most optimal choice for nation-states.

Second, the implications of Kydd’s model predict a bleak future for the success of mediation of international conflicts. What if there are no eligible state mediators for a given international crisis? That is, what happens if there is no state mediator who is informed about one of the disputants and is biased about the other? One might argue that in such situations, international organizations may come to the help of the disputants as a last refuge. However, such mediations attempts are likely to be futile if Kydd is right about the crucial role of bias for effective mediation. In order to ascertain whether information and bias are important elements of mediation success, we need to subject the hypotheses developed in this chapter to empirical scrutiny. The next two chapters will develop the research design and empirical tests of these hypotheses.

3.5 Summary of Hypotheses Regarding Exogenous Mediation

**H1:** Mediations of international conflicts by states that have relevant information about the disputants are more likely to be successful than those without such information.

**H2:** Mediations of international conflicts by international organizations are more likely to be successful than mediations by uninformed states.
**H3:** Mediations of international conflicts by regional organizations that are between two member states are more likely to be successful than those that are not between two member states.

**H4:** Mediations of international conflicts by states that have relevant information about one of the disputing parties and are biased in favor of the other are more likely to be successful than those without such characteristics.

**H5:** Mediations of international conflicts by international organizations are less likely to be successful than by informed and biased state mediators.

**H6:** Mediations of international conflicts by regional organizations are less likely to be successful than by informed and biased state mediators.
CHAPTER 4: MEASURING MEDIATION SUCCESS, INFORMATION, AND BIAS

4.1 Short-Term Mediation Success:

The dependent variable of all the hypotheses is whether the mediation of an international crisis by a mediator is successful in the short-run. As I discussed in Chapter 2, what I mean by short-term success is whether the mediator of an international crisis facilitates a negotiated settlement between the disputants. I use the International Conflict Management (ICM) dataset collected by Jacob Bercovitch (1999) to code mediation success. Mediation success is coded 1 if a ceasefire, partial or full settlement is reached at the end of a mediation activity, and 0 otherwise.

4.2 Information:

4.2.1 Information Measure for State Mediators:

The first indicator of information is whether a state has a strong intelligence gathering apparatus. I use Gaddis’s (1988, 251) definition of intelligence: “open and clandestine collection of information, the organization and implementation of covert operations, and the systematic analysis of the intentions and capabilities of actual and potential adversaries.” According to the United States Intelligence Community, there are six basic intelligence sources or collection methods: signals intelligence, imagery intelligence, measurement and signature intelligence, human-source intelligence, open-source intelligence, and geo-spatial intelligence. 31

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31 Signals intelligence is derived from signal intercepts comprising all communications intelligence, electronic intelligence and foreign instrumentation signals intelligence. Imagery intelligence includes representations of objects reproduced electronically or by optical means on film, electronic display devices, or other media. Imagery can be derived from visual photography, radar sensors, infrared sensors, lasers, and electro-optics. Measurement and Signature intelligence is technically derived intelligence data other than imagery and signals intelligence. Examples of this might be the distinctive radar signatures of specific
I identify a state's monadic intelligence capacity by collecting information on the number of submarines and reconnaissance aircraft a state possesses in a given year.\textsuperscript{32}

Submarines and reconnaissance aircraft are equipped to collect signals, imagery and measurement and signature intelligence. Information regarding to the number of submarines and reconnaissance aircraft a state has in a given year is obtained from the *Military Balance*, a collection of books updated each year to provide an assessment of the military forces and defense expenditures of 169 countries from 1965 to 2004.\textsuperscript{33} I create a dichotomous measure of monadic intelligence capacity of states, which takes a value of 1 if the number of submarines and reconnaissance aircraft a state possesses in a given year is higher than the average number of submarines and reconnaissance aircraft in the international system and 0 otherwise.

\textsuperscript{32} I am not claiming that I am able to capture intelligence gathering ability of states by looking at only the number of submarines and reconnaissance aircraft they possess. Undeniably, there are other and more relevant components of intelligence. However, I expect that the two components of intelligence I use are likely to be correlated to the amount of other intelligence equipment a state has. Therefore, even though I realize that the measure I create is at best a rough approximation of intelligence, it still gives us an idea about a state's level of intelligence apparatus. I collected information on the number of satellites a state possesses. However, the fact that only a handful of states have satellites decreases the reliability of this indicator. Therefore, I did not use this information.

\textsuperscript{33} There are a couple of obvious limitations of the *Military Balance*. First, the book reports information about only military intelligence. It does not report any intelligence gathering equipment owned by the CIA or other intelligence agencies in a state in a given year. Therefore, relying on only military intelligence information is likely to underestimate the total information gathering capacity of states. Second, gathering data on the intelligence apparatus of a state gives us an idea about a state's general intelligence gathering strength. It does not say anything about a state's ability to elicit information about a particular state.
A more valid measure of information captures the ability of a state to elicit information about a particular state. I create two dyadic measures of information: whether a mediator has diplomatic representation in a disputant’s territory, and whether a mediator and a disputant share highly institutionalized alliance ties. Contrary to popular belief, most human intelligence collection is performed by overt collectors such as ambassadors and military/economic attaches.34 Government officials are expected to elicit information about the foreign state in which they are positioned, and by identifying whether a mediator has diplomatic representation in a disputant’s territory, I will able to tap into human intelligence.

I used the *Europa World Year Book* to identify each state’s diplomatic representation in other states. By diplomatic representation, I mean having embassies with an ambassador residing in a given country. Ambassadors are important because they capture the human intelligence part of intelligence. In order to be considered as an eligible diplomatic representation, an embassy should be located in the territory of the state in question. For example, the Algerian Embassy to Mauritania is located in Senegal, not in Mauritania. I treat such cases as having no diplomatic representation. Diplomatic representation is a dichotomous measure. It takes a value of 1 if a state has an embassy with a residing ambassador in a given state and 0 otherwise.

The second dyadic measure of information is the existence of a highly institutionalized alliance ties between a mediator and a disputant. I expect that if a disputant and a mediator share a highly institutionalized alliance structure, they will have more opportunity to access information about each other’s military capabilities. An

alliance is said to have a highly institutionalized structure if it includes one of the following provisions: (a) requirement of an integrated military command during both peacetime and wartime; (b) the members are required to conduct a common defense policy; (c) provision for joint troop placements, mutual exchange of bases, or for one state to establish bases on the territory of another state (Leeds and Anac 2005, 188-189). Having an integrated command, a common defense policy or joint troop placements requires states to share military information as these provisions are based on the idea of close policy coordination. I create a dummy variable that takes a value of 1 if a disputant and a potential mediator shares any type of alliance with highly institutionalized structure and 0 otherwise.

In sum, information capacity of state mediators is captured by three indicators: a mediator’s military intelligence strength, a mediator’s diplomatic representation in a disputant’s territory and highly institutionalized alliance structure between a mediator and a disputant. Each of these indicators is created as a dichotomous variable. The summary information index is an additive measure of three dimensions, which ranges from 0 to 3 where 0 represents cases a mediator does not have information about a disputant (0 in all three dimensions) and 3 represents cases where a mediator has high levels of information about a disputant. Finally, I create a dummy variable of information, which is coded as 0 (no/low information) if the summary index is 0 or 1 and coded as 1 (medium/high information) if the summary index is 2 or 3.
4.2.2 Information Measure for International and Regional Organizations

By international organizations, I refer to the United Nations. For the reasons that I discussed in Chapter 3, I assume that the United Nations is likely to have more information about the resolve and the military capabilities of states than an uninformed state has about other states. Therefore, mediations by the United Nations will be compared to mediations by uninformed state mediators to ascertain whether the former is significantly better at facilitating negotiated settlements than the latter.

The regional organizations in my dataset are the African Union (AU), League of Arab States (LAS), Organization of American States (OAS), North Atlantic Treaty Organization (NATO), Association of Southeast Asian Nations (ASEAN), and the Organization for Security and Cooperation in Europe (OSCE). I code a regional organization having information about a disputant if that disputant is a member state.

4.3 Bias

4.3.1 Bias Measure for State Mediators

As discussed in Chapter 3, the proper way to assess the effect of bias on the effectiveness of mediation is to consider the triangular relationship between a mediator and both of the disputants. That is, we need to create a measure of relative bias. How do we measure relative bias? Since relative bias is attained by comparing two absolute biases, we need to first compute absolute bias between a mediator and each of the disputant.

I measure the absolute bias between a mediator and a disputant based on their relationships in three dimensions: alliance ties, economic relationship and conflict history. Absolute bias is a weighted measure of the combination of alliance ties, trade
relationship and conflict history between a mediator and a disputant. The absolute bias measure is calculated in several steps. First, I code alliance ties between each disputant of a dispute and each mediator involved in that dispute. The value of this variable ranges from 0 to 3 and reflects whether two states share an alliance and how institutionalized these alliances are. I identify whether two states share an alliance link, the type of alliance they share, and the degree to which alliances are institutionalized by using the Alliance Treaty Obligations and Provisions (ATOP) dataset (Leeds, Ritter, Mitchell, and Long 2002).

I use four types of alliance provisions to measure alliance links. Defense alliances include promises to assist an alliance partner in the event of an attack on the partner's sovereignty (Leeds et. al. 2002, 241). Alliances with offensive provisions include promises to engage in hostilities outside the territory of the alliance members (Leeds et. al. 2002, 241). Consultation pacts require member states to consult one another in the event of threat to their security whereas neutrality pacts require states to stay out of conflicts involving their alliance partners (Leeds et. al. 2002, 241). Defense or offense alliances are likely to reflect a stronger degree of commitment than consultation or neutrality pacts as the former requires allocation of resources and active cooperation in the time of war among its members. Unless states are sufficiently biased towards each other, they are unlikely to enter into such committed relationships. Although not to the same extent, neutrality or consultation pacts also imply a positive bias as they commit

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35 I exclude non-aggression pacts because there is reason to believe that they may be an indication of potential conflict, not cooperation. There is no reason to sign a nonaggression pact unless there is fear of aggression. For more information about the different dynamics of nonaggression pacts, see Leeds and Mattes (2005).
their members to consult one another in the time of war or stay neutral if an ally is involved in a conflict with a third state.

The alliance dimension of absolute bias measures not only the type of obligations an alliance requires from its members but also the degree to which its members agree to peacetime military coordination. I expect that if the members of an alliance go beyond promises about policy coordination during wartime and agree to adjust their polices during peacetime by building additional coordinative machinery, they exhibit a stronger commitment thus bias towards each other than the members of alliances that do not include such military institutionalization. I use Leeds and Anac (2005)'s measure of military institutionalization of alliances, which is created by using the ATOP dataset. Leeds and Anac (2005) code any alliance that includes any of the following provisions as highly institutionalized: (a) alliances that require an integrated military command during both peacetime and wartime; (b) alliances that require the members to conduct a common defense policy; (c) alliances that provide for joint troop placements, mutual exchange of bases, or for one state to establish bases on the territory of another state (188-189).

The alliance variable is coded as 3 if a potential mediator and a disputant share an offense or/and defense alliance with high level of military institutionalization. If a disputant and a potential mediator share an offense or defense alliance that has low or no military institutionalized structure, the variable is coded as 2. If a disputant and a potential mediator share a neutrality pact or/and a consultation pact without offense/defense obligations, this variable is coded as 1. Finally, the lack of any type of alliance link is coded as 0.
After I code the alliance relationship between a mediator and a disputant using the aforementioned 4-point scale, I rescale the alliance variable utilizing weights. Scaling is required because the difference between adjacent values of the alliance variable does not necessarily contribute equally to the strength of bias between two states. After rescaling, the alliance variable ranges from 0 to 1: 0 representing the absence of alliances between two states and 1 indicating the strongest alliance ties. The original alliance score of 1 corresponds to 0.50 and 2 corresponds to 0.75. I assign more weight to having an alliance relative to having no alliance because I believe that moving from no alliance to having alliance of any sort should affect the bias of a state towards its alliance partner more strongly than moving from one type of alliance to another.

The second dimension of the absolute bias is trade links between a disputant and a mediator state. Rather than using the existing trade data that measure the annual volume of trade between two states, I code a new trade variable using the *Europa World Year Book*, which reports the major trading partners of each state for every year from 1965 onwards. The major trading partners represent states that have the highest level of imports/exports with a given state. After I code whether a disputant is a major trading partner of a mediator from 1965 through 1995, I create a dummy variable of trade. The variable is coded as 1 if a disputant is a major trading partner of a mediator in a given year and 0 otherwise. If the disputant is a major trading partner of a mediator, the mediator is expected to be biased in favor of the disputant as a potential loss of resources incurred by a trading partner as result of the its dispute with a third state may affect the former's ability to sustain its trading relationship with the potential mediator. Therefore, a mediator is likely to be biased in favor of its major trading partner.
The final dimension of absolute bias captures the conflict history between a disputant and a mediator. In order to measure this dimension, I first code the number of militarized disputes a disputant and a mediator have been involved against each other in the last 5 years prior to the start year of the dispute in question. I use the Militarized Interstate Dispute dataset version 3.02 (Ghosn, Palmer, and Bremer 2004) to identify the disputes. Then, I weight this variable so that the distance between 2 disputes and 3 disputes does not contribute to the bias score as much as the difference between no dispute and 1 dispute. After re-scaling, the conflict variable ranges from 0 to 1. 0 indicates no militarized conflict within the last 5 years between a mediator and a disputant and 1 indicates 3 or more militarized conflicts between a disputant and a mediator in the last 5 years prior to start year of the dispute in question. If there is only one dispute, the variable is coded as 0.50 and, if there are 2 disputes, it is coded as 0.75.

All three dimensions of absolute bias are scaled so that each dimension ranges from 0 to 1. This is done to ensure that the maximum difference along each dimension has the same effect on the composition of the total bias and to allow that the relative contribution of each dimension to the total score is solely determined by the weights I assign to each dimension.

After I code each dimension, I sum these dimensions to create a total absolute bias score between a disputant and a potential mediator. Whereas alliance and trade links contribute positively to the bias score, the conflict history constitutes a negative bias and therefore needs to be subtracted from the positive bias. The equation for the total bias score between two state A and state B (B_{AB}) becomes:
\[ B_{AB} = [A_{AB} + T_{AB} - C_{AB}] \]  

where \( A_{AB} \) = alliance ties between state A (mediator) and state B [0,1]  
\( T_{AB} \) = trade ties between state A (mediator) and state B [0,1]  
\( C_{AB} \) = military conflict history between state A (mediator) and state B [0,1]

From the Equation 1 above, we see that the total absolute bias score ranges from 
-1 to 2, where -1 implies no alliances, no substantial trade ties, and 3 or more conflicts 
between state A and state B and 2 implies the highest alliance and trade links and no 
conflict history between state A and state B.

After I calculate the total bias score of a potential mediator with respect to each of 
the disputants, I create a relative bias score. Relative bias score \( (R_{ABC}) \) is based on a 
comparison between the absolute bias score of a potential mediator with respect to one of 
the disputants and its bias vis-à-vis the other disputant. In essence, relative bias represents 
the (dis)similarity between two absolute biases. Scholars have used two statistical 
measures to compute similarity of states’ preferences. The first one, \( \tau_{b} \), is designed to 
measure association between two subset of ordinal rankings. Kendall’s \( \tau_{b} \) was the 
primary measure used to calculate interest similarity in the literature over the years until 
Signorino and Ritter (1999) warned scholars about the theoretical and empirical 
weaknesses of \( \tau_{b} \) and introduced a more appropriate measure of similarity – S score. 
Relative bias is computed using a logic similar to S. Relative bias measures the distance 
between two absolute bias scores as S measures the distance between two states’ policy 
positions.

S is a spatial measure of foreign policy similarity. Signorino and Ritter (1999, 
126) start with the assumption that a state makes choices over a number of policy
dimensions, and that the vector of these multiple choices represents a point in policy space. These dimensions may include alliance commitments, economic ties, and conflict history, etc. Similarity in foreign policy refers to the closeness of two states in their policy positions. The further apart two states are in the policy space, the less similar their policy positions. More technically, Signorino and Ritter (1999) assume that there are N dimensions (where N represents the number of states in the system) to each policy portfolio and state i's policy portfolio $P_i = [p_{i1}, p_{i2}, \ldots, p_{iN}]$ represent a point in N-dimensional policy space and state j's portfolio $P_j = [p_{j1}, p_{j2}, \ldots, p_{jN}]$ represent a point in N-dimensional policy space. Since data require mapping of intervals into ordered categories, the authors make additional assumptions. They make an assumption about a metric $d(P_i, P_j)$ that denotes how close $P_i$ is to $P_j$. What this means is that Signorino and Ritter assume that alliance types fall at interval distance and that we can measure the difference between types of alliance commitments at the interval level.\textsuperscript{36}

That is, the difference in the degree of formality between no alliance and entente is assumed to be equal to the difference between nonaggression pact and defense pacts. Signorino and Ritter measure the distance between two policy positions by $d(x_1, y_1) = \Sigma |x_i - y_i|$. They let $d_{\text{max}}$ be the maximum possible distance between any two points in the policy space. They transform this into a measure of similarity $S^* (P_i, P_j) = 1 - 2d(P_i, P_j) / d_{\text{max}}$ with values on the interval $[-1, 1]$, where $-1$ denotes two policies that are as far apart as possible and $1$ denotes identical policy positions. An S score of 0 means the distance between two policy positions is half the maximum it could be.

\textsuperscript{36} Using the COW alliance dataset, Bueno de Mesquita (1975) ranks alliance commitments from those with the least formal alliance obligations to those with the most formal obligations ($0 =$ no alliance; $1 =$ entente; $2 =$ neutrality or non-aggression pact; $3 =$ defense alliance). Signorino and Ritter (1999) use the same categorization.
In my calculation of relative bias, I deviate from Signorino and Ritter’s (1999) computation of S in several ways. First, I reduce N-dimensional policy space to one dimension by assigning a weight of 1 to the relationship between a mediator and a disputant. This procedure is permitted in the computation of S as S allows intra-dimensional weighing: weighing individual observations according to some criteria. I assign a weight of zero to the relationship between a mediator and the rest of the world (other than the disputants) because I believe that a mediator’s bias is a linear function of the direct relationship between a mediator and a disputant rather than how similar a mediator’s relationship to the rest of the world is to a disputant’s relationship to the rest of the world. Second, instead of using ordered classifications in which each category is equidistance from the other, I use a weighed scale where this is the not the case. For example, after scaling, no alliance corresponds to 0, sharing a neutrality or consultation pact corresponds to 0.50, sharing an offense or defense alliance corresponds to 0.75 and sharing an offense or defense alliance with highly institutionalized military structure corresponds to 1.

I compute the relative bias score in two related ways. First, I calculate the difference between two scores in each dimension and add these differences to create a single measure of relative bias. This requires computing the difference between a potential mediator’s alliance links to one of the disputant and her alliance links to the other disputant, and following the same procedure for the trade and conflict dimensions and adding these differences to create a single relative bias score. More technically, this method entails a comparison between two three-dimensional vectors, where each dimension represents a component of the total absolute bias and each vector corresponds
a mediator's absolute bias towards each of the disputant. A more straightforward way to compute relative bias involves comparing two points rather than vectors, where each point corresponds to the value of total absolute bias mediator holds towards each disputant. I compute total absolute bias for each dyad and then take the difference between the total bias scores rather than the difference within each dimension. Although these two ways are mathematically equivalent, I will calculate relative bias in both ways to be able to run additional analysis to estimate whether individual dimensions have any independent/different effect on the probability and success of mediation. The equation for the relative bias a mediator (state A) holds towards state B in comparison to state C (\(R_{ABC}\)) is:

\[
R_{ABC} = [A_{AB} + T_{AB} - C_{AB}] - [A_{AC} + T_{AC} - C_{AC}] = [(A_{AB} - A_{AC}) + (T_{AB} - T_{AC}) + (C_{AB} - C_{AC})]
\]

\{2\}

From the Equation 2 above, we see that the relative bias ranges from \(-2\) to \(3\). If the relative bias is greater than zero, it indicates that the mediator is biased towards state B (the first disputant). If the difference is less than zero, it indicates that the mediator is biased against state B or towards state C (the second disputant). If the difference is 0, it indicates that the mediator is neutral between the disputants.

4.3.2 Bias Measure for International and Regional Organizations:

Since the United Nations is considered an unbiased actor, the relative bias score of the UN towards both disputants in all the disputes is coded as 0. Regional organizations are considered biased towards their members. If both disputants of a dispute are member states of a regional organization, the relative bias score of that
regional organization towards each disputant is coded as 0. If one disputant is a member and the other disputant is not, the relative bias score of the regional organization towards the member disputant is coded as 2. If neither disputant is a member of a regional organization, the relative bias score of that regional organization towards both disputants is coded as 0.
CHAPTER 5: EVALUATING EXOGENOUS MEDIATION

This chapter empirically evaluates the hypotheses developed in Chapter 3. The temporal domain of the empirical analysis is between 1965 and 1995. The analysis starts at 1965 as the data on information variables are available from 1965 onwards. To identify international conflicts and related mediation activities, I use the International Conflict Management (ICM) dataset collected by Bercovitch (1999). The International Conflict Management Dataset defines an international conflict as “a situation where there exists mutually exclusive sets of competing claims or challenges to sovereignty between at least two actors, which must be internationally recognized as political actors, and alluding to specific, direct conflict of interest and activities directed at the pursuit or challenge of this, i.e., a clash of overlapping interests” (6). This definition does not impose any minimum number of fatalities for a dispute between two states to become a legitimate one. The ICM dataset identifies 104 bilateral inter-state conflicts between 1965 and 1995. These conflicts will constitute the population of cases I use in my empirical models.

The dependent variable is whether the mediation of an international conflict by a mediator is successful in the short-run, i.e., whether a mediator facilitates a ceasefire, partial or full settlement between the disputants. Estimating an econometric model of mediation success without taking into account the decision to mediate may introduce potential research-design type selection effects. Therefore, I will first discuss how I address such methodological issues in my econometric models.

37 I thank Jacob Bercovitch for sharing his dataset with me.

38 Lemke and Reed (2001) identify two types of selection effects: strategic censoring and the research-design type selection effects. The former one refers to the situation where the behavior of interest is unobserved because a strategic choice by another actor censors the action of the actor we are interested in. Signorino (1999) and Smith (1999) deal with such strategic censoring by explicitly modeling the strategic situation. I am interested in research-design type of selection effects.
The research-design type of selection effects occurs as a result of studying a biased sample of the relevant population (Achen 1996, Reed 2000, Lemke and Reed 2001). Unless this situation is diagnosed and corrected by appropriate statistical procedures, the coefficient estimates obtained by standard techniques are likely to be biased and/or inefficient (Reed 2000, Sartori 2003). Recently, a growing number of studies in political science have adopted statistical procedures to avoid possible selection bias (e.g., Reed 2000, Lemke and Reed 2001, Sartori 2003).

It is reasonable to expect that the same factors that affect whether a state mediates a crisis may also influence mediation success. For example, having relevant information about the disputants and being biased towards one of them may increase the likelihood that a third party will mediate a crisis in the first place. International actors are concerned about efficacy. That is, their willingness to get involved in a certain behavior is a function of their belief that their action will bring about a successful outcome. Based on the assumption of efficacy, we can expect that international actors are likely to mediate a crisis if they believe that they can make a difference in the outcome. Therefore, factors that facilitate mediation success are likely to increase the likelihood that a third party will mediate a crisis in the first place.

This implies that choices of third parties regarding mediation may be non-random, and the resulting endogeneity may make it difficult for scholars to accurately ascertain the determinants of effective mediation. If the stochastic processes that produce mediation and mediation success are interdependent, and we do not take this interdependence into account, we are likely to end up with unreliable estimates (Achen 1986, Reed 2000, Signorino 1999, Smith 1996, 1999). Estimating a separate equation for
mediation occurrence (selection equation) and another one for mediation success (outcome equation) assumes that the decision to mediate and mediation success are independent. If these two phenomena are related, and I argue that they are, then the estimates of the two separate models will be inconsistent and/or inefficient.

In my dataset, there are 104 cases of international crises but I have data about mediation success for only 45 crises. Since the remaining 59 crises did not experience mediation, the mediation success variable for these cases is missing. If the missing data for mediation success were completely at random, I could estimate mediation success just using the cases for which I have information, i.e., those that received mediation. However, the decision to mediate or not to mediate is made by each individual state. States select themselves into mediation. It is likely that states may refrain from mediating a crisis because their expectation of obtaining a successful outcome is low. If we do not account for this non-random process, we overestimate the success of mediation.

One way to manage the potential selection bias that may arise from estimating two dependent variables that are related to each other is to estimate two models jointly. The Heckman selection models allow us to use information from non-mediating states to improve the estimates of mediation success (Heckman 1979, Achen 1986). Following Reed (2000), I use a censored probit model (probit with sample selection) to evaluate hypotheses about mediation success. The censored probit model estimates all equations and parameters jointly and is considered to be efficient among all estimators (Greene 1996). Censored probit also calculates the correlation between the dependent variables’ disturbances by estimating an additional parameter, rho. To the extent that rho is
statistically significant, the selection model (mediation occurrence) and the outcome model (mediation success) are related to each other.

If it is methodologically imperative that we estimate a mediation occurrence model (selection model) to be able to properly estimate mediation success model (outcome model), we need to consider an additional methodological issue. In order to estimate whether a state is involved in the mediation of a dispute, i.e., selection equation, we need to first identify potential mediators for each dispute. Identifying potential mediators for each dispute may be tricky since it is easy to introduce selection bias if the consequences of the selection procedure are not well thought through.

There are several ways to identify potential mediators. The most straightforward method is to include all states in the international system (other than the disputants) in the potential mediator set of a dispute. Ostensibly, this is an attractive method as it does not discriminate among potential mediators by excluding some of the mediators from the set, which can be done either by randomization or by selecting on the dependent variable or independent variable(s). However, given the fact that not all disputes receive mediation and even those that are mediated do not usually have more than on average 5 mediators, the inclusion of all states in the potential mediator set of a dispute introduces a rare events problem. King and Zeng (2001) discuss some of the problems associated with rare events data, data in which the binary dependent variable is characterized by many times fewer 1’s (mediation) than 0’s (no mediation). The most serious problem in rare events data is the underestimation of event probabilities.

One possible solution to this problem is the use of a choice-based or endogenous stratified sampling to select cases (King and Zeng, 2001, 699). Endogenous stratified
sampling is based on selecting on the dependent variable by collecting all cases for which the dependent variable is 1 (mediation) and a random selection of observations for which the dependent variable is 0 (no mediation). This is the sampling strategy I use to select potential mediators for a given dispute. For every dispute, I include all the actual mediators of a dispute in its potential mediator list and then supplement this list by randomly selecting from the list of non-mediators and including this sample to the list of potential mediators.

Using a subset of the population of cases in empirical evaluations is not uncommon in the international conflict literature. The difficulty and the costs of obtaining information for all states/dyads in the international system over an extended period of time have led many researchers to use pre-selected dyads/states in their analyses. The most popular method of case selection includes selecting dyads that are politically relevant: dyads that are contiguous or dyads involving a major power. Scholars of international conflict have shown that there is a statistically higher probability of conflict between politically relevant dyads as contiguity and major power status are two of the strongest correlates of war (Bremer 1992).

Despite its widespread use, this case-selection method poses serious methodological problems. Lemke and Reed (2001) discuss two potential statistical problems caused by using a relevant dyads criterion to select cases: measurement error and selection bias. Measurement error manifests itself in two ways. First, relevant dyads sampling is based on the assumption that all relevant dyads have equal opportunity for experiencing the dependent variable of interest and all irrelevant dyads are equally unlikely to experience it. However, in the context of international conflict, Lemke and
Reed (2001, 130) show that there is substantial variation in the contiguity and major power status within the population of politically relevant dyads. Second, not all conflicts occur within the set of relevant dyads. Lemke and Reed (2001, 131) again show that more than 10% of the dyadic disputes occur between politically irrelevant dyads.

In order to assess the extent of measurement error that might arise from using a non-random sampling based on the criteria of contiguity and major power status, I investigated whether the mediators in my dataset are predominantly from the set of relevant dyads. A mediator state is considered to be in the population of politically relevant dyads if it is contiguous to the either of the disputants or has major power status. In the sample of 104 international disputes that I use in my analysis, around 50 states have been involved in disputes in a mediator capacity at least once. Of these 50 states, 19 non-major power states have mediated disputes with whose disputants they are not contiguous. If I use politically relevant dyads as a selection criterion, these 19 actual mediators will not appear in the list of potential mediator set. This obviously introduces a serious measurement error.

The second potential problem that Lemke and Reed identify is selection bias. Selection bias arises if the selection criteria correlate with independent and/or dependent variables of interest. Selection bias may result in biased estimates as it may weaken relationships or result in sign reversals in estimation (Lemke and Reed 2001, 137). The major power status component of the selection criteria of relevant dyads is especially relevant in my study. If a state is a major power, it is automatically included in the potential set of mediators according to relevant dyads sampling. This raises a red flag
because major power status, the selection criteria, is closely related to many of the explanatory variables of my analysis.

The two main explanatory variables I employ to predict the occurrence and effectiveness of mediation are the relative bias of a mediator vis-à-vis each disputant and how much information it possesses regarding the disputants. Relative bias is a composite measure of alliance, trade links and military hostility history between a mediator and each of the disputant. All of these independent variables suggest a relationship with major power status. It is very conceivable that major powers are more likely to form alliances and more likely to have a broader and stronger trading relationship with the rest of the world than non-major powers. Similarly, it has been often suggested that major power status increases the likelihood of militarized conflict (Bremer 1992). My measure of information capacity consists of intelligence capacity of mediator states and their diplomatic representation in the disputant states. With a greater interest in the international system and more capability than the rest of the world, major powers are more likely to possess substantial intelligence strength and more likely to have diplomatic representation in other states than non-major powers. Lemke and Reed (2001, 136) warn that unless one uses an estimation procedure that allows for the relationship between the selection criteria and independent variables, the inferences drawn from such an analysis regarding the impact of the independent variables on the dependent variable might be inefficient and/or biased. To avoid any possible measurement error and selection bias, I refrain from using relevant dyads as a case selection procedure. Instead I use endogenous stratified sampling that is shown to produce consistent estimates when used within logistic regression (Achen 1999, King and Zeng 2001). This design generates a dataset
that includes as many cases per dispute as the number of actual mediators in the dispute plus randomly selected states from the set of non-mediators. For each conflict, the total number of actual mediators and randomly selected non-mediators total to 25. This means that there are 25 observations per international conflict for the selection model.

The above discussion demonstrates that the most appropriate way to estimate mediation success is to use a Heckman selection model. Given that the focus of this study is mediation success rather than mediation occurrence, I will discuss the econometric model that I use to estimate mediation success first. The dependent variable of the outcome model is mediation success. In addition to the two theoretical variables that are posited to predict mediation success, i.e., being biased towards one party and have information about the other, I include two variables in the outcome equation as control variables.

The first control variable measures the severity of a dispute. I expect a positive relationship between the severity of a dispute and mediation success. High intensity disputes are more likely to experience successful mediation than low-intensity ones as the disputants of high-intensity disputes are usually worn-out and are more willing to minimize their losses by settling their difference at the bargaining table (Young, 1967). Following Bercovitch (1991), I measure the severity of a dispute by the number of total fatalities of a dispute. I use the COW Militarized Interstate Dispute (MID) dataset (Jones, Bremer and Singer 1996) to code this variable. I group the total fatalities of disputes into

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39 Some scholars argue that the greater the intensity of a dispute, the less likely that mediation will produce successful outcomes (e.g., Frei 1975, Bercovitch 1991). The idea is that higher intensity disputes polarize disputants to the extent that the disputants become less willing to settle down less than the total prize. The less willing the disputants are to give concessions in negotiations, the less likely that mediation will bring a successful outcome.
4 categories where 0-500 fatalities is coded as 1, 501-1000 is coded as 2, 1001-10000 as 3 and 10000+ as 4.

The second variable I include in the econometric model of mediation success is the status of mediators. I measure the status of mediators by their major power status. By including a measure for major power status of mediators, I will be able to evaluate a competing explanation for the mediation success: some mediators are successful not because they are informed and biased but because they are able to pressure the disputants to bring about a desired outcome. Major powers usually have the means to use carrots (positive sanctions) and sticks (negative sanctions) to induce the disputants to compromise. Therefore, negotiated settlements become more likely as a result of major powers using their leverage (i.e., arms embargoes, economic aid, side payments, etc.) rather than major powers using the relevant information they have to reduce uncertainty in the environment. I measure major power status of a state using the Correlates of War (COW) data (Small and Singer 1982). I code a dummy variable for each mediator of a dispute, which takes a value of 1 if the mediator is considered a major power state by the COW criteria.

The dependent variable of the selection model is whether an international actor becomes involved in the mediation of a dispute. A mediation episode is defined as the involvement of an outside state in an international conflict upon the approval of both of the disputing parties, with the aim of reducing the hostilities between the disputing parties, by facilitating both the formulation and implementation of a negotiated settlement. If a state mediates a crisis on more than one occasion, I treat all the mediation

---

40 The correlation between my information measure and major power status is 0.44 and bias measure and major power status is 0.18.
episodes undertaken by the same state within one month period as one observation. The
rationale of aggregating all mediation activities of a state is that relative bias and
information capacity of a state in a given dispute is unlikely to change from one
mediation episode to another within one month period.

In order to differentiate mediations by states from mediations by international
organizations, I code every mediation activity by a current representative of a state as a
state mediation even though the state may act under the auspices of the United Nations.
For example, if US Secretary of State mediates a given international conflict under the
authority of the UN, it is still considered as a state mediation. For a mediation activity to
be considered UN mediation, a UN officer/representative independent of any national
appointment, such as the UN Secretary General, needs to be in charge of mediation.

The specification of the selection model includes the following variables: the
degree of information a potential mediator has about the disputants, how biased a
potential mediator is towards the disputants, whether a potential mediator is a major
power, the severity of a dispute and, whether disputants are democracies.

As I discussed before, based on the assumption of efficacy, I expect mediators
that are informed and biased not only be more likely to produce negotiated settlements
but also be more likely to mediate. Major powers are also more likely to mediate a given
crisis than other states. One might argue that major powers are highly involved in various
parts of the world and their extended interests sometimes require them to take action,
such as extending their services as mediators. In addition, there might be additional
pressure imposed by the international community on major powers “to do something”
about international crises. Therefore, major powers are expected to get involved in mediation of international crises more often than non-major powers.

The likelihood of mediation of an international crisis may also increase as the severity of a dispute increases. First, as an international crisis becomes more hostile and results in high casualties, the international pressure to intervene in that crisis increases. Normative concerns become more pressing and third parties have an easier time garnering public support to get involved in the mediation of such crises. Second, if the severity of an international dispute remains at low levels, outside parties might assume that the disputants can still manage their differences themselves without outside involvement. Similarly, as the severity of an international dispute increases, the disputants are more likely to be open to outside involvement to their disputes. Therefore, as the severity of a dispute increases, not only the supply of mediation but also the demand for mediation is likely to rise.

A final predictor of mediation occurrence by a given state is the regime type of the disputants. The democratic peace literature suggests that democratic disputants are more likely to receive mediation than non-democratic disputants as democracies are more open to peaceful conflict management techniques (e.g., Dixon 1994, Mousseau 1998). The willingness of democratic disputants to receive mediation in turn increases third parties’ willingness to mediate as the latter’s expectation of success might rise if the disputants are open and used to mediation techniques. Therefore, we can expect a positive relationship between democratic disputants and the likelihood of mediation. I measure the democracy level of disputants using the Polity IV dataset (Marshall and Jaggers 2002). Polity IV provides annual data on democratic and autocratic features of
the domestic institutions of a state based on two composite scores – an 11 point
democracy scale and 11 point autocracy scale. I create a dummy variable of democracy
where a state with a net democracy score (democracy-autocracy) of 7 and higher is coded
as 1.

Hypothesis 1 predicts that state mediators that have relevant information about
one of the disputants are more likely to be successful than state mediators without such
characteristics. The domain of H1 is state mediators as H1 requires a comparison between
two types of state mediators: those with information and those without information. In
my dataset, there are 40 state mediated crises. Some crisis has as low as 1 state mediator
and others have as high as 9 state mediators. This gives me a total of 90 observations.
However, not all state mediators use exogenous mediation techniques. Some of them
adopt endogenous mediation activities. Out of 90 mediation episodes by state mediators, 67
of them use exogenous mediation techniques. Since H1, as well as other hypotheses, is
about exogenous mediation, I have 67 observations to evaluate H1.

Table 5.1 shows the results of the censored probit model of mediation success and
mediation occurrence. I find strong empirical support for H1.
Table 5.1.
Censored Probit Model of State Mediation Success – Hypothesis 1

<table>
<thead>
<tr>
<th>Explanatory Variables</th>
<th>Outcome Model State Mediation Success</th>
<th>Selection Model State Mediation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficients (Robust Standard Errors)#</td>
<td>Coefficients (Robust Standard Errors)#</td>
</tr>
<tr>
<td>INFORMATION</td>
<td>0.746*** (0.183)</td>
<td>0.932*** (0.155)</td>
</tr>
<tr>
<td>Major Power Mediator</td>
<td>-0.424 (0.325)</td>
<td>0.157 (0.259)</td>
</tr>
<tr>
<td>Dispute Fatality</td>
<td>0.104 (0.073)</td>
<td>0.229** (0.071)</td>
</tr>
<tr>
<td>Democratic Disputants</td>
<td></td>
<td>-0.492** (0.209)</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.50*** (0.452)</td>
<td>-2.683*** (0.240)</td>
</tr>
<tr>
<td>Rho</td>
<td>0.926** (0.106)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>65</td>
<td>1320</td>
</tr>
</tbody>
</table>

* = p < 0.10, ** = p < 0.05, *** = p < 0.01
# robust standard errors are clustered around disputes

The significant coefficient of the information variable in Table 5.1 implies that state mediators that have relevant information about one or both disputants are more likely to induce a ceasefire, partial or full settlement between the disputants than uninformed state mediators. This finding provides strong empirical support not only to H1 but also to the theoretical prediction of the bargaining theory of war that sees information imperfections as a major cause of bargaining failures. Table 5.1 also suggests that having relevant information about the disputants significantly increases the likelihood that a state will mediate a crisis about whose disputants it has information.
Although information exerts strong influence on the decision to mediate, its influence on mediation success is still discernible. That is, even when we control for the impact of information on the decision to mediate, we still find that information matters for mediation success.

Neither of the control variables included in the outcome model is a significant predictor of mediation success. We find that major power mediation activities are no more likely to result in successful outcomes than non-major power mediation episodes.\(^{41}\) Similarly, mediations of high intensity conflicts by state mediators are not more likely to result in successful outcomes than mediations of low intensity disputes: fatality level of conflicts is not a predictor of mediation success.

The control variables of the selection model turn out to be better predictors of the decision to mediate. We find that high intensity disputes are more likely to be mediated than low intensity ones. This finding is in line with my prediction. However, contrary to my expectations, disputes with democratic disputes seem to be less likely to be mediated than other kinds of disputes. Although the regime type of the disputants turns out to be a statistically significant predictor of state mediation, the direction of the relationship is in the opposite direction than expected. One possible explanation for this finding is the presence of possible selection effects. Since democracies are seldom involved in disputes with one another (Russett and Oneal 2001), if they ever become contentious with one another, outside states might infer that such democracies are exceptionally resolved and conflict prone than an average democracy. Therefore, third parties may be more cautious

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\(^{41}\) When I exclude major power variable from the selection and outcome equations, the results do not change. Information is still a significant predictor of mediation and mediation success.
to mediate such crises whose disputants are particularly resolved and thus are less likely to benefit from mediation activities.

Table 5.1 also shows that the correlation parameter, rho, which measures the correlation between the disturbances of the selection and outcome equations, is statistically significant. This suggests that the use of a selection model, which estimates mediation occurrence and mediation success jointly, provides more reliable and efficient estimates than the ones that would be obtained if two equations were estimated independently.

Table 5.2 provides the substantive interpretation of the effects of the significant variables in Table 5.1.  

Table 5.2.

Substantive Interpretation of the Results of the Censored Probit Model of State Mediation Success – Hypothesis 1

<table>
<thead>
<tr>
<th></th>
<th>State Mediation Success</th>
<th>State Mediation</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFORMATION</td>
<td>5.5 times more likely to succeed</td>
<td>95 times more likely to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mediate</td>
</tr>
<tr>
<td>Dispute Fatality</td>
<td></td>
<td>9 times more likely to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mediate</td>
</tr>
<tr>
<td>Democratic Disputants</td>
<td></td>
<td>3.5 times less likely to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mediate</td>
</tr>
</tbody>
</table>

42 For all selection models, substantive effects are calculated using Stata’s post-estimation commands for selection models: *psel* and *pcond.*
Table 5.2 demonstrates that the substantive effect of information on mediation success is strong. The baseline probability of mediation success is 0.02. This probability represents the likelihood that an uninformed state mediator is successful when all variables in the model are at their minimum values. If an informed state mediates an international conflict, the probability that it will be successful increases to 0.11.\(^{43}\) That is, compared to the baseline probability of success, an informed state mediator is 5.5 times more likely to be successful than an uninformed state mediator.

The substantive effect of information on the decision to mediate is even stronger. The baseline probability of mediation by a potential mediator state is 0.01. This probability represents the likelihood of mediation by a potential uninformed state mediator when all variables in the model are at their minimum values. We see that the probability that an informed state mediates an international dispute is 0.66. This means that compared to the baseline probability of mediation, an informed state is 95 times more likely to mediate a crisis about whose disputants it has relevant information than an uninformed state.

Compared to the effect of information on mediation occurrence, the control variables exert rather weak influence on a state’s decision to mediate. The probability that a high intensity dispute is mediated by a potential mediator state is 0.06. This means that compared to the baseline probability of mediation, high intensity disputes are 9 times more likely to be mediated than low intensity ones. The effect of regime type of disputants on a potential state mediator’s decision to mediate is even weaker. The

\(^{43}\) One of the reasons for small probability is that I am calculating the conditional probability of success – \(Pr(\text{success} \mid \text{mediation}=1)\) – given that a state mediates, what is the likelihood that it will be successful.
probability that a dispute with democratic disputants is mediated by a potential mediator state is 0.002. Compared to the baseline probability of mediation, disputes with democratic disputants are 3.5 times less likely to be mediated than disputes without democratic disputants.

Information is a composite measure and composed of intelligence gathering capacity of a mediator, diplomatic representation a mediator has in a disputant’s territory and the degree of military institutionalization of alliances between a mediator and a disputant. In order to determine how much of an effect each component of the information measure has on the likelihood of mediation success as well as its occurrence, each component is included individually in the censored probit model. Table 5.3 shows the results of this analysis.
Table 5.3.
Censored Probit Model of the Effects of the Individual Components of Information on Mediation Success (control variables not listed) \( ^{44} \)

<table>
<thead>
<tr>
<th>Explanatory Variables</th>
<th>Outcome Model State Mediation Success</th>
<th>Selection Model State Mediation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficients (St. errors)# Substantive effects</td>
<td>Coefficients (St. errors)# Substantive effects</td>
</tr>
<tr>
<td>Intelligence Capacity</td>
<td>0.573** (0.287) 3 times more likely to succeed</td>
<td>1.143*** (0.183) 13 times more likely to mediate</td>
</tr>
<tr>
<td>Diplomatic Representation</td>
<td>0.106 (0.205)</td>
<td>0.435*** (0.157) 3 times more likely to mediate</td>
</tr>
<tr>
<td>Institutionalized Alliance Ties</td>
<td>1.679*** (0.267) 18 times more likely to succeed</td>
<td>1.733*** (0.264) 30 times more likely to mediate</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.588*** (0.311)</td>
<td>-2.641*** (0.218)</td>
</tr>
<tr>
<td>Rho</td>
<td>0.975*** (0.039)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>65</td>
<td>1320</td>
</tr>
</tbody>
</table>

\( ^{*} = p < 0.10, \ ^{**} = p < 0.05, \ ^{***} = p < 0.01 \)
# robust standard errors are clustered around disputes

Table 5.3 shows that two out of three indicators of information are strong predictors of mediation success. Mediator states with strong intelligence apparatus are 3 times more likely to succeed than those without strong intelligence. \(^{45}\) Institutionalized alliance ties between a mediator and a disputant is even stronger predictor of mediation

\(^{44}\) I did not include major powers as control variables in this model because the correlation between major powers and intelligence capacity is very high – 0.84. Other variables shown in Table 5.1 are included in the estimation and their effects remained the same.

\(^{45}\) The baseline probability of mediation success is 0.01.
success. Mediators that share highly institutionalized alliance structures with the disputants are 18 times more likely to be successful than those without such ties. The third indicator of information, diplomatic representation, turns out to be an insignificant predictor of mediation success.

All three indicators of information significantly predict whether a potential mediator will mediate a given international conflict. Institutionalized alliance ties indicator is again the strongest predictor. Potential mediators that share highly institutionalized alliance structures with the disputants are 30 times more likely to mediate a given crisis than those without such ties. 46 We also find that potential mediator states with strong intelligence apparatus are 13 times more likely to mediate a given international conflict than those without strong intelligence. Although diplomatic representation of mediators in disputants’ territory does not seem to affect whether a mediator will be successful, it affects whether a potential mediator will mediate a given international crisis. Potential mediators that have diplomatic representation in a disputant’s territory are 3 times more likely to mediate a given crisis than those without diplomatic representation.

In sum, I find strong support for Hypothesis 1: mediations of international conflicts by states that have relevant information about the disputants are more likely to be successful than those without such information. I also show the relative contribution of individual components of information measure on mediation success. Highly institutionalized alliance ties between a mediator and disputants exert the strongest influence on mediation success. In addition, such institutionalized military ties matter not only for mediation success but also for a potential mediator’s decision to mediate.

46 The baseline probability of mediation is 0.01.
Hypothesis 2 compares the success of mediations by international organizations to mediations by uninformed states. As it is the case with all other hypotheses, I only consider mediations in which exogenous mediation strategies, i.e., information provision strategies, are the primary mediation technique. H2 predicts that mediations by international organizations are more likely to be successful than mediations by uninformed states. A state is coded as uninformed if it does not have any indicators of information. In my dataset, the United Nations uses exogenous mediation strategies in 88 mediation episodes and there are 24 mediation episodes by uninformed states that exclusively use exogenous strategies. This gives me a total of 112 observations to evaluate H2. The results of the censored probit model of UN mediation success are shown in Table 5.4.

---

47 This means that if an international conflict is mediated neither by the UN nor by uninformed state mediators, it is not included in the dataset.

48 Biased state mediators are also excluded. H2 considers only the role of information on mediation effectiveness. Since bias is expected to increase the likelihood of mediation success, the inclusion of biased states might distort the true effect of information. Therefore, the comparison is between unbiased and uninformed state mediators and the UN.
Table 5.4.

Censored Probit Model of the UN Mediation Success - Hypothesis 2

<table>
<thead>
<tr>
<th>Explanatory Variables</th>
<th>Outcome Model UN Mediation Success</th>
<th></th>
<th></th>
<th>Selection Model UN Mediation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficients (Robust Standard Errors)#</td>
<td></td>
<td></td>
<td>Coefficients (Robust Standard Errors)#</td>
</tr>
<tr>
<td>United Nations</td>
<td>-0.295 (0.745)</td>
<td></td>
<td></td>
<td>1.069*** (0.267)</td>
</tr>
<tr>
<td>Dispute Fatality</td>
<td></td>
<td></td>
<td></td>
<td>0.386*** (0.072)</td>
</tr>
<tr>
<td>Democratic Disputants</td>
<td></td>
<td></td>
<td></td>
<td>-0.569* (0.297)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.510 (1.253)</td>
<td></td>
<td></td>
<td>-3.149*** (0.248)</td>
</tr>
<tr>
<td>Rho</td>
<td>0.288 (0.415)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>98</td>
<td></td>
<td></td>
<td>2278</td>
</tr>
</tbody>
</table>

* = p < 0.10, ** = p < 0.05, *** = p < 0.01
# robust standard errors are clustered around disputes

The results indicate that there is no discernible difference between the United Nations and uninformed state mediators regarding their level of mediation success. This finding implies a lack of empirical support for H2. Although there is no difference between the UN and uninformed states with respect to mediation success, we find that the United Nations is more likely to mediate a given crisis than an uninformed state. The control variables in the selection model behave the same way they did in Table 5.1. High intensity disputes are more likely to be mediated than low intensity ones and disputes

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49 I did not include major powers in the model because there are only 3 major powers that are considered uninformed.
with democratic disputes seem to be less likely to be mediated than other kinds of disputes. Table 5.5 shows the substantive interpretation of these results.

Table 5.5.

Substantive Effects of the Censored Probit Model of the UN Mediation Success – Hypothesis 2

<table>
<thead>
<tr>
<th></th>
<th>Selection Model UN Mediation</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Nations</td>
<td>15 times more likely to mediate</td>
</tr>
<tr>
<td>Dispute Fatality</td>
<td>37 times more likely to be mediated</td>
</tr>
<tr>
<td>Democratic Disputants</td>
<td>7.5 times less likely to be mediated</td>
</tr>
</tbody>
</table>

The baseline probability of mediation is 0.003. This probability represents the probability of mediation by an uninformed potential state mediator when all the variables are at their minimum values. Compared to this probability, the United Nations is 15 times more likely to mediate a given international conflict. We also find that high intensity disputes are 37 times more likely to be mediated than low intensity ones. Compared to the baseline probability of mediation, disputes with democratic disputants are 7.5 times less likely to be mediated than disputes without democratic disputants.

How can we reconcile the finding that the United Nations mediations are as likely successful as uninformed state mediations with Hypothesis 2? In Chapter 3, I argued that the UN is more likely have relevant information about disputants than uninformed states. If that is the case, why aren’t UN mediations more successful than those undertaken by
uninformed states? One possible ad hoc explanation for this finding is related to the kinds of international conflicts the UN mediates. We find that the UN mediates international conflicts more often than uninformed states. It is possible that the UN selects itself into particularly difficult conflicts that in turn decreases the likelihood of its success.

International organizations may be driven by a different logic than states. Although states are likely to be driven by efficacy concerns, international organizations care more about their relevance and persistence in the international system. The United Nations was established to maintain peace and security in the international system. It is plausible that the United Nations is more likely to mediate a conflict when conflict resolution is ex ante most difficult. If the UN refrains from mediating cases in which ex ante success rate is low, its legitimacy and relevance may be discounted in the eyes of the international community. These are also the situations where we are least likely to see state mediation. Based on the assumption of efficacy, state mediators may be selecting themselves out of particularly thorny conflicts. On the other hand, the UN may be strategically choosing to intervene in those conflicts in which the ex ante probability of success is low. Therefore, UN’s choice of which conflicts to mediate may reflect its concern for authority and relevance in the international system rather than its concern about efficacy. 50 Because the UN often mediates such intractable conflicts, the cards may be stacked against the UN.

50 The existing scholarly work on UN’s conflict management role demonstrates that my argument about the UN’s strategic choice to mediate difficult cases is not far from reality. For example, Gilligan and Stedman (2003) show that the UN peacekeepers are sent to secure peace in conflicts in which success rate is less likely. Similarly, Wilkenfeld and Brecher (1984) find that the UN is more likely to intervene in high intensity crises than low intensity ones.
The domain of **Hypothesis 3** is regional organizations. Hypothesis 3 compares the success of regional organization mediations when the conflict is between two member states to those when the conflict is not between member states. Since I have only 33 mediations by regional organizations in my dataset, 51 I will not be able to use any standard statistical techniques, as they require more observations to produce consistent and reliable estimates.

Of the 33 exogenous mediation episodes undertaken by regional organizations, only 4 (12%) of them involve non-member states. The Organization of African Union (OAU) undertook all 4 non-member mediations. The OAU mediated the dispute between Israel (non-member) and Egypt in June 1967, between Mauritania and Morocco (non-member) in September 1982, between Libya and Chad (non-member) in June 1976, and between Eritrea and Yemen (non-member) in December 1995. Only the mediation of Libya-Chad conflict produced a successful outcome: a partial settlement was reached between Libya and Chad as a result of the OAU mediation in 1976. This means that only 25% of the mediations by regional organizations that are between member and non-member states are successful.

The rest of the mediation episodes undertaken by regional organizations are between member states. There are 29 cases of regional organization mediations between member states. Of these 29 cases, 14 of them resulted in successful outcomes. This means that almost 50% of the mediations by regional organizations that are between member states produce at least a ceasefire between the disputants. Table 5.6 shows the distribution of mediation success in mediations undertaken regional organizations.

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51 One of the reasons why the number of mediations by regional organizations is low is that only mediations in which exogenous mediation is used as a primary technique is included in the dataset.
Table 5.6.

Distribution of Mediation Success in Mediation by Regional Organizations –

Hypotheses 3

<table>
<thead>
<tr>
<th></th>
<th>Between members</th>
<th>Between non-members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Successful outcome</td>
<td>14 (49%)</td>
<td>1 (25%)</td>
</tr>
<tr>
<td>Unsuccessful outcome</td>
<td>15 (51%)</td>
<td>3 (75%)</td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>4</td>
</tr>
</tbody>
</table>

Compared to the 25 % success rate of mediations between non-members, 50 %
success rate between members seems like a significant improvement. However, the
question is whether this difference is statistically significant. Unfortunately, the low of
number of cases prevents me from running a statistical test of difference. 52 Therefore,
although we find tentative supporting evidence for H3, this support is not robust as it is
not backed by statistical evidence.

The first three hypotheses posit the role of information in mediation success. I
find strong empirical support for Hypothesis 1: informed state mediators are more likely
to be successful than uninformed ones. I do not find empirical support for Hypothesis 2.
The United Nations mediations are not more likely to produce successful outcomes than

---

52 I run a chi-square test of statistical significance to determine whether the difference between mediations by regional organizations between members and between non-members is significant. I present this analysis in Appendix A. I did not include it in the text because the use of a chi square test is appropriate when the sample size of the bivariate cross-tabulation is larger than 100 (Bohrnstedt and Knoke 1994, 158). Since my sample size is only 33, the results of this analysis should be interpreted with caution.
mediations by uninformed states. I demonstrate prima facie support for H3 but this support is not backed by strong statistical analysis.

Hypotheses 4 through 6 are derived from Kydd’s game-theoretical model of mediation and they posit the role of bias and information in mediation success. Kydd (2003) argues that in order to be effective a mediator needs to have relevant information about one of the disputants and be biased toward the other. Hypothesis 4 applies this logic to state mediators and expects that mediations by states that have relevant information about one of the disputing parties and are biased in favor of the other are more likely to be successful than those without such characteristics. 53

H4 implies that having information without bias or bias without information would not affect a mediator’s success. Only the conjuncture of the two produces successful mediation. That is, a mediator needs to have both information and bias to be successful. As it is formulated, H4 posits a relationship of complex causation: X1 (bias) and X2 (information) produce Y (mediation success). Causal complexity refers to situations in which “the effect of one variable depends on which other variables are present” (Jervis 1997, 35, also see Braumoeller 2003, 210). Absent one factor, changes in the other variable have no impact on the dependent variable. What kind of statistical method is appropriate to estimate a theoretical proposition that posits a complex causation?

If we use an interaction term to estimate H4, we are assuming an additive relationship between bias and information. The use of an interaction term implies that the

---

53 For every dispute, I code a mediator as biased if a mediator is biased towards one of the disputants and as informed if she is informed about the other. Kydd’s argument implies that the party about whom a mediator needs to be informed about should be different from the party towards whom the mediator needs to be biased. Therefore, I made sure that bias and information apply to different parties.
co-existence of bias and information has an additional influence on the likelihood of mediation success than the individual effects of bias and information. However, H4 implies that only when a mediator is biased in favor of one of the disputants and has information about the other is a mediation episode likely to produce desired outcomes. The assumption of additivity, implied by interaction terms, does not reflect the manner in which H4 envisions the process of mediation success. The relationship between bias and information is a cumulative one but certainly not additive. Therefore, the use of a multiplicative interaction term is inappropriate.

Braumoeller (2003) cautions us that the empirical implications of the theoretical models that posit causal complexity should be estimated by statistical methods that are equipped to deal with such causal complexity. For this purpose, Braumoeller (2003) derives a new econometric technique, Boolean probit and logit, that is designed to deal with complex causation. I evaluate H4 with a Boolean probit model to determine whether the operator “and” that connects bias and information is supported by empirical evidence.\footnote{See Appendix B for technical details about the Boolean probit model.}
Table 5.7.

Boolean Probit Estimates of State Mediation Success – Hypothesis 4

<table>
<thead>
<tr>
<th></th>
<th>Coefficients (Robust Standard Errors)#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information</td>
<td>-0.008 (0.128)</td>
</tr>
<tr>
<td>Constant</td>
<td>4.732*** (0.633)</td>
</tr>
<tr>
<td>Bias</td>
<td>0.341 (0.376)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.040 (0.183)</td>
</tr>
</tbody>
</table>

N= 65  # robust standard errors are clustered around disputes

Table 5.7 shows the results of the Boolean probit model of mediation success.\(^{55}\)
The coefficient on information in the first path represents the extent to which variation in information permits bias to operate. We see that this effect is statistically insignificant.

Whether a mediator has relevant information does not moderate the effect of a mediator’s bias on mediation success. The coefficient on bias in the second path represents the extent to which variation in bias permits information to operate. This coefficient is the important one for our purposes as Kydd proposes that in order for a mediator to credibly convey information, she needs to be biased. That is, H4 expects that bias moderates the

\(^{55}\) I estimated the Boolean probit model using Stata 8. The Boolean probit is a fairly complicated and new estimation technique. I thank Bear Braumoeller for answering my questions regarding the interpretation of the Boolean probit. Needless to say, all errors I may commit in estimating and interpreting the Boolean probit remain mine.
effect of information on mediation success. However, we see that the coefficient on bias is statistically insignificant as well. This implies that being biased towards the receiver of the information does not moderate the effect of having relevant information on mediation success. Although not conclusive, as the number of cases is very low, the results of the Boolean probit analysis call into question the requirement of both bias and information for successful mediation.

Although the results of the Boolean analysis suggest that the conjunction of information and bias is not a significant predictor of mediation success, there is an important methodological issue that needs to be addressed. The reason why the conjunction of information and bias does not successfully predict mediation success may be due to the fact that each factor also influences a mediator’s decision to mediate in the first place and thus their effect is being washed out in the selection process. It is reasonable to expect that the same factors that affect whether a mediator will be successful also influence whether a state mediates a crisis in the first place. Therefore, I use a Heckman selection model to capture possible dependence between these two phenomena. The tradeoff in using a Heckman selection model instead of a Boolean probit analysis is that with a Heckman selection model I will not be able to estimate the casual complexity implied by H4. Instead, with a Heckman selection model, I will be able to estimate the individual effects of information and bias on mediation success taking into account their potential influence on a state’s decision to mediate.

The specification of the econometric model for H4 is same with the one I use to evaluate H1. The only difference is the inclusion of bias variable in the econometric
model of H4. Table 5.8 shows the results of the censored probit model of mediation success as a function of mediator's bias and information.

**Table 5.8.**

**Censored Probit Model of State Mediation Success – Hypothesis 4**

<table>
<thead>
<tr>
<th>Explanatory Variables</th>
<th>Outcome Model State Mediation Success</th>
<th>Selection Model State Mediation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficients (Robust Standard Errors)#</td>
<td>Coefficients (Robust Standard Errors)#</td>
</tr>
<tr>
<td>BIAS</td>
<td>0.694*** (0.258)</td>
<td>0.479** (0.230)</td>
</tr>
<tr>
<td>INFORMATION</td>
<td>0.624*** (0.209)</td>
<td>0.929*** (0.154)</td>
</tr>
<tr>
<td>Major Power Mediator</td>
<td>-0.532* (0.322)</td>
<td>0.159 (0.257)</td>
</tr>
<tr>
<td>Dispute Fatality</td>
<td>0.214*** (0.070)</td>
<td></td>
</tr>
<tr>
<td>Democratic Disputants</td>
<td>-0.569*** (0.207)</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-1.90*** (0.514)</td>
<td>-2.677*** (0.229)</td>
</tr>
<tr>
<td>Rho</td>
<td>0.758** (0.206)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>65</td>
<td>1320</td>
</tr>
</tbody>
</table>

* = p < 0.10, ** = p < 0.05, *** = p < 0.01  
# robust standard errors are clustered around disputes

Table 5.8 shows that when the decision to mediate is taken into account, being biased toward one of the disputants increases the likelihood that a state mediator will be successful. The same conclusion holds for information variable as well. Although the Boolean probit results do not provide confirmatory evidence for the conjunctural effect of
bias and information on mediation success, the results of censored probit model suggest that both bias and information, when taken individually, affect mediation success. We also see that these variables increase a potential state mediator’s likelihood to mediate. Control variables in both equations exhibit the same type and degree of effects they did in Table 5.1. Table 5.9 provides the substantive interpretation of Table 5.8.

Table 5.9.

Substantive Effects of the Censored Probit Model of State Mediation Success – Hypothesis 4

<table>
<thead>
<tr>
<th></th>
<th>State Mediation Success</th>
<th>State Mediation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIAS</strong></td>
<td>3 times more likely to succeed</td>
<td>7 times more likely to mediate</td>
</tr>
<tr>
<td><strong>INFORMATION</strong></td>
<td>4 times more likely to succeed</td>
<td>63 times more likely to mediate</td>
</tr>
<tr>
<td>Major Power Mediator</td>
<td>1.3 times less likely</td>
<td></td>
</tr>
<tr>
<td>Dispute Fatality</td>
<td></td>
<td>5 times more likely</td>
</tr>
<tr>
<td>Democratic Disputants</td>
<td></td>
<td>8 times less likely</td>
</tr>
</tbody>
</table>

The baseline probability of mediation success is 0.05. This probability represents the probability of state mediation success when all variables are at their minimum values. Compared to this probability, we see that biased state mediators are 3 times more likely
and informed mediators are 4 times more likely to succeed. 56 On the other hand, major power mediators are 1.3 times less likely to produce a successful outcome.

The baseline probability of state mediation is 0.01. This probability represents the probability of a potential state mediator mediates a given international conflict when all variables are at their minimum values. Compared to this baseline probability, biased states are 7 times more likely and informed states are 63 times more likely to mediate. These results imply that the impact of information both on mediation and mediation success is stronger than that of bias. The control variables in the selection model have a weaker influence on mediation. High intensity disputes are 5 times more likely to be mediated than low intensity ones and disputes with democratic disputants are 8 times less likely to be mediated than disputes without democratic disputants.

Relative bias is a weighted measure of alliance ties, trade links and conflict history between a potential mediator and a disputant. Even though relative bias as a composite measure has statistically and substantively significant effect on mediation success as well as on mediation occurrence, we do not know the relative contribution of each indicator. In order to disentangle these effects, I run another censored probit model with the effects of each of the components estimated individually.

56 I estimated the same model with an interaction term of information and bias. The interaction term turns out to be insignificant predictor of mediation success as well as mediation.
Table 5.10.

The Censored Probit Model of the Effects of Individual Components of Bias on Mediation Success (control variables not listed)

<table>
<thead>
<tr>
<th>Explanatory Variables</th>
<th>Outcome Model State Mediation Success</th>
<th>Selection Model State Mediation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficients (St. errors)# Substantive effects</td>
<td>Coefficients (St. errors)# Substantive effects</td>
</tr>
<tr>
<td>Alliance Ties</td>
<td>-0.492  (0.643)</td>
<td>0.444  (0.420)</td>
</tr>
<tr>
<td>Trade Ties</td>
<td>0.550*  (0.339)</td>
<td>0.218  (0.254)</td>
</tr>
<tr>
<td></td>
<td>1.2 times more likely to succeed</td>
<td></td>
</tr>
<tr>
<td>Conflict History</td>
<td>-0.313  (0.441)</td>
<td>-0.854*** (0.326)</td>
</tr>
<tr>
<td></td>
<td>13 times less likely to mediate</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-1.811*** (0.493)</td>
<td>-2.660*** (0.226)</td>
</tr>
<tr>
<td>Rho</td>
<td>0.752**  (0.192)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>65</td>
<td>1320</td>
</tr>
</tbody>
</table>

* = p < 0.10, ** = p < 0.05, *** = p < 0.01
# robust standard errors are clustered around disputes

Of the three indicators of relative bias, only one of them exerts significant effect on the likelihood of mediation success. If a disputant is a major trading partner of a mediator, the mediator is 1.2 times more likely to be successful. Admittedly, this effect is rather small. The other component of positive bias, alliance ties between a mediator and a disputant, seems to have no significant influence on whether a mediator will be successful. One of the reasons as to why the individual components of positive bias are not significant predictors of mediation success may be due to the fact that they are
included in the model separately. If I include one indicator for positive bias in the model instead of including trade and alliance ties individually, I find that positive bias is a significant predictor of a potential state mediator’s decision to mediate but not of the likelihood of mediation success. Negative bias a mediator may hold towards the disputants, measured by conflict history, is a significant predictor of the decision to mediate. If a potential mediator and one of the disputants have been involved in militarized inter-state disputes within the last 5 years prior to the conflict in question, the potential mediator is 13 times less likely to mediate. However, whether a mediator has negative bias towards the disputants does not significantly affect its likelihood of producing a successful mediation.

**Hypothesis 5** compares the success of mediations undertaken by the United Nations to the success of mediations undertaken by biased and informed state mediators. H5 expects that mediations of international conflicts by international organizations are less likely to be successful than by informed and biased state mediators. In my dataset, the United Nations uses exogenous mediation strategies in 88 mediation episodes and there are 19 mediation episodes by informed and biased states that exclusively use exogenous strategies. This gives me a total of 107 observations to evaluate H2. The results of the censored probit model of mediation success are shown in Table 5.11.

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57 The results of this analysis are presented in Appendix C.

58 This means that if an international conflict is mediated neither by the United Nations nor by an informed and biased state, it is not included in the dataset.
Table 5.11.

Censored Probit Model of the UN Mediation Success – Hypothesis 5

<table>
<thead>
<tr>
<th>Explanatory Variables</th>
<th>Outcome Model UN Mediation Success</th>
<th>Selection Model UN Mediation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficients (Robust Standard Errors)#</td>
<td>Coefficients (Robust Standard Errors)#</td>
</tr>
<tr>
<td>United Nations</td>
<td>-0.223 (0.355)</td>
<td>0.704** (0.333)</td>
</tr>
<tr>
<td>Major Power Mediator</td>
<td>0.065 (0.548)</td>
<td>0.706* (0.413)</td>
</tr>
<tr>
<td>Dispute Fatality</td>
<td>0.524*** (0.086)</td>
<td></td>
</tr>
<tr>
<td>Democratic Disputants</td>
<td>-0.277 (0.285)</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-0.289 (0.628)</td>
<td>-3.080*** (0.359)</td>
</tr>
<tr>
<td>Rho</td>
<td>0.077 (0.281)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>92</td>
<td>1051</td>
</tr>
</tbody>
</table>

* = p < 0.10, ** = p < 0.05, *** = p < 0.01
# robust standard errors are clustered around disputes

Table 5.11 shows that there is no statistical difference between the success rates of UN mediations and informed and biased state mediations. This finding implies a lack of empirical support for H5. Although mediator type does not make a difference in the likelihood of mediation success, it has a significant influence in a potential mediator’s decision to mediate. We see that the United Nations is more likely to mediate an

59 Although I did not include major powers in the specification of the model of H2, I included major powers in the specification of H5. In the data I use to evaluate H2, there are only 3 major powers but the data I use to evaluate H5 include 78 major powers as potential mediators. The difference is due to the fact that in H2, I look at the comparison between the UN and uninformed states. Since most of the major powers are likely to be informed about states, they are dropped out of this data.
international conflict than an informed and biased state mediator. This is an interesting finding because it calls into question the efficacy assumption. Biased and informed states are supposed to be the most eligible and component mediators as they have the two crucial requirements for effective mediation: relevant information and bias. However, the analysis shows that the United Nations is still more involved in the mediation of international conflict than informed and biased states.

Table 5.12.

Substantive Effects of the Censored Probit Model of the UN Mediation Success – Hypothesis 5

<table>
<thead>
<tr>
<th></th>
<th>UN Mediation</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Nations</td>
<td>6 times more likely to mediate</td>
</tr>
<tr>
<td>Major Power Mediator</td>
<td>6 times more likely to mediate</td>
</tr>
<tr>
<td>Dispute Fatality</td>
<td>62 times more likely to be mediated</td>
</tr>
</tbody>
</table>

Table 5.12 represents the substantive interpretation of the significant coefficients in Table 5.11. The baseline probability of mediation is 0.01. This probability shows the likelihood of mediation by an informed and biased state when all the variables are set at their minimum values. Compared to this baseline probability, the United Nations is 6 times more likely to mediate an international conflict. We also find that major powers are 6 times more likely to mediate an international crisis than non-major power states.  

60 There are 17 major power mediations in the dataset.
Similar to previous findings, high intensity disputes are more likely to be mediated than low intensity ones.

**Hypothesis 6** compares the success of mediations undertaken by regional organizations to the success of mediations undertaken by biased and informed state mediators.\(^{61}\) H6 expects that mediations of international conflicts by regional organizations are less likely to be successful than by informed and biased state mediators. In my dataset, there are 33 mediations by regional organizations and 25 mediations by biased and informed mediators. All these mediation episodes involve the use of exogenous mediation techniques.

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\(^{61}\) This means that if an international conflict is mediated neither by a regional organization nor by an informed and biased state, it is not included in the dataset.
Table 5.13.

Censored Probit Model of Regional Organization Mediation Success – Hypothesis 6

<table>
<thead>
<tr>
<th>Explanatory Variables</th>
<th>Outcome Model Mediation Success</th>
<th>Selection Model Mediation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficients (Robust Standard Errors)#</td>
<td>Coefficients (Robust Standard Errors)#</td>
</tr>
<tr>
<td>Regional Organizations</td>
<td>0.208 (0.404)</td>
<td>0.522* (0.270)</td>
</tr>
<tr>
<td>Major Power Mediator</td>
<td>0.231 (0.550)</td>
<td>0.686*** (0.256)</td>
</tr>
<tr>
<td>Dispute Fatality</td>
<td></td>
<td>0.293** (0.115)</td>
</tr>
<tr>
<td>Democratic Disputants</td>
<td></td>
<td>-0.073 (0.329)</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.306* (0.680)</td>
<td>-2.472 (0.448)</td>
</tr>
<tr>
<td>Rho</td>
<td>0.675 (0.297)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>50</td>
<td>601</td>
</tr>
</tbody>
</table>

* = p < 0.10, * = p < 0.05, *** = p < 0.01
# robust standard errors are clustered around disputes

The findings of the censored probit model of regional organization mediation are very similar to that of the model of the United Nations mediation. We see that there is no difference between regional organizations and informed and biased state mediators when it comes to their effectiveness in the mediation of international conflicts. However, there is a significant difference in the likelihood of mediation between regional organizations and states. Regional organizations are more likely to mediate a given international conflict than informed and biased states.
Table 5.14.

Substantive Effects of the Censored Probit Model of Regional Organization

Mediation Success – Hypothesis 6

<table>
<thead>
<tr>
<th>Regional Organizations</th>
<th>Regional Organization Mediation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Power Mediator</td>
<td>5 times more likely to mediate</td>
</tr>
<tr>
<td>Dispute Fatality</td>
<td>11 times more likely to be mediated</td>
</tr>
</tbody>
</table>

Table 5.14 represents the substantive interpretation of the significant variables in table 5.13. We see that compared to informed and biased states, regional organizations are 3 times more likely to mediate an international conflict. Similarly, major powers are 5 times more likely to mediate than non-major powers. In line with the previous findings, the results suggest that high intensity disputes are 11 times more likely to be mediated than low intensity ones.

The empirical evaluation of the hypotheses 4 through 6 produced mixed results. Although I find that information and bias are individually strong predictors of mediation success, their conjunctural effect on mediation success is not statistically significant. This implies that although Kydd (2003) is right on track by emphasizing the role of information and bias in mediation success, his condition to have them both for effective mediation seems to be too strict. 62

I fail to find empirical support for H5 as well as H6. The findings indicate that there is no statistical difference in the likelihood of mediation success between different

62 Given the low number of cases, it is relatively difficult to find statistical significance.
types of mediators. Biased and informed state mediators are not more successful than international organizations. Similarly, biased and informed state mediators are not more successful than regional organizations, either. This is a puzzling finding because of its implications. If information and bias are strong predictors of mediation success (and I find that they are) and if the success rates of different types of mediators are similar to each other (and I find that they are), then the implication is that different types of mediators have similar amount of information and bias.

The first part of the implication - that informed state mediators may have as much information about the disputants as international and regional organizations do, is not incompatible with the assumptions I made in Chapter 3. I assumed that international organizations are likely to have more information about the disputants than uninformed state mediators. However, I did not make a direct comparison between international organizations and informed state mediators in terms of amount of information they may have about the disputants as I did not expect to see discernible difference between them. Similarly, I assumed that regional organizations are more likely to be informed about their members than about non-member states. Given the fact that over 85% of mediations undertaken by regional organizations are between member states, we can conclude that regional organizations are informed mediators most of the time. Therefore, it is reasonable to assume that regional organizations are as likely to be informed about the disputants as informed state mediators.

Although the first part of the implication is compatible with my previous assumptions and expectations, the second part of the implication - that international organizations are as biased as biased state mediators – is contrary to my assumptions
about the unbiased nature of international organizations. Based on my reading of the
literature and the UN’s efforts to emphasize its neutrality, I assume that the United
Nations is relatively an unbiased actor in the international system. Some disagree with
this assumption and contend that the UN has inherent bias towards the US and Western
nations (Betts 1994). Although my findings do not point to the direction of the UN’s bias,
they suggest that either being biased does not matter or international organizations are not
as unbiased as they portray themselves. Since we find that bias matters for mediation
success, the latter conclusion is more relevant.
CHAPTER 6: CONCLUSION AND DIRECTIONS FOR FUTURE RESEARCH

Why are some mediators of international conflicts more able to facilitate negotiated settlements between the disputants than others? This study examined this question by focusing on the type and characteristics of mediators. In particular, I investigate the comparative advantage of different types of international mediators in providing relevant information to the disputants and thus in enabling the disputants to recognize possible solutions to their conflicts.\(^6^3\)

The findings of this study increase our confidence in the usefulness and relevance of the bargaining theory of war, which perceives information imperfections as a central cause of conflict. I find that informed mediators are more likely to be successful than uninformed ones. This finding also sheds some light on the debate about the effectiveness of information provision strategies on mediation success. It turns out that a mediator does not necessarily have to resort to more manipulative techniques to ensure success. The most common and least expensive of mediation techniques, i.e., information provision, makes a difference between the continuation of conflicts and negotiated settlements. Mediators can and do make a difference by supplying relevant information to the disputants.

The findings of this study also shed some light on the debate over the effect of mediator’s bias on mediation success. One of the many remaining unresolved questions of the mediation literature pertains to the impact of a mediator’s motivations on the mediation outcomes. I find support for Kydd (2003)’s argument that biased mediators are

\(^{6^3}\) The information provided by mediators is helpful only if the bargaining range between two disputants is non-empty.
more effective than unbiased ones. Different from the existing conceptualizations of mediator’s bias, I use a new, and more valid, measure of bias, i.e., relative bias, and find that when a mediator is biased towards the receiver of the information relative to the other disputant, she is more likely to facilitate cooperation between the disputants.

A by-product of this study is the finding regarding mediation occurrence. 64 Although I estimated mediation occurrence due to a methodological imperative, I arrive at interesting conclusions that can shed light into future studies that exclusively deal with the question of who mediates. I find that third parties that are biased toward one of the disputants are more likely to mediate a crisis than unbiased ones. Similarly, third parties that have relevant information about one of the disputants are more likely to mediate than those without such information. The findings also suggest that international organizations and regional organizations are more likely to mediate a given crisis than states. There has been little scholarly interest in the question of who mediates. 65 The findings of this study therefore may provide an important step for the future studies of who mediates.

The findings of this study also provide interesting policy implications. If information is key to mediation success, we need to develop policies that encourage and facilitate the dissemination of information about nation-states. The bargaining theory of war teaches us that particular type of information matters for the facilitation of negotiated settlements between the belligerents: information about resolve and/or military capabilities of states. One particular type of institution that facilitates the exchange of

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64 This study also shows that the decision to mediate and the success of mediation are related phenomena. Future scholarly work on mediation success may want to estimate mediation success jointly with mediation occurrence to ensure more reliable conclusions about mediation success.

65 One exception is Bercovitch and Schneider (2000) who find that mediation of international crises is mostly confined to the Permanent Members of the UN Security Council and to the US in particular.
such information is military alliances. In particular, military alliances with highly institutionalized structures provide ample opportunity for members to exchange information about their military capabilities by requiring integrated military command, common defense policy and providing for joint troop placements and mutual exchange of bases (Leeds and Anac 2005, pp. 188-189). This suggests that even though the role of military alliances in deterring war is still disputed by some scholars, alliances may have an indirect effect on the resolution of conflicts by providing relevant information that can be used by mediators to reduce the disputants' private information. By encouraging the formation of new alliances, policy makers can increase the opportunity for the exchange of information.

Another way to increase the facilitation of information is through diplomatic channels. In particular, military attaches, who are responsible for gathering intelligence about military capabilities of the state they are stationed in, are important sources of human intelligence. By increasing the funds for training and recruitment of more personnel for human intelligence services, states can improve their knowledge of other states' military capabilities. Such information not only increases the chances of resolving inter-state crises at the bargaining table but also provides the opportunity for states to extend their services as mediators of international disputes.

One of puzzles that emerge from the empirical findings of this study is that the success rates of mediations of international conflicts undertaken by international organizations, regional organizations and states are not statistically different from one

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66 Some scholars argue that alliances encourage aggression by emboldening partners and generating counter alliances while others contend that alliances deter aggression by enhancing the credibility of military intervention. See Leeds (2003) for a nuanced account of the relationship between the likelihood of war and alliances.
another. This is interesting for two reasons. First, the UN has long been criticized for being a poor manager of international conflicts. I find that state mediators are not doing any better job than the UN once we take into account the fact that the UN mediates international conflicts more often than states. Second, the fact that the UN mediations produce as much success as state mediations may look even more impressive if we consider the common contention that the UN often mediates what Touval (1994, 46) calls “orphan” disputes. 67 If the UN faces the most difficult cases to mediate, then being as successful as state mediators is an achievement in itself. 68

One of the extensions of this dissertation is to undertake a systematic and detailed analysis of mediations by international and regional organizations. The findings of this dissertation provided more support for the hypotheses regarding state mediation than the hypotheses regarding international and regional organizations mediations. At the end of this study, although we gain a firmer understanding of which states are better mediators, we are left with more questions about mediations by regional and international organizations than we start with.

Another imminent extension of this study can be done in the area of what I call the endogenous mediation activities. In this study, I examine exogenous mediation activities and leave the study of endogenous mediation activities to further studies. Endogenous mediation activities facilitate cooperation between states by changing the

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67 Examples of orphan conflicts include Bosnia, Rwanda, Somalia, Haiti, etc.

68 Former Secretary General U Thant (1978) contends that states use mediation by international/regional organizations as a last resort: "Great problems usually come to the United Nations because governments have been unable to think of anything else to do about them. The United Nations is a last-ditch, last resort affair, and it is not surprising that the organization should often be blamed for failing to solve problems that have already been found to be insoluble by governments" (p. 32).
parameters of the bargaining between the disputants by manipulating the costs and/or benefits of a conflict. The use of peace-keeping forces is the most commonly used endogenous mediation techniques. Once peacekeeping forces are deployed in the conflict zone, their presence decreases the incentive of the disputants to resort to violence (Fortna 2003). The presence of peacekeeping forces reduces the disputants’ incentives to resort to force as the violations of the buffer-zone agreements, or endangering the peacekeepers by resuming hostilities, would likely result in international condemnation and pressure. The unbiased and legitimate nature of peacekeepers make killing of peacekeeping forces unacceptable as these forces do not serve as combatants but rather unbiased forces whose primary interest is to reduce tensions and discourage violence.

An unexplored question in this area is whether certain types of mediators are better implementers of endogenous mediation activities than others. Under what conditions are state mediators better implanter of endogenous strategies than international organizations? Are peacekeeping forces employed by the regional and international organizations equally good at keeping peace? A systematic exploration of these questions is essential for a complete understanding of mediation outcomes.

Another avenue for future research is to assess the role of bias and information in the mediation of civil wars. If civil wars and international wars are caused by similar bargaining failures, 69 and I argue that they are, the factors that increase mediation success in international arena should also increase mediation success in civil wars. One major challenge in assessing the role of bias and information in mediation of civil wars is

69 See the special issue of International Studies Review (2003, 5/4) for a discussion of the argument that a unified bargaining framework can be used to explain both civil wars and international wars. The contributors argue that the causal processes driving international and civil wars are fundamentally similar – differences are of degree and not of kind.
developing operational measures of bias and information. The way I create bias and information in this study are related to nation-state activities, such as alliances, trade, and diplomatic representation, etc. In civil wars context, one of the disputants is a non-state actor and we need to create measures of bias and information that reflect the non-state nature of the disputants. Indicators such as ethnic ties, common language, and covert military and economic aid to rebels may be used to create such measures.
BIBLIOGRAPHY


Leeds, Brett Ashley and Michaela Mattes. 2005. Alliance Politics During the Cold War: Aberration, New World Order, or Continuation of History? Presented at the Annual Meeting of the Midwest Political Science Association, Chicago, April 7-10.


Appendix A

<table>
<thead>
<tr>
<th></th>
<th>Mediation between members</th>
<th>Mediation between non-members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Successful outcome</td>
<td>14 (a)</td>
<td>1 (b)</td>
</tr>
<tr>
<td>Unsuccessful outcome</td>
<td>15 (c)</td>
<td>3 (d)</td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>4</td>
</tr>
</tbody>
</table>

The formula for \( \chi^2 = \frac{N \ast (bc-ad)^2}{(a+b) \ast (a+c) \ast (b+d) \ast (c+d)} \)

\[ N = a + b + c + d \]

\( a \) and \( d \) = the off-diagonal cells

\( b \) and \( c \) = the main diagonal cells

\[ \chi^2 = \frac{33 \ast (15 - 42)^2}{(15) \ast (29) \ast (4) \ast (18)} \]

\[ = 0.768 \]

Because the critical value for \( \chi^2 \) at \( \alpha = .05 \) with df = 1 is 3.84, we fail to reject the null hypothesis.
Appendix B

Let us assume that \( p_i \) denotes the probability that a mediator has relevant information about one of the disputants and \( p_b \) denotes that the probability that a mediator is biased towards the other disputant. Since Kydd expects a mediation activity to be successful only when a mediator has both relevant information and bias, the probability of mediation success, \( P_{\text{success}} \), becomes:

\[
P_{\text{success}} = p_i \times p_b
\]

The Boolean probit function looks like:

\[
\Pr(y_i = 1 | \beta, x_i) = \Phi (\beta X_{1k}) \times \Phi (\beta X_{2m})
\]

where \( \beta X_{jk} \equiv \beta_{j0} + \sum_{k=1}^{K} \beta_{jk} x_{ijk} \). 
## Appendix C

<table>
<thead>
<tr>
<th>Explanatory Variables</th>
<th>Outcome Model State Mediation Success</th>
<th>Selection Model State Mediation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficients (Robust Standard Errors)#</td>
<td>Coefficients (Robust Standard Errors)#</td>
</tr>
<tr>
<td>Positive Bias</td>
<td>0.304 (0.290)</td>
<td>0.396* (0.214)</td>
</tr>
<tr>
<td>Negative Bias</td>
<td>-0.413 (0.454)</td>
<td>-0.881*** (0.329)</td>
</tr>
<tr>
<td>Information</td>
<td>0.607*** (0.199)</td>
<td>0.901*** (0.155)</td>
</tr>
<tr>
<td>Major Power Mediator</td>
<td>-0.453 (0.347)</td>
<td>0.149 (0.263)</td>
</tr>
<tr>
<td>Dispute Fatality</td>
<td>0.198*** (0.074)</td>
<td></td>
</tr>
<tr>
<td>Democratic Disputants</td>
<td>-0.533*** (0.202)</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-1.917*** (0.565)</td>
<td>-2.671*** (0.224)</td>
</tr>
<tr>
<td>Rho</td>
<td>0.782* (0.226)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>65</td>
<td>1320</td>
</tr>
</tbody>
</table>

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

#robust standard errors are clustered around disputes