Information, Bias, and Mediation Success*

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Why do some mediation episodes produce successful negotiated settlements between the disputants of international conflict while others fail to achieve success? This article examines how certain characteristics of a mediator, that is, a mediator's information about the disputants and a mediator's bias toward them, affect the success of mediation of international conflicts. By drawing a conceptual distinction between absolute and relative bias and measuring the type of information that is relevant for mediation success, I demonstrate that both the degree of bias a mediator holds toward the disputants and the degree of information a mediator has about the disputants are significant predictors of mediation success.

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 terminate their hostilities. 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 peaceful outcomes while others fail to achieve success? In this study, I assess how certain characteristics of a mediator, that is, a mediator's information about the disputants and a mediator's bias towards them, affect the success of mediation of international conflicts.[1]

Although mediation of international disputes is a common practice, our theoretical understanding of mediation outcomes is still weak. One oft-debated factor that is argued to exert considerable influence on mediation outcomes is mediator bias (Touval 1975; Smith 1994; Carnevale and Arad 1996). Are biased mediators more effective than unbiased ones? Under what conditions are biased mediators likely to deliver peace? There is no scholarly consensus on whether and how mediator bias influences the effectiveness of mediation of international disputes (Kleiboer 1996). Therefore, there is ample room for improvement in our theoretical understanding of mediation outcomes. The fact that only 48 percent of mediations of international conflict between 1945 and 1995 produced

[1] In this study, mediation success refers to the cessation of hostilities between the disputants by the conclusion of a ceasefire agreement or a peace treaty.

agreements that resulted in peace (at least in the short term) creates an additional impetus for further scholarly research on mediation outcomes.[2] If it is our goal to increase the success rate of mediation activities in the international system, we need to develop a more compelling theory of mediation outcomes. In this regard, I seek to contribute to our understanding of mediation outcomes by assessing how a mediator's bias and information about the disputants contribute to the likelihood of mediation success.[3]

I identify two major reasons why the role of a mediator's bias in mediation success is still a debated issue in the literature. First, past mediation studies suffer either from the inability to generalize empirical findings that are based on few case studies or inconclusive empirical results that are based on crude operational measures of a mediator's bias. To remedy this situation, I first establish a conceptual distinction between what I call ''absolute'' and ''relative'' bias. I contend that the degree of bias a mediator has toward 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. I call this relative bias. To create a valid and reliable estimator of bias, I construct an additive index of relative bias based on a mediator's conflict history, trading relationship, and alliance ties with both of the disputants. To my knowledge, this is the first scholarly attempt to distinguish relative bias from absolute bias and to design a multidimensional measure of mediator bias that is unique to each dispute. Rather than assigning a generic ''biased'' or ''unbiased'' label to mediators of international conflict, I measure a mediator's bias toward the disputants of a particular dispute in various dimensions.

A second source of the existing disagreement on the effect of a mediator's bias on mediation outcomes is related to what we mean by mediation. Scholars often use mediation to refer to a wide range of third party activities that cover the least intrusive mediation styles,[4] such as information provision, as well as the most intrusive mediation styles, such as punishments to deter further violence. Given the wide diversity of activities that are considered mediation, it is theoretically plausible that mediator bias might be a hindrance for some types of mediation activities while facilitating the success of others.[5] Therefore, a more appropriate way to investigate the role of bias in mediation outcomes is to distinguish between different types of mediation activities. In this paper, I focus on one particular type of mediation activity, information provision strategies, and examine the role of bias as it pertains to this particular form of mediation strategy.

I choose to focus on information provision, as it is the most commonly used mediation strategy, yet there is no scholarly consensus on its effectiveness

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[2] The percentage of success is calculated using the International Conflict Management Dataset (Bercovitch 1999).

[3] 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 agree that other factors, such as the characteristics of disputes and/or disputants, might influence mediation outcomes—although there is no consensus as to how these variables affect mediation outcomes. However, I believe that there is more value-added in examining the characteristics of mediators to understand mediation outcomes than in 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 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.

[4] I use mediation tactic, mediation activity, mediation style, and mediation strategy interchangeably.

[5] Smith (1994) called this issue to our attention, and only recently empirical studies of mediation have started establishing distinctions in terms of different mediation styles and their relative effectiveness in bringing peace. For example, see Beardsley, Quinn, Biswas, and Wilkenfeld (2006).

in facilitating peace. Different from other studies of mediation that evaluate the effectiveness of information provision strategies, this study recognizes that the kind of information a mediator has about the disputants matters when evaluating the effectiveness of information provision. 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 reduce the uncertainty responsible for bargaining failures. My measure of information reflects this observation. I develop a new measure of information based on a mediator's diplomatic representation in the disputants' territory, its trading relationship, and its institutionalized military alliance ties with the disputants. Different from past studies that evaluate the effectiveness of mediation strategies, this study provides a direct evaluation of the effect of *relevant* information[6] a mediator has about the disputants on mediation success. By using a measure that is designed to capture a mediator's ability to elicit relevant information about the disputants, this study sheds some light on the debate over the effectiveness of information provision strategies in mediation success.

The findings of this research suggest that biased mediators are more likely to deliver successful mediation outcomes than unbiased ones. The higher the degree of bias a mediator has toward one of the disputants, the higher is the likelihood of mediation success. Similarly, I find that mediators with relevant information about the disputants are more likely to produce successful outcomes than those without such information. The higher the degree of relevant information a mediator has about the disputants, the higher is the likelihood of mediation success. This finding reiterates the centrality of private information in explaining bargaining failures. Informed mediators are more able to ameliorate information asymmetries between the disputants and, hence, are more likely to produce peaceful outcomes than uninformed ones.

Mediator Characteristics and Mediation Outcomes

I define a mediation episode 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 the formulation and/or implementation of a negotiated settlement. One central contention of this study is that an appropriate assessment of the role of mediator bias in mediation success requires us to distinguish among different types of mediation styles. Therefore, I will first discuss different mediation styles, elaborate on the one that is the focus of this study—information provision—and identify the conditions under which information provision strategy is likely to increase mediation success. After I discuss information provision strategies, I examine how mediator bias operates for this mediation strategy.

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 in their effort to resolve international conflicts. Scholars of international mediation have established different typologies of mediation strategies (Touval and Zartman 1985; Princen 1992; Bercovitch and Houston 1996). One commonly employed typology categorizes mediation strategies into three groups: communication facilitation strategies, procedural strategies, and directive strategies (Bercovitch, Anagnoson, and Wille 1991). This categorization is based on a continuum ranging from the least intrusive to the most intrusive mediation styles. In the first category, a mediator acts as a communicator by promoting a resumption of dialogue between the disputants by supplying

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[6] By relevant information, I refer to information about disputants' military capabilities and their willingness to fight.

information to each of them. In the second category, a mediator acts as an organizer by organizing the size and seating of the meeting, and preparing agendas, etc. The third category of strategies, where a mediator acts as a manipulator, entrusts 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.

The focus of this study is the least intrusive mediation strategy: information provision strategies.[7] I am interested in the extent to which the information provided by mediators facilitates negotiated settlements. An exclusive focus on information provision strategies can be justified by several reasons. First, providing information to the disputants is one of the most extensively used and the least costly strategies a mediator employs for the resolution of disputes (Bercovitch and Houston 2000). Understanding the effectiveness of such a frequently used and cost-effective mediation strategy is important for our overall theoretical understanding of mediation outcomes as well as for designing optimal policy prescriptions. Second, the effect of information provided by mediators 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 (Fisher 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 that the supply of information by mediators does not necessarily facilitate cooperation (Morgan 1994; Bercovitch 1996; Smith and Stam 2003). This study sheds some light on this debate by focusing on the kind of information a mediator has about the disputants. I show that once we take into account the type of information a mediator is able to provide to the disputants, information provision turns out to be an effective strategy.

How does the information provided by the mediator increase the likelihood of peace between the disputants? The microfoundations of the peace-inducing features of information can be found in the bargaining theory of war. I argue that the role of a mediator's information in the resolution of a dispute needs to be framed in terms of how a mediator's information can help ameliorate the causes of war. Therefore, in order to understand how information and bias work to bring about peace, we need to first understand what causes war.

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. Why do states sometimes fail to reach the Pareto-superior solution (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, that is, the incentives to misrepresent private information about one's resolve and/or military capabilities. 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

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[7] One might argue that isolating information provision strategies from others may obscure our understanding of the 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.

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?[8] Under complete information, that is, when states are aware of the probability of winning (p) and each other's costs of war (c), war is unlikely.[9] 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. 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 (i.e., the point that makes a party indifferent between accepting and rejecting a bargain). Uncertainty makes it difficult for State A to make an optimal concession, as it can make either too large a concession and end up with an inefficient outcome or too small a concession and provoke violence. As uncertainty decreases, states have a better chance of locating the range of the bargaining set (i.e., the set of mutually acceptable outcomes) and making offers that fall within this set.

The bargaining theory of war implies that information provision is an important task for mediators. International mediation may facilitate negotiated settlements between the disputing states by providing relevant information and thus reducing uncertainty (see also Lake and Rothchild 1998). 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 locate the bargaining set and thus increase the chances that the proposed settlement will fall within the bargaining set.

Susskind and Babbitt (1992) describe the goal of information provision strategies as providing a ''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, 35) suggests that in the Falklands crisis, one of U.S. Secretary of State Alexander Haig's tasks as a mediator was to convince the Argentinean 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. The following conversation between U.S. Special Envoy General Walters and 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, viscerally, 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'[10] has let a number of hunger strikes[11] 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).

This example illustrates that the United States as a mediator informs Argentina about two facts regarding Argentina's opponent: England's probability of victory and its resolve. The U.S. mediator tells the Argentine President that if

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[8] For a more complete and technical discussion of how uncertainty leads to bargaining failures, see Fearon (1995).

[9] If commitment problems exist or issues are perceived to be indivisible, war is still possible (Fearon 1995).

[10] The reference is to Margaret Thatcher.

[11] The reference is to hunger strikes by the IRA prisoners.

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 U. S. mediator emphasizes that the costs of possible war for England are not very high, as England has high resolve in the Falkland Islands crisis, and thus is willing to bear the costs of fighting.

I argue that one of the reasons why there is no scholarly consensus regarding the effect of a mediator's provision of information on the likelihood of peace is that not all kinds of information are able to reduce bargaining failures. Information provided by mediators should be relevant to bargaining failures, that is, it should pertain to the resolve and/or military capabilities of the disputants. If we can measure a mediator's ability to elicit such relevant information about the disputants, we may be able to effectively demonstrate how a mediator's information about the disputants brings about peace. From this discussion, we can formulate the following hypothesis, which presents a more nuanced relationship between information provision strategies and mediation success than do the current predictions in the literature.

Hypothesis 1: *Mediators that have relevant information about one of the disputing parties are more likely to be successful in using information provision strategies than those without relevant information. As the degree of relevant information a mediator has about the disputants increases, mediation success becomes more likely.*

Is a mediator's bias an asset or liability for a mediator who uses information provision strategies? Before we can provide an answer to this question, we need to address the ongoing debate in the literature about the relationship between mediator bias and mediation outcomes.

A mediator is biased if its 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 its interests. Unbiased mediators, on the other hand, do not care about how an issue is resolved as long as peace is established.[12]

Empirical and anecdotal evidence produce inconclusive results as to whether a biased mediator increases or decreases the likelihood of mediation success. Some scholars argue that biased mediation is detrimental to the success of mediation (Fisher 1995; Meek 2000; Stulberg 1987; Young 1967). The proponents of this view argue that a mediator is more likely to be accepted and be more effective in persuading parties if it has no preference as to how a dispute is resolved. An unbiased mediator is likely to be successful because it is perceived to be fair and hence trusted by the disputants (Carnevale and Pruitt 1992). To the extent that a mediator is untainted by any affinity with either of the disputants, a mediator is expected to be more effective in persuading the disputants to make concessions necessary to establish peace. A biased mediator, on the other hand, is unlikely to be trusted and its proposals are less likely to be accepted by the disfavored party.

While the proponents of impartiality perceive a mediator's impartiality as the main source of its influence, the proponents of bias similarly contend that bias is a main source of mediator's influence. Bias might actually increase a third party's ability to bring peace, as mediators are accepted by the disputing parties not because they are unbiased but because of their ability to influence and

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[12] Carnevale and Arad (1996) make a theoretical distinction between what they call ''bias of content'' and ''bias of source characteristics.'' Bias of content refers to a mediator's favoring one disputant over the other in its proposal settlement, whereas the bias of source characteristics refers to a mediator's closer economic, political or cultural ties with one of the disputants. In this study, the way I measure a mediator's bias is closer to the bias of source characteristics than of content.

protect the interests of each party (Betts 1994; Kressel and Pruitt 1985; Smith 1985; Wehr and Lederach 1991). As bias contributes to a mediator's capacity and desire to influence the outcome, a biased mediator should be preferred to an unbiased one.

Carnevale and Arad (1996) suggest that bias might add to the mediator's ability to extract concessions from the favored party. A mediator may benefit from what Carnevale and Arad call a ''cushioning effect.'' A mediator who needs to obtain concessions from a disputing party ought first to convince the disputant that the mediator has its interest at heart. If a mediator has close ties with one of the disputants, it is easier for such a mediator to convince such a disputant that it is in the disputant's interest to extend concessions to its antagonists. Similarly, Touval (1982) argues that a mediator who is biased in favor of one's opponent can be advantageous, as the mediator can be expected to put pressure on its ally. Stephens (1988) suggests that one possible motivation for a disputant to accept mediation is the expectation that the mediator will convince the opponent to give concessions.

The microfoundations of the ''cushioning effect'' argument can be found in the cheap talk literature (Austen-Smith and Banks 2000; Calvert 1985; Myers 1998). The theory of cheap talk suggests that a mediator's interests should be aligned with the receiver of the advice for the latter to believe the credibility of the message. A recent formal analysis of mediation outcomes by Kydd (2003) explicates the logic of Touval (1982) and Carnevale and Arad (1996) further by addressing the microfoundations of their argument.[13] Drawing upon the cheap talk and credible signals literatures, Kydd (2003) argues that a mediator needs to be biased toward the receiver of the information in order to be able to convey information in a credible way. Kydd (2003, 598) concludes that only a mediator who shares your policy preferences to some extent could be trusted to tell you that your opponent is likely to back down even in the absence of a significant concession. Similarly, it could be trusted if it informs you that the adversary has high resolve and you should therefore give in. Therefore, biased mediators have an easier time in convincing their favored party to give concessions as the information they provide is considered credible by the latter.

Kydd (2003) formally shows that if a mediator is unbiased, it is unlikely to have any credibility because it has an incentive to say anything that will minimize the probability of conflict. Similarly, a mediator who is against you cannot be trusted, either. If a mediator prefers a solution that is closer to the ideal point of your opponent than yours, and if it believes that you will give in if you think that your opponent has high resolve, the mediator has a strong incentive to tell you that your opponent has high resolve even though it knows that it is not the case. Only information provided by a mediator who shares your interest is credible. From Touval (1982), Carnevale and Arad (1996) and Kydd (2003), we can derive the following hypothesis:

Hypothesis 2: *Mediators that are biased in favor of one of the disputants are more likely to be successful than unbiased mediators. The higher the degree of bias a mediator exhibits toward a disputant, the more likely is mediation success.*

The next section develops operational measures of a mediator's information about the disputants and a mediator's bias toward the disputants. This section is followed by a discussion of the specification of the econometric models designed to evaluate the above hypotheses and the findings of these models.

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[13] Although Kydd (2003) does not directly address the cushioning effect argument, the logic of his argument echoes that of the cushioning effect argument advocated by Carnevale and Arad (1996).

Measuring Mediation Success, Mediator Bias and Information

To identify international conflicts and related mediation activities, I utilize the International Conflict Management (ICM) dataset (1999) collected by Jacob Bercovitch.[14] The ICM dataset identifies 104 bilateral inter-state disputes between 1965 and 1995.[15] The unit of analysis is a state mediator of an international conflict.[16] For each international conflict, there are as many observations as the number of state mediators involved in that conflict. Of these 104 crises, 40 are mediated by states. Some crises have as few as one state mediator, and others have as many as nine state mediators. This produces a total of 90 observations. However, not all state mediators use information provision strategies. Out of 90 mediation episodes undertaken by state mediators, 67 of them involve the use of information provision strategies. This leaves me with 67 observations to evaluate the above hypotheses.

Mediation Success

The dependent variable is whether a state mediator in a given international conflict produces a successful outcome. What makes mediation successful? 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 or changing. Unless the original objectives are correctly identified, it is hard to judge whether a mediator effectively fulfilled such goals.

I define successful mediation episodes as those that reduce the likelihood of conflict and encourage states to make concessions. This definition intends to measure short-term effects of mediation rather than the durability of peace established as a result of mediation. Mediation success is coded 1 if a ceasefire, partial, or full settlement is reached at the end of a mediation activity (by a state mediator), and 0 otherwise. In my sample (state mediators that use information provision strategies), 54 percent of mediators produce successful mediation outcomes. I use the ICM dataset to code this variable.

Bias

Following Kydd (2003), I define bias in terms of having preferences about how two disputants distribute the contested resources. This definition begs two questions that are consequential to the way we establish an operational definition of bias: why do outside states care about how a crisis is resolved between two

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[14] I thank Jacob Bercovitch for sharing his data with me.

[15] The International Conflict Management project defines an international conflict as ''a situation where there exist 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, that is, a clash of overlapping interests'' (Bercovitch 1999, 6). This definition does not impose any minimum number of fatalities for a dispute between two states to become a legitimate one.

[16] In this paper, I focus only on state mediators. I evaluate the effectiveness of other types of mediators, such as international and regional organizations, in another project.

disputants and how do outside states form their preferences regarding how the disputants distribute the contested goods?

The way in which two disputants distribute the contested resources between each other may be consequential to some of the outside states in the international system because of the interdependence among states. States interact with one another on various levels, and the laws of comparative advantage and economies of scale have undoubtedly created an ever-increasing interdependence among sovereign states. The dependence between states may take one of two forms: negative dependence or positive dependence. Neo-realism, the major theoretical framework in international relations, focuses on the negative dependence between states (Grieco 1988, 1990; Waltz 1979). Neo-realists argue that states fear the possibility of gains by other states, as the anarchic nature of the international system creates a permissible 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 some states to the detriment of others. On the other hand, positive dependence implies that states may favor the gains of others. Werner (1997, 293) argues that if relative gains earned at one point in a relationship can be turned into an advantage at a later point, as neo-realists advocate, it is plausible that these gains can also be used as an immediate advantage in other relationships. 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. I argue that the type and strength of relationships between two states determine whether gain by one of them is perceived as a threat or an asset by the other. The more cooperative the types of relationships 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 prevails.

To the extent that a mediator and a disputant are linked 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 a mediator, we can have an estimate of how closely a mediator's preferences are aligned with those of a disputant. Therefore, operationally, mediator bias can be defined in terms of having a close relationship with the disputants.

However, an exclusive focus on the dyadic relationship patterns between a mediator and a disputant is 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 biased toward one of the disputants and is likely to act as a successful mediator in this dispute. If we focus only on the direct relationship between a mediator and a disputant, what we will be measuring is the absolute bias. Absolute bias between state A and state B captures the bias state A holds toward state B independently of the former's relationship with state C. However, I argue that it is the relative bias, not the absolute bias, which is more relevant in a mediator's effectiveness. Relative bias represents the degree of closeness between two states in relation to a third state; relative bias reflects a triangular relationship. Relative bias implies that state A's bias toward 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 toward 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.[17]

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 disputants. I start with the assumption that states are biased toward 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 (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: with whom states form their alliances, against whom they fight, with whom they trade, etc.

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. One might argue that there are other, seemingly more relevant, indicators of bias between states, such as geographical proximity, and ethnic and language ties. Although these factors may reflect affinity between states, they are usually latent and fixed. The factors that I choose to measure bias, i.e., alliance ties, economic relationship, and conflict history, are direct behavioral demonstrations of the choices made by state leaders. I believe that behavioral outcomes are more reliable indicators of the existence and degree of bias between two states than latent factors that are usually beyond the control of the leaders.

Alliance ties and economic relationships between two states constitute positive bias. I expect that if a mediator and a disputant have military commitments and/or have important trade ties, a mediator is likely to benefit from the disputant's gain from a conflict with another state and thus is likely to be biased toward the disputant. Alliances and trade relationships are forms of cooperation, and states benefit from cooperative behavior. Therefore, states are likely to be positively affected if their alliance or trading partner is better off (Gowa 1994; Gowa and Mansfield 1993). In other words, alliance ties and trade links establish positive dependence between states.

Conflict history between a mediator and a disputant constitutes negative bias. If a mediator has been involved in a military conflict with a disputant, the mediator may be more sensitive to how much its former enemy gains and thus is likely to be biased against it. The existence of a history of conflict 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.

The absolute bias measure is calculated in several steps. First, I code alliance ties between each disputant and mediator of a 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 a disputant and a

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[17] I demonstrate the conceptual distinction between absolute and relative bias with a hypothetical example. The question is whether the U.S. would be a successful mediator in a crisis involving Canada. If we use absolute bias as a predictor of whether the U.S. would effectively mediate a crisis that involves Canada, we do not need to know the relationship between the U.S. and Canada's adversary. If this is the case, we can simply conclude that, given their close economic and military ties, the U.S. is likely to be biased in favor of Canada. However, I contend that it is erroneous to expect the U.S. to effectively mediate any crisis that Canada is involved in without any consideration of Canada's opponent. If Canada were in a crisis with the U.K., it would be difficult for the U.S. to convince Canada that the U.S. is totally on Canada's side, as the U.S. has close economic and military ties with the U.K. as well. However, if Canada were in a crisis with Cuba, the U.S. would have an easier time convincing Canada that the U.S. is on its side. This implies that how the U.S. acts in a dispute involving Canada and whether it will be successful as a mediator depend not only on the U.S.'s bias toward Canada but also on the U.S.'s bias toward the state with which Canada is in conflict.

mediator share an alliance link, the type of their alliance, and the degree to which their 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, offense, neutrality, and consultation pacts.[18] Defense or offense alliances are likely to reflect a stronger degree of commitment than consultation or neutrality pacts, as the former require the allocation of resources and active cooperation in times of war among its members. Although not to the same extent, neutrality or consultation pacts also imply a positive bias, as they commit 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. In addition, 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 a greater bias toward each other than members of alliances that do not include such military institutionalization.[19]

The alliance variable is coded as 3 if a mediator and a disputant share an offense and/or defense alliance with a high level of military institutionalization. If a disputant and a 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 mediator share a neutrality pact and/or 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 an alliance of any sort should affect the bias of a state toward 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. I code a new trade variable using the *Europa World Year Book* (Europa Publications 1965–1996), which reports the major trading partners of each state for every year from 1965 onwards.[20] After I code the major trading partner of every disputant and mediators from 1965 through 1995, I create a dummy variable for trade. The variable is coded as 1 if a disputant is a major trading partner of the 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

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[18] Defense alliances include promises to assist an alliance partner in the event of an attack on the partner's sovereignty. Alliances with offensive provisions include promises to engage in hostilities outside the territory of the alliance members. 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). 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.

[19] I adopt Leeds and Anac's (2005) institutionalization coding. Leeds and Anac (2005, 188–189) code any alliance that includes any of the following provisions as highly institutionalized: (i) alliances that require an integrated military command during both peacetime and wartime; (ii) alliances that require the members to conduct a common defense policy; and (iii) alliances that provide for joint troop placements, mutual exchange of bases, or for one state to establish bases on the territory of another state.

[20] A state is considered a major trading partner of another state if the former is one of the top-twenty ranked countries in terms of total import and export volume of the latter.

in favor of the disputant since a potential loss of resources incurred by a trading partner as result of its dispute with a third state may affect the former's ability to sustain its trading relationship with the mediator.

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 in against each other in the 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 two disputes and three disputes does not contribute to the bias score as much as the difference between no dispute and one 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 three or more militarized conflicts between a disputant and a mediator in the 5 years prior to the start year of the dispute in question. If there is only one dispute, the variable is coded as 0.50, and if there are two 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. After I code each dimension, I create an additive index of these dimensions to measure a total absolute bias score between a disputant and a mediator. The equation for the total bias score between state A and state B (B_{AB}) becomes:

$$B_{AB} = [A_{AB} + T_{AB} - C_{AB}] \tag{1}$$

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

After I calculate the total bias score of a mediator with respect to each of the disputants, I create a relative bias score. The relative bias score is based on a comparison between the absolute bias score of a 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, τ_b, is designed to measure association between two subsets of ordinal rankings. Kendall's τ_b has been 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 τ_b and introduced a more appropriate measure of similarity—the S score. Relative bias is computed using a logic similar to S. Relative bias measures the distance between two absolute bias scores, while S measures the distance between two states' policy positions.[21]

I compute the relative bias score by calculating the difference between the two scores in each dimension and adding 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 disputants and its alliance links to the

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[21] In my calculation of relative bias, I deviate from Signorino and Ritter's (1999) computation of S in several ways. First, I reduce the 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 0 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 equidistant from the other, I use a weighted scale where this is 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 0.70 and sharing an offense or defense alliance with highly institutionalized military structure corresponds to 1.

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, the calculation of relative bias entails a comparison between two three-dimensional vectors, where each dimension represents a component of the total absolute bias and each vector corresponds to a mediator's absolute bias toward each of the disputants. The equation for the relative bias a mediator (state A) holds toward state B in comparison to state C (R_{ABC}) is:

$$R_{ABC} = [(A_{AB} - A_{AC}) + (T_{AB} - T_{AC}) + (C_{AC} - C_{AB})] \qquad (2)$$

If the relative bias is greater than zero, it indicates that the mediator is biased toward state B (the first disputant). If the difference is less than zero, it indicates that the mediator is biased against state B or toward state C (the second disputant). If the difference is 0, it indicates that the mediator is neutral between the disputants. In my dataset, 46 percent of the state mediators that are involved in mediation are unbiased (neutral between the disputants), 40 percent have low levels of bias toward one of the parties and 14 percent demonstrate high levels of bias toward one of the parties.[22]

Information

I use three indicators to measure a mediator's information about the disputants' military capabilities and/or resolve: a mediator's military intelligence strength, a mediator's diplomatic representation in a disputant's territory, and the degree of institutionalization of the alliance structure between a mediator and a disputant.

I expect states possessing an advanced intelligence apparatus[23] to be more able to elicit relevant information about the disputants than states that do not have such capacity. I identify a state's intelligence capacity by collecting information on the number of submarines and reconnaissance aircraft it possesses in a given year.[24] Submarines and reconnaissance aircraft are equipped to collect signals, imagery and measurement and signature intelligence.[25] To collect this information, I use *Military Balance* (International Institute for Strategic Studies, 1965–1995), a collection of books updated each year to provide an assessment of the military forces and defense expenditures of 169 countries from 1965 onwards.[26] I create a dichotomous measure of the monadic intelligence-gathering capacity of states, which takes on a value of 1 if the number of submarines and

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[22] These descriptive statistics are for state mediators that are actually involved in mediation. The distribution of the level of bias among potential mediators in my dataset is as follows: 73% of potential state mediators are neutral between the disputants, 22% exhibit a low level of bias toward one of the disputants, and 5% of potential mediators demonstrate a high level of bias toward one of the disputants.

[23] 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."

[24] Undeniably, there are other components of intelligence. I expect that the two components of intelligence that I use are likely to be correlated to the amount of other intelligence equipment held by a state. 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 intelligence apparatus.

[25] Signals intelligence is derived from signal intercepts comprising all communications intelligence and electronic 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, such as the distinctive radar signatures of specific aircraft systems or the chemical composition of air and water samples (United States Intelligence Community, 15 May, 2007, http://www.intelligence.gov/2-business_cycle2.shtml).

[26] The *Military Balance* 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.

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.[27]

This is a monadic measure of information, as it does not measure the intelligence capacity of a mediator state with respect to a particular disputant but rather its general capacity to elicit intelligence. I recognize the pitfalls of a monadic measure, and I complement it with two dyadic measures: whether a mediator has diplomatic representation in a disputant's territory, and whether a mediator and a disputant share highly institutionalized alliance structures.

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. 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 structure 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 access to information about each other's military capabilities. 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 again use Leeds and Anac's (2005) institutionalization measure to code this variable. I create a dummy variable that takes on a value of 1 if a disputant and a mediator shares any type of alliance with highly institutionalized structure, and 0 otherwise.

In sum, the information capacity of mediators is captured by three indicators: a mediator's military intelligence-gathering strength, a mediator's diplomatic representation in a disputant's territory, and a 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 where a mediator does not have information about a disputant (15% of mediators), 1 represents cases where a mediator has low levels of information (31% of mediators), 2 represents mediators with medium level of information (49% of mediators), and 3 represents cases where a mediator has high levels of information about a disputant (5% of mediators).[28]

Having information about a state and being biased toward it are related phenomena. A state is more likely to have information about another state if it has

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[27] I also created an ordinal variable measuring intelligence-gathering capability of states where 0 refers to mediators with no information collection capability (no reconnaissance aircraft or submarines), 1 refers to mediators with some information collection capability (some reconnaissance aircraft or submarines) and 2 refers to mediators with high levels of information collection capability (higher than the average number of reconnaissance aircraft or submarines in the international system). I re-ran the analysis with the ordinal variable (instead of the dichotomous measure of intelligence-gathering capacity) and the results did not change.

[28] These descriptive statistics are for state mediators that are actually involved in mediation. The distribution of the level of information among potential mediators in my dataset is as follows: 65% of potential state mediators have no information, 26% have low level of information, 9% have medium levels of information, and 0.5% of potential mediators have high levels of information.

positive or negative bias about it. Similarly, acquiring information about a state might create the opportunity for a state leader to form bias about the former. On the other hand, if a state does not know anything about another state, it is unlikely to form any kind of bias toward it. Therefore, the indicators of bias and information are inevitably related to each other. Although some of the indicators I use for information and bias measures are very similar, the statistical correlation between the aggregate measures of bias and information is sufficiently low (0.1) so as not to raise any concern.

Estimation Technique, Empirical Models, and Findings

I start with the observation that in order to effectively estimate the determinants of mediation success, one needs to control for the possible effects of these variables on the decision to mediate. 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, bias and information may be the predictors of not only the likelihood that mediation will be successful but also the decision to mediate in the first place.

Estimating an equation for mediation success without accounting for mediation occurrence assumes that the decision to mediate and mediation success are independent phenomena. 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). 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. Following Reed (2000), I use a censored probit model (probit with sample selection) to evaluate the two hypotheses. 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 a mediation success model (outcome model), then we need to consider an additional methodological issue. In order to estimate whether a state is involved in the mediation of a dispute, 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.[29] I use a choice-based or endogenous stratified sampling to select cases (King and Zeng 2001). 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). For every dispute, I include all the actual mediators of a dispute in its potential mediator list and then supplement

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[29] 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. However, given the fact that not all disputes receive mediation and even those that are mediated do not usually have more than on average five 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 events (mediation) than non-events (no mediation). By using an endogenous stratified sampling strategy, I was able to reduce the number of non-events (no mediation) in my sample.

this list by randomly selecting from the list of non-mediators and including this sample in the list of potential mediators. 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 dispute, the total number of actual mediators and randomly selected non-mediators is 15.

Given that my focus in this paper is mediation success rather than mediation occurrence, I will discuss the econometric model that I use to estimate mediation success first and in greater detail. The dependent variable of the outcome model is mediator success. The dependent variable of the selection model is whether a state becomes involved in the mediation of a dispute.[30]

The outcome model (mediation success) includes three explanatory variables: a mediator's relevant information about one of the disputants, a mediator's bias about the other disputant, and whether a mediator is a major power.[31] One might argue that what makes a mediator successful is not necessarily its bias and information about the disputants but its ability to pressure the disputants to bring about a desired outcome.[32] 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 relevant information they have to reduce uncertainty in the environment. I include major power status of a mediator as a control variable, and I measure it 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 a mediator is considered a major power state by the COW criteria.

The specification of the selection model (mediation occurrence) includes the following explanatory variables: a potential mediator's relevant information about one of the disputants, a potential mediator's bias about the other disputant, whether a potential mediator is a major power, the severity of a dispute, and whether disputants are democracies.

International actors are concerned about efficacy. Their willingness to get involved in a certain situation 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, I expect states that are

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[30] If a state mediates a crisis on more than one occasion, I treat all the mediation episodes undertaken by the same state within a 1-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 a 1-month period.

[31] One might argue that the mediation success model (outcome model) is underspecified given that only one control variable is included in it. There are four reasons as to why I chose to include only one control variable, i.e., major power status of a mediator, in the specification of the outcome model. Most importantly, the theoretical framework that I use to explain mediation success does not call for the inclusion of other variables. The increased and indiscriminate use of control variables in our econometric models has been a subject of serious consideration by many scholars (e.g., Achen 2002; Ray 2003; and Starr 2004). I include major power status in the specification as I believe that this variable provides a competing and compelling explanation as to how a mediator can influence the outcome (providing information versus using carrots and sticks). Second, there is no consensus in the mediation literature as to how other possible control variables affect the likelihood of mediation success. Third, the number of cases available to predict mediation success is too low for the inclusion of too many explanatory variables in the model. Finally, the Heckman based selection model that I use in this study is estimable when at least one extra variable influences the selection model but not the outcome model (Achen 1986; Heckman 1979; Sartori 2003). Therefore, the selection model necessitates that the mediation success model is a subset of the mediation occurrence model, i.e., has fewer independent variables than the selection model. See Sartori (2003) for an alternative estimator for selection models when identical variables affect the selection equation and the outcome equation.

[32] The correlation between my information measure and major power status is 0.44 and bias measure and major power status is 0.18.

informed and biased will be more likely to mediate a crisis than states without such characteristics.

I expect major powers to be more likely to mediate a given crisis than other states, as they 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 (Bercovitch and Schneider 2000). In addition, there might be additional pressure imposed by the international community on major powers ''to do something'' about international crises.

I expect the likelihood of mediation of an international crisis to increase as the severity of a dispute increases (Young 1967). 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. Following Bercovitch (1991), I measure the severity of a dispute by the number of total fatalities of that 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 four categories where 0–500 is coded as 1, 501–1,000 is coded as 2, 1,001–10,000 as 3, and 10,000+ as 4.

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 (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. I measure the democracy level of disputants using the Polity IV dataset (Marshall and Jaggers 2002). I create a dummy variable of democracy where a disputant with a net democracy score (democracy-autocracy) of 7 or higher is coded as 1.

The results of the selection model (mediation occurrence) and the outcome model (mediation success) are presented in Table 1. The first model (column 1) estimates the effects of a mediator's bias and level of information as well as three control variables on the likelihood of occurrence of mediation. Table 2 presents the substantive effects of different levels of bias and information on mediation occurrence. We see that the level of bias a potential mediator has toward the

TABLE 1. Censored Probit Model of Mediation Occurrence and Mediation Success

	Censored probit estimates of mediation occurrence (selection model)	*Censored probit estimates of mediation success (outcome model)*
Bias	0.313** (0.136)	0.523*** (0.191)
Information	0.882*** (0.164)	0.647*** (0.205)
Major power mediator	0.167 (0.262)	−0.593* (0.331)
Intensity of conflict	0.204*** (0.071)	–
Regime of disputants	−0.568*** (0.210)	–
Rho	–	0.802* (0.203)
Constant	−2.702*** (0.228)	−2.201*** (0.511)
n	1320	65

Pseudo-log likelihood: −217.09.

Robust standard errors are clustered around disputes and are in parentheses.

*$p < .10$, **$p < .05$, ***$p < .01$.

TABLE 2. Predicted Probabilities (Selection Model: Mediation Occurrence)*

	Zero	Low level	Medium level	High level
Level of bias	0.006	0.014 (2.3 times more)	–	0.031 (5.2 times more)
Level of information	0.006	0.053 (8.8 times more)	0.231 (38.5 times more)	0.559 (93 times more)

*All other variables are held at their minimum values.

disputants significantly increases the likelihood of mediation. Compared to potential mediators that are neutral toward the disputants, potential mediators with high levels of bias are 5.2 times more likely to mediate a given international dispute. Similarly, the level of information a potential mediator has about the disputants is a significant predictor of its decision to mediate. Compared to potential mediators with no relevant information about the disputants, a potential mediator that has a high level of information about the disputants is 93 times more likely to mediate.

Two out of three control variables in the selection model turn out to be significant predictors of a state's decision to mediate. I find that high-intensity disputes are more likely to be mediated than low-intensity ones. Compared to disputes with low levels of fatalities, a potential mediator is twice as likely to mediate a high-intensity conflict. This finding is in line with my prediction. However, contrary to my expectations, disputes with democratic disputants 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. A potential mediator is five times less likely to mediate disputes involving democracies than disputes with non-democratic disputants. 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. Therefore, third parties may be more cautious to mediate crises whose disputants are particularly resolved and thus are less likely to benefit from mediation activities. The major power status of potential mediators is not a significant predictor of whether they will be involved in the mediation of international disputes, although the involvement of major powers in mediation has significant influence on the likelihood of mediation success.

The outcome model in Table 1 (column 2) estimates the effects of the mediator's information and bias as well as the effect of major power status of a mediator on mediation success. We see that both of the theoretical variables, a mediator's level of information and mediator bias, are statistically significant predictors of mediation success. Both H1 and H2 receive strong empirical support. Table 3 presents the substantive effects of different levels of bias and information on mediation success. Compared to a mediator that does not have relevant information about the disputants, a mediator with high levels of information about the disputants is nine times more likely to be successful. Similarly, compared to a mediator that is neutral toward the disputants, a mediator that exhibits a high level of bias toward one of the disputants is almost 29 times more likely to be successful.[33]

The only control variable in the mediation success model, major power status of mediators, turns out to be a significant predictor of mediation success.

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[33] A mediator is considered to have no bias (unbiased) if its relative bias score is 0, low bias if its bias score is 1, and high bias if its bias score is 2.

Table 3. Predicted Probabilities (Outcome Model: Mediation Success)*

	Zero	Low level	Medium level	High level
Level of bias	0.0138	0.047 (3.4 times more)	–	0.124 (9 times more)
Level of information	0.0138	0.060 (4.3 times more)	0.182 (13 times more)	0.397 (28.8 times more)

*All other variables are held at their minimum values.

However, the nature of the relationship between major power mediators and mediation success is negative: major power mediators are five times less likely to be successful than non-major power mediators.

We see that the correlation parameter, rho, which measures the correlation between the disturbances of the selection and outcome equations, is statistically significant. A positive sign on rho suggests that the unmeasured/unobserved variables that encourage states to mediate a dispute actually increase the success of mediation. This implies 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.[34]

The findings of this paper 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 a 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. In particular, military alliances with highly institutionalized structures provide ample opportunity for members to exchange information about their military capabilities by requiring an integrated military command, a common defense policy, and providing for joint troop placements and mutual exchange of bases (Leeds and Anac 2005). This suggests that even though the role of military alliances in deterring war is still disputed by some scholars,[35] 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 attachés, who are responsible for gathering intelligence about the 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.

The findings of this paper also suggest that being biased is a welcoming feature of a potential mediator who intends to employ information provision

[34] I estimated the effect of a mediator's information and bias on mediation occurrence and mediation success using two independent probit links—instead of a selection model—and found that a mediator's information and mediator bias have a strong positive effect on a state's decision to mediate an international crisis and yet their effect on the success of mediation, although in the right direction, is not statistically significant.

[35] 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 war and alliances.

strategies. Although the common wisdom dictates otherwise, bias may be an asset for a mediator and increases the likelihood of mediation success. Biased mediators may have an easier time persuading the disputants to settle their differences without the use of force. Therefore, the international community may find it advantageous to encourage states that exhibit bias toward the disputants of a dispute to act as mediators of such disputes. Unbiased mediators may not be the optimal choice of mediators.

Conclusion

International crises continue to receive mediation by third parties. However, the international community experiences more mediation failures than mediation successes. Unfortunately, we do not have a strong theoretical understanding of mediation outcomes that is backed by consistent empirical evidence. This situation inevitably limits our ability to give sound policy recommendations so that we may turn the tide.

One particular area of disagreement in the mediation literature pertains to the role of mediator bias and the effectiveness of information provision strategies. The findings of this study show that a mediator's bias and information about the disputants matter for mediation success. Biased mediators are on average more successful than unbiased mediators. As the degree of a mediator's bias increases, mediation success becomes more likely. Similarly, mediators with relevant information about the disputants tend to be more successful than those without such information. As a mediator's degree of information about the disputants' military capabilities and/or willingness to fight increases, the likelihood of peaceful settlement increases.

These findings have two important implications for the current debate on the determinants of effective mediation. First, I show that information provision is an important and effective mediation strategy. One of the reasons as to why the effectiveness of information provision strategy has been a contested topic in the mediation literature is the failure to recognize that not all kinds of information increases mediation effectiveness. This study sheds some light on this debate and shows that once we evaluate the role of relevant information on mediation success, we find that information provision is an effective strategy.

This paper also lends support for the argument that biased mediators are more effective than unbiased ones. Drawing on the cheap talk literature (especially on the application of the cheap talk literature to mediation by Kydd (2003)) and the cushioning effect argument by Carnevale and Arad (1996), I argue that mediator bias may be an asset in bringing the hostilities between the disputants to an end. By creating a new multi-dimensional measure of mediator bias, I empirically show that this is indeed the case.

One limitation of my empirical tests is that I evaluate the role of bias and information as they apply to state mediators. How about other types of mediators? We know that mediation of international crises is not confined to nation-states. We see mediation by international organizations (UN in Iran-Iraq conflict), regional organizations (OAU in Chad-Libya Conflict) and by transnational organizations (the Vatican in Beagle Channel Dispute). Do bias and information predict mediation success in the same manner when it comes to non-state mediators? Studying the impact of non-state mediators' information and bias on mediation success is an important avenue for future research.

Another avenue for future research is to assess the role of bias in other types of mediation styles. This research shows that mediators using information provision strategies are more effective when they exhibit bias toward one of the disputants. It will be interesting and worthwhile to investigate whether mediator bias operates in the same manner for other types of mediation strategies.

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