The Effectiveness of International Arbitration and Adjudication: Getting Into a Bind

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Scholars and policymakers argue that the bias of a third party affects its ability to resolve conflicts. In an investigation of international territorial claims, however, we find that the conflict management technique is much more important for ending disputes than a third party’s level of bias. Binding third-party mechanisms (arbitration and adjudication) more effectively end territorial claims than other conflict management techniques because they provide legality, increased reputation costs, and domestic political cover. The characteristics of the third party, on the other hand, have no effect on the success of a settlement attempt. Bias plays only an indirect role in conflict resolution, as territorial rivals generally turn to unbiased intermediaries to broker binding negotiations. We conclude that impartial third-party conflict management does not directly lead to successful negotiations. Rather, disputants favor unbiased third parties to broker the types of talks most likely to end international disputes.

Like most countries in Latin America, Colombia, and Venezuela have historically disputed the demarcation of their shared border. Colombia and Venezuela's dispute emerged when Venezuela seceded from Gran Colombia in 1830. During the 1800s, the two countries attempted numerous times to settle their claim through bilateral negotiations. Two separate treaties were reached in the 1890s but were not ratified by one or both of the national legislatures. After a brief period of strained relations, Colombia and Venezuela engaged in five additional rounds of formal negotiations between 1905 and 1913. However, none of these negotiations resulted in a permanent agreement demarcating the border. Following their failure to resolve the dispute bilaterally, the Colombian and Venezuelan governments submitted the question to arbitration by the Swiss government in 1916. After hearing arguments by both parties, the Swiss Federal Council issued its decision demarcating the border between Colombia and Venezuela in 1922. The verdict was accepted by both countries, and the boundary that it outlined still holds today.

The negotiations surrounding the Colombian-Venezuelan border dispute raise several puzzles. First, why did arbitration settle the disputed border when repeated attempts to settle bilaterally failed? If Colombia and Venezuela were unable to bilaterally end their claim, then some bargaining obstacle prevented the two sides from coming to an agreement. Why was arbitration able to solve bargaining problems that bilateral negotiations could not? Second, why did Colombia and Venezuela choose Switzerland, a country with limited interaction with and knowledge about the case, to serve as the arbitrator? Both countries had a range of third parties that they could have chosen as arbitrators, including individuals, states, and international organizations. Historically, the two countries had relied on Spain to mediate and arbitrate their disputes. Yet for this particular instance of arbitration, the countries chose a third party to whom they had weaker historical ties.

To answer these puzzles, we explore the bargaining environment surrounding territorial claims. We identify a highly effective type of conflict management that states can use to settle territorial disputes and show that

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2Arbitration by the Spanish government was attempted in the 1880s, but the death of King Alfonso interrupted the process, and the final decision was confusing since it used nonstandard and unclear geographic terms to describe the boundary. Not surprisingly, this settlement attempt was not successful, but it did lay the groundwork for the final resolution of the claim.
the method of conflict resolution is more important than the characteristics of a third party that brokers negotiations. Our research provides answers to the puzzles surrounding the Colombian-Venezuelan dispute, as well as other territorial claims. First, arbitration and adjudication are more effective mechanisms for ending territorial disputes than bilateral or non-binding third-party negotiations. Legality, increased reputation costs, and domestic political cover make binding negotiations a successful conflict management strategy. Second, the choice of binding negotiations affects the disputants’ choice of a third party. Given that it does not have control over the final decision, a state is unwilling to agree to binding conflict management led by a party that is biased against it. Disputants generally only agree to arbitration or adjudication by an unbiased intermediary.

Our study indicates that the most important factor in the successful resolution of territorial claims is the type of conflict management strategy used. Regardless of who intermediates, binding conflict management techniques are two to four times more likely to end a territorial claim than nonbinding mediation or bilateral negotiations. We also find that the characteristics of a third party—including bias towards the disputants, regime type, and major power status—have no significant effect on the success of a settlement attempt in a territorial claim.

While the characteristics of a third party may not significantly affect the resolution of territorial claims, they do play an important role in the conflict management process. Disputants care about the preferences of third party when they ask it to help resolve their grievances. States are unwilling to commit to binding arbitration or adjudication if they believe there is a high likelihood that the resulting verdict will be unfavorable. Given this, disputants in territorial claims prefer unbiased arbitrators, not because they are more effective, but because they are more likely to make an impartial ruling. While our study indicates that the bias of a third party does not directly help states end disagreements over territory, disputants do rely on unbiased third parties to facilitate the binding negotiations that are the most effective in resolving territorial claims.

Theoretical Perspectives on Bias and Third-Party Conflict Management

Some of the most exciting developments in conflict management research over the last decade have come from investigations of how a third party’s bias influences its effectiveness. Historically, scholars have contested the role of bias in conflict resolution. Some argue that impartiality is crucial for success (Fisher 1995; Young 1967), while others conclude that bias does not prevent effective conflict resolution (Bercovitch and Houston 1996; Touval 1982).

Recently, researchers have refined their conclusions by identifying how biased third parties better address certain bargaining obstacles. Kydd (2003) argues that biased mediation reduces information asymmetries by providing information about disputants’ resolve. Savun’s (2008) empirical analysis confirms that biased intermediaries and third parties with information effectively end disputes. Additionally, biased intervention can help remove commitment barriers. In civil wars, biased third parties have proven to help both governments and rebels commit to peace agreements (Schmidt 2005; Svensson 2007; Walter 2002). Biased third parties are valuable when they use leverage to entice or coerce states to sign and commit to peaceful dispute resolution (Favretto 2009; Princen 1992; Zartman 1995). Yet others find that unbiased third parties are better able to remove bargaining obstacles. When information asymmetries preclude conflict resolution, Rauchhaus (2006) demonstrates that unbiased interveners are generally more effective at revealing private information. Impartial mediators can also help disputants overcome commitment dilemmas by offering credible information about disputants’ trustworthiness and enforcing agreements (Kydd 2006; Schmidt 2005).

Clearly, the question of whether a third party must be biased to be effective is unsettled. Some of the studies described above find that unbiased third parties are more successful, while others find that biased intermediaries are better. However, the debate over bias has been enhanced recently by scholars who consider how the characteristics of a third party interact with mechanisms of conflict management to produce successful outcomes (Kydd 2003; Rauchhaus 2006; Schmidt 2005). It is likely that a third party not only influences the dispute through its level of bias, but that the effect of bias is contingent on the techniques the third party uses in resolving a conflict.

We suspect that there is no simple correlation between bias and effectiveness. Rather, the success of a third party depends more on the mechanism of conflict management it uses than its preferences. It is consequently important to consider the intervention technique as well as the third party’s preferences when evaluating success. Most previous work on biased diplomatic intervention focuses solely on
mediation. But there is a wide range of third-party conflict management techniques, some of which may have more potential to end disputes than mediation (Dixon 1996). If these types of negotiations are sought, then the preferences of the third party may not be as relevant. The type of intervention and negotiations may in fact be more important than the characteristics of the third party in ending disputes. To understand the influence of bias, we should consider what type of negotiations a third party brokers, as well as its preferences.

The Effectiveness of Binding Conflict Management

If we are to fully understand how the bias of a third party influences successful conflict management, we must explore the full spectrum of negotiation techniques that disputants can use. When resolving a conflict, disputants have three general options. They can pursue bilateral negotiations, nonbinding third-party talks, or binding third-party dispute management. Among these three categories, binding negotiations are unique because disputants agree in advance to uphold rulings rendered by a third party. While states are not obligated under the anarchic international system to settle their disputes, submitting to binding conflict management indicates a stronger intent by disputants to reach an agreement than does nonbinding third party or bilateral conflict management. The primary forms of binding conflict management are arbitration and adjudication. Both mechanisms rely on international legal principles to settle conflicts, but differ in the nature of the third party charged with making a decision. Arbitration is conducted by an individual, an international organization, a state, or a panel of states, while adjudication is conducted by an international court.

Unlike nonbinding forms of conflict management, arbitration and adjudication use international legal principles to broker a settlement. This legality enhances the credibility of conflict management and increases the chance that negotiations will end the dispute for two reasons. First, conflict management based in international law carries the weight of long-standing norms, principles, and rules. When an arbitrator or international court makes a ruling, the decision becomes a focal point for the rest of the world (Fischer 1982). The global community perceives the decision as legitimate because it is based on legal principles the community has created. Before the ruling, there existed no international consensus on how the issues in dispute were to be distributed. After a binding decision, the global community realizes how principles of international law apply to the dispute. If a state breaks a binding agreement, it not only shirks its immediate commitments relative to the dispute, it violates well-accepted principles of international law.

Second, the legality of binding negotiations generates reputation costs. Reputation costs increase when states break agreements based in formal international law, particularly binding commitments that serve as part of an international conflict regime (Abbott and Snidal 2000). It is damaging for a state to shirk a settlement it explicitly pledged to honor and that has been brokered using principles of international law (Simmons 1999, 210). Evidence of reputation costs is found by Simmons (2002), who shows that leaders who pledge to honor legalistic mechanisms of conflict management are more likely to uphold the decision than leaders who come into power after a decision is made. The relatively high rate of compliance with binding agreements is also evidence that arbitration and adjudication garner higher reputation costs than other intervention techniques. In about half of the cases of compulsory third-party negotiations in Simmons’ (1999) analysis, disputants complied with the decision. Moreover, territorial, maritime, and river disputants are significantly more likely to reach and comply with binding agreements than other types of settlements (Mitchell and Hensel 2007). Disputants consequently face greater reputation costs for abandoning binding agreements that carry the weight of the international community (Simmons 2002).

To highlight how legality and reputation costs encourage states to comply with binding decisions, even when they are highly unfavorable, consider the boundary dispute between Venezuela and Great Britain over Guiana in the nineteenth century. As in the Colombia-Venezuela dispute, the border between these two territories had been contested since Venezuelan independence. After being unable to resolve the claim bilaterally for decades, Britain and Venezuela submitted the claim to arbitration in 1897. In the arbitration treaty, the two countries agreed that the ruling of the arbitration would be a “full and final settlement” of the question (Braveboy-Wagner 1984). The five-member arbitration panel, which included two British judges, issued a verdict strongly in favor of Britain, giving Britain almost 90% of the disputed territory, with little legal justification (Schoenrich 1949). Despite such an unfavorable verdict, Venezuela accepted and ratified the decision after a survey of
of the previously brokered bilateral treaties (George 1988–89, 146). While Venezuela was not pleased with the outcome, it never challenged the validity of the arbitration verdict. Instead, the unfavorable ruling was blamed on ineptitude and infighting among the Venezuelans to the arbitration hearings, in contrast to the Colombians, who were described as having a uniform, well studied, and definitive plan (Briceno Monzillo 1986, 66–67; Valois Arce 1970, 105). The Swiss decision was viewed as legitimate, and neither side was willing to renege on its commitment to arbitration. The border dispute between Venezuela and Colombia demonstrates that countries are able to use binding conflict management to agree when stifled by domestic opposition.

To test the potential effectiveness of binding negotiations, we explore territorial claims, a realm of disputes likely to suffer from domestic opposition to settlement. While Venezuela and Colombia bilaterally negotiated two treaties in the 1890s to settle the dispute, one or both countries’ legislatures rejected each of the treaties (George 1988–89, 146). Domestic opposition within the legislature hindered Venezuela and Colombia from committing to a bilateral agreement. However, both countries committed to and upheld an agreement that resulted from binding arbitration in 1922. In fact, Venezuela accepted the arbitration decision even though it gave Venezuela less territory than any

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Venezuela accepted the ruling for a half-century. In 1951, the Venezuelan foreign minister began to protest that the verdict was unjust after evidence surfaced that the arbitral award may have been the result of a deal between the United Kingdom and Russia. Venezuela formally submitted its case disputing the ruling to the United Nations in 1962.
uphold the agreement handed down by the third party. Their claim is assessed by legal principles that may not similarly be applied in nonbinding negotiations. By undergoing binding negotiations, disputants generate international reputation costs, increasing the potential punishment for reneging on an agreement. Legality also provides the domestic political cover needed for effective conflict management. Both benefits of binding negotiations increase the likelihood an agreement will be upheld and a dispute will end. This logic provides the following hypothesis:

**H1:** Binding negotiations are more successful in ending international territorial claims than bilateral or nonbinding third-party negotiations.

### Binding Talks and Unbiased Third Parties

States are more likely to seek an unbiased intermediary than a biased third party for binding talks. A biased third party is one whose preferences are closely aligned with one of the disputants (Kydd 2003). By this definition, bias is not reflective of the actions the intermediary takes during the course of negotiations. It also does not necessarily capture the third party’s preexisting beliefs about how the issues in dispute should be allocated, although we expect that biased parties want their protégés to fare better in bargaining. Put simply, bias is a characteristic of the intervener’s beliefs and affinity for a particular state. Carnevale and Arad (1996) specify two types of bias: bias of source, which arises from the third party’s characteristics, and bias of content, which comes from the third party’s actions. We focus on how bias of source plays a role in the effectiveness of negotiations and the choice of a third party.

Disputants are generally unwilling to enter binding negotiations under a third party that is biased in favor of its opponent. This reluctance stems from the specific character of binding conflict management strategies. Arbitration and adjudication differ from other types forms of diplomatic intervention in that they require disputants to give up decision control to a third party (Gent and Shannon 2009). Decision control is the “degree to which any one of the participants may unilaterally determine the outcome of the dispute” (Thibaut and Walker 1978, 546). In mediation, a third party may facilitate negotiations and steer the parties toward a particular outcome, but the disputants have the final decision concerning the terms of any negotiated settlement that they sign. Thus, there may be situations in which disputants would be willing to accept a biased mediator that might be effective at resolving a bargaining problem, such as asymmetric information, since such an intermediary would not be able to impose an unacceptable outcome.4

The same cannot be said for binding conflict management. In arbitration or adjudication, disputants present their own arguments, but a third party makes the final decision about how the claim is to be resolved. States do not want to be bound by an agreement biased against their interests, and a third party biased in favor of one’s opponent is more likely to hand down an unpalatable binding agreement than an unbiased one. Given the reputation costs of reneging on binding decisions, states only enter such negotiations if they believe the agreement will be fair—or at least, that it will not be wholly unsatisfactory. Pursuing binding intervention by a biased intermediary increases the chance that states will later suffer costs from reneging. Since neither party in a dispute desires a third party biased in favor of its opponent, unbiased third parties are the most acceptable to both sides.

In thinking about the choice of a third party to facilitate binding negotiations, consider the decision calculus of the disputants.5 State A prefers a third party biased toward its interests because it believes the third party will hand down a decision more favorable to State A. However, State B will reject State A’s choice of a biased third party because it does not want the third party to hand down a binding agreement favoring State A. The reverse is also true: State B prefers a third party biased toward its interests, but this will be rejected by State A. Both sides reject biased third parties because they do not want to face the potential costs of breaking an unfavorable binding agreement. As a result, the disputants choose a relatively unbiased third party to broker-binding talks. While each state would like to employ a third party biased in its favor, it also wants negotiations to mitigate bargaining problems and settle the dispute. Each disputant values the effectiveness of binding negotiations more than it desires a biased third party, ultimately leading to the choice of an unbiased third party for arbitration or adjudication.

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4 Since we make no claim as to whether disputants prefer biased or unbiased third parties in mediation or other forms of nonbinding conflict management, our theory makes no prediction as to relative bias of arbitrators versus mediators.

5 This logic is similar to Ashenfelter’s (1987) argument as to why arbitrators in economic negotiations can be treated as being statistically exchangeable.
To illustrate the point that states prefer unbiased third parties when they engage in binding conflict management, consider the decision by Colombia and Venezuela to ask Switzerland to arbitrate their boundary dispute. As a neutral state, Switzerland was not aligned politically or militarily with either state. Therefore, neither disputant had any reason to fear that Switzerland would unduly favor one side over the other. It is thus difficult to believe that Switzerland was chosen for reasons other than its neutrality. If Colombia and Venezuela were interested in choosing a state with greater knowledge and interest in the region, they would have chosen a state such as Spain, the United States, or another Latin American country. Moreover, it appears that Colombia and Venezuela were particularly concerned with achieving an unbiased decision because the arbitration treaty specified that only Swiss citizens could participate in physically delineating the border after the ruling was made (Monroy Cabra 1989, 49; Scott 1922, 431). This eliminated the possibility that biased actors from other countries could be employed to implement the decision by the Swiss arbiter.

The dispute between Britain and Venezuela over Guiana also illustrates why states turn to unbiased third parties for binding talks. At first, the 1898 settlement of the Venezuelan-British Guiana boundary dispute might appear to be a case of a biased arbitrator. As noted above, two of the five members of the arbitration panel were British judges, and no members were from Venezuela. However, the panel included two judges from the United States, a country that was perceived to be sympathetic to the Venezuelan position. The fifth member of the panel was from Russia. Before entering arbitration, both countries could have plausibly considered this panel to be balanced and relatively unbiased, with the Russian judge as the median voter. In the end, a likely side deal between the British and Russian members of the panel resulted in a verdict that highly favored Britain (Schoenrich 1949). However, this does not contradict our theoretical argument, which predicts that states choose arbitrators they expect to be unbiased, not that there will never be decisions highly favorable to one side.

We should note that we make no claim that the bias of a third party influences the effectiveness of binding conflict management. That is, arbitration and adjudication can provide domestic political cover and reputation costs whether or not third party is unbiased. It is precisely because binding conflict management by a biased third party is effective that makes leaders carefully choose the conditions for arbitration and adjudication. Claimants anticipate the potential terms of an agreement and the costs for reneging when choosing a third party for binding talks, expecting unbiased third parties to deliver the most favorable terms for highly effective binding agreements. This logic provides the following hypothesis:

$H2$: Disputants are less likely to choose biased third parties when submitting to binding conflict management mechanisms.

When it comes to resolving territorial claims, the type of conflict management strategy matters more than the characteristics of an interventer. According to our theory, disputants strategically choose unbiased arbitrators because they fear a biased arbitrator is likely to hand down an unfavorable ruling, not because unbiased arbitrators are more effective at resolving conflicts. Thus, we expect that bias has a direct effect on the likelihood that a third party is chosen to broker binding negotiations, and that binding negotiations are significantly more likely to end territorial claims than other types of settlement attempts.

**Empirical Analyses**

To test our theoretical argument, we examine attempts to peacefully settle disputed territorial claims. Following Hensel (2001), we conceptualize a territorial claim as a dispute in which one state invokes sovereignty over a piece of land claimed sovereign by another state. The cases in our analysis are drawn from the Issues Correlates of War (ICOW) dataset, which includes all disputed territorial claims in the Americas and Western Europe from 1816 to 2001. At this time, the ICOW data set only includes territorial claims in these two regions.

**Success of Settlement Attempts**

According to Hypothesis 1, binding third-party settlement attempts are more likely to end territorial claims than other types of settlement attempts. To test the hypothesis, we use the ICOW data set to identify settlement attempts in disputed territorial claims in the Americas and Western Europe from 1816 to 2001. These settlement attempts include

6At this time, the ICOW data set only includes territorial claims in these two regions.

7We exclude diplomatic interventions by individuals from our analysis.
bilateral negotiations as well as third-party settlement attempts. Third-party settlement attempts include a wide range of types, including mediation, good offices, multilateral negotiation, peace conferences, arbitration, and adjudication. These attempts can be grouped into two broad categories, nonbinding (mediation, good offices, multilateral negotiation, peace conferences) and binding (arbitration, adjudication). For our analysis, we divide all settlement attempts into three types: bilateral negotiations, non-binding third-party attempts, and binding third-party attempts. We only include settlement attempts that address the entire territorial claim. By excluding functional and procedural attempts and attempts that only address some of the claim, we focus our analysis on settlement attempts that legitimately aim to end the territorial claim.

Using the ICOW dataset, we identify whether each settlement attempt successfully ends a territorial claim. According to the ICOW codebook, an attempt ends a claim if it results in the end of contention over the entire territory covered by the claim. Our dependent variable is a dichotomous variable that indicates whether a settlement attempt resulted in an agreement that ended the territorial claim in question. Overall, settlement attempts successfully end territorial claims about 21% of the time. However, effectiveness varies across the different types of attempts. Binding third-party attempts, which end claims in 63% of cases, are much more effective than either bilateral or nonbinding third-party negotiations (17% and 18%, respectively). We turn to a multivariate analysis to examine whether the relationship holds after controlling for other factors that may influence the effectiveness of settlement attempts.

One might expect the likelihood that a settlement attempt ends a territorial claim depends upon the nature of the disputants and the issue at stake. Therefore, in addition to the type of settlement attempt, our analysis incorporates independent variables associated with the characteristics of the claim and the disputants. These include the salience of the claim to the disputants, the number of previous militarized interstate disputes (MIDs) over the issue in the previous five years, power asymmetry of the disputants, joint democracy, and the disputants’ preference similarity.10

Table 1 presents the results of a logit analysis examining the likelihood that a settlement attempt will end a claim. The positive and statistically significant coefficient for binding intervention indicates that binding third-party negotiations are more effective at ending claims than the omitted category of bilateral negotiations. The results also indicate that nonbinding intervention is more effective than bilateral negotiations, signifying that states more effectively resolve their disputes peacefully with the assistance of a third party than when they engage in bilateral negotiations. Hypothesis 1, however, argues that binding third-party negotiations should be also more effective than nonbinding negotiations at helping disputants end territorial claims. To test this part of the hypothesis, we performed a Z-test, which indicated that the coefficient for binding intervention is significantly greater than the coefficient for non-binding intervention (z = 3.83, p = .000).

To gauge the substantive effect of different types of settlement attempts on ending territorial claims, we computed the predicted probability of a claim ending for each type of settlement attempt, holding continuous independent variables at their means and dichotomous variables at their modal values. For binding third-party settlements, the predicted probability of a claim ending is 0.59, while the predicted probabilities for nonbinding third-party settlements and bilateral negotiations are 0.22 and 0.15, respectively. Thus, binding third-party negotiations are significantly more effective at ending claims than other types of settlement attempts, both substantively and significantly. Besides the type of settlement attempt, we find that the salience of the claim decreases the likelihood that an attempt will end a claim, while preference similarity between the claimants increases the probability that a settlement attempt will be effective.

The results indicate, as our theory predicts, that binding third-party settlement attempts are more likely to end territorial claims than bilateral or non-binding third-party settlement attempts. However, some might argue that our findings result from the

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8We use this dependent variable, rather than another variable such as whether the disputants signed or complied with an agreement, because our theory examines the ability of conflict management strategies to resolve a territorial claim. Many agreements that are reached between states do not meet this threshold.

9For some cases in the Americas, settlement attempts were coded by ICOW as “ending most of the claim.” In the analysis below, we code these settlement attempts as not ending the claim. As a robustness check, we also estimated the models coding these cases as being successful. The results were substantively similar to those presented below.

10A description of how all of the independent variables are coded can be found in an online appendix at http://www.unc.edu/~gent/research.html.
The fact that binding conflict management is by nature more likely to result in an agreement than other forms of conflict management, not because it is more likely to end a territorial claim. In other words, it may be the case that nonbinding and bilateral settlement attempts are less likely to result in agreements, but agreements from these types of settlement attempts are just as likely to end territorial claims as those produced by binding settlement attempts. According to the logic of our theory, one would expect that agreements in binding settlement attempts are more likely to end territorial claims than agreements made in other types of settlement attempts.

Given this, we performed an additional analysis that only included settlement attempts that led to an agreement between the claimants. The results of that analysis can be found in the last column of Table 1. Even when we restrict our sample to settlement attempts with agreements, binding third-party settlement attempts are significantly more likely than bilateral attempts to lead to an agreement that ends territorial claims. Additionally, a simple hypothesis test indicates that the coefficient for binding intervention is significantly greater than the coefficient for nonbinding intervention (p = 0.041). To gauge the substantive significance of the type of settlement attempt, we calculated the predicted probability that a settlement attempt results in an agreement that ends a claim. We find that the predicted probability that a binding third-party settlement attempt with an agreement ends the claim (0.61) is significantly greater than the corresponding probabilities for bilateral and nonbinding third-party settlement attempts (0.36 and 0.41, respectively). Among the other variables in the model, we find that only the presence of a joint democratic dyad and militarized interstate disputes in recent years significantly increase the likelihood that a settlement attempt will end the territorial claim.

### Success of Third-Party Settlement Attempts

By including both bilateral and third-party settlement attempts, the above analysis ignores any potential effect that the characteristics of third parties might have on the effectiveness of third-party negotiations in territorial claims. In particular, one might expect that factors such as bias, major power status, and regime type affect the ability of third parties to help disputants to resolve the territorial claim. Additionally, one might expect that international organizations perform differently than states. To investigate these factors, we perform an additional analysis focusing on the success of third-party settlement attempts at ending claims.

The first characteristic of third parties that we examine is bias. To code bias, we use S-scores of alliance portfolio similarity (Signorino and Ritter 1999). S-scores are commonly used to measure the preference similarity of states. The S-score measure of alliance portfolio similarity is particularly appropriate here because it reflects agreement between states over security matters. Territorial disputes are usually a matter of national security, so we expect that states with similar alliance portfolios share beliefs as to the appropriate allocation of territory. S-scores are also useful because they can be reliably measured over the entire time period examined. We code bias as the absolute value of the difference in S-scores between the third party and the target state.

$$
Bias = |S_{3rd\ party} - Target - S_{3rd\ party} - Challenger|
$$

If a third party has the same level of preference similarity with both claimants, it is considered

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Success of Settlement Attempts at Ending Claim (Logit)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>All Attempts</td>
</tr>
<tr>
<td>Binding Third Party Attempt</td>
<td>2.115*** (.423)</td>
</tr>
<tr>
<td>Nonbinding Third Party Attempt</td>
<td>0.467* (.278)</td>
</tr>
<tr>
<td>Salience of Claim</td>
<td>-0.120* (.062)</td>
</tr>
<tr>
<td>MIDs in last 5 years</td>
<td>0.152 (.101)</td>
</tr>
<tr>
<td>Power Asymmetry (C-T)</td>
<td>1.344 (.905)</td>
</tr>
<tr>
<td>Joint Democracy (C-T)</td>
<td>0.151 (.308)</td>
</tr>
<tr>
<td>S-score (C-T)</td>
<td>1.348* (.738)</td>
</tr>
<tr>
<td>Constant</td>
<td>-3.117 (1.132)</td>
</tr>
<tr>
<td>N</td>
<td>499</td>
</tr>
</tbody>
</table>

*p < .10, **p < .05, ***p < .01. Robust standard errors clustered on claim in parentheses. Bilateral negotiation is the omitted category for settlement attempt type.

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11 Favretto (2007) uses a similar measure to operationalize bias in a study of major power involvement in international crises. Gent (2007) also uses the absolute value of a difference in S-scores to measure the similarity of two potential intervener’s preferences vis-à-vis a target state.
unbiased. On the other hand, if the third party has preferences more similar to one claimant than the other, it is coded as more biased. By this measure, bias is a characteristic of the underlying preferences of a third party, rather than a characteristic of the actions it takes.

Some of the settlement attempts in the data set include more than one third party. At times, more than one state performs as a mediator in the same settlement attempt. Some of the cases of arbitration are also conducted via panels, where several states served as arbitrators. For cases with multiple third-party interveners, we created a measure of the overall bias of the panel. Because we expect that more powerful third parties have more influence than less powerful third parties in a given settlement attempt, we weight the measure using the national capability of the state as indicated by the Correlates of War Composite Index of National Capabilities (Singer, Bremer, and Stuckey 1972). Let $i = 1, 2, \ldots, n$ be the set of third parties in a panel and let $c_i$ be the capability of $i$, then the bias of the panel is measured as:

$$\text{Bias} = \left| \sum c_i \left( S_i - \text{Target} - S_i - \text{Challenger} \right) / \sum c_i \right|.$$ 

This measure can be thought of as the overall bias of the set of interveners. The intuition behind this measure is that a third party strongly biased in favor of one side can be “balanced” by a third party equally biased in favor of the other side.

Our measure of bias cannot be used to directly quantify the bias of nonstate actors, such as intergovernmental organizations (IGOs) or nongovernmental organizations (NGOs), as they do not have alliance portfolios. To code the bias of an IGO, we use the S-score measure above, treating the relevant membership as a panel. We coded international courts as being unbiased. We also include diplomatic interventions by one NGO, the Vatican, in the analysis. Since we have no a priori reason to assume that the Vatican was biased towards either disputant, we code the Vatican as being unbiased. In addition to bias, we also include variables indicating whether at least one of the interveners is a major power or a democracy. In the model examining all types of interveners, we include a variable indicating whether a third party is an IGO or NGO. This allows us to explore if organizations or states are particularly more effective at helping disputants end a territorial claim.

The results of a logit analysis examining the effectiveness of third-party settlement attempts can be found in Table 2. As in the previous analyses of all settlement attempts, we find that binding third-party settlement attempts are significantly more likely to lead to an agreement that ends the claim than nonbinding settlement attempts. Holding all continuous variables at their means and dichotomous variables at their modes, the predicted probability that a binding settlement attempt ends the claim is 0.58, while the probability that a nonbinding attempt ends a claim is 0.15. Outside of the type of settlement attempt, the only independent variable that has a statistically significant effect on the likelihood that a claim will end is power asymmetry. Claims involving highly asymmetric dyads are more likely to be resolved in third-party settlement attempt than claims involving relatively symmetric dyads. No variables related to the characteristics of the third party (bias, major power status, regime type) have a statistically significant impact on the success of settlement attempts. Similarly, IGOs and NGOs are no more effective than third-party states. As we did in the analysis of all settlement attempt types, we estimated a model on the subsample of settlement attempts that resulted in an agreement (Model 3 in Table 2). This analysis provided similar results to the model estimated on the entire sample.

The empirical analysis indicates that binding third-party negotiations are significantly more effective than nonbinding third-party negotiations at ending territorial claims. Rather than the characteristics of the third party, it is the type of conflict management that has the most significant effect on the success of settlement attempts in territorial claims. To further illustrate this point, we estimated models without a variable indicating whether a binding form of conflict management was used (Models 2 and 4 in Table 2). In

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12 Most cases of binding settlement attempts have one arbitrator. Of the 25 binding third-party settlement attempts with state arbitrators in the data set, only five included arbitration panels.

13 For some large IGOs, we did not include the entire membership, but instead focus on the most influential members. For the UN, we treated the permanent five members (P5) as the relevant membership, and for the League of Nations, we included the countries that sat on the League Council in the relevant year. We coded settlement attempts facilitated by the UN Secretary General as being unbiased; however, as a robustness check we recoded these cases treating the P5 as the relevant membership and found similar results. For claims mediated through the Permanent Commission on Inter-American Conciliation, we included the states represented on the committee appointed to facilitate the dispute. While they are not IGOs, for the Paris Peace Conferences after the world wars, we calculated a measure of bias using the “Big Four” at each conference (WWI: United States, United Kingdom, France, Italy; WWII: United States, United Kingdom, France, USSR).

14 In all cases of Vatican intervention, both disputants have predominantly Catholic populations. Excluding the Vatican cases does not affect the substantive findings of the empirical analysis.
these estimations, the bias of the third party still does not have a significant effect on the likelihood that a settlement attempt will end a claim. This provides further evidence that the bias of a third party, in general, does not affect its ability to resolve a territorial claim. What matters is the conflict management strategy that is used. The results provide strong support for the hypothesis that binding third-party negotiations are the most effective strategy for ending disputed territorial claims.

### Third-Party Settlement Attempt Decisions

While the results indicate that the bias of a third party does not influence the success of a settlement attempt, this does not mean that bias plays no role in the conflict management process. According to Hypothesis 2, claimants are less willing to choose biased third parties for binding conflict management. One should expect that third parties who participate in binding negotiations are less biased than those who do not. As a preliminary test of this expectation, consider the relative bias of the third parties in binding and nonbinding settlement attempts examined above. A difference of means test indicates that that third parties in binding attempts are significantly more biased than those in nonbinding attempts ($t = 8.135, p = .000$).\textsuperscript{15}

Our theory, however, predicts that third parties chosen to participate in binding conflict management are less biased than the set of potential third parties—not necessarily that third parties in binding settlement attempts are less biased than those in nonbinding settlement attempts. To test this expectation, we analyze the likelihood that disputants choose a state to serve as an intermediary in binding settlement attempts in territorial claims.\textsuperscript{16} While data on requests for third-party binding negotiations are not available, the ICOW data set includes all cases of third-party settlement attempts in disputed territorial claims. Thus, one can observe whether a third party accepted a request to broker binding negotiations. If disputants only request unbiased third parties for binding negotiations, one would expect that third parties that actually serve as arbitrators are less biased than the population at large. Our dependent variable is the type of third-party settlement attempt (none, nonbinding, binding) pursued with a given state in a particular claim in a given year. The unit of analysis is potential intervener-claim dyad.

When exploring the probability of a third-party settlement attempt, we must consider that not all states are likely to serve as intermediaries in territorial claims in these regions during the time period at hand. For example, all of the states that have intervened in territorial claims in the Western Hemisphere are located in the Americas or Europe. On the other hand, no state in Latin America or Africa has...
intervened in a claim in Western Europe. To address these facts, we narrow the universe of potential third parties to all states in the respective region that were members of the international system as defined by the Correlates of War Project and all other states that intervened in at least one territorial claim in the region during the time period examined (Crescenzi et al. 2005). This allows us to exclude states from the analysis that are not potential third parties in the cases examined.

The independent variable we use to test Hypothesis 2 is the bias of the potential third party. We code bias using alliance portfolios as described above. In addition to bias, previous studies indicate that a variety of factors influence the likelihood of third-party conflict management. First, some types of states may be more inclined to participate than others, and the likelihood of third-party conflict management is a partially a function of the supply of willing third parties (Frazier 2006). Given this, we include supply-side variables such as the potential third party’s capability, its distance to both the challenger and the target, and its regime type in our empirical analysis. We expect that stronger states, closer states, and democratic states will be more likely to pursue both types of conflict management.

In addition to these supply-side factors, third-party conflict management is a function of the demand for conflict management. Some claims are more likely to be relevant to third parties than others. Previous studies indicate that demand-side variables influencing intervention include the salience of the claim, the number of previous MIDs surrounding the claim, and the asymmetry of power in the challenger-target dyad (Mitchell and Hensel 2007; Mitchell, Kadera, and Crescenzi 2007; Shannon 2009). In addition, we include the similarity of the alliance portfolios of the challenger and the target as an independent variable.

To empirically examine factors that influence the likelihood of third-party conflict management in territorial claims, we estimate a multinomial logit model with type of settlement attempt as the dependent variable, where the baseline category is no settlement attempt. Hausman and Small-Hsiao tests indicate that the independence of irrelevant alternatives assumption of the multinomial logit model is not violated. Results of the analysis are found in Table 3. The analysis offers support for Hypothesis 2. Bias has a negative effect on the likelihood of binding conflict management.17 Third parties that broker binding negotiations in territorial claims are less biased than those that do not intervene. On the other hand, bias does not significantly influence the likelihood of nonbinding forms of third-party conflict management. To evaluate the substantive significance of bias we estimated the predicted probability of binding conflict management holding other continuous independent variables at their means and dichotomous variables at their modes. We find that an increase in bias from its minimum to mean value decreases the probability by more than 50%. The results indicate that bias influences the type of settlement attempt pursued and that disputants are more likely to seek binding intervention from unbiased intermediaries.

One might argue that our empirical findings do not result from the fact that disputants turn to unbiased third parties when selecting binding arbitrators. Instead, it may be the case that disputants are more likely to agree to binding forms of negotiation when they have similar preferences. In such cases, binding oneself to an arbitrator’s decision is less risky because the worst possible outcome (the other state’s ideal outcome) is closer to one’s ideal outcome than in cases where preferences are highly divergent. When states have similar preferences, one would expect that fewer potential third parties would be biased toward one side of the other. Thus on average, the set of potential third-party interveners is less biased when states have similar preferences than in cases when their

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17 In a one-tailed hypothesis test, $p = .006$. 

### Table 3 Third-Party Settlement Attempts in Territorial Claims (Multinomial Logit)

<table>
<thead>
<tr>
<th></th>
<th>Non-Binding</th>
<th>Binding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bias</td>
<td>$-2.511 \pm 1.536$</td>
<td>$-8.902 \pm 3.486$</td>
</tr>
<tr>
<td>Capability of Third Party</td>
<td>$13.175^{*} \pm .979$</td>
<td>$7.810^{*} \pm 1.991$</td>
</tr>
<tr>
<td>Distance to Target</td>
<td>$-0.320^{*} \pm .093$</td>
<td>$-0.353 \pm .173$</td>
</tr>
<tr>
<td>Distance to Challenger</td>
<td>$-0.305 \pm .130$</td>
<td>$0.142 \pm .158$</td>
</tr>
<tr>
<td>Democratic Third Party</td>
<td>$0.325 \pm .245$</td>
<td>$0.792 \pm .394$</td>
</tr>
<tr>
<td>Salience of Claim</td>
<td>$0.253^{*} \pm .073$</td>
<td>$-0.002 \pm .098$</td>
</tr>
<tr>
<td>MIDs in last 5 years</td>
<td>$0.752^{*} \pm .119$</td>
<td>$0.975^{*} \pm .241$</td>
</tr>
<tr>
<td>Power Asymmetry (C-T)</td>
<td>$-2.911^{*} \pm .738$</td>
<td>$-2.135 \pm 1.231$</td>
</tr>
<tr>
<td>Joint Democracy</td>
<td>$-0.227 \pm .500$</td>
<td>$-0.645 \pm 1.017$</td>
</tr>
<tr>
<td>S-score (C-T)</td>
<td>$-2.402^{*} \pm 1.050$</td>
<td>$-0.092 \pm 1.436$</td>
</tr>
<tr>
<td>Constant</td>
<td>$-3.434 \pm 1.269$</td>
<td>$-6.748 \pm 1.892$</td>
</tr>
<tr>
<td>N</td>
<td>156,173</td>
<td></td>
</tr>
</tbody>
</table>

* $p \leq .001$. Robust standard errors clustered on claim in parentheses. The baseline category is no third-party settlement attempt.
preferences are highly divergent. Therefore, even if bias has no effect on such decisions, we would expect that third parties engaging in binding interventions are less biased than those who do not. We address the counter-argument by controlling for the preference similarity of disputants with the S-score variable. Even if we control for preference similarity, bias has a negative impact on the likelihood of binding diplomatic intervention. Preference similarity, on the other hand, does not have a significant impact on the likelihood of binding intervention. These results make us fairly confident that impartiality, rather than the preference similarity of the disputants, explains the observed relationship between unbiased third parties and binding conflict management.

**Do States Only Arbitrate in the Easy Cases?**

Some might also argue that our findings do not indicate that binding conflict management is more effective. Instead, disputants may be more likely to choose arbitration and adjudication when they have a favorable disposition to ending a dispute peacefully. If this is the case, binding conflict management may appear effective, when in reality it is only chosen in the easiest situations. This implies that there may be a sample selection problem in the above analysis. A common approach in the international conflict literature to address potential selection problems is a Heckman censored probit (Reed 2000). However, a Heckman selection model would not be helpful to address the issue outlined above. Consider two potential specifications for a censored probit. In first case, one could estimate a selection equation with the choice of binding conflict management as the dependent variable, but then one could not include binding conflict management as an independent variable in the outcome equation because all observations in the selected sample would be arbitration. Thus, it would be impossible to examine whether binding conflict management increases the likelihood that a settlement attempt ends a claim.

In the second case, one could estimate a selection equation with the choice of any third-party settlement attempt (either binding or nonbinding) in the selection equation. This would allow one to estimate the effect of binding conflict management on ending a territorial claim. However, such a model would not address the concern that disputants choose arbitration (rather than any type of third-party conflict management) in the easy cases. While it would not directly address the counterargument, we did estimate this latter model. The results are in line with those in the analysis presented above. After accounting for selection of third-party settlement attempts, binding conflict management has a positive and statistically significant effect on the likelihood that a settlement attempt ends a territorial claim ($p = .002$), while bias has no statistically significant effect on this outcome ($p = .48$). Moreover, the estimated rho coefficient was -0.36 with a 95% confidence interval of (-0.67, 0.06), so there is no empirical evidence that third-party conflict management is chosen in those cases that are more likely to end a claim.

Since we cannot use a Heckman selection model, we address the possibility that binding conflict management is epiphenomenal by controlling for other possible factors that could influence whether a settlement attempt ends a territorial claim. If binding conflict management is chosen in easier cases than nonbinding conflict management, then variables that significantly affect the likelihood of binding conflict management but do not significantly affect the likelihood of nonbinding conflict management (or vice versa) would be good indicators of the amenability of disputants to ending a claim. We include four such variables (bias, democratic intervener, salience of the claim, power asymmetry) in our analysis. However, as we reported in Table 2, after controlling for these factors, binding conflict management still has a positive and significant effect on the likelihood that a settlement attempt will end a territorial claim.

**Conclusion**

Most previous studies of bias and third-party conflict management focus on mediation attempts. Our analyses show that we can better understand the relationship between bias and effectiveness if we examine a wider range of conflict management strategies.

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18Additionally, if the proposed counterargument is true, then those factors that influence the selection of arbitration would also influence its effectiveness. Thus, it would be difficult to correctly specify the selection equation due to the exclusion restriction necessary to identify a Heckman probit. A poorly specified selection equation can lead to biased estimates in both equations and incorrect inferences about hypothesis tests for selection (Brandt and Schneider 2007).

19For a similar strategy used to examine the effectiveness of institutionalized cease fires in international conflicts, see Fortna (2003).
Mediation is just one of the many options available to resolve disputes between states. Just as different mediation techniques perform different functions (Beardsley et al. 2006), different types of third-party conflict management are better suited to address certain problems than others. Our study confirms the importance of conflict management technique by showing that the type of settlement attempt trumps the preferences of a third party when it comes to ending territorial disputes. Binding negotiations are more effective than nonbinding or bilateral negotiations, and the bias of a third party has no direct influence on the success of conflict resolution. Such theoretical and empirical insights could not be gained if one focused on mediation as the only type of conflict management.

Our analyses illustrate the usefulness of exploring a wide range of conflict resolution techniques. The strategy chosen to manage a conflict can be more important than the identity of the actor that utilizes the strategy. The conflict management “toolbox” contains a wide variety of potential strategies, and no single mechanism is a panacea for all disputes. Instead, different tools can be effective in different situations. A central goal for conflict management scholars is to determine when and where particular strategies should be used. Developing a research program to achieve such a goal requires scholars to theorize about what a particular strategy does, when it is most effective, and how to operationalize effectiveness for those cases. Then scholars can test their theoretical propositions by comparing the relative effectiveness of different conflict management strategies in relevant situations. The results of such analyses could guide policymakers choosing which strategy to use to manage a particular conflict.

Our theoretical argument and empirical analyses provide strong implications for policymakers concerned with resolving territorial claims. First, disputants should be encouraged to submit their claims to binding arbitration or adjudication. Given the costs of binding conflict management, often the first response of interested third parties is to volunteer to facilitate or mediate a dispute. While such nonbinding techniques can sometimes be helpful at resolving information asymmetries and building trust, they are less effective at resolving the critical barriers that prevent the successful resolution of territorial claims. Thus, if nonbinding techniques are pursued, one of the main goals of an intervening third party should be to guide the disputants toward binding conflict management.

There are many reasons why states might be unwilling to pursue arbitration or adjudication to resolve their territorial claims. Our study indicates that a state might be reluctant to enter binding talks if it fears that a third party will be biased against it. Given this, we find the long-term shift in the international community from arbitration by states to arbitration and adjudication by intergovernmental organizations and courts to be a positive trend. Disputants are likely to view such organizations and courts as less biased than state actors. If states believe international courts to be unbiased adjudicators, they will be more willing to submit their territorial claims. The international community should thus devote resources to strengthening international courts and instilling confidence among disputants that such courts are unbiased. Such institution building would hopefully foster a speedier and longer-lasting resolution to extant disputed territorial claims in the international system.

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