

The Determinants of Diplomatic Dyads*

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Abstract

Despite their obvious importance to foreign policy, there has been little research on diplomatic relations between states. In particular, there has been insufficient systematic examination of the factors that help us to understand why two countries would choose to establish diplomatic ties. We present data on interstate diplomacy for the year. The dataset is designed to capture the exchange and the rank of diplomatic missions between states. We present here the findings of a two-equation model that we argue captures how many ambassadors a country will send and to whom the country will send these ambassadors. The 2000 data includes 36,290 directed dyads, only 21% of which have some kind of diplomatic ties. Based on this data, our initial results show that total and dyadic trade levels are a significant predictor of a state's decision to send ambassadors while military capabilities is not a consistent predictor, indicating that economic factors are perhaps more important for explaining this diplomatic behavior. We also find that civil war-but not civil conflict-in a state decreases the likelihood that other states will send ambassadors to that state. In addition, we find that both joint democracy and joint autocracy are significant, suggesting that regime similarity leads to reciprocal sending behavior.

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Introduction

In this paper, we explore the patterns of interstate diplomatic representation. In this way, we have two closely related purposes. The first is to establish and explain the general trends in the exchange of foreign diplomats between states. The second, and perhaps most important, is to explore the processes through which states make decisions regarding where to establish diplomatic missions throughout the world. While perhaps initially appearing to be a somewhat quaint or inconsequential phenomenon, we argue that in fact, there are several reasons why international relations scholars should be interested in the interstate exchange of diplomatic representatives.

First, there appears to be an unofficial consensus within the general public that diplomatic representation is universal or near universal for all states in the international community. In other words, if we were to poll individuals off the street and ask them with how many countries they believe that the average country in the world maintains diplomatic ties, we suspect that they would consistently answer with an ‘all or near all’ response. In fact, we can see from the data in Table 1, that the average citizen drastically overestimates the number of diplomats exchanged between states. These figures indicate that quantitatively speaking, most of the states in the international system participate in only a very small portion of all interstate diplomatic activity; there are approximately 25,000 cases in which neither state (country A or country B) established formal diplomatic ties with the other. In fact, there is quite a lot of variation in interstate diplomatic relations. Most activity appears to be clustered or concentrated at the extremes – states either establish no formal diplomatic ties or they establish ambassadorships, the highest level or rank on in the diplomatic protocol scale. Of those

states that do participate in international diplomacy, very few establish just embassies, ministerial posts, or envoys. In this way, interstate diplomatic relations appears to be an all-or-nothing game.

		Country B							
		No Formal Relations	Diplomatic Relations	Embassy	Chargé d'affaires	Minister	Envoy	Ambassador	Total
Country A	No Formal Relations	25,056	5	132	242	1	3	1,072	28,511
	Diplomatic Relations	5	0	0	0	0	0	11	16
	Embassy	132	0	8	22	0	1	152	315
	Chargé d'affaires	242	0	22	70	0	1	271	606
	Minister	1	0	0	0	0	0	1	2
	Envoy	3	0	1	1	0	2	4	11
	Ambassador	1,072	11	152	271	1	4	5,318	6,829
	Total	28,511	16	315	606	2	11	6,829	36,290

Table 1 Interstate Diplomatic Exchange According to the Seven Point Protocol Scale

Furthermore, there is an element of asymmetry in the exchange of diplomatic representatives. For instance, there are approximately 250 cases in which Country A sends a chargé d'affaires to Country B, but B does not establish any kind of formal relation with Country A. Similarly, there are more than 1,000 cases in which Country B sends an ambassador to Country A, but A does not respond in kind, and in fact, does not establish any formal diplomatic connection with Country B. Further research is needed to explore these general patterns in foreign diplomacy, patterns that not only show a great deal of variation, but also contradict our “common knowledge.”

More broadly, if social scientists’ and in particular, international relations’ scholars’ goal is to explain and generalize about the interactions and relationships between states in the global system, it seems quite obvious that understanding interstate diplomacy would contribute an important piece to the puzzle. If we conceptualize

diplomacy as a means through which states conduct their political business or do their political bidding, then exploring some of the functions of diplomatic representatives becomes necessary. Even with the technological advances in global communications, states still establish and maintain formal diplomatic posts, begging the question, what can be done in person, through face-to-face communication, that cannot be done via email, telephone, fax, etc.? In other words, what is so different or significant about having a staffed embassy in a foreign country?

Pulling from the work on neoliberal institutionalists and functionalists, diplomatic representatives can operate in much the same way as do international organizations or institutions (see for instance Keohane, 1984 and 1988; Martin, 1998). Diplomatic ties may facilitate open channels for political dialogue and communication. In this regard, perhaps the most critical responsibility of foreign diplomats is the collection, evaluation, and transmission of information. This role may be especially important in cases of interstate disputes, where diplomatic relations offer a critical nonviolent avenue through which a resolution can be pursued. Similarly, diplomatic ties provide a mechanism for states to signal their intentions, especially on matters of foreign policy. In other words, diplomatic relations is often used as a means for states to communicate their (dis)pleasure with another state's affairs or policies.¹ Diplomatic relations can also be used to threaten, reward, or sanction a state, thus giving the sending state a bargaining chip of sorts, or a

¹ Changes in interstate diplomacy and representation can send important signals to the domestic audience. Consider, for instance, a case in which there is a history of conflict. (Re-)Establishing diplomatic connections sends an important signal to the each state's domestic constituency that their governments are willing to resolve the dispute and move towards building a cooperative, nonviolent relationship. Diplomacy may help a state leader to demonstrate her foreign policy agenda and commitment to peaceful interstate relations, and thus may help to garner domestic support for the administration.

degree of influence over the policies and decisions of the receiving state. This may be crucial for small states that lack the necessary economic or military resources to otherwise influence state leaders.²

Diplomacy is an essential and invaluable political tool of persuasion. For instance, consider how the Chinese government has successfully utilized interstate diplomacy as an instrument to exercise its influence over other states' policies and behavior. This has most often been the case in states' relations with Taiwan. For example, in the 1980s, the Chinese government downgraded the Dutch ambassadorship to a chargé d'affaires in response to their sale of two submarines to Taiwan. Similarly, the French Consulate-General in Guangzhou (a major trading zone in southeast China) was temporarily closed after a French company sold military equipment and hardware to Taiwan. Full diplomatic ties were later restored in 1994 after the French government agreed to prohibit private companies from selling arms to Taiwan (Sandschneider, 2002: 34-37). The United States has even become the target of such threats (even though few states have ever broken formal diplomatic relations with the U.S.), when Hugo Chavez, the President of Venezuela threatened to suspend diplomatic ties with the U.S.³ On the other hand, diplomatic relations has also been used to express solidarity or to transmit messages of support to a foreign government. For instance, in the aftermath of the September 11, 2001 terrorist attacks, both the United Arab Emirates (UAE) and Saudi Arabia cut diplomatic ties with Afghanistan in a display of resolve and tacit alliance with

² The exchange of diplomatic missions may also be crucial for small states, especially newly independent states or those that are seeking recognition and sovereignty.

³ Adding to the already antagonistic relationship between the U.S. and Venezuela, Chavez has threatened to cut off diplomatic relations with the U.S. if it refuses to extradite the Cuban terrorist Luis Posada Carriles, who is wanted for narcoterrorism and the bombing of a Cuban aircraft.

the U.S. In all of these cases, it is evident that diplomatic relations are often used, quite effectively, as a signaling device and a means to communicate or transmit information between states.

There are a number of reasons, why we would expect two states to establish diplomatic connections. However, as the data in Table 1 indicate, very few states are actually engaged in the exchange of diplomatic missions. There are no states that are able or willing to send ambassadors to *every* other state in the international system.⁴ In fact, there are even some states that do not send diplomatic missions to *any* state.⁵ How do we account for this variation? If the incentives or benefits of establishing diplomatic relations with other members of the international community are so great, then why do we not observe greater levels of activity and exchange? The most obvious answer would be budget constraints. In this paper, we present a decision-theoretic model of a state's utility of sending an ambassador to another country. We explore the decision logic employed by states when faced with budget constraints, and thus forced to prioritize the sending of diplomatic missions abroad – thereby only sending representatives to the most important and crucial states. First, however, we will examine the existing research in the area of interstate diplomacy.

Existing Literature and Data

Despite its obvious importance and centrality to interstate relations, there has been very little academic scholarship in the area of diplomatic relations. This, despite the fact

⁴ France, China and the United States come close as the top three senders, with 154, 148 and 146 ambassadors from each country, respectively.

⁵ Neither Kiribati nor Vanuatu send ambassadors to any state in the international system. Kiribati, however, has been dropped from our dataset due to the fact that it has missing trade data.

that as Alger and Brams (1967) point out, the first permanent diplomatic mission was established by the Duke of Milan at Genoa more than 500 years ago. Unfortunately the state of the field of study has not improved much since Alger and Brams were writing, almost 40 years ago. There have been very few quantitative or comparative studies on the exchange of diplomatic missions and how states make decisions regarding where to send representatives.

One exception to this has been the early work of J. David Singer and Melvin Small (1966, Small and Singer, 1969 and 1973, and Small, 1977). As part of the Correlates of War data collection project, Singer and Small collect data on the exchange of diplomatic missions from 1815 to 1940. They not only coded the data on the basis of the presence or absence of foreign diplomats, but also on the type or level of representation. This enabled them to make important distinctions between ambassadorships, charge d'affaires, ministers, etc. After collecting data on the number of representatives each state received, they created a composite measure or index of a state's relative status or importance in the global system. They argue that, "the number of diplomatic missions found in a given national capital at T1 will be both a consequence of the relative importance attached to that nation by the others at T0 and a cause of its relative importance at T2" (Small and Singer, 1973:582).

In other words, we can presume that states will only decide to "set up shop" in the most influential and important centers of power around the world. It stands to reason, therefore, that the number of missions a state receives is a direct indication of how important the other members in the interstate system perceive it to be. Therefore, the state that received the most diplomatic representatives in any given year arguably reflects

the consensus within the international community that that state is the most important member. In this way, we can think of diplomatic representation as a measure of one's *ascribed* status in the international community.

Since Singer and Small's early work on interstate diplomatic relations, researchers have begun to explore the effect and relevance of diplomacy, predominantly in the areas of trade and security studies. Some have explicitly applied the Singer and Small data on diplomatic relations as a measure of a state's ascribed status (Butler, 2000; Wallace, 1971 and 1972; Anderson and McKeown, 1987; and Hill, 2002). In each of these studies, the authors employ a definition of diplomatic relations to mean *only* formal diplomatic ties. Others, however, have relied on a more general understanding of diplomatic relations, such as Pollins (1989) who employs the conflict-cooperation scale as a basis for measuring the general friendliness or hostility between two states. Our research follows in Singer and Small tradition by conceptualizing interstate diplomacy as formal diplomatic relations.

Diplomatic Relations and International Security

For Anderson and McKeown (1987) the propensity for interstate conflict and war is best explained by the level of interaction between two states. They argue that the greater the level of interaction between two states, as measured by their joint membership in international organizations and their exchange of diplomatic representatives, the greater the opportunity for misunderstandings or miscommunication. In this way, the authors use diplomatic relations (from Singer and Small's dataset) as one indicator to measure the salience of the interstate relationship, thus identifying those states, which

conceivably could become targets of interstate war, and excluding those states with whom there is very little interaction.

Similarly, Hill (2002) includes Singer and Small's measure on status in the international system in his model to explain the size of a state's military budget. He uses the Singer and Small indicator only as a partial measure of status, specifically to capture ascribed status. He also includes in the model a population size variable to capture states' actual, achieved status. He hypothesizes that the greater number of diplomatic representatives a state receives (and thus its greater status), the higher will be its military expenditures.⁶ In testing his model, Hill finds that international diplomatic status is one of the most significant predictors (along with the intuitively obvious, international conflict) of state military spending. In addition to Hill's work, Wallace (1971) also uses the Singer and Small dataset on diplomatic relations as a measure of a state's ascribed status in the international community. For Wallace, the propensity of interstate conflict is explained by disparities or inconsistencies between a state's ascribed status, and a state's achieved status (which is measured by a power capabilities index). By calculating the difference between these, Wallace comes up with a "status inconsistency" score for each state in the international system, and finds that indeed it is significantly correlated with the outbreak of conflict.

Diplomatic Relations and International Trade

Unlike the studies discussed in the previous section, Pollins (1989) is concerned with issues of international trade. In addition, although he draws insights from Singer

⁶ It is possible that those states, which rank highest in terms of international status, probably also rank highest in power capabilities. It is likely that states of high status allocate larger proportions of their resources to the military in an effort to protect and maintain their position in the international arena.

and Small's work, he does not use their dataset to test his model of bilateral trade relations, but instead employs a more general concept of diplomatic relations. For Pollins, diplomatic relations simply refers to the nature of the interstate relationship, and not to the formal exchange of ambassadors, and is measured by the Conflict and Peace Data Bank. Pollins examines the relationship between interstate diplomacy and bilateral trade flows, and finds that the more friendly two states are, the greater their levels of economic exchange. Hostile or unstable diplomatic relations, on the other hand, will weaken economic ties and depress the levels of trade and commerce. In other words, when a state is faced with the decision to establish a trade partnership with either country A, with whom it has amicable diplomatic relations with, or country B, with whom it has either unstable or no diplomatic connections, country A will be the more attractive and less risky business partner. As the title of his article suggests, Pollins finds that "trade follows the flag" (1989). As we mentioned previously, our paper conceptualizes diplomatic relations as *formal* diplomatic ties, and thus more follows in the footsteps of Singer and Small than the work of Pollins.

Theory Development

This paper explores states' decisions to establish and maintain diplomatic relations with other states in the international system. In this effort, we present a model of state choice, which must necessarily consider not only the possible inducements or benefits of establishing diplomatic ties, but also the deterrents from doing so. We start from the basic assumption that the state is a unitary rational actor. We theorize the sending of ambassadors as a two-step process. In this way, we first present a function to estimate the utility to an individual state, i , of sending ambassadors abroad. We then

discuss, in greater detail, how the individual components of the utility function bolster or discourage the exchange of ambassadors between states. While this captures aggregate sending behavior of states, we still need to explain how states decide *where* to send ambassadors. For this reason, we then present a directed-dyadic model of whether state i sends an ambassador to state j .

Modeling States' Decisions

To estimate the sending behavior of states, we present a decision-theoretic model of individual state's decisions. We argue that states make rational calculations of where to send their top diplomatic representatives – i.e., ambassadors – subject to a budget constraint unique to each state. Each state, i , calculates a utility for sending an ambassador to every other state $j \in N - i$.

$$U_{ij} = w_{iI} I_j + w_{iD} D_{ij}$$

This utility, U_{ij} , is a function of both the individual traits of the potential receiving state (I_j) as well as the dyadic traits (D_{ij}) that are unique to that pairing of states. Included in the first component, individual traits of country j , we expect to find factors such as the power and wealth of the state. Beyond just wealth and power, however, we also consider whether country j is involved in a violent civil or interstate dispute. In general, this allows us to capture whether the state is a stable and safe host for the personnel of the sending state, i . The second component, on the other hand, looks at the effect of characteristics of the dyad on state i 's decision to send an ambassador to state j . Dyadic traits include such things as the states' geographic proximity, alliance ties, and their bilateral trade relations. Each component has a decision weight, $w_{iI/D}$, that is potentially

unique to the decision maker. This allows some states to place greater emphasis on the individual traits of potential receivers or on dyadic relationships.

As we mentioned previously, there are no states in our dataset that send ambassadors to every other state in the international system. In general, states participate only minimally in the exchange of diplomatic representatives. This pattern is confirmed not only by our data (which only covers the year 2000), but also by Small and Singer, who found that most states send diplomatic missions to only a small fraction of all the states in the system: “ranging from a low of 37% in 1849 to a high of 60% in 1827” (1973:581). They go on to argue that, on average, a state will send diplomatic missions to less than half of all the members in the interstate system. Similarly, our data shows that states will send ambassadors to only 19 percent or 36 states in the international community.

While it is possible for a state to send ambassadors to every other state in the international system, we know that in reality there are limits to the resources that a state is willing or able to devote to international diplomacy. States, therefore, must make discriminating decisions or choices on where to send ambassadors. As Small and Singer aptly put it:

In one way or another, every government is faced periodically with the need to estimate or re-estimate how important it is to exchange missions with every other one in the system. That relative importance is reflected in its willingness to: allocate limited resources to a given diplomatic bond; incur the costs of overcoming domestic or foreign opposition to such a bond; and sacrifice one set of attractive bonds in order to maintain or estimate another set of more or less equally attractive bonds.

(1973:582)

In this way, we argue that state i must first determine how many ambassadors, $n_i \in N$, (and associated embassies and staff) it can afford to send. In principle, this is a function

of the state's budget constraint. But because the state sets its own budget, there are other factors to consider as well. Specifically, we assume that there is some upper limit, n_{imax} , above which the state cannot afford to go beyond. This limit is purely economic. In addition, there are other factors that may impel or impede a state's sending behavior. For example, internal or external pressure on the state may make sending diplomatic representatives of more immediate concern, regardless of where they are sent. We assume that this would simply raise a state's overall sending behavior, or increase the total number of ambassadors sent by country i .

Understanding a state's budget constraint only answers half of the question – *how many* ambassadors can i send; we must still determine *where* country i will send ambassadors. In this regard, we argue that each state will construct a rank order of all the other states in the international community, based on its utility of sending an ambassador to any particular state. Given this, we assume that a state will begin by sending ambassadors to the “most important” states on its rank order list. To reiterate, we argue that both individual *and* dyadic traits will affect a state's utility of sending an ambassador to country j . Perhaps in the aggregate, receiving proportions will tend to be higher for those with the most power and wealth, or “achieved status.” However, our model also predicts deviations from sending behavior that is strictly based on kowtowing to those with power and influence in the international system. If only the individual traits of the receiving state (I_j) mattered, then every state's rank order would be identical; we should observe identical sending patterns for all states.⁷

⁷ To see how this process works, look at the side-by-side comparison of Guyana and Mongolia's sending behavior in Figure 1 in the Appendix.

Although the decision-theoretic model envisions complete information and thus a complete rank order, only sending and not sending are observed. In other words, because we cannot actually observe U_{ij} ; but rather can only observe whether or not state i actually sent an ambassador to state j , we treat U_{ij} as a latent variable. The following equation estimates how many ambassadors a state sends.

$$n_i = \beta_1 \text{GDP}_i + \beta_2 \text{CivilWar}_i + \beta_3 \text{CivilConflict}_i + \beta_4 \text{ViolentMID}_i$$

This equation models the budget constraint of the sending state where the dependent variable, n_i , captures the aggregate sending behavior of each country.⁸ The number of ambassadors that a state sends is a function not only of their GDP, but also the internal and external pressures on the state. We expect each parameter to be positive. The more resources that a state has, the more ambassadorships it can afford to establish. Similarly, we hypothesize that a state government embroiled in a violent conflict, whether civil or interstate, will try to increase their representation and support within the international community, and therefore will participate more in the exchange of foreign diplomats. There is some reason to suspect, however, that fighting a civil war or civil conflict may *reduce* the state's ability to send diplomatic missions as the government must turn its attention and resources to counterinsurgency. Using this estimation, we then calculate the predicted number of sent ambassadors, n_{i_pred} , for use in the sending equation.

Whereas equation (1) estimated the total number of ambassadors that any state i sends, without regard to the receiving state, the equation below looks at the directed dyadic sending behavior based on the utility function U_{ij} . In other words the dependent variable is simply the decision, y_{ij} , of state i to send an ambassador to state j , and so is

⁸ We use a Poisson regression model here because the dependent variable is not normally distributed.

coded dichotomously. We argue this decision to be a function of three factors: 1) the individual traits of the potential receiving state; 2) the dyadic traits of the interstate pair; and 3) the predicted number of sent ambassadors from the previous equation.

$$y_{ij} = \beta_1 \text{MilRatio}_j + \beta_2 \text{lnTPop}_j + \beta_3 \text{lnTotalTrade}_j + \beta_4 \text{CivilWar}_j + \beta_5 \text{CivilConflict}_j + \beta_6 \text{FatalMID}_j + \beta_7 \text{Belgium} + \beta_8 \text{lnDist}_{ij} + \beta_9 \text{DyadicTrade}_{ij} + \beta_{10} \text{PeaceYrs}_{ij} + \beta_{11} \text{Allies}_{ij} + \beta_{12} \text{JointDem}_{ij} + \beta_{13} \text{JointAuto}_{ij} + \beta_{14} n_{i\text{-pred}}$$

We consider some individual traits that are associated with achieved status, namely military power, population and a country's total trade, all of which are expected to be positively and significantly related to the receiving of ambassadors. We also consider, however, some individual traits of the potential host country that will depress the number of ambassadors that it receives. Country j 's participation in a violent civil or interstate conflict will likely make it a less attractive host for the personnel and staff of the sending state. Therefore, we expect civil war, civil conflict and violent interstate disputes to all have negative coefficients.⁹ In addition to what's going on in the potential receiving state, we also examine the relationship between the sending and receiving states. Such dyadic traits include geographic proximity, bilateral trade, peace years, and whether the states are allies, and are expected to have positive coefficients.

Data and Methods

Operationalization and Measurement

In this section, we will briefly discuss all of the independent variables included in the empirical model and their hypothesized effect on the sending behavior of states. The

⁹ Within the country-level characteristics of the potential receiving state, we have included a control variable for Belgium, as it is the second highest receiver (after the United States). We suspect this is due to the location in Brussels of several key European institutions, including the European Union.

table below lists each of the variables, with a brief description of how each is measured and the source of the data.

		Variables	Measure and Source
Characteristics of the Receiving State (I_j)	Achieved Status	Military Status	(Military Expenditures _{<i>i</i>} /Global Military Expenditures + Military Personnel _{<i>i</i>} /Global Military Personnel)/2 (CoW)
		Total Population	Measured in Thousands, Logged (CoW)
		Total Trade	Measured in \$US, Logged (Gleditsch)
	Conflict	Civil War	≥ 1000 Battle Deaths (Armed Conflict Dataset)
		Civil Conflict	Between 25-999 Battle Deaths (Armed Conflict Dataset)
		Fatal MID	>1 Fatal Casualties (MID Dataset)
		Belgium	Control Variable
Characteristics of the Dyad (D_{ij})		Distance	Measured in Miles between Capitals (Fitzpatrick and Modlin, 1986)
		Dyadic Trade	Measured as % of Sending Countries Total Trade, Logged (Gleditsch)
		Peace Years	CoW
		Allies	CoW
		Joint Democracy	>6 on the Polity Scale (Polity IV)
		Joint Autocracy	<6 on the Polity Scale
		Predicted # of Ambassadors Sent	Instrumental Variable (from Equation 1)

Table 2 Measurement, Source and Hypothesized Relationship of Independent Variables

Individual Traits

The first three variables – military status, total population, and total trade – are all measures of achieved status. We hypothesize that a state’s achieved status will be positively and significantly correlated with the number of ambassadors that it sends. Specifically, we argue that the greater state *j*’s total population, total trade (measured by total imports and total exports), and the higher their military status (includes a state’s military expenditures and the size of their military personnel), the more likely other states

will perceive it as a crucial diplomatic partner, and thus send an ambassador to country j .¹⁰ We can see this mechanism at work, especially as states rise or fall in relative status. For instance, as a particular state rises in prominence and status in the international community, other states will reevaluate their previous decisions to forgo diplomatic ties, and may be prompted to exchange ambassadors with the new rising power (even if the significance of the dyadic relationship has not changed). For example, when the People's Republic of China (PRC) replaced Taiwan as the official and sole legitimate governing authority for all of China, there was an increase in the number of diplomatic missions and ambassadors sent to China. Several western European states opened new diplomatic posts (or upgraded existing ones) in China when the PRC was recognized as the representative for China, and subsequently occupied China's permanent seat on the UN Security Council.

While achieved status can help us to understand some elements of interstate diplomacy, we argue that diplomatic representation is not a strict reflection of which states are the most powerful and most influential players in the system. Consider, for instance, a state such as Costa Rica that lacks a high score in world importance and power. Why would any other country in the system decide to allocate its valuable and limited resources on dispatching a diplomatic mission to Costa Rica? In the following section, we will demonstrate how a state's decision calculus is not simply a function of global status, and in fact, can sometimes be overshadowed by consideration of the dyadic relationship. First, however, there is one more set of country-level characteristics of the potential host state j that affect state i 's decision to establish diplomatic relations.

¹⁰ For both total population and total trade, we use the logged variable.

Conflict and Violence

The next three variables listed in Table 2 – civil war, civil conflict and violent militarized interstate disputes – are all measures of conflict involving the potential receiving state, *j*. For both civil war and civil conflict we used the Uppsala/PRIO Armed Conflict Dataset, which codes a civil war as any conflict in which there are 1,000 or more battle-related deaths, and civil conflict as any dispute in which there are between 25 and 1,000 battle-related deaths. Militarizing interstate disputes or MIDs are measured dichotomously using the MID Dataset. Each of the conflict variables is predicted to be negatively and significantly correlated with the number of ambassadors that *j* receives from country *i*. State *j*'s involvement in a violent civil or interstate conflict will indicate to others in the international system (in particular, to potential sending states) the general safety and stability of country *j*. Conflict and violence of any sort poses a real and significant danger to foreign embassies and staff (who may be targeted by opposition forces).

Dyadic Traits

As we discussed above, our theoretical model argues that the individual traits of the potential receiving state are not the only factor one considers when deciding whether to establish diplomatic relations. In addition, we must also look at the directed dyadic relationship and the perceived value to each state of maintaining this relationship. The dyadic traits listed in Table 2 include the states' geographic proximity, their levels of bilateral trade, whether they are allies, whether they share the same regime type, and how long it has been since their last violent dispute or conflict. We hypothesize that each of the dyadic variables, with the exception of distance (measured as the distance in miles

between capital cities), will be positively and significantly related to state i 's decision to send an ambassador to state j .

Dyadic trade, for example is expected to be positively correlated with the exchange of ambassadors. Dyadic trade is measured as the total trade between the two states as a percentage of the sending state's total trade. Two states with high levels of interstate trade will likely view their relationship as one of mutual benefit and value and thus seek to maintain it. To facilitate this, we argue that two such states will exchange ambassadors. This may be especially true in cases where states are vying for diplomatic recognition, such as North and South Korea or Taiwan and China. In these cases, the sway of economic contracts and goods may persuade a state to pursue diplomatic ties with the more profitable trading partner (Sandschneider, 2002). We can see the emphasis placed on trade contracts and opportunities in the diplomatic relations between Germany and the Soviet Union in the 1980s. In this case, West Germany was able to win over the Soviet Union and exchange formal diplomatic recognition, despite the obvious political and ideological affinity that it had with East Germany. Newnham (2000) claims that this was not only the case for West Germany, but also South Korea and Taiwan. All three of these states were relatively wealthy countries, and all three were vying for diplomatic recognition over other states in the international system (East Germany, North Korea and China, respectively). He argues that there is a general pattern in which the importance of economic inducements and bilateral trade trumps all other considerations. In each case, the country with the greater wealth or trading potential was able to win the recognition of the other states in the system, and they were able to do so, despite other aggregate or

objective indicators that would have suggested otherwise. Newnham refers to this as “purchasing of diplomatic relations.”

In addition to economic incentives, we argue that allied states will be more likely to send ambassadors to one another (and so will have a positive coefficient), than non-allied states. In other words, states that share political and/or military alliances will be more likely to establish diplomatic ties precisely because doing so facilitates an efficient, stable relationship over time and eases the transmission of information. Allies is a simple dichotomous variable and is from the Correlates of War (CoW) Dataset.

The last dyadic variable in the set is peace years. This variable is designed to capture the relative peace or violence between the interstate pair. All else considered, is there a greater tendency for states with very limited resources to establish diplomatic relations with countries where there is a history of tension and conflict, perhaps in an effort to improve interstate relations? Conversely, is there a greater tendency for states to avoid the cost of sending a diplomatic envoy to a country with which it does not have amicable, stable relations? It may be more beneficial in the long term for a state to focus its limited funds on those states with whom it can reasonably expect a long, mutually beneficial relationship. We hypothesize peace years to be positively and significantly related with the exchange of ambassadors. In other words, the more peaceful and less violent the interstate relationship is, the greater the likelihood of the states exchanging ambassadors.¹¹

[add discussion of n_{i_pred} as an instrumental variable, and why it is important to the model]

¹¹ We do not include dyad duration as an independent variable in the model because it is highly correlated with civil war peace years.

Coming back to our Costa Rica example for just a moment, we can imagine that factors such as trading partnerships or geographic proximity may prompt another state to send an ambassador to Costa Rica, despite its relatively low global status. Nicaragua, for instance, may want an ambassador in San José because they are neighbors, they have important trading relations, and they are regional security partners. In this case, consideration of the dyadic relationship outweighs Costa Rica's global or achieved" status in the international system as a predictor of Nicaragua's decision to send an ambassador. In the following section we discuss the results of our model, using various estimation techniques. We find that, for the most part, our initial hypotheses are supported by the data.

Results

In this section, we present the findings from our theoretical model, using different estimation techniques, including logit, probit and cloglog (rare events model). For each, we also ran the model with and without clustering by the sending state. The results, using Z scores, are reported in the table below.¹² We can see that, for the most part, our initial hypotheses are supported by the data. There are a few interesting, and somewhat counterintuitive results, however.

First, we find that military status is a somewhat fragile variable, depending on the estimation techniques employed. It is significant and positive in models 2, 3 and 4 (in model 1 military status is positive, but not significant). In both of the rare events models, clustered and unclustered, military status is negative, although not significant. On the other hand, we find that both the total trade of the potential receiving state as well as the

¹² Anything above 1.96 is considered significant at the conventional 0.05 level, and has been highlighted in the table.

level of trade between the dyad are positive, and highly significant across all of our models. This appears to be a stable and quite robust finding. Given the high level of significance of the trade variables, and the weakness of the military capabilities indicators, perhaps this is an indication that trade and economic – rather than politico-military – relationships are becoming increasingly important. The incredible volume of trade and economic activity across interstate borders, and the porosity or flexibility of those borders, suggests that concepts of foreign diplomacy that relegate it to the realm of national security are no longer accurate. Foreign diplomats not only operate as collectors and analysts of military or security intelligence, they also serve to facilitate interstate economic transfers, and strengthen interstate trading partnerships.

Another interesting finding is the affect of the conflict variables on states' sending behavior. While civil war and civil conflict are both negative, as our theory predicted, only civil war is significant. Furthermore, fatal MID, which was also predicted to be negatively correlated with the sending of ambassadors, is positive, although it is not significant. While we did not account for this in our initial theoretical model, we can imagine a situation where an MID could actually *increase* the likelihood that you will send ambassadors. If state j is involved in a violent MID, state i may actually be more likely to send an ambassador if it is involved in some sort of mediation effort in country j .

Another finding that is somewhat surprising is that both joint democracy and joint autocracy are positive and significant, however they appear to be somewhat fragile findings.

Variable	Logit		Probit		cloglog	
	Clustered	Not Clustered	Clustered	Not Clustered	Clustered	Not clustered
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Military Status	1.91	2.08	2.45	2.93	-0.62	-1.00
Total Population	15.55	18.00	14.24	17.23	12.66	16.09
Total Trade	17.20	34.68	16.05	34.14	13.12	32.91
Civil War	-3.11	-2.73	-3.33	-2.98	-2.89	-3.62
Civil Conflict	-1.69	-1.45	-1.49	-1.33	-1.05	-1.20
Fatal MID	1.87	1.91	1.76	1.83	1.67	2.16
Belgium	10.87	10.26	11.28	10.52	12.27	12.00
Distance	-13.70	-33.74	-16.32	-38.33	-12.19	-43.91
Dyadic Trade	5.44	8.56	5.53	9.19	4.43	7.81
Peace Years	9.27	22.88	9.10	23.56	6.18	24.57
Allies	7.32	16.03	6.20	14.84	1.93	9.08
Joint Democracy	1.75	3.20	1.89	3.56	2.09	4.96
Joint Autocracy	4.47	9.13	4.01	8.41	1.50	3.67
η_{i-pred}	11.59	60.50	10.43	65.32	7.92	78.04
Constant	-14.64	-31.01	-14.06	-33.82	-11.77	-44.46

Table 3 Logit, Probit and Cloglog Results

Appendix 1

Guyana					Mongolia				
Receiving State	Rank (logit)	Rank (probit)	Rank (cloglog)	Amb. sent?	Receiving State	Rank (logit)	Rank (probit)	Rank (cloglog)	Amb. sent?
BRA	1	1	1	Yes	RUS	1	1	1	No
USA	2	2	2	Yes	CHN	2	2	2	Yes
VEN	3	3	3	Yes	USA	3	3	3	Yes
CAN	4	4	5	Yes	BEL	4	4	4	Yes
BEL	6	5	4	Yes	JPN	5	5	5	Yes
MEX	7	7	6	No	ROK	6	6	7	Yes
SUR	5	6	11	Yes	UKG	7	7	6	Yes
CHN	8	8	7	Yes	ITA	8	8	8	No
UKG	9	9	8	Yes	IND	9	9	10	Yes
FRN	11	10	9	No	FRN	10	10	9	Yes
JPN	13	11	10	No	THI	11	11	13	Yes
COL	10	12	18	No	MEX	12	12	11	No
ARG	12	13	14	No	CAN	13	13	12	No
GMY	15	14	12	No	SPN	15	14	14	No
ITA	17	15	13	No	GMY	14	15	15	Yes

Figure 1 Country Comparison

Predicted Probabilities including and excluding ni_pred

	France			China			United States		
	Average	Minimum	Maximum	Average	Minimum	Maximum	Average	Minimum	Maximum
<i>Logit</i>									
including ni_pred	0.691	0.075	1.000	0.958	0.669	1.000	0.993	0.924	1.000
without ni_pred	0.267	0.013	0.999	0.274	0.015	0.987	0.257	0.014	0.998
<i>Probit</i>									
including ni_pred	0.661	0.081	1.000	0.943	0.610	1.000	0.992	0.889	1.000
without ni_pred	0.267	0.007	1.000	0.269	0.008	0.989	0.256	0.008	1.000
<i>cloglog</i>									
including ni_pred	0.529	0.069	1.000	0.824	0.283	1.000	0.955	0.516	1.000
without ni_pred	0.259	0.021	1.000	0.257	0.023	0.996	0.259	0.023	1.000

Figure 2 Models with and without ni_pred

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