

# **Ethnic Affinity and International Conflict: A Consideration of Independent and Conditional Effects**

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## **Abstract**

Ethnic issues have been cited by many scholars to increase the likelihood of international violence and/or conflict between states. However, this literature fails to explicitly analyze two key factors that have consistently been shown to influence interstate conflict: territorial disputes and rivalry. Given that territory and rivalry are likely to have additional connections to ethnicity, it is essential to explore the possible interactive effects of these variables on conflict. I argue that the independent effects of ethnicity on conflict are rather modest, but that ethnic issues interact with both rivalry and territorial disputes to increase the likelihood of conflict. Further, an ethnicity-rivalry-territorial dispute interaction is a particularly conflict prone combination. Using the *Minorities at Risk* dataset, I identify disadvantaged ethnic groups with cross-national ethnic ties to neighboring states. The analysis of this data provides support for these arguments, but also suggests the need for further research in order to fully understand the complex relationship between ethnicity, territorial disputes, rivalry and conflict.

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## **Introduction**

The international dimensions of ethnic conflict have increasingly become of interest to scholars of international relations. The interest in ethnicity as a predictor of interstate violence and conflict is not misplaced, as ethnic issues are significant for a variety of reasons. First of all, ethnicity commonly affects relations between countries and is frequently associated with interstate crises and conflict. For example, of the 393 international crises between 1918 and 2003, 34.6% had ethnic dimensions.<sup>1</sup> Furthermore, these ethnic issues also appear to be empirically linked to violence and conflict, as 37.5% of crises that escalated to war and 42% of those that experienced major clashes had ethnic dimensions. In addition, even though the total number of crises has declined since 1990, those with ethnic issues make up a larger percentage of these crises. In the 1990s and early 2000s, about 56% of international crises had ethnic dimensions, compared to around 43% of those from the 1970s and 1980s. Thus, while international crises may be becoming less common, those that do occur are increasingly related to ethnic issues.

Secondly, international conflict is highly linked to both rivalry and territorial disputes and each of these factors can be closely tied to ethnicity. In fact, many of the most violent and long-standing territorial disputes have an intrinsic ethnic link; the India-Pakistan and Israeli-Palestinian conflicts are two examples. In addition, given that much of the conflict literature is currently focused on the importance of territorial disputes in explaining conflict, it is necessary to more fully consider those elements, such as ethnicity, that make territory so salient. This is particularly important for advancing current conflict theories, such as Vasquez's steps-to-war theory (1993), and in providing useful connections that may help to decrease future conflicts. With the break-up of the Soviet Union and the newly independent states that have arisen in its

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<sup>1</sup> Data are taken from the International Crisis Behavior dataset and exclude all intra-war crises.

place, many ethnic issues have also emerged. A study providing important theoretical links between ethnicity and interstate conflict may be particularly useful in preventing future conflict in these areas, as well as in other regions where conflict and ethnicity have been often linked.

Much previous literature has helped to explain how ethnicity affects international violence and conflict, yet these studies have not provided a comprehensive understanding of how ethnicity influences conflict between states. Carment (1993) finds that ethnic conflicts are generally more violent than non-ethnic conflicts, particularly in relation to irredentist and secessionist conflicts. Other authors, using irredentist and secessionist crises as examples of ethnic conflict, also find links between ethnicity and violence and conflict. Carment and James (1995; 1997) show that states with high ethnic affinities and cleavages are more likely to resort to force, especially in more diverse societies. Brecher and Wilkenfeld (1997) find that ethnicity does not increase the likelihood that violence will be triggering event of a crisis nor increase the likelihood that violence will be used in crisis management. However, they do observe higher threat levels among ethnic protracted conflicts. One key problem with all of these studies is that they do not consider the fact that both irredentist and secessionist conflicts are inherently territorial, and thus ethnicity may interact with territory. Given that territory has repeatedly been associated with war and conflict, it is extremely important to attempt to separate these ethnic issues from their territorial aspects for more comprehensive analysis.

While other authors have found broader connections between ethnicity and conflict, their work is still incomplete. Davis and Moore (1997) find that conflict is more likely among dyads of countries where an advantaged minority in one state has an ethnic tie to a disadvantaged minority in another state. Similarly, Davis, Jagers and Moore (1997) show that the existence of an ethnic link between a minority at risk in one country and the group in power in a border

country significantly increases belligerent foreign policy behavior between these countries. Mishali-Ram (2006) finds that greater cross-border ethno and linguistic diversity between principle actors in a crisis prolongs the duration of these crises while religious diversity increases the level of violence of a crisis. These studies show the importance of focusing on cross-border ethnic connections but still leave out some key variables, especially rivalry and territorial disputes. As mentioned previously, territory is often closely tied to these cross-border ethnic relations, but rivalry may also play a large role. Mishali-Ram's piece is particularly interested in how these ethnic issues form a rivalry between groups, but he does not incorporate an actual measure for rivalry. As both territory and rivalry are likely highly correlated with ethnicity, and both have shown consistent correlation with conflict, these variables should be modeled together in a way that can account for their possible interactions. I suggest that the full effects of ethnicity on conflict cannot be understood without a consideration of how international rivalry directly affects the decision making process of elites and how various international elements, such as territorial disputes, may interact with domestic ethnic concerns and rivalry to affect foreign policy decisions.

Studies focusing on ethnicity and conflict are not the only ones to ignore the possible relationship between ethnicity and rivalry or to deemphasize the importance of the connection between ethnicity and territory. Many conflict scholars have shown an empirical relationship between rivalry and conflict between states (see Diehl and Goertz 1992,1993, 2000a, 2000b; Thompson 1995, 2001; Colaresi and Thompson 2002a, 2002b for example), but while this literature has considered many different aspects of rivalry, including territorial and positional elements, it has not yet addressed how ethnic issues may affect both the rivalry context itself

and/or the likelihood that rivals will experience conflict.<sup>2</sup> Given the propensity for domestic ethnic issues to become “internationalized,” it is reasonable to expect that these issues may have a particularly strong effect within a rival situation. In addition, while several studies have suggested that ethnicity increases the saliency of territorial issues, few have attempted to actually empirically test these connections (see Kocs 1995; Hensel 2000; Huth 2000 for example).

Given these shortcomings, it is difficult to accept the accuracy of many of these earlier studies; particularly in relation to the causal effects that ethnicity may have on the war proneness of states. I argue that the findings of previous literature (i.e. that ethnic issues lead to violence and/or war) more likely reflect the ways in which domestic ethnic concerns interact with international variables, such as rivalry or territorial disagreements, to increase the war propensity of states, rather than show a strong independent link between ethnicity and interstate war. Given their saliency, ethnic issues can easily mobilize large portions of society, help to give legitimacy to the actions of states, and may even serve as an additional constraint on the behavior of leaders. As a result, ethnicity may be manipulated by elites to serve political ends or by the masses to influence the actions of their leaders. In a rivalry situation, however, such ethnic issues must be considered with regards to the international rivalry context, as leaders are influenced not only by these domestic pressures, but also by the international context that they find themselves in. Further, ethnicity has been shown to have a particularly strong effect when attached to territory, and thus the possible interactive effects between these variables should be explored. Since territorial disputes often coincide with rivalry, the effects of a rivalry-territorial dispute-ethnicity interaction must be considered.

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<sup>2</sup> Positional rivals are rivalries over the relative shares of influence over activities and prestige within an international or regional system. Spatial rivals are rivalries that conflict over territory (Thompson 1995).

This study begins with the research question: *Does ethnicity interact with international elements, such as rivalry and territorial disputes, to affect the likelihood of war?* A secondary question of whether ethnicity has a strong independent effect on the war proneness of states, outside of its interactive effects, also emerges. It is argued that the independent effects of ethnicity on conflict are minimal and that ethnic grievances, particularly between rivals, most usually affect war by interacting with and/or exacerbating other international factors.

### **Theory and Argument**

Given the salience of ethnicity, why is it expected to have conditional, rather than independent, effects on conflict? War is very costly, and as such, leaders must consider the costs and benefits of such action when interacting with other states. Ethnic issues, such as ethnic affinity for kin in bordering states, are largely domestic, and thus have their greatest impact on domestic gains and losses. For example, when a large population of a state has an ethnic affinity to a disadvantaged minority in a neighboring state, this population may pressure the government to take action in aid of their kin. In this respect, the population is affectively motivated. Since leaders must generally be responsive to their constituency, these pressures decrease the possible costs of taking action against the neighboring state (as there are less repercussions at home). In addition, since leaders are concerned with maintaining their power and staying in office, the benefits to taking action are also increased, since constituents will have more favorable views of leaders that comply with their wishes. Further, since ethnic affinity is a particularly salient issue for populations, leaders may use affective concerns, such as ethnic affinity, to help pursue more instrumental goals by manipulating the ethnic sentiments of their population. For leaders then, ethnic affinity may turn into an instrumental motive for action. Thus, while ethnic affinity itself

may be largely intangible, it can provide some tangible gains to leaders of the state. However, these gains are primarily on a domestic level.

On a domestic level, affective and instrumental motives are highly intertwined when ethnic affinity is considered. In fact, it is difficult to imagine that leaders are only affectively motivated in any situation, as they must always be concerned with the repercussions of their actions for their own domestic survival (an essentially instrumental concern). However, leaders are not only concerned with the domestic context of their country and their own survival, but must also consider issues of state security on an international level. Ethnic affinity, on its own, does not easily affect the cost-benefit analysis on an international level.

On an international level, ethnic affinity is mostly intangible. Ethnic affinity, as an affective motive with no instrumental element, has little repercussions for the security of a state and thus has little impact on the international cost-benefit calculations for foreign policy actions. Since war is costly, without gains on the international level, leaders may choose less costly means of interaction (such as political-diplomatic support) in response to domestic pressures. Further, leaders would have less incentive to manipulate cross-national ethnic sentiments without international motivations and agendas.

However, given that ethnic issues are particularly salient and the cost-benefit calculations on the domestic level may favor more intense foreign policy actions, these ethnic issues have the potential to interact with variables that may affect the international cost-benefit analysis, thus affecting the likelihood of conflict between states. This study focuses on two international level variables that have consistently shown a strong relationship to conflict and have also been found to interact with one another: rivalry and territorial disputes.

It has been well established that rivals are more likely to go to war than non-rivals. In addition, rivals are known to be much more mistrustful of one another and likely to view each other as threats to national security. How does this rivalry context affect the decision making process of elites, particularly when ethnic affinity makes the domestic context of a country favorable for conflict? Since rivals are particularly threatening, there are additional benefits to going to war with a rival. If victorious, a state may be able to eliminate the threat posed by their rival. In addition, there are added psychological incentives for going to war with a rival state, as there is a long history between the countries that makes war more appealing. However, while there are both tangible and intangible gains to war with a rival state, conflict could also bring increased risk, particularly if a state is unsure if they will be able to win the war. War between rivals could intensify their relationship, causing the security risk to increase. As such, war may not always be the favored outcome.

Rivalry will be most likely to lead to war when the domestic context of a country also favors such conflict. It is possible that the nature of the rivalry itself could provide strong internal support for actions against a rival state. Ethnic affinity could also add some additional incentive for war between rivals, which are already more war prone. Since it is likely that populations within states involved in a rivalry will view the rival state in a more negative way, ethnic connections (particularly to a group that is disadvantaged) could generate a lot of domestic pressure for a government to take action. In this way, the rivalry context may intensify cross-national ethnic affinity, creating a greater push from the population for state action.

On the other hand, ethnic affinity could be intensified by the rivalry situation, often by the manipulative actions of leaders. When states are involved in a rivalry, leaders may be tempted to capitalize on ethnic identities to gain support for military action against their rival.

While cross-national ethnic affinity may truly exist, the extent and salience of this affinity may be, at least partially, manipulated by leaders to serve their own end.

In each of the interactive situations described above, rivalry would provide both tangible and intangible gains to the state, but these are likely to be largely on an international level. Ethnic affinity, combined with rivalry, would help provide the domestic gains necessary to make conflict more possible. Since ethnic affinity can provide tangible and intangible gains on the domestic level, when accompanying rivalry (and especially when highly intertwined with one another), both the domestic and international levels would favor conflict.

Territorial disputes, which are more tangible in nature, have been shown to interact with both rivalry and ethnicity. Territory, at its most fundamental level, represents a tangible gain to the state. As such, territory can add a tangible dimension to other issues, such as ethnic affinity and rivalry. When territorial disputes and ethnic affinity overlap, such as in the case of irredentism, the likelihood of conflict is much higher. Ethnicity and territory can also overlap in other ways. Ethnicity can be used by individuals to give salience to preexisting territorial issues, and, conversely, territory can be used to give tangibility to ethnic issues. In each of these instances, territory provides a tangible international gain for states, which in itself is a motive for conflict, in addition to existing domestic gains. When territorial disputes occur between rivals, the tangible nature of the territorial dispute adds to the abstract nature of the rivalry context and the tangible grievances between rivals, increasing the likelihood that war will occur. When all three of these elements are present, both the domestic context and international context highly favor conflict between states, and thus such conflict is much more likely than any of these factors taken individually or dually. Thus, war is most likely when the cost-benefit calculations at both

the domestic and international levels favor conflict and when these two levels reinforce the gains at the other level.

### **General Hypotheses**

While it is argued that states are more likely to go to war when both the domestic and international levels favor conflict, wars can occur in the absence of these joint gains. Since even gains on the domestic level may affect foreign policy decisions, the likelihood of conflict between countries where such ethnic affinity exists is likely to be higher than in cases where no ethnic affinity exists. However, while the mere presence of this affinity may affect public pressures, this pressure will be most pronounced, and thus most likely to lead to conflict between countries, when the ethnic minority in the opposing state is somehow threatened, marginalized or disadvantaged. The status of the group pressuring its government to take action is also important in determining state action, as majority or advantaged minority groups may hold more sway over policy makers. Similar relationships are found by Davis and Moore (1997) and Davis, Jagers and Moore (1997) and are expected to be confirmed here. Thus, the following hypotheses are presented.

*H<sub>1</sub>: When an ethnic minority in one state is threatened, marginalized, or disadvantaged and this same ethnic group lives in another state, the cross-national ethnic affinity between these groups increases the likelihood of conflict onset and escalation between these states.*

*H<sub>2</sub>: When an ethnic group is the majority or an advantaged minority group in one state and members of that group are threatened, marginalized, or disadvantaged in another state, the cross-national ethnic affinity between these groups increases the likelihood of conflict onset and escalation between these two states to a greater degree than ties between non-majority groups.*

*H<sub>3</sub>: If a disadvantaged minority group in one state constitutes a large portion of the population or their population is concentrated in a single area and has ethnic kin in a neighboring state, there is an increased likelihood of conflict onset and escalation between these two states.*

However, as is argued in this study, domestic gains may not be enough to provoke leaders to take intense actions against other states, especially those that may lead to escalated militarized conflict. International gains are also important in determining the costs and benefits of conflict. While ethnic affinity may have international gains, these are largely intangible, and as such, the independent impact of ethnic affinity on conflict may be quite small. Further, while ethnic motivations may have a small independent impact on dispute onset, they will be unlikely to have an effect on conflict escalation, as the stakes are much higher in these instances.

*H<sub>4</sub>: Ethnic affinity, in the absence of other international factors, will only have a small influence on the likelihood of militarized interstate disputes.*

*H<sub>5</sub>: Ethnic affinity, in the absence of other international factors, is unlikely to independently affect the probability of escalation.*

International factors, such as rivalry and territorial disputes are important in determining the international gains of conflict, and they may add some tangibility to ethnic issues. Since rivals are particularly threatening and conflict with a rival can have strategic gains for a country, the addition of rivalry to ethnic motivations may provide the international gains necessary for conflict to ensue between states. Territory, in itself, is measurable, and as such, also provides some tangible gain to the state. Thus, the combination of ethnic motivation (which provides tangible domestic gains but is largely intangible on the international level) and either rivalry or territorial disputes will increase the likelihood of conflict between states and this probability will be higher than if ethnic affinity is the sole motivating factor. Additionally, ethnicity may add salience to a rivalry situation or a territorial dispute, making both more likely to result in war.

*H<sub>6</sub>: The likelihood of conflict onset and escalation between two states is greater when ethnic motivations are accompanied by international rivalry than when ethnic affinity is the only motivating factor.*

*H<sub>7</sub>: Rivals are more likely experience conflict onset and escalation if there is a disadvantaged minority in one state that has ethnic connections to a portion of the population in the other state than if there is no ethnic issue present.*

*H<sub>8</sub>: The likelihood of conflict onset and escalation between two states is greater when ethnic motivations are accompanied by a territorial dispute than when ethnic affinity is the only motivating factor.*

*H<sub>9</sub>: Countries that are involved in a territorial dispute are more likely to experience conflict onset and escalation when one state contains a disadvantaged minority with ties to the other state than if there is no ethnic issue present.*

Finally, since rivalry and territorial disputes have been shown to interact with one another to increase the likelihood of war, it is argued that the interaction of ethnic affinity with both rivalry and territorial disputes provides a particularly war prone combination of factors.

*H<sub>10</sub>: The presence of cross-national ethnic affinity, rivalry and territorial disputes will increase the likelihood of conflict onset and escalation to a greater degree than any of these factors considered individually or dually.*

Since ethnic affinity, in itself, is not extremely tangible on the international level, territorial disputes and rivalry can provide additional affective elements as well as some tangible gains at the international level. At the same time, ethnicity may intensify and exacerbate the rivalry context and a territorial dispute, provide additional affective, yet often intangible, motivation. Thus, this interaction provides the most likely path to war.

## **Data and Methodology**

To test the above hypotheses, a large-n quantitative analysis is used. EUGene<sup>3</sup> is used to generate the basic dataset for this project. The unit of observation is dyad years from 1946-1995 and the study is limited to contiguous dyads, as cross-national ethnic affinity has its greatest impact among these countries.<sup>4</sup> Thus, the universe of cases is limited to those in which it is reasonable to expect that ethnic affinity could play a role in foreign policy making (i.e. those

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<sup>3</sup> Expected Utility Generation and Data Management Program

<sup>4</sup> The Minorities at Risk data begins in 1945, and thus the data are limited to after that year. To avoid possible problems associated with using observations during WWII, 1945 is also omitted from the dataset.

states that are contiguous to one another). Excluding other political relevant dyads does risk the possibility of underestimating the significance of other variables, particularly rivalry. Since many rival states are not contiguous, the full effects of rivalry cannot be ascertained in this study, and it is likely that rivalry will appear to have a smaller effect on conflict than it has in other studies that consider all “politically relevant” dyads. However, since it is argued that ethnicity is not likely to have a strong independent impact on conflict, the dataset used here provides the most likely set of dyads where ethnicity will be important, and thus is the most stringent test of this hypothesis.

This study tests the effects of the independent variables on conflict onset and escalation using a bivariate probit model (see the following section for additional details of this model). Data for militarized interstate disputes (MIDs) are used as adjusted by Zeev Maoz (version 2.0).<sup>5</sup> Conflict escalation for the bivariate probit model is coded positive for dyads with a militarized interstate dispute with more than 100 battle deaths.<sup>6</sup> As previously suggested, there are three primary independent variables in this study: cross-national ethnic affinity, rivalry and territorial disputes. These variables are expected to interact with one another to affect the likelihood of conflict. Cross-national ethnic affinity is defined as the concern for the welfare of an ethnic group in one state (state B) with ties to another state (state A).<sup>7</sup> In order for this concept to be used quantitatively to test the above hypotheses, it must be operationalized into several

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<sup>5</sup> Militarized interstate disputes are defined by Jones, Bremer and Singer (1996). The original data are from the *Correlates of War* project, but Zeev Maoz’s data can be found at <http://psfaculty.ucdavis.edu/zmaoz/dyadmid.html>. For MID data, initiation was considered only for the first year of the dispute, only originators were included, all dyad-years with ongoing conflict were dropped and the most serious MID was used in the event of multiple MIDs in the same year. Militarized interstate disputes are defined by Jones, Bremer and Singer (1996).

<sup>6</sup> While 1000 battle deaths are generally considered the threshold for “war,” this study is unable to use this cutoff point there are few wars overall. In order to successfully run the models, there must be at least one case of “escalation” in each category. With the 1000 death threshold, there is not enough variation across the categories. As such, 100 battle deaths are used as the threshold for escalation.

<sup>7</sup> All disadvantaged minorities are included in this dataset, regardless of size. However, in order for them to be considered tied to a group in the other country, that group must be at least 1% of the population of that country and cannot be disadvantaged. Thus, instances where a minority is disadvantaged in both states are not included for the ethnic affinity variables.

indicators. These non-mutually exclusive indicators are listed below; each one is measured with a dichotomous variable:

***Specific Categories for Cross-National Ethnic Affinity***

*Ethnic Group – Disadvantaged Minority Dyads:* Dyads receive this coding when there is a disadvantaged minority in one state and the same group resides in the other state (but is not disadvantaged).

*Majority/Advantaged Minority – Disadvantaged Minority Dyads:* Dyads receive this coding when there is a disadvantaged ethnic group in one state and the same group is either the majority or an advantaged minority in the other state.

In addition, to test hypothesis 3, population size and population concentration are coded for the disadvantaged minority group in question.<sup>8</sup> Population size is measured as the disadvantaged group's proportion of the population in their home state. Population concentration is a dichotomous variable coded 1 if the group is concentrated in a single region and 0 if they are dispersed.

Rivalry is indicated using the strategic rivalry dataset (Thompson 2001). This dataset includes 173 rivalries between 1816 and 1999. Rivalry is also measured as a dichotomous variable, with countries coded as rivals or not. Territorial disputes are defined by Huth and Allee (2002: 300) as:

disagreements between governments over (a) the location of existing international boundaries in particular sectors or along the lengths of their common borders, (b) the refusal of one government to recognize another's claim of sovereign rights over islands, claiming sovereignty for itself instead, or (c) the refusal of one government to recognize another state as a sovereign political-territorial unit, laying claim to the territory of their state.<sup>9</sup>

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<sup>8</sup> All data related to ethnic minorities are taken from the Minorities at Risk dataset. For more information about the project, go to <http://www.cidcm.umd.edu/inscr/mar/>. Majority groups are identified using replication data from James D. Fearon and David D. Laitin, "Ethnicity, Insurgency, and Civil War," *American Political Science Review* 97, 1 (March 2003): 75-90.

<sup>9</sup> This definition and quote is taken from Rasler and Thompson (2006: 151).

The historical data for territorial disputes are taken Huth and Allee (2002) and are converted to dyadic form on a year-by-year basis.<sup>10</sup> Territorial disputes are also a binary variable, with dyads being coded with a 1 if they are involved in a territorial dispute during that year and 0 if not.

In addition to the key variables discussed above, several additional variables frequently found to impact the war propensity of states are included. Such factors include alliances, relative capabilities, joint democracy, peace years and major power status.<sup>11</sup> Alliances are expected to decrease the likelihood of conflict onset and escalation. States that are closer in relative capabilities are expected to be more likely to experience conflict onset and escalation (in accordance with many power explanations of conflict) and dyads that contain at least one major power are expected to be more war-prone. Based on democratic peace literature, joint democracy is expected to have a pacifying effect on conflict onset and escalation and states that have experienced long periods of peace are also expected to be less conflict-prone.

Finally, this study will also consider the internal stability of a country as a possible factor affecting the likelihood of conflict. In particular, the presence of civil war is included as a control variable.<sup>12</sup> It is expected that the presence of civil war will increase the likelihood that states will be involved in external conflict. Such states are likely to be seen as “easy” targets by neighboring states, and may also be more prone to use diversionary and other tactics to increase their support base at home (see Trumbore 2004).

### ***Interactions: Ethnicity, Rivalry and Territory***

The primary argument of this paper is that ethnicity, rivalry and territory interact to affect the likelihood of violence and conflict. While each of these factors may directly affect the

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<sup>10</sup> This is the same methodology used by Rasler and Thompson (2006).

<sup>11</sup> These variables are generated using EUGene.

<sup>12</sup> Uppsala Civil War data is used.

violence and war proneness of states, it is expected that the interactions between these variables will provide the strongest links to conflict. To test whether these interactions are significant, several binary variables are created, each corresponding to a different combination of these three factors. The categories are listed below (the excluded category is varied to provide for broader analysis).

- Ethnicity, no rivalry or territorial disputes
- Ethnicity and rivalry, no territorial disputes
- Ethnicity and territorial disputes, no rivalry
- Rivalry, no ethnicity or territorial disputes
- Rivalry and territorial disputes, no ethnicity
- Territorial disputes, no rivalry or ethnicity
- Ethnicity, rivalry and territorial disputes
- No ethnicity, rivalry or territorial disputes

#### ***Bivariate Probit Model for Conflict Onset and Escalation***

Many authors have suggested that considering the onset and escalation of conflict in separate models can cause statistical problems, since this method omits potentially important unobserved variables that may affect both onset and escalation (see, for example, Reed 2000; Huth and Allee 2002; Senese and Vasquez 2003; and Rasler and Thompson 2006). The effects of such unobserved variables would be included in the error terms of each equation, yet since these error terms may not be independent of one another, the results could be biased. Instead of estimating separate models for the onset and escalation of conflict, it has been suggested that these equations should be estimated simultaneously, so that the relationship between these error terms can be statistically accounted for. Given these suggestions, this study will use seemingly unrelated probit analysis (bivariate probit) to estimate the effects of the independent variables on militarized disputes and war.<sup>13</sup> In addition, clustering on dyads was employed since the data are

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<sup>13</sup> Reed (2000) argues that a bivariate probit specification is the optimal method to use to account for the possible non-independent error terms. While an ordered probit or logit model could also be used, this type of model assumes

likely not independent within dyads and the cubic spline technique recommended by Beck, Katz and Tucker (1998) is used to account for the possibility of temporal dependence in the data.

To test the hypotheses that cross-national ethnic affinity increases the likelihood that states will be involved in conflict, the following simultaneous equations will be estimated:

***Model 1***

$$\text{Equation 1: War} = \beta_0 + \beta_1\text{ethnic\_affinity} + \beta_2\text{rivalry} + \beta_3\text{territorial\_disputes} + \dots\beta_kx_k + u$$

$$\text{Equation 2: MIDs} = \beta_0 + \beta_1\text{ethnic\_affinity} + \beta_2\text{rivalry} + \beta_3\text{territorial\_disputes} + \dots\beta_kx_k + u$$

These equations include only one entry for ethnic affinity, though each of the categories described above will be tested. This first model will test the direct impact of each of the key variables (ethnic affinity, rivalry and territorial disputes) on the likelihood of both war and militarized disputes. However, since it is proposed that these factors likely interact with one another to affect the likelihood of conflict, an additional model is presented.

***Model 2***

The second model considers each of the interactive terms presented above rather than the individual terms shown in model 1. For the purposes of the model, the absence of all three variables is the excluded category, though the actual analysis will vary this comparison category.

$$\begin{aligned} \text{Equation 1: War} = & \beta_0 + \beta_1\text{ethnicity} + \beta_2\text{ethnicity\&rivalry} + \beta_3\text{ethnicity\&territory} + \\ & \beta_4\text{rivalry} + \beta_5\text{territory} + \beta_6\text{rivalry\&territory} + \beta_7\text{ethnicity\&rivalry\&territory} \\ & + \dots\beta_kx_k + u \end{aligned}$$

$$\begin{aligned} \text{Equation 2: MIDs} = & \beta_0 + \beta_1\text{ethnicity} + \beta_2\text{ethnicity\&rivalry} + \beta_3\text{ethnicity\&territory} + \\ & \beta_4\text{rivalry} + \beta_5\text{territory} + \beta_6\text{rivalry\&territory} + \beta_7\text{ethnicity\&rivalry\&territory} \\ & + \dots\beta_kx_k + u \end{aligned}$$

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that the directional effects of the independent variables is constant across both onset and escalation of conflict, and thus is somewhat problematic. A Heckman selection model is another option, however, Reed suggests that this model is heteroskedastic and thus inefficient. As such, a bivariate probit model, such as the one used here, is the best option.

In addition, the predicted probabilities for this model will be reported and evaluated, in an attempt to compare the impact that each combination may have on the predicted probability of conflict.

## **Results**

### ***General Ethnic Ties***

As stated previously, ethnic affinity is measured in two different ways. First of all, cross-national ethnic affinity is considered present when there is a disadvantaged group in one state and the same group resides in the neighboring state (but is not disadvantaged). In addition to this broad definition, this study also considers those cases where a group is disadvantaged in one state and the same group is the majority or an advantaged minority in the other state.<sup>14</sup> This section reports the results when ethnic affinity is measured more broadly, the next section will consider the effects of ethnic affinity when limited to majority and advantaged minority ties.

### ***Model 1: No Interactions***

Table 1 presents the results from the bivariate probit model, excluding interactions between the key independent variables. As the table shows, ethnic affinity, rivalry and territorial disputes are significant predictors of militarized dispute initiation and escalation. These findings lend support for hypothesis 1, which suggested that ethnic affinity increases the likelihood of conflict onset and escalation.

<Table 1 About Here>

Furthermore, dyads that are allies are less likely to experience the onset and escalation of a militarized dispute while the presence of civil war in either country increases the likelihood that the dyad will experience a militarized dispute and that the dispute will escalate to a higher

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<sup>14</sup> For the purposes of this study, a majority group is defined as the largest group within the state and does not need to be an actual majority. This coding is used since it is expected that larger groups and advantaged minority will have more power to affect government policy than smaller ethnic groups.

level of conflict. Joint democracy is found to decrease the likelihood of conflict escalation (at the .08 level), but does not appear to have a significant impact on the onset of conflict. These data are only partly consistent with the findings and arguments presented in the democratic peace literature. In this dataset, the pacifying effects of democracy are limited to conflict escalation, and even then, the relationship is weak. The weak strength of the joint democracy variable could be related to the sample, which includes only contiguous dyads, and not all “politically relevant” dyads. Studies that include all politically relevant dyads have many more dyads with major powers included, which may increase the number of joint democratic dyads. While the findings of this study partially support democratic peace findings, they also suggest that the effects of democratic peace may be quite limited.

The results in Table 1 also show that when one state within a dyad is a major power, that dyad is more likely to experience a militarized dispute, but major power status is not a statistically significant predictor of dispute escalation. Relative capabilities are not found to be a significant predictor of conflict onset or escalation. Finally, as the number of years a dyad has experienced peace increases, the likelihood of a militarized dispute between these two states is decreased.

Again, the results concerning the effect of major powers and relative capabilities may be somewhat dependent on the sample, which includes only contiguous dyads. Since this sample would exclude many politically relevant dyads with a great power, the results might be a bit skewed. Additionally, since only contiguous states are considered, power discrepancies will be more infrequent and many dyads will likely have similar capabilities.

### ***Model 2: With Interactions***

While the table above does suggest that ethnic affinity, rivalry and territorial disputes do affect dispute initiation and escalation, it is difficult to parse out the individual versus conditional effects of these variables without incorporating specific terms to account for these interactive processes. Table 2 presents the results for the interactive model.

In the results reported in Table 2, the coefficients for the control variables are similar to the first model, although joint democracy becomes insignificant for both dependent variables. However, while the first model tested the general relationship between the key variables of this study, this interactive model more specifically accounts for the possible independent and conditional impact of these three variables of interest. In relation to the onset of militarized disputes, ethnic affinity, rivalry and territorial disputes are independently significant predictors (though territorial disputes are only significant at the .10 level). Again, this supports the first hypothesis, which suggested that ethnic affinity increases the likelihood of conflict between states. In addition, all of the interaction terms are significant, indicating that dyads with any of these combinations of factors are more likely to experience a militarized dispute than if none of these issues are present.

<Table 2 About Here>

When we look at the escalation of conflict, we also find that all three of these variables are independently significant, although ethnic affinity is only significant at the .10 level. This lends only partial support for hypothesis 5, which states that ethnic affinity will have little impact on the likelihood of conflict escalation, since this coefficient is significant at the .10 level. All interactions, with the exception of the combination of ethnic affinity and territorial disputes, are

significant predictors of conflict escalation, as compared to dyads where none of these factors are present.

While the above table shows the independent impact of ethnic affinity, rivalry and territorial disputes on conflict onset and escalation, it does not fully explore the possible interactive effects. The results reported in Table 2 compare each of these categories to the likelihood of conflict onset and escalation when none of these factors are present. By altering the base category, we can see if combinations of these variables are, in fact, more conflict-prone than the variables are individually. All control variables and other portions of the results remain the same, but the coefficients of the interaction terms will change to indicate their relationships to one another. To conserve space, Table 3 includes only those coefficients representing relationships of interest for this study.

<Table 3 About Here>

When we compare the combined effects of ethnic affinity to its individual effects, we find those dyads with rivalry and ethnic affinity, territorial disputes and ethnicity affinity, and the combination of all three of these variables are more likely to experience the onset of a militarized dispute than if only ethnic affinity is present. In addition, each of these combinations, with the exception of ethnic affinity and territorial disputes, are more likely to have conflicts escalate than if ethnic affinity is the only factor. These findings support hypotheses 6 and 10, while lending partial support for hypothesis 8. Thus, while ethnic affinity may have an independent impact on the likelihood that two states will experience conflict, these effects are much greater when accompanied by international factors, such as rivalry and territorial disputes.

The combination of ethnic affinity and rivalry also appears to be more conflict-prone than rivalry considered alone. When compared to rivalry as a base category, ethnic affinity and

rivalry together are more likely to lead to a conflict onset and its escalation. Similarly, the combination of rivalry, territorial disputes and ethnicity is particularly dangerous. Adding territorial disputes to a rivalry (without ethnic affinity also present), does not make a dyad more conflict-prone than if rivalry was present alone, though it may increase the likelihood that such dyads would experience conflict escalation (significant at the .10 level).

Finally, when ethnic affinity is added to a territorial dispute, there does not appear to be an increased likelihood of conflict compared to a territorial dispute considered on its own. When rivalry and territorial disputes are considered jointly, the likelihood of conflict onset appears greater than when territorial disputes are considered alone, though this difference is only significant at the .10 level. However, if both ethnic affinity and rivalry are added to a territorial dispute, the combination is more likely to experience conflict onset and escalation than a territorial dispute alone.

To better assess and compare the impact of these different combinations an analysis of predicted probabilities is particularly useful. Table 4 shows the predicted probabilities for each combination of independent variables, while holding all other variables constant. The probability of conflict, for both onset of a militarized dispute and escalation, is relatively low. Ethnicity affinity, in the absence of rivalry and/or territorial disputes, has only a small impact on these probabilities, increasing the likelihood of a militarized dispute from 1.64% to 2.82% and increasing the probability of escalation from .02% to only .11%. These findings lend support for hypothesis 4, which suggests that ethnicity will have a small independent effect on the likelihood of militarized dispute onset between states, but suggest that ethnicity may have a slightly larger impact on conflict escalation than expected in hypothesis 5.

<Table 4 About Here>

These predicted probabilities can also help test the hypotheses presented concerning the interactive nature of these variables. The combination of rivalry and ethnic affinity is much more likely to lead to a militarized interstate dispute than either of these considered alone. Dyads with rivalry and no ethnic or territorial issues have a 8.36% probability of a militarized dispute, while dyads with only ethnic issues and no rivalry or territorial disputes have a 2.82% probability of experiencing a militarized dispute. However, dyads with both rivalry and ethnic affinity (but no territorial dispute) have a 16.29% probability of conflict. Similar results are also found in relation to the escalation of conflict; dyads with both rivalry and ethnic affinity are much more likely to have militarized disputes that escalate than if either of these factors were present alone. These findings lend great support for hypotheses 6 and 7.

The combination of ethnic affinity and territorial disputes is also significant in relation to conflict onset, but shows mixed results for conflict escalation. This combination is more likely to experience conflict onset and escalation than if either of these is present alone, supporting hypotheses 8 and 9. However, while the combination of ethnic affinity and territorial disputes does seem more likely experience conflict escalation than ethnic affinity considered alone, the likelihood of conflict escalation is actually lower in dyads where ethnic affinity and territorial disputes are present than in those with only territorial disputes. Thus, these results confirm hypothesis 8, but hypothesis 9 receives only limited support. There are a couple of likely explanations for this finding. First of all, the interaction term does not necessarily represent only territorial claims with an ethnic dimension. Rather, it illustrates dyads where ethnic affinity is an issue and there is also a territorial dispute, regardless of whether this dispute is over an ethnic issue. While there is reason to believe that the mere presence of each of these factors, whether or not they are intricately tied, would increase the likelihood of conflict, the interaction term is not

able to fully capture the possible interactions between ethnicity and territory. Future research focusing on these interactions should specifically address those territorial disputes with ethnic dimensions, such as irredentist claims. In addition, many cases where ethnicity and territory are likely to be highly linked also contain rivalry (India-Pakistan is a good example), and thus much of this interactive relationship may be found when all three variables are present.

Dyads with ethnic affinity, rivalry and territorial disputes do appear particularly conflict prone, supporting hypothesis 10. While not directly related to the hypotheses presented here, a brief note should be made concerning the combination of rivalry and territorial disputes.

Previous literature (Rasler and Thompson 2006) has found a strong interactive relationship between rivalry and territorial disputes. The findings above lend support to this proposition, but also indicate possible missing factors in these analyses, particularly given the strong connections found between rivalry and ethnic affinity and the combination of all three of these variables.

When rivalry and territorial disputes are considered in conjunction with ethnic affinity, the results show a particularly conflict-prone combination of factors. This suggests that some of the relationship between territory and rivalry found in previous literature may be partially dependent upon the presence of ethnic issues that the authors do not account for. Since those dyads where rivalry and territory are present are much more likely to have conflict onset and escalation when ethnic affinity is also present, these previous studies may be missing a very important factor.

#### ***Additional Models: Population Size and Concentration***

To test hypothesis 3, two separate models were run, one incorporating a measure for the population concentration of the disadvantaged group, and one accounting for the group's proportion of the population. The dataset for these models is limited to only those cases where

cross-national ethnic affinity is present, testing to see whether these additional variables can account for onset and escalation of conflict in dyads with ethnic affinity.

<Table 5 About Here>

Table 5 shows that dyads with ethnic affinity present are more likely to experience the onset of a militarized dispute when the disadvantaged group makes up a larger proportion of the population, however, the relationship between population proportion and conflict escalation is not significant ( $p=.11$ ). These results lend partial support for hypothesis 3. Even in this reduced sample, rivalry is a significant predictor of dispute onset and escalation, and territorial disputes increase the likelihood of conflict onset, reaffirming the strength of these conflict indicators.

In relation to population concentration, Table 6 shows a disadvantaged group's concentrated in one area of a country does not have a statistically significant effect on militarized dispute onset or escalation. Thus, in terms of population concentration, hypothesis 3 is not supported. Again, rivalry is a significant predictor of both dispute onset and escalation while territorial disputes are also significant in both models.

<Table 6 About Here>

### ***Majority and Advantaged Minority Ties***

In addition to looking at general ethnic affinity between states, this study also considers the impact of ethnic affinity where a disadvantaged minority has ties to the majority or advantaged minority in a neighboring country. It is hypothesized that dyads in which a disadvantaged group in one country is tied to a larger group or group with more power in the other country, there is a higher likelihood of conflict than if these ties were with smaller, less powerful groups. Since states will likely need to be more responsive to the demands from larger groups and/or groups that are advantaged, the likelihood that ethnicity will be an important

determinant of policy would increase, thus increasing the significance and strength of ethnicity as a predictor of conflict.

The results of this model, however, do not support these claims. When majority/advantaged minority ties are considered, the results are very similar to those reported above. A couple notable differences are that ethnic affinity becomes an insignificant, independent predictor of conflict onset, but is more significant in affecting conflict escalation and ethnic affinity appears to have a stronger interactive relationship.<sup>15</sup> Thus, even in those cases where ethnicity appears to play the largest role, its independent effect on conflict is still quite small. The effects of ethnicity appear to be largely conditional and concentrated mostly in its interaction with rivalry and territorial disputes.

### *Conclusions*

The results show that ethnic affinity has a very small independent impact on the likelihood of conflict and escalation. However, ethnic affinity does interact with rivalry, as well as the combination of rivalry and territorial disputes, to increase the likelihood of conflict onset and escalation. Further, while the combination of ethnic affinity and territorial disputes is not more likely to lead to conflict initiation or escalation than territory alone, this combination is more likely to lead to conflict onset than when ethnic affinity is the only factor. These results suggest that the relationship between ethnicity and territorial disputes should be evaluated more explicitly in future research. Since the three-way interaction of ethnic affinity, rivalry and territorial disputes is the most war-prone combination, it is possible that those territorial disputes where ethnic affinity is most important are also within a rivalry context (which is likely to be the case with irredentist claims). While outside of the scope of this study, future research should attempt to parse out these specific relationships in much more detail.

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<sup>15</sup> To conserve space, the results of this model are not presented.

Another interesting finding is that even in cases where majority/advantaged minority measures are used, ethnic affinity still shows very weak independent influences of conflict. The interactive nature of ethnic affinity in these situations may be more pronounced, but these results show that even in cases where ethnic affinity would be expected to have its greatest independent impact; it is still found to be a minor or insignificant independent predictor of conflict.

It was expected that the size and geographical concentration of disadvantaged ethnic groups may play an important role in determining when ethnic affinity would affect conflict onset and escalation. The results show that dyads with ethnic affinity present are more likely to experience the onset of a militarized dispute when the disadvantaged group makes up a larger proportion of the population. However, this relationship does not hold for conflict escalation. Similarly, a disadvantaged group's concentrated in one area of a country does not have a statistically significant effect on militarized dispute onset or escalation.

Overall, the findings above indicate that ethnicity may have less impact on conflict and violence than much of the literature may suggest. The findings in this study tend to support those authors that have found a more limited role for ethnicity in producing conflict between states (see Brecher and Wilkenfeld 1997 and Moore 2002 for example). Furthermore, given the strong interactive relationship that ethnic appears to have when considered in conjunction with rivalry (and territorial disputes), scholars should focus less on evaluating ethnicity independently, and more on illustrating how it may interact with other variables. Parsing out these interactive relationships will help identify the specific conditions under which ethnicity may increase the likelihood of conflict between states.

**Table 1**  
**Results from Bivariate Probit Model without Interactions**  
**Ethnic Affinity: General Ties between Countries**

|                       | <i>Militarized Interstate Disputes</i> |                    | <i>Escalation</i>  |                    |
|-----------------------|--|--------------------|--------------------|--------------------|
|                       | <i>Coefficient</i>                     | <i>z-Statistic</i> | <i>Coefficient</i> | <i>z-Statistic</i> |
| Ethnic Affinity       | .255**                                 | 3.40               | .473**             | 3.71               |
| Rivalry               | .723**                                 | 7.65               | 1.033**            | 7.62               |
| Territorial Disputes  | .275**                                 | 3.11               | .393**             | 3.24               |
| Relative Capabilities | .033                                   | 1.16               | .011               | .03                |
| Joint Democracy       | -.112                                  | -1.27              | -.389†             | -1.75              |
| Allies                | -.190**                                | -3.26              | -.292*             | -2.23              |
| Major Power           | .252**                                 | 2.56               | -.012              | -.07               |
| Civil War             | .240**                                 | 4.12               | .377**             | 3.40               |
| Peace Years*          | -.015**                                | -3.22              |                    |                    |
| Constant              | -1.670**                               | -16.68             | -3.527**           | -18.66             |

$\rho_{\varepsilon_1\varepsilon_2}$  .920\*\*  
(.025)

Log Pseudolikelihood: -2484.008\*\*

Note: n=12482; \*\*p≤.01; \*p≤.05; †p≤.10; two-tailed tests. Robust standard error for  $\rho$  is reported in parentheses below the coefficient.

\*Spline coefficients are not reported.

**Table 2**  
**Results from Bivariate Probit Model with Interactions**  
**Ethnic Affinity: General Ties between Countries**

|                       | <i>Militarized Interstate Disputes</i> |                    | <i>Escalation</i>  |                    |
|-----------------------|--|--------------------|--------------------|--------------------|
|                       | <i>Coefficient</i>                     | <i>z-Statistic</i> | <i>Coefficient</i> | <i>z-Statistic</i> |
| Ethnic Affinity       | .227*                                  | 2.55               | .429†              | 1.73               |
| Rivalry               | .754**                                 | 6.20               | .800*              | 2.48               |
| Territorial Disputes  | .451†                                  | 1.67               | .858*              | 2.13               |
| Ethnicity + Territory | .587**                                 | 4.61               | .517               | 1.49               |
| Ethnicity + Rivalry   | 1.152**                                | 8.86               | 1.569**            | 5.85               |
| Rivalry + Territory   | .945**                                 | 6.66               | 1.351**            | 5.12               |
| Eth. + Riv. + Terr.   | 1.229**                                | 10.66              | 1.846**            | 8.18               |
| Relative Capabilities | .028                                   | 1.05               | -.007              | -.17               |
| Joint Democracy       | -.127                                  | -1.49              | -.328              | -1.46              |
| Allies                | -.196**                                | -3.34              | -.281*             | -2.11              |
| Major Power           | .237**                                 | 2.66               | -.006              | -.03               |
| Civil War             | .242**                                 | 4.20               | .386**             | 3.37               |
| Peace Years*          | -.015**                                | -3.21              |                    |                    |
| Constant              | -1.685**                               | -18.65             | -3.494**           | -15.09             |

$\rho_{\varepsilon_1\varepsilon_2}$  .921\*\*  
(.025)

Log Pseudolikelihood: -2477.909\*\*

Note: n=12482; \*\*p<.01; \*p<.05; †p<.10; two-tailed tests. Robust standard error for  $\rho$  is reported in parentheses below the coefficient. Independent variable category with no rivalry, territorial dispute or ethnic affinity is used as the comparison category.

\*Spline coefficients are not reported.

**Table 3**  
**Results from Bivariate Probit Model with Interactions**  
**Ethnic Affinity: General Ties between Countries**  
**Varying Comparison Group**

|   | <i>Militarized Interstate Disputes</i> |                    | <i>Escalation</i>  |                    |
|---|--|--------------------|--------------------|--------------------|
|   | <i>Coefficient</i>                     | <i>z-Statistic</i> | <i>Coefficient</i> | <i>z-Statistic</i> |
| <b><i>Ethnicity as Comparison Group</i></b> |  |                    |                    |                    |
| Ethnicity + Rivalry                         | .924**                                 | 6.86               | 1.139**            | 4.96               |
| Ethnicity + Territory                       | .359**                                 | 3.09               | .088               | .29                |
| Eth. + Riv. + Terr.                         | 1.002**                                | 8.55               | 1.416**            | 7.89               |
| <b><i>Rivalry as Comparison Group</i></b>   |  |                    |                    |                    |
| Rivalry + Ethnicity                         | .399**                                 | 2.71               | .769**             | 2.60               |
| Rivalry + Territory                         | .201                                   | 1.22               | .551†              | 1.84               |
| Riv. + Eth. + Terr.                         | .476**                                 | 3.51               | 1.046**            | 4.00               |
| <b><i>Territory as Comparison Group</i></b> |  |                    |                    |                    |
| Territory + Ethnicity                       | .136                                   | .47                | -.340              | -.78               |
| Territory + Rivalry                         | .504†                                  | 1.71               | .493               | 1.35               |
| Terr. + Eth. + Riv.                         | .779**                                 | 2.72               | .988**             | 2.78               |

Note: n=12482; \*\*p≤.01; \*p≤.05; †p≤.10; two-tailed tests. Robust standard error for ρ is reported in parentheses below the coefficient. Base category varied for comparison.  
 \*Spline coefficients are not reported.

**Table 4**  
**Impact of Interactive Effects of Ethnicity, Rivalry, and Territorial Disputes**  
**on MID Onset and Conflict Escalation**  
**Ethnic Affinity: General Ties between Countries**

|  | Probability<br>of a MID (%) | Probability<br>of Escalation (%) |
|--|-----------------------------|----------------------------------|
| No ethnic affinity, rivalry or territorial disputes  | 1.64                        | .02                              |
| Ethnic affinity, no rivalry or territorial disputes  | 2.82                        | .11                              |
| Rivalry, no ethnic affinity or territorial disputes  | 8.36                        | .36                              |
| Territorial disputes, no rivalry or ethnic affinity  | 4.61                        | .43                              |
| Ethnic affinity and rivalry, no territorial disputes | 16.29                       | 2.78                             |
| Ethnic affinity and territorial disputes, no rivalry | 6.08                        | .15                              |
| Rivalry and territorial disputes, no ethnic affinity | 11.90                       | 1.65                             |
| Ethnic affinity, rivalry and territorial disputes    | 18.26                       | 5.08                             |

*Note:* The probabilities represent the marginal probability of MIDs Onset and Escalation from the bivariate probit model, while holding each of the values of the independent variables constant and changing only the values of the above variables. The probability reported represents the change in probability added to the initial probability (i.e. the probability of y given that no ethnic affinity, rivalry, or territorial disputes are present). All of the probabilities refer to dyads that are not joint democracies or allies, have no major powers and neither state are involved in a civil war. Relative capabilities and peace years (as well as all spline coefficients) are held at their means.

**Table 5**  
**Results from Reduced Bivariate Probit Model**  
**Includes Variable for the Disadvantaged Group's Proportion of the Population**  
**Ethnic Affinity: General Ties between Countries**

|                          | <i>Militarized Interstate Disputes</i> |                    | <i>Escalation</i>  |                    |
|--------------------------|--|--------------------|--------------------|--------------------|
|                          | <i>Coefficient</i>                     | <i>z-Statistic</i> | <i>Coefficient</i> | <i>z-Statistic</i> |
| Proportion of Population | .007**                                 | 7.53               | .746               | 1.59               |
| Rivalry                  | .671**                                 | 5.34               | 1.196**            | 7.45               |
| Territorial Disputes     | .378**                                 | 3.63               | .230               | 1.35               |
| Relative Capabilities    | .058†                                  | 1.66               | .044               | .68                |
| Joint Democracy          | .148                                   | 1.29               | -.001              | -.00               |
| Allies                   | -.166†                                 | -1.73              | -.520**            | -2.97              |
| Major Power              | -.056                                  | -.41               | -.021              | -.07               |
| Civil War                | .274**                                 | 3.10               | .249               | 1.53               |
| Peace Years*             | -.022**                                | -3.58              |                    |                    |
| Constant                 | -1.408**                               | -9.82              | -2.972**           | -16.60             |

$\rho_{\varepsilon_1\varepsilon_2}$  .927\*\*  
(.029)

Log Pseudolikelihood: -1178.926\*\*

Note: n=4264, \*\*p≤.01; \*p≤.05; †p≤.10; two-tailed tests. Robust standard error for  $\rho$  is reported in parentheses below the coefficient.

\*Spline coefficients are not reported.

**Table 6**  
**Results from Reduced Bivariate Probit Model**  
**Includes Variable for the Population Concentration for the Disadvantaged Group**  
**Ethnic Affinity: General Ties between Countries**

|                         | <i>Militarized Interstate Disputes</i> |                    | <i>Escalation</i>  |                    |
|-------------------------|--|--------------------|--------------------|--------------------|
|                         | <i>Coefficient</i>                     | <i>z-Statistic</i> | <i>Coefficient</i> | <i>z-Statistic</i> |
| Concentrated Population | -.012                                  | -.09               | .185               | .98                |
| Rivalry                 | .743**                                 | 6.44               | 1.205**            | 7.28               |
| Territorial Disputes    | .257*                                  | 2.72               | .302*              | 2.14               |
| Relative Capabilities   | .050                                   | 1.51               | -.021              | -.41               |
| Joint Democracy         | .110                                   | .98                | -.130              | -.56               |
| Allies                  | -.210*                                 | -2.48              | -.397*             | -2.21              |
| Major Power             | .183                                   | 1.48               | -.079              | -.33               |
| Civil War               | .255**                                 | 3.12               | .386**             | 2.92               |
| Peace Years*            | -.021**                                | -3.58              |                    |                    |
| Constant                | -1.363**                               | -8.00              | -3.284**           | -11.26             |

$\rho_{\varepsilon_1\varepsilon_2}$  .904\*\*  
(.027)

Log Pseudolikelihood: -1404.470\*\*

Note: n=5256; \*\*p≤.01; \*p≤.05; †p≤.10; two-tailed tests. Robust standard error for  $\rho$  is reported in parentheses below the coefficient.

\*Spline coefficients are not reported.

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