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Civil War Diffusion and Regional **Motivations for** Intervention

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Abstract

Third-party states consider the regional destabilization consequences of civil wars when deciding to intervene. However, previous work implicitly assumes that potential interveners base their intervention decisions solely on their links to the civil war country. This approach is unlikely to reflect the regional concerns of interested parties. When a civil war is increasingly likely to infect its surrounding region, potential interveners with strong interests in those states neighboring the conflict will be more likely to intervene to contain the violence. Thus, relationships outside the civil war state—intervener dyad are causally associated with intervention. To test these arguments, the author accounts for the contagious properties of civil wars and the regional interests of third parties, constructing dynamic measures to represent the contagion threat posed to third party regional interests. Analyses of these measures support the argument that third parties are increasingly likely to intervene as the risk of diffusion increasingly threatens their regional interests.

Keywords

civil war, intervention

In making his case before Congress for intervention in Greece's civil war, President Harry Truman stated, "It is necessary only to glance at a map to realize that the survival and integrity of the Greek nation are of grave importance in a much wider

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situation. If Greece should fall under the control of an armed minority, the effect upon its neighbor, Turkey, would be immediate and serious. Confusion and disorder might well spread throughout the entire Middle East" (Truman 1947). Truman feared an unchecked war in Greece would spread to surrounding states, negatively affecting American interests in regional stability. He would go on to state that the conflict in Greece had already begun to spill across its borders into Yugoslavia, Bulgaria, and Albania. This justification for American involvement in Greece's war notes a phenomenon that has gone unaddressed in the scientific literature on civil war intervention: the regional instability consequences of civil wars affect the intervention decisions of third parties. Prior attempts to explain why third parties intervene essentially treat this event as a dyadic phenomenon in which the third party's decision is based upon the attributes of the conflict state or the intervener and the affective connections between them. However, this narrowly focused approach overlooks extra-dyadic factors that influence the decision calculi of third parties.

As Truman's declaration implies, and as the growing literature on civil war contagion reveals, intrastate conflicts have consequences that extend beyond the boundaries of the civil war state. Civil wars exhibit epidemiological qualities that threaten to infect surrounding nations with their hostilities. The threat of regional contagion is not lost on foreign policy makers. This notion is reflected in the 2006 United States National Security Strategy (NSS) assessment noting that "Regional conflicts do not stay isolated for long and often spread. . . . This means that even if the United States does not have a direct stake in a particular conflict, our interests are likely to be affected over time" (Bush 2006, 14). Studies that focus solely on dyadic explanations of intervention do not account of the regional stability interests of third parties. As the NSS implies, even for third parties that have no interest in the civil war state, intervention may be an attractive option in an effort to contain the violence from infecting its surrounding region. Third parties consider these regional consequences when making their intervention decisions. More specifically, I argue that where a civil war indicates an increasing likelihood of infecting its region, potential interveners with strong foreign policy interests in this region will be more likely to intervene to contain the conflict. In this sense, extra-dyadic considerations are causally associated with intervention decision making. To elaborate on these geopolitical explanations of intervention, I briefly review the intervention and civil war contagion literatures.

Civil War Diffusion and Third-Party Intervention

Previous research has made various assumptions with regard to the motivations of third parties in civil war intervention. These have included preferences for ceasing the hostilities (Balch-Lindsay and Enterline 2000; Regan 2000, 2002; Thyne 2009) and affecting the outcome of the conflict (Gent 2008; Mason, Weingarten, and Fett 1999). This research can more generally be categorized as viewing intervention as a tool to *influence* civil war dynamics (Lemke and Regan 2004). Third parties are

thus attracted to intervention when they have important interests in the conflict and when they have the ability to affect the civil war process. Indeed, the common definition of intervention in the literature is one of intervention as influence: "Intervention is defined as convention—breaking military and/or economic activities in the internal affairs of a foreign country targeted at the authority structures of the government with the aim of affecting the balance of power between the government and opposition forces" (Regan 1998, 756).

As Kathman (2010a) argues, intervention as an influence tool is usefully delineated into two types: opportunism and threat reduction. Civil wars pose both hazards and opportunities to third parties, and states intervene when conflicts threaten their well-being or offer an occasion to improve their fortune. States may intervene opportunistically to pillage resources, weaken an enemy, or affect regime change. Threat reduction motivations for intervention may include reducing instability or ceasing costly hostilities. These opportunism and threat reduction motivations can be seen as continuums, where opportunism can range from low to high levels and threats posed can similarly range from little or none to severe dangers. As such, where civil wars offer a great opportunity or pose a sincere threat to third parties, these states are increasingly likely to intervene to exploit their opportunity or to reduce their threat exposure.

It stands to reason, then, that research has sought to determine how closely third parties and civil war states are connected to one another in explaining intervention. Much work has indeed focused on the dyadic links between each third party and the associated civil war. These arguments assume that the opportunism and threat reduction interests of third parties increase as the connections between a third party and a conflict state increase. Research has thus looked for dyadic connections between each third party and war state (Mitchell 1970). As such, the attributes of the war state, features of the third party, and characteristics of the conflict are prominent explanations of intervention and have been the focus of the literature. Work has emphasized the importance of looking for ethnic, ideological, or security ties between the potential intervener and the conflicting factions (Carment 1995; Davis, Jaggers, and Moore 1997; Lemke and Regan 2004). Also, characteristics of the conflict state and the nature of the violence have been shown to affect intervention decision making, including such aspects as the presence of lootable goods, the war's intensity, or its ethno-religious, ideological, or secessionist character (Balch-Lindsay and Enterline 2000; Regan 1998, 2002; Lemke and Regan 2004; Dowty and Loescher 1996).

The argument that is made by these explanations is that a third party is more likely to become involved in a civil war when a powerful dyadic connection exists between it and the conflict, given the opportunity and threat reduction incentives that these connections afford. However, this approach is somewhat narrowly conceived. Civil wars do not simply affect the war state and its dyadic relation to individual third parties. Civil wars are international events. The effects of their hostilities are

also felt by parties external to the war state, most notably those that share a border with the conflict country. As President Truman's quote indicates, the instability generated by a civil war is often unconstrained by the borders of the conflict state, threatening violent spillovers to other proximate states in the war's region. The threat reduction interests of third parties may therefore be more broadly defined, not simply reliant upon the dyadic links between the civil war and third-party states. Extra-dyadic regional concerns may thus be important considerations in the intervention calculus.

Third parties often admit that regional stability is a factor in their intervention decisions. They estimate whether a war's violence will threaten their interests in those states most at risk of contagion: states that share a border with the war state, thus constituting its region. Potential interveners with substantial foreign policy interests in a war state's region have incentives to contain the hostilities, using intervention as a means of inhibiting the diffusion of war to its neighbors. By containing the violence, the third party is able to mitigate the effects of the conflict for those neighbor states that would otherwise be infected. For these conjectures to be valid, it must first be evident that domestic unrest tends to spread beyond the original conflict state. Second, intervention must be a policy tool available to policy makers that can contribute to the containment of civil violence.

Civil War Contagion and the Regional Interests of Third Parties

Recent research has shown that the ramifications of civil wars are rarely confined to the war state, and it is the countries that border the conflict state that are most vulnerable to the instability. For instance, studies have noted the regional diffusion effects of domestic unrest on other proximate states that result from increased levels of instability, refugee flows, cross-border ethnic ties, the territorial aspirations of rebel groups, and the level of violence produced by the conflict (Maoz 1996; Enterline 1998; Salehyan and Gleditsch 2006; Gleditsch 2007; Buhaug and Gleditsch 2008). Furthermore, civil wars tend to disrupt regional economic relationships, slowing economic growth throughout regions (Murdoch and Sandler 2004). As economic welfare decreases regionally, violent ideologies gain traction. In addition, civil wars produce demonstration effects for the surrounding region, as dissident groups learn lessons from proximate conflicts that can be used in challenging their own governments (Kuran 1998). Therefore, it is no surprise that research has found the presence of a civil war in one state to increase the risk that violence in neighboring countries.

While the civil war contagion literature shows that violent hostilities tend to threaten the stability of countries contiguous to the war state, the odds of neighbor state infection are unlikely to be identical from one war to the next. Also, different countries surrounding the same war will face differential likelihoods of infection. Third parties consider these risks to nations in the war state's

region as they formulate their policy responses. Third parties with significant relationships with these regional countries thus have vested interests in manipulating the probability of diffusion. These may include valued economic, military, and natural resource ties. Conflict spillover would detrimentally affect a third party's ability to continue its positive relationship with these regional states. A third party's security may diminish if an ally becomes infected by the hostilities. Its economic vitality may decline if a valued trading partner experiences unrest. Given the contagious properties of civil wars, a third party's intervention preferences are unlikely to be so narrowly defined by a simple dyadic focus on the war state.

There are thus two dimensions to a third party's regional interests in civil wars: (1) the likelihood of contagion and (2) the value of the region at risk of infection. A conflict's significance increases as it increasingly threatens a region of value to the potential intervener. Third parties have incentives to attempt to contain the war from infecting its neighbors. In this sense, interveners with valued relationships in the war state's region have an interest in regional threat reduction, not simply reducing a threat that affects the dvadic relationship between the third party and the war state. As an example of a third party's estimation of a civil war's contagious potential, consider American and NATO deliberations over intervention in the Kosovo conflict between the Serbs and the Kosovo Liberation Army (KLA). The risk of diffusion was great. The KLA's agenda was destabilizing, proposing "independence for Kosovo . . . as the first step toward the creation of a greater Albania including all or part of Albania proper, Serbia, Montenegro, the Republic of Macedonia, and Greece" (Nation 2003, 229-30). Given the substantial Albanian populations in surrounding republics, Kosovo's war threatened to spread throughout the region. The fighting was intense, and heavy-handed Serbian actions galvanized support for the KLA in the province, leading to a flood of new recruits. American and NATO officials feared that the rising violence risked Balkan stability, as ethnic cleansing risked a humanitarian crisis that threatened to envelop the region. The attraction to intervention was thus due in part to the conflict's substantial risk of regional spillover. Furthermore, American/NATO regional interests were many. Among others, these included trade relations with surrounding states, expanding NATO memberships into Central and Eastern Europe, and the subsequent blow to America's reputation as a provider of European peace should it be lulled to inaction (Clinton 1999).

Intervention as a Tool for Containing Civil Wars

States often tout the use of intervention in order to contain a conflict from enveloping the surrounding area. Using the example above, given the explosive potential for the Kosovo conflict to infect the greater region, the US and NATO sought foremost to contain the conflict to Serbia, evidenced by the US National Security Council's

defined goals in the crisis to "promote regional stability and protect our investment in Bosnia" (Gellman 1999, 241). Four years prior, President Clinton made a similar justification for involvement in Bosnia, arguing that without military involvement, the violence would "spread like poison throughout the region" (Clinton 1995). Intervention can be used in a number of ways to decrease the likelihood of contagion. Foremost, third parties may attempt to cease the hostilities. A number of studies argue this to be the primary goal of intervention, noting that while third parties may have a variety of political goals in intervention, none can be achieved without first ending the violence. Ceasing the hostilities removes the source of spillover. Whether providing biased support for a single faction to end the conflict quickly, interceding between the parties to reduce the violence, or punishing sides that continue to sabotage efforts at peace, each is a tool at the disposal of an intervener to bring an end to the violence.

Third parties may also simply intervene to create order where none exists. Ethiopia's intervention in Somalia in 2007 is one such case. Uncomfortable with the persistent instability emanating from Somalia, Ethiopia intervened, crushing the Islamic Courts Union, which had scarce governing control. Ethiopia's military quickly gained control of the country, occupying city centers in an effort at establishing stability. While the fighting continued, the government established by the Ethiopian military reduced the level of chaos in the country.

On the other hand, a unbiased approach may be preferred, such as providing safe havens or interceding between the combatants to promote negotiations. The UN's initial approach to Bosnia is an example. The UN sought to isolate Yugoslavia in order to contain the conflict from infecting the Balkan region. By establishing "safe areas" within Bosnia where displaced persons hoped to be protected from the violence, refugees were redirected to areas within Bosnia rather than allowing an exodus to neighbor states, which would have increased the likelihood of war diffusion (Salehyan and Gleditsch 2006). As such, safe areas, when effectively implemented, offer an intervention tool for diminishing the potential for contagion (Byman and Pollack 2006).

Alternatively, interventions may be cold and calculating. A third party may simply support the strongest faction in order to crush the fighting capability of the weaker sides. Also intervention may be targeted toward dispelling violence along borders, pushing combatants away from threatened neighbors without concern for the outcome of the conflict. Dispelling the violence near border regions can thus pay regional stability dividends, as suggested in recent research advocating for a change in American military policy in Iraq (Byman and Pollack 2007).

These examples indicate that intervention offers a number of options for containing civil wars.³ However, I do not contend that intervention is the only containment tool available to third parties. It is one of several. Other options may include erecting boundary checkpoints and performing border patrols. These efforts may seek to thwart cross border raids, halt refugee exodus, and disperse armed factions seeking refuge outside the war state. My focus on intervention is not

indicative of a belief that other tools are inappropriate. Rather, I argue that intervention offers the most dramatic and potentially effective means for addressing a civil war's contagion threat congruent with a third party's interest in containment.⁴ Other tools aside, third-party interests in the containment and the use of intervention to achieve this end is a generalizable phenomenon. From the above discussion, it is clear that (1) civil wars have a distinct tendency to be geographically contagious and (2) intervention is a tool available to third parties for containing civil wars. Given these *regional* incentives for intervention, I suspect that an increasing threat of diffusion affects the intervention decisions of states that have valued relationships with those nations at risk of infection. This leads to the following hypothesis:

Hypothesis: As the potential for civil war diffusion into a valued surrounding region increases, a third party's likelihood of intervening in the conflict also increases.

Measuring Regional Threat Reduction Motivations

In order to test this hypothesis, two aspects of the regional motivations for intervention need to be operationalized. First, the risk of regional hostility infection needs to be operationalized for each civil war, which will vary by each individual neighbor country that constitutes a war state's region. Second, the value of each civil war region needs to be represented, based upon the third party's interests in each neighbor state put at risk of contagion. A measure of a third party's regional intervention considerations can thus be represented by the following model.

$$R_j = \sum_{i \neq i,k}^N \alpha_{ik} \chi_{ij}. \tag{1}$$

In this model, third party j is considering intervention in k's civil war that is surrounded by a region consisting of neighbor state(s) i. Further, α_{ik} represents the risk of the conflict spreading from civil war state k to its neighbor state i, and χ_{ij} represents the value of third party j's foreign policy interests, if any, in state i. The product of $\alpha_{ik}\chi_{ij}$ is then summed across all i countries (N) that neighbor the conflict state to produce R_j , the risk of infection posed to j's interests in war state k's region. The following sections operationalize χ_{ij} and α_{ik} , which are then combined into measures of R_j that are used in the subsequent intervention analyses to test my regional threat reduction arguments.

The Value of a Civil War State's Region to a Third Party: χ_{ij}

A third party will intervene for regional stability purposes when a civil war threatens something that it values in the war state's region, represented by the χ_{ij} component. States assign value to other countries in a number of ways. These may include their

security ties, economic interests, natural resource dependencies, geographic proximity, or other connections. One simple way to operationalize χ_{ij} is to consider proxy measures that reflect a valued relationship between third party j and each of k's neighbor states i. I consider three proxy measures of the war state's regional value to third parties: military alliances, trade dependence, and geographic proximity.

First, alliances offer a suitable proxy for a state's security interests. All other things being equal, a third party that maintains a number of alliances with countries in the war state's region will see the conflict as a greater threat to its security. Second, as a third party's economic well-being is increasingly predicated on its trade with the war's region, the greater the likelihood that the civil war will adversely affect the third party's economic vitality. Lastly, the geographic proximity of the conflict region to a potential intervener is a suitable proxy for many third-party interests. Relationships between states are tied to proximity in that a potential intervener is likely to have its most important ties to nearby states. As a result, potential interveners will consider civil wars that occur on their own continent to be more salient than conflicts that take place in distant lands. While these are not the only interests that third parties have in the states neighboring a civil conflict, they are suitably representative of valued state relations.⁵

The Risk of Contagion: α_{ik}

Measuring the risk of contagion from civil war state k to each neighbor state i is somewhat more complicated. The α_{ik} component requires an accounting of the variable likelihood of individual neighbor state infection. Different civil wars exhibit a differential set of *contagious attributes*. For example, civil wars that produce an extreme number of casualties, generate massive refugee flows, and ignite crossborder ethnic tensions should be substantially more contagious than civil wars that cause few fatalities, produce no significant population dislocations, and are not defined along transborder ethnic lines. Also, the *domestic characteristics* of countries surrounding the war state affect which neighbors are the most susceptible to experiencing civil war. For example, a regional state that is destitute may be more likely to experience violence than one that is wealthy. In estimating α_{ik} , care must be taken to avoid confusing the effect of "domestic" explanations for the occurrence of civil war in i with the transborder "diffusion" of contagious neighboring hostilities from k.

In generating an estimation of contagion risk, each i state would ideally be assigned a value reflecting the percent likelihood of infection from a neighboring conflict in k. These values can be determined through a statistical analysis that estimates the effect of predictors on the likelihood of civil war. Such a model should incorporate both domestic and contagion factors that are commonly associated with unrest. Nearly all statistical studies of civil war use the state-year unit of analysis where the dependent variable is dichotomous, taking a value of 0 to represent the absence of conflict in each state-year observation and 1 in the presence of civil war.

Various statistical methods are then employed to uncover a significant or insignificant relationship between the independent variables and the likelihood of civil war. Below, I conduct such an analysis with the goal of determining the likelihood that each state will be infected by an ongoing civil war in its neighbor. The *likelihood* of contagion that is derived from this analysis will serve as α_{ik} .

To calculate α_{ik} , I employ a logistic model to analyze a dichotomous dependent variable reflecting civil war prevalence for every state i in the international system for the years 1950-1999. In this analysis, I account for the most common "domestic" variables that have been shown to be associated with unrest in i. I then include a "contagion" variable that measures whether each country i is bordered by another state k that is experiencing an ongoing civil conflict. My expectation is that i's likelihood of experiencing its own civil war in a given year is in part a product of the presence of civil war in neighbor state, k. The increased yearly likelihood of conflict in i that results from a civil war in k is used to represent state i's likelihood of being infected by k's civil war virus. The increased likelihood of civil war in all states i is determined by calculating the marginal effect of the war contagion variable. By controlling for the most common domestic predictors of civil war in i that are found in the literature. I am able to determine the distilled effect of civil war diffusion from k without confusing this effect with i's own domestic expectation of war hostilities. This process ultimately provides a valuable measure of the percentage likelihood that civil war will spread from a conflict state to a country along its border. This increased likelihood of civil war diffusion to state i represents the α_{ik} component: i's likelihood of being infected by k's war. Below, I describe this exercise more fully by first introducing multiple control variables that are considered to be common domestic explanations of civil war in i.

Domestic Predictors of Civil Conflict. In the statistical analysis presented in Table 1, I draw on several domestic predictors that are commonly included in empirical models of civil war. The following predictors account for *i*'s domestic situation. They are employed to determine *i*'s domestic likelihood of civil conflict. Controlling for these factors avoids the undesirable outcome of improperly assigning meaning to contagion that may otherwise be the result of an omitted domestic variable.

First, I include a measure of each *i* state's economic welfare, which is proxied by gross domestic product (GDP) per capita and for which data are taken from Gleditsch (2002). When a state's populace is increasingly wealthy, civilians become increasingly unwilling to risk their livelihoods by participating in rebellion. In line with previous research, I therefore expect increasing values on a *GDP/Capita* variable to yield a negative effect on civil war (Elbadawi and Sambanis 2002; Fearon and Laitin 2003; Collier and Hoeffler 2004). Second, I include two measures to account for the effect of *i*'s political system on its likelihood of civil war. *Regime Type* controls for democratic civil peace arguments (Elbadawi and Sambanis 2000, 2002; Walter 2004) that notes the paucity of civil war in established democracies. This variable is generated using Polity IV autocracy—democracy scores

Log likelihood

 $\chi^{2}(9, 10)$

-1220.41

3318 49**

Variable	Model I	Model 2
Neighbor Civil War Intensity	William Co.	0.07** (.02)
GDP/Capita	-0.18** (.07)	-0.13* (.07)
Ethnic Heterogeneity	0.02** (.003)	0.01** (.003)
Regime Type	0.01 (.01)	0.01 (.01)
Regime Type ²	-0.005** (.002)	-0.004** (.002)
Population	0.26** (.04)	0.23** (.04)
Peace Years	−1.99** (̀.08)́	- I.95** (.08)
Spline I	-0.06** (.003)	-0.06** (.003)
Spline2	0.01** (.001)	0.01** (.001)
Spline3	-0.001** (.0002)	-0.001** (.0002)
Constant	0.07 (.68)	-0.37 (.69) ´
Observations	6,727	6,727

Table 1. Logit Analysis of Civil War Prevalence 1950-1999

Note: **Significant at the .01 level. *Significant at the .05 level. One-tailed test. Standard errors in parentheses.

-1230.21

3298.88**

(Marshall and Jaggers 2007) that range from -10 for the most autocratic regimes to 10 for the most fully democratic. Other studies argue for a nonmonotonic effect in which anocracies are the most likely to yield civil war (Hegre et al. 2001) because they lack the autocratic powers to repress dissent and the democratic institutions to peacefully accommodate dissatisfied publics. I thus include a squared term for each i state's domestic political system, Regime Type², which predicts that as regimes become more fully autocratic or democratic, civil war should become less likely. Third, using data taken from Vanhanen (1999), the ethnic constitution of each i state is represented. Thus, the Ethnic Heterogeneity variable represents the level of diversity in each i state, and it includes information on the size of racial, linguistic, and religious groups. Although results have been mixed, it is generally accepted that ethnic makeup is an important predictor of civil war (Lake and Rothchild 1996: Reynal-Querrol 2002; Fearon and Laitin 2003). Fourth, increasing population size increases the likelihood of conflict, as the pool of potential rebel recruits should rise in tandem with state i's overall population (Elbadawi and Sambanis 2002; Fearon and Laitin 2003; Collier and Hoeffler 2004). Thus include a logged measure of population using data from the disaggregated Composite Index of National Capability (CINC) scores (Singer, Bremer, and Stuckey 1972). Last, I note the potential for time dependence as civil wars are more likely to recur soon after past conflict; I include a measure of peace years and a cubic smoothing spline with three equally spaced interior knots (Beck, Katz, and Tucker 1998).8 These variables represent the most commonly employed domestic predictors of civil war in state i that are found in the literature. Together they are meant to reflect each i state's domestic situation.

Diffusion as a Source of Civil War. In addition to the above-noted domestic predictors. I add a variable to represent the contagious properties of a civil conflict in neighbor state k. Many studies that attempt to uncover civil war contagion processes simply include a dummy variable for the presence of a neighboring war. I add further detail to dichotomous renderings of neighboring conflict by measuring the intensity of k's war. The intensity of a conflict, proxied by the number of yearly battle deaths it produces, is a more nuanced representation of the level of instability being produced by the violence. Highly intense fighting in k is likely to be more regionally destabilizing than lower levels of violence. Low-intensity conflicts may persist without causing the widespread unrest that generates regional insecurity. On the other hand, extremely violent wars are more likely to negatively affect regional economies, produce refugee flight, send more visible demonstration effects, and otherwise destabilize regions. In this sense, the intensity of k's war is important to understanding whether it will spread to i, whereas this level of instability is lost in dichotomous measures that do not distinguish between the various levels of destructive capacity and the resultant effects that this violence has on regional diffusion. My war diffusion variable. Neighbor Civil War Intensity, thus accounts for the yearly number of battle-related deaths, if any, generated by a civil war in neighbor country k. The variable varies from zero (i.e., no conflict in k) to the observed number of battle deaths produced by war in state k. I expect that Neighbor Civil War Intensity will be positively related to the likelihood of i experiencing its own civil war.⁹

Estimating α_{ik} . To operationalize the risk that state i will be infected by war in its neighbor, k, I include each of the variables discussed above in a logistic model of civil war prevalence. The results are reported in Table 1. The dependent variable is 0 for years in which state i does not experience its own civil war and 1 for conflict years using the Uppsala Conflict Data Program/Peace Research Institute, Oslo (UCDP/PRIO) Armed Conflict Dataset (Gleditsch et al. 2002). Neighbor Civil War Intensity uses data from Regan (2000) to code the annual number of battle-related deaths that are produced in neighbor state k. State k is considered a neighbor of i if it falls within the Correlates of War (COW) five-point ordinal coding of contiguity (Stinnett et al. 2002). Also, the vast majority of scholarly work argues that there is a temporal lag in the process of contagion. The presence of a civil war in neighbor state k does not instantaneously affect war and peace processes in i. Rather, the processes by which civil wars spread take time to occur. 11 I therefore lag Neighbor Civil War Intensity one year, as this is the accepted routine in the literature. Doing so ensures temporal order and helps to account for simultaneity concerns. The results for the domestic predictors are reported in model 1, and these are consistent with the theorized expectations that are common in the literature. To these domestic predictors, Neighbor Civil War Intensity is added to model 2. The positive and significant coefficient indicates that rising violence in neighbor state k increases the likelihood that i will be infected by the hostilities.

To determine i's yearly probability of infection. I calculate the marginal effect of Neighbor Civil War Intensity on the likelihood of civil war in i for every state-year observation in the data. The domestic predicted probability of i experiencing civil war in each year is calculated using the annually observed values on each of i's domestic variables. By then varying the value of k's battle deaths from zero to the observed fatality value in each year of conflict (if any) in k, the effect of k's hostilities on i's likelihood of conflict is determined by calculating the percentage increase in the predicted probability of conflict in i. This increase in probability represents each i state's probability of infection from k's neighboring civil war. This probability varies by state-year as a result of the observed yearly values for each of i's domestic predictors and for neighbor state k's war hostility level. This calculation is conducted for every country i in the international system in every year from 1950 to 1999. Effectively, this calculation reflects each state i's yearly likelihood of being infected by state k's civil war without conflating this probability of infection with state i's own domestic probability of experiencing civil war. Having calculated this probability of infection for every state-year observation, these values are used to reflect the α_{ik} component of the R_i model.¹² Since this component is important to the subsequent intervention analyses, several robustness checks of these results were conducted, which support the reported findings in Table 1.13

Combining Regional Value with Contagion Risk: Ri

Armed with state i's likelihood of infection and its value with respect to third party j's interests, we can complete the construction of j's regional motivations for intervention, R_i , in k's civil war. The likelihood of infection, captured by α_{ik} , is combined with each potential intervener's alliance, trade, and geographic proximity scores. For instance, the existence of an alliance is measured dichotomously, representing the presence or absence of an alliance between third party j and each country i neighboring the civil war state. To translate each intervener-neighbor state observation into a regional value, I sum the contagion risk × alliance calculation into a single regional score (R_i) . To demonstrate this process, consider a civil war state that has three regional neighbors, states i_1 , i_2 , and i_3 . Suppose third party j maintains an alliance (the χ_{ij} component) with regional states i_1 and i_2 but not with i_3 , where 1 denotes the presence of an alliance in the potential intervener-neighbor state dyad and 0 represents no alliance relationship. Suppose also that the likelihood of infection (the α_{ik} component) for each state i neighboring the civil war is determined as follows: i_1 : 9%; i_2 : 3%; i_3 : 15%. To calculate the value of the risk posed to i's security interests in the region (R_i Allies), the following is calculated: $(1 \times .09) + (1 \times .09)$ $.03) + (0 \times .15) = .12$. This value varies by year with the war's changing contagiousness and the regional i states' changing domestic predictors of unrest. It also varies across potential interveners j depending upon their unique alliance relationships with each regional state i. The regional trade and proximity measures are

calculated in the same fashion. The alliance data are taken from Leeds et. al. (2002), the trade dependence data are taken from Gleditsch (2002), and the continental proximity data are taken from the COW project (Singer and Small 1994). ¹⁴ This exercise results in three R_j variables used in my analysis of third party intervention in civil wars: R_j Allies, R_j Geography, and R_j Trade. The variables consider each third party's expectation of contagion and the issues at stake that are threatened by the hostilities. They are thus used to test the theorized relationship posited in previous pages.

Research Design

Data Format

Following the definition used in previous work (Lemke and Regan 2004), every state in the international system is considered a potential intervener in each civil war. The data on civil war must then be formatted at the level of the intervention opportunity for each potential intervener. For every civil war year, there is one observation for each member of the international system, reflecting a potential intervener—civil war dyad year structure. This data format allows the results to reflect the decisions of those states that may have considered involvement but chose not to intervene. The resulting data set spans the 1950–1999 time period.¹⁵

Dependent Variable

Civil war is defined as conflict between a rebel group and the government of a state that results in a minimum of 200 battle fatalities. Regan's (2000) list of civil wars is used because Regan provides the most comprehensive and widely used data on civil war intervention. The coding of the dependent variable reflects the onset of a unilateral state intervention and fits the following definition: "Intervention is defined as convention-breaking military and/or economic activities in the internal affairs of a foreign country targeted at the authority structures of the government with the aim of affecting the balance of power between the government and opposition forces" (Regan 1998, 756). The analyses that follow use a dichotomous measure of intervention onset which is coded 0 for all observations in which no intervention occurs and 1 for the first year of each new intervention by a third party, as is standard practice in the literature. Interventions may take a number of forms. Regan provides data on both economic and military forms of intervention. Economic interventions may include such things as sanctions, the provision of aid in the form of grants and loans, and the supplying of nonmilitary equipment. Military interventions can include the sharing of military materiel, use of aerial bombing or naval blockade, and the direct intervention of soldiers. Since the data format requires the dependent variable to be coded to the precise year in which an intervention occurred, fine-grained information about the timing of interventions was obtained from Regan (2002). 16

Control Variables

The most empirically comprehensive work on intervention is provided by Lemke and Regan (2004). Replicating their analysis offers the advantage of controlling for many of the intervention explanations found in the literature. As I argued at the outset, existing explanations have primarily taken a dyadic approach in which the third party's decision to intervene is determined by (1) the qualities of the intervener, (2) the characteristics of the conflict, or (3) the affective connections between the third party and the civil war state. The Lemke and Regan analysis addresses each.

First, three variables reflect important characteristics of third parties. The power status of the potential intervener is expected to affect its ability to intervene. Given that major powers can extend their influence globally, a dichotomous indicator of the third party's power status (Major Power Intervener) should be positively related to intervention. Data on each state's major power status are provided by the COW data set (Correlates of War Project 2008). Also, intervention is theorized to be influenced by the potential intervener's regime type. Following on findings by Hermann and Kegley (1996), Lemke and Regan (2004) expect democracy, represented by the Democratic Intervener variable, to be positively related to intervention. Regime type is measured dichotomously using Polity IV data (Marshall and Jaggers 2007) where 0 reflects nondemocratic regimes and 1 accounts for those democracies that receive a Polity Score of seven or higher. Lemke and Regan also include a variable that codes whether the third party is an African state, reflecting research by Lemke (2002) that finds African states to be rather peaceful toward one another. Their expectation is that a dichotomous African Intervener variable should be negatively related to intervention.

Second, several predictors represent the characteristics of the conflict. These include the total number of casualties produced by the war (Casualties) and its yearly casualty rate (Intensity). Both predictors represent the costs of intervention, as more hostile conflicts are likely to be more difficult to manage. Whether the conflict took place during the cold war is coded by the Cold War variable, with the expectation that interventions should be more likely during the cold war era given the global competition between the two superpowers. The last year of the cold war is coded as 1989. Refugees is a dichotomous variable that measures the presence of a humanitarian crisis produced by the civil war that causes a minimum of 50,000 refugees. The expectation is that such crises stoke the humanitarian impulses of outside powers, thus producing a higher likelihood of intervention. Additionally, the nature of the conflict is represented by the Ethnic War, Ideological War, and Religious War predictors to determine how the type of violence affects the likelihood of intervention.¹⁷ Each of the above seven variables were originally employed by Regan (2000). Lastly, the civil war state's form of government is captured by Democratic Government, and it is measured identically to Democratic Intervener.

Finally, several variables account for the affective connections between the potential intervener and the civil war state. *Dyadic Allies* represents the third party's

security interests in the war state. COW data on a the presence of an alliance in the dyad are used to code this variable (Gibler and Sarkees 2004). 18 Third parties should be more likely to intervene when they have direct military interests in the civil war state. Next. Contiguity measures whether the third party and the war state share a formal boundary. Previous research indicates that third parties are significantly more likely to intervene in civil wars along their borders. Data for this variable are provided by Stinnett et al. (2002). The Dvadic Trade measure is not a predictor used by Lemke and Regan, However, this variable reflects Lemke and Regan's interest in representing significant levels of interaction between the war state and the third party as a predictor of intervention. This variable is calculated by measuring the total trade in the dyad as a percentage of the third party's GDP. Data are provided by Gleditsch (2002). A rising value on this variable reflects an increasingly important trading partner with respect to the third party's economic well-being. The dyadic alliance, contiguity, and trade variables are nice complements to my regional security, proximity, and economic threat reduction variables: RiAllies, RiGeography, and $R_i Trade$. Thus, significant results for the R_i variables should indicate strong support for my regional arguments given that their dyadic counterparts are also controlled for in the models. Once again using data from the Polity IV project, Joint Democracy tests whether similarity of regime between the third party and war state is related to intervention. Lastly, Colonial History is dichotomous indicating whether the war state was ever a colony of the third party. The expectation is that third parties are more likely to intervene in civil wars for which they have had a history of colonial involvement. Colonial History uses data from Hensel (2007). 19

Model

Lemke and Regan employed a censored probit model to explain intervention onset and success. Since I am interested only in predicting intervention onset, I replicate the first stage of their model. Also, our temporal domains differ slightly. Whereas Lemke and Regan address the 1944–1994 period, my variables truncate the initial years, starting the analysis in 1950. However, I extend the data to 1999. Lastly, our data formats differ in the ways mentioned above. As such, differences in the findings between my analysis and theirs may be the result of these disparities. My analysis requires a statistical model that can accommodate a dichotomous dependent variable. A logistic model is suitable.²⁰

Empirical Results and Discussion

Table 1 presents results for the control variables and for each of my variables of interest. Each of the R_j variables are essentially meant to represent the same concept: third party regional interests that are threatened by contagious hostilities. Models 1 through 3 therefore address them separately. However, given that the specific interest addressed by each measure differs, I include all three variables in model 4.

Table 2. Logit Analysis of Intervention in Civil War, 1950-1999

Variable	Model I	Model 2	Model 3	Model 4	Model 5
RyAllies RyGeography	8.55*** (1.41)	3.96**** (.81)	100 53% (27.41)	6.51*** (1.62) 2.27** (1.08)	6.38*** (1.79) 1.92* (1.15)
R Trade Dyadic Allies	0.71*** (.19)	0.93*** (.16)	0.97*** (31.41)	0.72*** (.19)	0.65*** (71.07)
Contiguity	3.30*** (.19)	3.17*** (.18)	3.30*** (.19)	3.23*** (.19)	3.37*** (.20)
Dyadic Trade	-120.04*** (33.46)	-115.93*** (32.78)	-126.51*** (33.83)	-124.43*** (33.61)	-109.24^{***} (31.79)
Intensity	0.00002 (.00001)	0.00002 (.00001)	0.00002* (.00001)	0.00002 (.00001)	0.00001 (.00001)
Refugees	0.60*** (.17)	0.53*** (.16)		0.60*** (.17)	0.55*** (.17)
Cold War	1.37*** (.17)	1.37*** (.18)	1.34*** (.18)	1.38*** (.18)	1.40*** (.18)
Casualties	1.17e-06*** (3.79e-07)	1.11e-06*** (3.87e-07)	1.25e-06*** (3.75e-07)	1.11e-06*** (3.89e-07)	1.10e-06*** (3.91e-07)
Colonial History	1.11*** (.20)	1.12*** (.19)	1.07*** (.19)	1.12** (.20)	0.91*** (.22)
Major Power	3.38*** (.10)	3.38*** (.10)	3.36** (.10)	3.41*** (.10)	3.31*** (.11)
African Intervener	0.41* (.22)	0.24 (.23)	.32 (.23)	0.31 (.23)	0.34 (.23)
Democratic Government	-0.64** (.32)	-0.67** (.32)	-0.66** (.32)	-0.63** (.32)	-0.70** (.36)
Democratic Intervener	0.45*** (.13)	0.50*** (.13)	0.49*** (.13)	0.47*** (.13)	0.54*** (.13)
Joint Democracy	0.05 (.43)	0.06 (.43)	0.05 (.43)	0.06 (.43)	-0.58 (.59)
Ideological War	2.11*** (.39)	2.14*** (.40)	2.11*** (.40)	2.12*** (.39)	1.92*** (.39)
Ethnic War	1.73*** (.43)	1.81*** (.44)	1.73*** (.44)	1.78*** (.44)	1.64*** (.44)
Constant	100.94*** (33.46)	101.40*** (32.72)	-73.45* (42.28)	-53.19 (44.99)	-70.54 (43.30)
Observations	131,674	131,674	131,674	131,674	131,674
Log pseudo-likelihood	-1771.07	-1774.38	-1777.68	-1765.18	-1651.70
y ²	3770.40***	3725.82***	3723.13***	2179.76***	3522.18***

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Lastly, while models 1 through 4 address a general intervention onset dependent variable, model 5 checks the robustness of this result by assessing a dependent variable that codes only military interventions. Briefly, each of my regional threat reduction variables indicate that the regional war diffusion interests of third parties affect intervention decision making. The three variables are significant across models, and each is positively signed. This implies that as civil wars pose an increasingly contagious threat to regions that are salient to a third party's interests, intervention becomes increasingly likely in an effort to contain the hostilities.

Before delving into these results, I consider the findings for the control variables. The controls behave rather consistently across models, and most yield results that match those in Lemke and Regan's analysis. However, African Intervener, Democratic Government, and Democratic Intervener do not match results reported by the authors. Whereas the coefficient for African Intervener is negative in the Lemke and Regan analysis. I find marginal support for a positive effect, indicating that African third parties may be more common interveners. Lemke and Regan interpret their negative coefficient to support Lemke's (2002) findings that African states are surprisingly peaceful toward one another. However, interventions need not signal hostility. In fact, Lemke and Regan argue intervention to be a form of conflict management. It may be just as reasonable to believe that the positive coefficient I report indicates that African states are substantially cooperative. 21 Next, the result for Democratic Government indicates that democracies are less likely to attract interventions. While this result contradicts the finding of Lemke and Regan (2004), it supports Hermann and Kegley's (1996) argument that was the impetus for Lemke and Regan's (2004) inclusion of this variable. Hermann and Kegley (1996) base their argument on tenets of the democratic peace. When states are posed with domestic instability, other states are less willing to meddle in the affairs of democracies than they are for autocratic states. My results support this argument.²² Finally, while the results for *Democratic Intervener* reports a positive coefficient similar to Lemke and Regan, the results in Table 2 are significant whereas Lemke and Regan's (2004) were not. My results indicate that democracies are more likely to intervene than other regime types. Given that much of the literature sees intervention as a conflict management tool, this result supports arguments in the democratic peace literature.²³

The remaining controls behave consistently with Lemke and Regan's (2004) findings, lending support for extant dyadic connection theories. First, three of the variables reflecting the affective connections between the third party and the war state produce expected results. Third parties that share an alliance with a war state are more likely to intervene. The presence of an alliance in the dyad is an indicator of the third party's security interests in the conflict state, inducing third-party involvement likely in an effort to stabilize its partner, thus improving its own security. Also, third parties that are connected to the war state by a contiguous border are significantly more likely to intervene. A shared border not only makes neighbor states vulnerable to the violence but also offers greater opportunity for involvement,

vielding a positive relationship. Colonial History performs similarly, reflecting the historical interests of states in their former colonies. However, shared democratic regime types appear to have no significant effect. Also, increasing levels of dyadic trade reports the opposite effect to what was hypothesized. Increasing exchange between the third party and the conflict state appears to decrease the likelihood of intervention. While this result is counterintuitive, it may be that interveners are driven by regional, more economically consequential, interests in each war. Second, the characteristics of the intervener are analyzed. Major Power is positive and significant. Major powers have great capacity for intervention. This combined with their global interests makes it unsurprising that power is positively associated with intervention. Third, several variables reflecting the characteristics of the conflict are related to intervention. As the instability produced by the war increases, so too does a third party's tendency to intervene. This is indicated by the positive findings for Refugees, Casualties, and Intensity. This fits with my argument regarding the regionally destabilizing nature of civil wars and the attraction of third parties. As refugees flee and the hostility level rises, third parties become more likely to intervene. While these variables do not explicitly measure the potential for contagion and the regional interests put at risk, as is captured by each R_i variable, similar motivations may be associated with these predictors.²⁴ Also, the type of war and the period affect intervention. Third parties are more likely to intervene in ethnic and ideological civil wars relative to religious conflicts. Ethnic wars often have explosive potential, likely attracting outside attention. Also, the ideological competition between East and West helps to explain the positive and significant effect of Cold War and Ideological War.

Turning now to my variables of interests, models 1, 4, and 5 report positive and significant coefficients for $R_jAllies$. This indicates that as a potential intervener's security interests in the civil war's region are increasingly threatened by the risk of diffusion, the third party is more likely to become involved in the conflict. The more alliances that a third party maintains in a particular region, the more important the region will be in determining the third party's security. Impending conflict diffusion in such a region makes intervention an appealing policy choice as a means of containing the hostilities. These results are notable in part because I have controlled for several existing explanations of intervention. In particular, in each model I have controlled for the dyadic counterpart of $R_jAllies$. Yet, this dyadic connection cannot account for the independent effect that a contagious civil war has on a third party's regional security interests. It is not simply the dyadic ties between states that determine intervention, as is implicitly assumed in the literature. Rather, $R_jAllies$ indicates that third-party regional security concerns also clearly affect intervention decision making.

The interpretation of the R_j Geography variable reported in models 2, 4, and 5 is similar to the R_j Allies measure. The more proximate the potential intervener is to the region threatened by war contagion, the more likely it is to become involved in the

conflict. R_j Geography is a more generic predictor than the other regionally defined variables. This measure is a proxy for a number of relationships, as the proximity of states is associated with security commitments, trade ties, and other relationships that are salient to a potential intervener's interests. As a proximate civil war region is increasingly threatened by contagion, the likelihood of intervention increases in an effort to contain the violence from infecting the third party's multitude of geographically defined interests.

Lastly, the positive coefficients on R_jTrade in each of its models yield the same interpretation as the previous two predictors. Third parties that are dependent upon the civil war state's region for its economic well-being are increasingly likely to intervene as the risk of diffusion rises. Civil wars have detrimental effects on the economic vitality of their surrounding regions (Murdoch and Sandler 2004). Where a third party is heavily invested in a conflict state's region, a rising threat of regional contagion will increase the likelihood that the third party intervenes in an attempt to defend its economic interests. Threatened regions may be critical markets for third-party exports, access to goods imported from the vulnerable region may be difficult to substitute with goods from other supplier countries, and third parties may have critical natural resource dependencies on a civil war's surrounding region. Spreading violence into such regions puts these economic relationships at risk. The positive coefficients for R_jTrade indicate that third parties act to contain spreading civil wars from infecting their existing economic relationships.

While models 1 through 4 address a dependent variable for all intervention types, model 5 replicates model 4 by considering only military interventions. It may be that military interventions are the most likely form of third party involvement for the purposes of containing contagious civil wars. The use of troops, shelling, and other forms of military involvement can be used by third parties to confront hostilities that threaten to spill into the surrounding region. Again, the results for each R_j variable did not change substantively. The only minor difference is that R_j Geography becomes slightly less significant. However, this is a result of the high correlation between R_j Geography and R_j Allies, which are two of the more highly correlated variables in the model. Additionally, models 1 through 3 were reanalyzed using the military interventions dependent variable, and all of the R_j predictors produced coefficient and significance levels identical to the three reported models.

The direction and significance of the coefficient estimates is one part of the empirical story. The three R_j variables also produce a substantive effect on a third party's likelihood of intervention. In generating predicted probabilities for each variable, each of the continuous controls were held at their mean values while each of the dichotomous controls were held at their modal values. ²⁶ An important increase in the likelihood of intervention is noted when varying each R_j variable from its mean to two standard deviations above the mean. ²⁷ Doing so for R_j Trade reports the smallest increase of approximately 20 percent. The other primary independent variables have a more substantive effect. Varying R_i Allies by two standard deviations produces and

increase of 50 percent. Similarly, R_j Geography reports an increase in the likelihood of intervention by 40 percent. These are important findings, as distinctly regional motivations for intervention appear to have a clear and substantive effect, yet such explanations for intervention have gone largely unaddressed in the scientific study of civil war processes.

In addition to the large-n empirical evidence, a closer look at two cases helps to illuminate concerns for regional contagion in intervention decision making. Figure 1 plots the predicted likelihood of intervention (y-axis) over time (x-axis) for the civil wars in El Salvador and Spain from the perspective of the same potential intervener, the United States, using the results reported in model 1. For each case, the *baseline* predicted likelihood of intervention is determined by calculating the predicted probability of intervention for each year using the observed values on the control variables while holding $R_jAllies$ at zero. The predicted likelihood of intervention is then recalculated for every year using the yearly observed values of $R_jAllies$. This predicted likelihood of intervention is represented by the *Baseline* + $R_jAllies$ line to indicate the increased likelihood of intervention given concerns for regional contagion.

Spain's conflict with ETA and the Salvadoran regime's war with the FMLN posed the United States with various interests in intervention.²⁸ However, in terms of the common predictors included in empirical models of intervention, the similarities were many, including both were allied with the United States, neither shared a border with the United States, neither country's trade with the United States was a significant portion of the United States's wealth, both conflicts took place primarily during the cold war, and neither were former American colonies. Also, the intervener-specific predictors are constant throughout; the United States was consistently a global power, democratic, and non-African. Finally, even though there are differences on the remaining predictors, most of these variables are relatively constant over this time. This results in a baseline likelihood of intervention for the United States that is reasonably flat over time for both cases, changing only at the tail end of each with the systemic transformation brought on by the end of the cold war. Further, while the baseline likelihood of intervention in El Salvador was higher than Spain given minor differences on the predictors, this difference is not dramatic due to the many similarities between the cases.

Importantly, US security interests in the regions surrounding El Salvador and Spain were also similar, as the United States maintained alliances with neighbors of El Salvador and Spain. Therefore, the threat of contagion to either state's surrounding region was certainly salient to American interests. More generally, American alliances with each conflict's surrounding region is indicative of broader foreign interests. Any serious insurgency that threatened contagion to NATO members would prove costly to the United States's role of guarantor of peace in Western Europe and would threaten the stability of the alliance that was the centerpiece of Western bloc defense. Further, the potential for a contagion of violence in Central

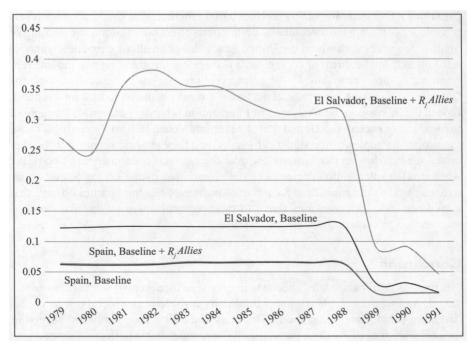


Figure 1. Δ in predicted probability of US intervention: Spain and El Salvador RiAllies

America could be similarly troubling, especially if leftist movements could successfully consolidate power in the America's backyard, promote antagonism toward American policy, and become responsive to Eastern influence.

A major difference between these cases, however, was the actual expectation of contagion to these respective regions. For El Salvador, the threat of contagion was disconcerting. In its initial years, the violence in El Salvador was intense, especially in the initial stages of the war as the FMLN began to coordinate previously scattered protests and riots into an organized guerrilla insurgency, and the military responded with increasingly harsh repression (Rosenblum 2007). Furthermore, El Salvador was surrounded by similarly poor and politically unstable countries who had a greater susceptibility to instability. Thus, the potential for contagion from El Salvador to its neighbors was rather significant, increasing the risk posed to US regional interests, and consequently increasing the predicted likelihood of intervention (represented by the Baseline $+ R_i$ Allies line). This elevated contagion risk matches US intervention decisions in the form of economic and military aid to the government, particularly when the war was at it most intense in the early 1980s. In contrast, the threat of contagion from Spain to its neighbors was minimal. While ETA's use of violence was reasonably consistent throughout this period, and while the government had a limited ability to quash the organization fully, the threat of contagion to neighbor states was very small. For one, ETA primarily used terror tactics that yielded few casualties rather than organizing a broad-based rebellion that would produce levels of violence that were more regionally destabilizing. Second, the domestic stability of Spain's neighbors with whom the United States shared an alliance practically inoculated them from the threat of contagion. It is therefore unsurprising that the line repprobability of intervention given regional (Baseline $+ R_i$ Allies) runs parallel to Spain's baseline likelihood of intervention. Indeed the increase in the likelihood of intervention is hardly perceptible throughout the war. As expected, the United States never intervened in Spain's conflict. These cases offer examples of the statistical results, and they provide support for the theorized relationship, as third parties consider the regional consequences of civil war when making intervention decisions. As is exemplified by the United States's relative interests in the Spanish and Salvadoran conflicts, when third parties observe that a civil war poses a contagious threat to their regional interests, the likelihood of intervention to contain the violence increases.

Conclusion

The reasons third-party states choose to intervene in foreign civil wars are many and varied. Among these explanations of third party involvement, several can be classified more broadly as relying upon a classic dyadic connections approach: observing the characteristics of the third-party, the civil war state, and the affective connections between them yield powerful explanations for why third parties intervene. Much has been learned from this research. Yet, my contention is that third-party decision making is not so narrowly construed. While dyadic explanations of intervention are important, strictly dyadic empirical analyses require a conceptual leap of faith, as policy makers are unlikely to see the world in such simple terms.

Rather, third parties observe the geopolitical effects of civil wars. They determine the nature of a war's contagious properties and the value of those regional states at risk of infection. Third parties have incentives to contain hostilities from disrupting their vital foreign interests. The results presented above support these arguments. The threat of contagion plays a significant role in the intervention decision calculus. Third parties commonly define their foreign interests regionally, and these interests are often worth protecting from the geographically contagious hostilities of civil war.

This research also contributes to two broader subjects in the scientific study of international phenomena. First, the literature on civil wars and third-party decision making would benefit from incorporating a greater emphasis on regional predictors. As the analysis conducted here indicates, dyadic connections between states are not the only explanations of intervention processes. Leaders often tout the importance of maintaining regional stability when justifying their intervention decisions. Public statements and strategy documents are littered with such justifications. Representing these phenomena in our theoretical and empirical models provides a more accurate representation of intervention. In addition, this research provides support for a

growing literature on the importance of accounting for extra-dyadic information in our models of interstate phenomena (e.g., see Crescenzi, Kathman, and Long 2007; Crescenzi et al. 2011). The scientific study of conflict is rather dependent upon the dyad, both empirically and theoretically, producing explanations of conflict that rely heavily upon interactions between pairs of states. However, the real world is richer and more complex, and accounting for information that is available outside of the dyad is beneficial to improving the accuracy of our understanding of conflict.

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Notes

- 1. The term "regional conflict" in this context is meant to represent both intrastate and interstate wars. Still, the examples noted in the NSS are primarily civil conflicts.
- 2. This assumption is loosened in interesting research by Cunningham (2010), which indicates that some interveners have motivations that are independent of combatant goals. While the research conducted here is aimed at explaining intervention onset, I will not address third party disposition toward each faction's goals.
- 3. It is unlikely that states intervene to increase the odds of contagion. Such hypothetical interventions could only serve to increase the costs faced by all parties including the intervener. Nor do interveners have an effective ability to spread a civil war to particular neighbor states. Regions often consist of heterogenous states with whom the third party likely has a variety of relations. Intervention to exacerbate contagion will raise the costs of conflict for entire regions, not simply for particular states with whom the intervener has a negative relationship.
- 4. For example, in the initial stages of the conflict in Kosovo, the UN feared conflict spillover into neighboring areas, especially for Albania and Macedonia. Therefore, forces were deployed externally along the borders in order to contain the violence. However, this effort was quickly discarded due to the extraordinary costs of patrolling an

- underdeveloped area, as the number of troops needed to control the border was considerable. One can imagine that any effort to patrol the borders of large war states would be very difficult. Since most civil wars take place in undeveloped nations, the ability to effectively patrol a border as a means of containment is diminished given the prevalence of underdeveloped border regions.
- 5. In operationalizing X_{ij} , any number of different proxy measures could be employed. This is one of the benefits of using proxy measures to represent a valued relationship between third party j and each of the war state's neighbors i. These three measures were chosen because they are sufficiently reflective of common state interests. In this sense security ties, trade, and proximity are interests that are not specific to any subset of third party states. In the subsequent intervention analyses, all states are considered potential interveners. I therefore chose these measures because they are universally applicable to all states and are reasonably representative of third party interests in a civil war state's region for which war diffusion would be costly to the third party.
- 6. This measure subtracts the proportion size of the largest racial, linguistic, or religious group from 100. Higher values on this variable indicate increased fractionalization.
- 7. To ensure temporal order, the following independent variables were lagged one year: Neighbor Civil War Intensity, GDP/Capita, Regime Type, Regime Type², and Population.
- 8. Space considerations do not allow for an in-depth discussion of the results for each variable. However, several robustness checks of the time-dependent effects were conducted to be certain that temporal dependence was properly accounted for using splined time. These included (1) removing the splines from the analysis, (2) using the cubic polynomial method suggested by Carter and Signorino (2009), and (3) employing a decay function as suggested by Raknerud and Hegre (1997) using a five-year half-life (2^{-y/5}), where y is the number of years without civil war. The pseudo R² and model fit indicated that the spline model was the most appropriate. Across each robustness check, the results for the other independent variables were not notably affected.
- 9. The full model was re-estimated by replacing Neighbor Civil War Intensity with a dichotomous indicator of whether there was an on-going civil war in neighbor state k. The results were very similar in coefficient sign and significance. Also, I included both Neighbor Civil War Intensity and the dichotomous indicator in the same model. These variables are highly correlated with one another, and therefore their true effect on civil war in state i may be obscured. Still, Neighbor Civil War Intensity remained positive and significant while the dichotomous indicator became insignificant. Further, an assessment of the Bayesian Information Criterion for each model indicated that the model using the Neighbor Civil War Intensity variable was more appropriate.
- 10. This variable is log transformed in order to correct for skewness and to be certain outliers are not driving the results. Different data sources were used to code yearly civil war intensities on the independent variable (the "infector:" k) and the prevalence of civil war for the dependent variable (the "infectee:" i) for two reasons. First, Regan's data offer the most comprehensive and widely used intervention data. I employ Regan's data to test my intervention hypothesis in the subsequent analysis (i.e., testing each intervener state j's likelihood of intervening in k's war). It therefore makes sense to use his sample of civil

wars in operationalizing *Neighbor Civil War Intensity*. Second, using conflict data for each potential "infectee" from UCDP/PRIO allowed me to capture the effect of diffusion at a fine-grained level, given UCDP/PRIO's various death thresholds for violence to be considered civil war.

- 11. Consider the following example of refugee flows and the time-delayed effects on contagion. When refugees flee war in k seeking refuge in i, i's odds of civil war increase as a result of the hostilities in k. Yet, war is not instantaneously experienced by i. Rather, time elapses from the occurrence of violence in k and the arrival of refugees in host state i to the time that the negative impact of the refugees produces war in i. There are several reasons why refugees spread instability. Refugees are an economic detriment on host states. Refugee camps are breeding grounds for radical ideologies that can lead to new rebel groups. The presence of refugees in host states can ignite local animosities that can lead to violence. These processes take time to occur. For scholarly examples that use refugee flows as a predictor of spreading instability, which also note a time-lagged effect, see Salehyan and Gleditsch (2006) and Salehyan (2009). Similar time-lagged effects are present for other contagion mechanisms including demonstration effects, negative regional externalities, and others, all of which are driven primarily by a war's hostility level.
- 12. For a full description of the process by which the risk of infection is generated (a_{ik}) , see Kathman (2010a, 2010b). In the process of generating a_{ik} , I do not account for separate predictors of contagion. It is not possible to use several contagion variables in this analvsis. First, many of the contagious effects of civil conflicts (negative regional economic downturns, demonstration effects, and refugee flows) occur during the course of an ongoing war. Including several contagion predictors will cause these variables to be highly correlated with one another, potentially causing their individual effects to be obscured. Second, in the analysis herein, I am deriving the risk of infection for individual i states that neighbor each k war. The direct effect of contagion is difficult to attribute to many of these predictors. For instance, negative economic performance in i may result from factors other than war in k. Still, I expect Neighbor Civil War Intensity to be the principal predictor of contagion. The number of battle deaths produced by a war should drive the values on related contagion measures. For example, increasingly intense violence produces greater refugee flight, more visible lessons for potential rebel groups in surrounding states, and more dramatic regional economic decline. Lastly, there are cases in which state i is bordered by more than one war. Calculating the marginal effect of war diffusion from several civil wars in neighbor states k is not possible with multiple contagion variables. Using only one measure, I am able to assign proportions of the marginal effect to each k war using the proportion of battle-related deaths that each civil war generated. I could similarly onsider proportions of other contagion predictors. However, with multiple predictors, there is no clear means of weighting the differences between measures.
- 13. First, these models were run on data using the UCDP/PRIO's more restrictive 1,000 battle deaths threshold for violence in state *i* to be considered a civil war, and the results were practically identical. Second, since there have been instances in which different civil war data sets have produced somewhat different results, *Neighbor Civil War Intensity* was added to data from Fearon and Laitin (2003). Replicating Fearon and Laitin's (2003)

analysis produced a positive and significant effect for Neighbor Civil War Intensity on their civil war prevalence dependent variable that is consistent to the results reported here. Also, two checks of my results attempted to account for the amount of peace in i's neighbors in addition to hostility levels. I created two new variables. The first variable divided Neighbor Civil War Intensity by i's total number of neighbors. The second variable divided the number of civil wars that neighbored i by i's total number of neighbors. Both variables produced results that mirrored those reported for Neighbor Civil War Intensity in model of Table 1. The consistency of these results increases confidence that Neighbor Civil War Intensity is sufficiently representing the contagious attributes of civil war.

- 14. Trade dependence is measured as the potential intervener's total trade with each neighbor state as a percentage of the third party's GDP. Both alliance and geographic proximity measures are dichotomous.
- 15. Although many of my control variables come from Lemke and Regan (2004), their data set format does not allow for a simple replication, as it is not specific to the civil war year. Their data provides only one observation for each potential intervener that existed at some point during the course of each war. This format is not very accurate in the sense that membership in the international system changes over time as do the values on many of their independent variables. This is especially the case for long civil wars for which such changes can be substantial. My data format is year-specific.
- 16. For a fuller description of the data on intervention, see Regan (2000, 2002). In total, 1,038 interventions are coded from Regan (2002). Of these, 906 are military interventions. However, the Regan (2002) data are coded to the conflict month. Therefore, when a third party is responsible for more than one intervention per year in a given conflict, such interventions are collapsed in a single annual value.
- 17. *Religious War* is treated as the baseline category in the analysis and is thus dropped due to collinearity.
- 18. This variable was also created using ATOP data to be consistent with the R_j Allies variable. The result produced by the ATOP variable was substantively identical to those reported below, and none of the results for the R_j variables were affected. For consistency with the Lemke and Regan replication, I report results for the COW variable in Table 1.
- 19. To ensure temporal order, these independent variables were lagged one year: each Rj variable, Dyadic Allies, Dyadic Trade, Intensity, Refugees, Casualties, Democratic Intervener, Democratic Government, and Joint Democracy.
- 20. Since the α_{ik} values are determined from a previous regression, I employ bootstrapped standard errors in Table 2. In addition, to test the robustness of the results, I used a probit model with bootstrapped standard errors, and the results improved the significance of the R_j Geography variable to .01 in models 4 and 5 while the remaining R_j variables reported near identical results. Also, the results were generated using both a simple logit and probit with robust standard errors, and the results were very similar to those reported herein. Lastly, the models were reproduced with a rare events logit, and again the findings were consistent.

21. However, the lack of consistent significance across models raises caution. More specific variables are needed to determine how intervention reflects the tenor of relationships between African states

- 22. Since democracies are less likely to experience civil war ex ante, future work should consider the selection process by which conflict occurs in democracies and subsequently attracts or repels intervention.
- 23. However, this variable may simply be a proxy for the global interests of powerful third parties since those states that possessed the strength to intervene globally have also tended to be democracies.
- 24. Given the insignificant coefficient for *Intensity* in several models, I am less confident about its explanatory value.
- 25. This is unsurprising given that states are more likely to ally with other proximate states.
- 26. Predicted probabilities were generated using the SPost program provided by Long and Freese (2005).
- 27. Studies often report changes in predicted probabilities by varying a single variable from its minimum to maximum value, holding all other variables constant. Varying from minimum to maximum values is less reasonable when continuous variables are rather dispersed. The following are descriptive statistics for each R_i variable. R_i Allies: Mean = .004; Std Dev = .020; Min = 0; Max = .904. R_i Geography: Mean = .016; Std Dev = .044; Min = 0; Max = .999, $R_i Trade$: Mean = .0001; Std Dev = .0005; Min = 0; Max = .057. The maximums are distant from their means. The small mean results from the fact that many R_i observations take a value of zero, as there are many third parties that do not have regional interests put at risk by individual wars. Also, some values are rather distant from the mean because there are cases in which wars have extremely contagious attributes and take place in regions that are critically valuable to some third parties. To be certain that values distant from the mean are not overstating the substantive effect of these variables, it is fairer to report increases in predicted probabilities from changes in standard deviations. Given that many studies vary values from minimums to maximums, my choice of the mean to two standard deviations above the mean is very conservative. Yet, the resultant increase in the probability of intervention is still rather substantial. The calculations in the text are made using the results reported in models 1 through 3.
- 28. Space restrictions limit the amount of historical context that can be devoted to each case. For the purposes of exposition, the cases will be described in terms of their relevance to the model's specification.

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