THE EFFECTS OF DOMESTIC CONFLICT ON INTERSTATE CONFLICT: AN EVENT DATA ANALYSIS OF MONTHLY LEVEL ONSET AND INTENSITY

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1. Introduction

That domestic conflicts can affect interstate conflict is clear. Consider a few recent examples. In the first months of 2001, fighting between Burmese government troops and domestic rebels intensified, with much of the violence occurring near the border between Burma and Thailand. During this same period, interstate conflict between Burmese and Thai military forces reached their highest levels in decades, as troops from both sides clashed over control of strategic locations near the border and engaged in shelling and small arms fire resulting in scores of civilian deaths.[1] In this case, the presence and intensity of the domestic conflict in Burma that spread across the border into Thailand led directly to the interstate conflict events that transpired between official military personnel of each state. Recent events in Libya provide another example. After more than a month of unrest in the region, the first substantial demonstrations in Libya occurred on February 15, 2011, leading to approximately 15 deaths by February 17, 2011.[2] Within a week, anti-Gadaffi rebels had mobilized and the country was engaged in severe revolutionary fighting. Seeking to take advantage of a window of opportunity that the domestic conflict provided to attempt to help extricate Gadaffi from power, United States and British forces began an international campaign against Gaddafi by firing over 100 Tomahawk cruise missiles against Libyas key air defense installations on March 19, 2011. Again, the existence of the domestic conflict influenced an interstate conflict, albeit through different mechanisms than though by different mechanisms than the previous example. [3]

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[1] "Thai Army Closes Border with Burma Following Fatal Clashes." *The Nation*, Thailand. February 12, 2001. Accessed via *LexisNexis*, Keywords: Burma, Thailand, conflict.

[2] "Arab Capitals Braced for Violence Today as Unrest Spreads." *The Guardian*, London. February 18, 2011. Accessed via *LexisNexis*, Keywords: Libya, protest, death.

[3] Koutsoukis, Jason. "Gaddafi Threatens Revenge; 'Days, not weeks' says US 'Coalition Jets Launch Attack' Snipers Fire on Rebels." *The Age*, Melbourne Australia. March 21, 2001. Accessed through *LexisNexis*, Keywords: Libya, 110 Tomahawk.

The central goal of this paper is to provide a thorough and nuanced analysis of the effects of both the onset and intensity of domestic conflict on interstate conflict–an area of research that is surprisingly underdeveloped in the extant literature. One potential reason for the lack of relevant empirical analyses may be due to the coarseness of existing data on both domestic and interstate conflicts. In terms of domestic conflict, Uppsala Armed Conflicts Data (ACD; see Gleditsch et al. [2002]) and Correlates of War (COW) datasets (see Sarkees and Wayman [2010]) predominate in the literature. However, scholars primarily use these datasets to provide a binary measure of whether or not conflict/war occurred in a given state-year.[4] According to the ACD dataset, Burma experienced domestic conflict every year from 1997 to 2011, but according to COW, domestic conflict did not reach sufficiently high thresholds to become a war, so every year in that period receives a 0 on the dichotomous scale. Thus, it is impossible to test for the effects of variation in the intensity of domestic conflict in Burma on the onset or intensity of interstate conflict, even though real world examples suggest such relationships might exist. Furthermore, studies analyzing interstate conflict also tend to rely on dichotomous, annual level measures such as militarized interstate dispute (MIDs see Ghosn et al. [2004]) or COW measures. The dichotomized and annual-level nature of these measures inhibits the ability of researchers to test for more subtle variations in levels of intensity during and between years, yet this what we expect to see in Libya, as NATO forces are basing the intensity of bombings on the success of the rebels.

These shortcomings in existing data all suggest that temporally nuanced, continuous measures of both domestic and interstate conflict are needed in order to appropriately test for the range of potential effects that domestic conflict may have on interstate conflict. This paper will addresses this problem by generating monthly level, continuous data reflecting the number of conflictual events at both the state-month (for domestic events) and the dyad-month (for interstate events) level based on the Integrated Conflict Early Warning System (ICEWS) event dataset, which contains over 2 million domestic and interstate events for 29 Asian countries from 1997 to 2010. Using this data, I perform numerous linear and non-linear tests for the effects of domestic conflict onset and intensity on the onset and intensity of interstate conflict across a range of operationalizations of onset and intensity at the monthly level. To the best of my knowledge, this paper provides the first empirical

[4]These datasets also provide estimates of the total number of battle fatalities, but those figures reflect the duration of the conflict and cannot be disaggregated to smaller temporal units. As a consequence, in many cases, it is impossible to determine even annual level variation in conflict intensity.

test for the effects of domestic conflict intensity on both the likelihood of interstate conflict onset and the intensity of ongoing conflicts.

The paper proceeds in four sections: first, I provide a brief review of relevant literature and from that literature develop my testable hypotheses; second, I explain my use of event data; third, I outline my variable operationalization and research design; fourth, I provide empirical models and results. Lastly, I conclude with a discussion of future extensions.

2. Building Hypotheses from the Literature

Although the examples of Burma and Libya are recent, similar cases are pervasive throughout history. For example, almost a century ago in 1911, the Russian Bolsheviks were entrenched in civil war against reactionists and lacked sufficient resources to defend Russia's external border. Aware of this weakness, Japan sent 70,000 troops into northern Siberia with the goal of partitioning part of Russia to create a buffer state (see Humphrey [1995]). Despite the historical occurrence of domestic conflicts affecting interstate conflicts and studies calling for more comprehensive analyses of potential relationships (see Sambanis [2002], and Chiozza et al. [2006]), this topic has received relatively little attention in the literature.[5] Since theorizing and testing for a full range of potential relationships between the onset and intensity of domestic conflict on the onset and intensity of interstate conflict exceeds the scope of this paper, I test for four hypotheses derived from the related conflict literature.

The most relevant extant empirical studies tend to focus only on the effects of a domestic conflict onset on the likelihood of an interstate conflict onset Davies [2002] finds that certain contentious domestic events such as protests or riots may increase the likelihood of initiating a MID; Walt [1996] argues through an opportunism framework that states undergoing domestic conflict make more attractive targets for interstate attacks; Trumbore [2003] finds that domestic ethno-political rebellion may increase the likelihood of MID initiation; a number of scholars have illustrated that domestic conflicts increase the likelihood of third-party interventions, which may or may not be welcome by the host government (Elbadawi and Sambanis [2002], Gleditsch [2007], Regan [2000]); and interstate conflict that can result from foreign support of rebels (Schultz [2010]).

[5]This is even more surprising given the large numberfrom which I select a small number of relevant examplesof diversionary war studies analyzing the effects domestic economic (inflation (Mitchell and Prins [2004]), inflation and unemployment (Fordham [2002]), GDP(Bennett and Nordstrom [2000]) and political (regime type, leader approval ratings (Ostrom and Job [1986]), election cycles (Smith [1996])) conditions as well as the presence of a number of studies addressing ways in which interstate conflicts can affect domestic conflicts (Thyne [2006], Akcinaroglu and Raziszewski [2005]).

Gleditsch et al. [2008] provide a more comprehensive argument that onsets of domestic conflict increase the likelihood of interstate conflict by outlining the five main mechanisms through which this occurs: [6]

- Opportunism: Civil wars and insurgencies expose and exacerbate weaknesses in a state's military capabilities and divert resources away from defenses against foreign enemies, thereby increasing the expected utility of attacking a state with domestic conflict
- Diversion: Faced with domestic conflict, a leader may intentionally seek out interstate conflicts in order to divert attention away from domestic issues and generate a rally around the flag effect.
- Intervention: States can intervene either on the side of the government or the side of the rebels during a domestic conflict.
- Externalization: During domestic conflicts, rebels and government forces may cross interstate borders in order to find safe havens or more favorable territory from which to launch attacks.
- Spillover effects: Domestic conflicts often lead to enhanced troop movements near borders, cross-border refugee flows, and regional economic disruptions that can all increase the likelihood of interstate conflict.

Overall, the relevant extant literature–including all five of Gleditsch et al. [2008]'s mechanisms–is in agreement that the occurrence of domestic conflicts increases the likelihood of an interstate dispute onset and they also provide real-world examples and empirical testing to support this proposition. My first hypothesis seeks to test this argument at the monthly level.

Hypothesis 1: At the monthly level, an onset of domestic conflict should increase the likelihood that that state becomes involved in a dyad-level onset of interstate conflict

Although Gleditsch et al. [2008] and others provide a clear testable hypothesis for the effects of an onset of domestic conflict on the likelihood of an onset of interstate conflict, their theory and research design do not directly address how fluctuations in the *intensity* of a domestic conflict onset might affect either the onset or intensity of interstate conflict. Indeed, in many conflict prone countries, such as the case of Burma or the Democratic Republic of the Congo (DRC), levels of domestic conflict are very rarely zero. Therefore, in these and other cases, it is the *level*, rather

[6]Gleditsch et al. [2008] treat opportunism and diversion as one conceptually unique category, I divide them because I believe that they are conceptually unique concepts.

than the occurrence or the onset of domestic conflicts that should matter most. Unfortunately, the literature is sparse with respect to the effects of variation in domestic conflict intensity on interstate conflict. Logically, we could expect that as the intensity of a domestic conflict increase, the degree of opportunism, diversion, intervention, externalization, and spillover should also increase. This leads to my second testable hypothesis:

Hypothesis 2: The likelihood of interstate conflict onset should increase as the intensity of the domestic conflict onset increases.

This line of reasoning could also be applicable to the predicted levels of interstate conflict, as increases in intensity in domestic conflict could lead to increases in the expected intensity of interstate conflict. Despite a dearth of relevant empirical literature, numerous case studies support the argument that the intensity of a domestic conflict has a positive and linear affect on levels of externalization, spillover, and opportunism. For example, more brutal conflicts tend to have higher levels of externalization and spillover, as violence in Darfur, the DRC, and Rwanda illustrate. An estimated 1.8 million refugees have fled Darfur amidst violence that has led to 300,000 deaths; in the DRC, civil violence since 1996 resulted in an estimated 5.4 million deaths and 3.4 million refugees; and in Rwanda, an estimated 2 million Hutus fled after approximately 800,000 deaths. In many cases–illustrated by Hutu militiamen fleeing to Zaire and other neighboring states–rebels are among the refugees. Clearly, these conflicts have broad negative local and regional economic consequences that nearby states would like avoid. Thus, it is logical to assume that externalization and spillover become more pronounced as the severity of domestic conflict increases. Following this line of argument, it is reasonable to suggest that as the intensity of domestic conflict increases, so does the likelihood of an interstate conflict.

Hypothesis 3: As the intensity of domestic conflict increase, the intensity of interstate conflictual activities should increase.

These first three hypotheses all suggest a positive relationship between domestic conflict and interstate conflict, both in terms of onset and intensity. Despite this, a considerably different strain of logic developed in the bargaining model of war literature suggests alternative relationships. Consider a baseline bargaining model of war in which the probability or winning a potential interstate conflict is a function of both state's capabilities (Fearon [1995]).[7] If two states in a dyad (State A and State B) both have capabilities totaling 100 units, the probability that either wins the conflict

[7]The preponderant measure of capabilities is the COW CINC score.

is approximately 50/50 under the assumption that both states are able to commit all capabilities to a potential interstate conflict. However, as Gleditsch et al. [2008] articulates, "Civil wars and insurgencies(...)divert resources away from defense against foreign enemies. This implies that if State A is engaged in a domestic conflict, it is forced to funnel a portion of the 100 units of total capabilities towards the domestic conflict meaning that its real capabilities to be used in the event of interstate conflict is 100. Consequently, the probability that a domestically conflicted State A wins an interstate conflict with State B is lower than 50%.

However, according to Fearon [1995] and others, this shift does not mean that State B will not be more likely to attack. Rather, it indicates that the bargaining range will shift to reflect this change in relative power.[8] This suggests that the utility of attacking for State B increases while at the same time, State A should be willing to offer more favorable settlements to State B in order to avoid war. Therefore, increases in the intensity of domestic conflict in one state in a dyad should not impact the likelihood of conflict onset, but will merely shift the likely bargaining range. From a frequentist perspective, the possibility of a null finding–i.e. the absence of the statistically significant relationship purported by each hypothesis–must exist. In the case of *Hypothesis 3*, the argument previously outlined in this paragraph may help explain the presence of a null finding, but under the frequentist model statistics, I am unable to draw inference in support of this argument based on a null finding.

Additionally, this rationale is extendable to cases in which the level of domestic conflict in both (or either) State A and State B varies after a conflict is already initiated. A number of cases exist to provide a clear illustration of two states simultaneous engaged in domestic and interstate conflic–such as Angola and the DRC, Burma and Thailand, and India and Pakistan. For example, consider a state with 100 units of capabilities is engaged in both an interstate and a domestic conflict. As the percentage of resources that it chooses to dedicate towards one of the ongoing conflicts increases, the amount of resources available to fight the other conflict decreases, meaning that the probability of winning also decreases. Focusing on enduring rivalries–conceptually akin to continuing conflict–Bennett and Nordstrom [2000] posit that by reducing or ending interstate conflict with a rival, a state becomes able to free up important resources that may be reallocated to the domestic economy. It is likely that these resources could also be used to reinforce efforts to

[8]I assume that the level of intensity of domestic conflict is public information, observable by all members of the international system. Testing for formal hypotheses derived from varying the extent to which this information is private falls outside the scope of this paper, but could serve as a fruitful undertaking in the future.

put down domestic conflict. For example, in 1905, increasing levels of domestic unrest played into Russia's calculi during negotiations to end the Russo-Japanese war:

> "Their (Russian negotiators') country was in the first throes of a slow revolution that they knew to be unstoppable. At best, the revolution could be postponed if they could negotiate a foreign peace that would enable the Tsars ministers to deal undistractedly with the war developing in the streets and basements back home."[9]

Furthermore, in the post WWII era, the likelihood of losing territory, rents, and control over government is higher in modern domestic conflicts than interstate conflicts due largely to evolving international norms, meaning that it is logical to assume that a state would place greater emphasis on winning the domestic conflict.[10] Thus, if domestic intensity increases in both states and causes them to funnel resources away from the interstate conflicts, it follows that the intensity of the interstate conflict should decrease. If only one state in a dyad shifts resources from interstate to domestic conflict, that state should be more likely to acquiesce as its likelihood of winning relative has decreased relative to pre-conflict levels. These arguments lead to my final hypothesis:

Hypothesis 4: As the intensity of domestic conflict increases when one or both states of a dyad are engaged in domestic conflict, the intensity of an ongoing interstate conflict should decrease.

Although the four hypotheses outlined in this section reflect a more comprehensive analysis of the effects of domestic conflict on interstate conflict than previous studies, it is clear that I have not exhausted all potential relationships. Moreover, the theoretical arguments and real-world observations that I outline all suggest linear relationships. Therefore, in the following section, I outline my research design that allows for more directly testing of my four outline hypotheses through the use of event data and nuanced, non-linear methodological approaches approaches.

3. Research Design

3.1. **Constructing Independent Variables.** In order to account for the continuous nature of domestic conflicts that vary at sub-annual levels, I utilize the Integrated Conflict Early Warning (ICEWS) event data dataset. The dataset provides daily level event data for 29 Asian countries from 1997 to 2011 based on machine coding of electronic news sources from 27 national and regional

[9]Excerpt taken from Theodore Roosevelt biographer Edmund Morris' account of negotiations between Russian and Japanese diplomats, overseen by then President Roosevelt.

[10]See Zacher [2001] for a discussion of how the territorial integrity norm that has increased the rarity of transfers of territory through interstate war; Collier [1999] for an illustration of the negative effects of civil war on domestic economic sectors and GDP; and Le Billon [2001] for a discussion of domestic rebels' ability to siphon resource rents from governments.

electronic publications. In a perfect world, the ICEWS dataset would cover a broader set of countries. However, I believe that the 29 Asian countries are sufficiently diverse in terms of wealth, population, geography, religion, and language to generate unbiased empirical results. Overall, the dataset contains over 2 million daily level events in a who-did what-to whom, when, and where format according to the CAMEO coding scheme.[11] These events include both intra- and inter-state interactions between relevant political actors.

As with any study involving event data, a number of important decisions must be made regarding the aggregation techniques used to convert events into usable data (see D'Orazio et al. [2011] for a thorough discussion of aggregating event data). In this study, I am interested in a measure that best reflects the level of domestic conflict. As such, I build a count variable at the state-month unit of analysis that reflects the number of material conflict events–comprised of physical acts of a conflictual nature including but not limited to small and large arms attacks, destruction of property, and assassination–that occur between government actors (members of government, military, and police) and domestic rebel groups. This measure allows me to overcome the empirical limitations resulting from state-year, binary measures by testing across multiple definitions of onset and intensity at the monthly level.[12]

3.2. **Control Variables.** In addition to the event data-derived measures of domestic conflict, I follow Russett and Oneal (2001) and employ their eight baseline variables used to explain MID involvement (Table A5.1, p. 316), which are all aggregated at the yearly level:

- Non-Contiguity: 0 reflecting a shared land border or fewer than 150 miles of water separating the nearest borders, and 1 indicating non-contiguous borders (Stinnett et al. [2002]).
- Power Ratio: The ratio of CINC scores between the two states in the dyad, with the lower score serving as the numerator (Singer et al. [1972]).
- Minor Powers: A binary measure taking on 1 if neither of the two states in the dyad are considered major powers. In my dataset, all dyads are comprised of minor powers with the exception of those containing either China or Japan.
- Log Distance: COW data reflecting distance between capitals in miles, logged (Stinnett et al. [2002]).

[11] see Appendix for list of CAMEO codes that correspond with "material conflict."

[12] Approximately 65% of state-months contain no conflictual events. Sri Lanka in May 2000 experienced the highest level of monthly domestic conflict, with a recorded 99 conflictual events.

- Democ_L: Polity IV data, which reflects the autocracy-democracy score of the lesser democratic state in the dyad on the 21-point, -10 (fully autocratic) to +10 (fully democratic) scale (Marshall and Jaggers [2009]).
- Depend_L: Bilateral trade data, calculated to reflect the percentage of both states in the dyads total trade comprised by the dyadic trade. The dyad receives the lower of the two state scores (Barbieri et al. [2009]).
- IGO: A count of that reflects the number of shared dyadic IGO membership (Pevehouse and Nordstrom [2004]).
- Alliance_membership: An ordinal measure of 0, 1, or 2, reflecting the highest degree of dyadic alliance (Gibler and Sarkees [2004]).

3.3. **Dependent Variables.**

Theoretically, the concept of interstate conflict suggests that it must occur between two states. Moreover, because my hypotheses relate to official state capacities and actions, I focus exclusively on events that occur between official armed forces from two different states.[13] Next, I must address how to convert CAMEO codes that reflect specific actions into usable data. Within the literature, two major approaches exist: scales and counts. The more common strategy is to employ scaling, which assigns a value–generally on a -10 to +10 integer continuum–in order to reflect the degree of contentiousness of each event (Goldstein [1992]). Despite its popularity in the literature, scaling leads to a number of theoretical and operational difficulties. For example, if one were to treat the average value of events across a temporal domain as the level of interstate conflict, then one +10 event (agreeing to a cease fire) would cancel out one -10 events (i.e. a cross-border small arms attack), resulting in a mean score of 0. Scaling, therefore, requires further modification in order to achieve any level of validity.

Instead of scaling, I follow Duval and Thompson [1980] and D'Orazio et al. [2011] in utilizing a count model, which reflects the number of material conflict events that occurred between the relevant interstate actors outlined above. This allows for greater flexibility in testing for variation in severity (i.e. the number of material conflict events) as well as onset (i.e. the occurrence of a certain number of material conflict events after a period of no events). Lastly, I aggregate the count of interstate material conflict events at the monthly level.

[13] I treat members of police and armed forces unit jointly, meaning that in order for an event to qualify as interstate, it must occur between members of the military or police of two different states.

To construct my complete dataset, I first use *EUGene* (see Bennett and Stam [2000]) to build a dyad-year time-series cross section with the eight annual level controls from Russet and Oneal [2001] from 1997 to 2004 for all possible dyads comprisable from the 29 Asian countries in the ICEWS dataset. Next, since my analysis focuses on monthly level variation, I must convert these yearly scores to the monthly level. To do so, I assume that the value of the control variables in each month is the same as their yearly total. For example, if trade the $\text{Depend}_L score for China and Japan in 2004 is .42, I set the De$
$China dyad at .42. Lastly, I merge the event data derived state-month measures of domestic and dyad-$
$month measure of interstate conflict. The final dataset is a time-series cross section with the number of interstate ema$
$month in my dataset of 29 countries from 1997 through 2004. With this data, I utilize a number of different operational$

4. Empirical Tests

4.1. **Tests of Onset.**

My first empirical test analyzes whether an onset of domestic conflict affects the likelihood of an onset of interstate conflict. At the most basic level, the concept of an onset assumes that an event that was not previously occurring suddenly begins. Thus, any operationalization of domestic conflict onset must require a period devoid of domestic conflict during which an onset may occur. I assume that a state-month with fewer than two conflictual events between government and rebels reflects an absence of a domestic conflict, meaning that an onset of domestic conflict can occur in the following month.[14] Additionally, I assume that a state-month with more than five counts of domestic conflict is experiencing domestic conflict. Thus, my first operationalization of domestic conflict onset–called *domestic_conflict_5*– is a binary measure that takes on a "1" for any month with more than 5 domestic conflict events preceded by a month with fewer than 2 events of material conflict, and a "0" otherwise.

Similarly, important decisions must be made regarding how to operationalize interstate conflict using event data. I code an onset occurring in any month that experiences 5 acts of interstate material conflict and fewer than 2 events in the previous month and create a binary measure called *interstate_onset_5*, which takes on a "1" for every dyad-month with an onset, "0" otherwise.[15]

[14]Although event data has been found to be as accurate as human coding (see King and Lowe [2003]), mistakes still occur. By requiring more than two events of interest to occur before coding an onset, I reduce the likelihood of mistakenly coding a false onset.

[15]Additionally, I create a binary dependent variable called *interstate_conflict_10*, which takes on a "1" for all months with 10 or more conflictual events preceded by a month with 2 or fewer conflictual events and a "0" otherwise. Theoretically, it is important to test across a spectrum of logical operationalizations for conflict "onset". However, I am yet to overcome issues arising from perfect separation while utilizing a logit model with *interstate_conflict_10* as

[*INSERT TABLE 1 HERE*]

In Model 1 and Model 2 of Table 1, I utilize a logistic regression with *interstate_onset_5* serving as the dependent variable. In both models, I control for the eight Russet and Oneal [2001] baseline variables, which are also utilized as controls in a number of additional studies, including Gleditsch et al. [2008]. Additionally, I include a variable reflecting the number of months since the previous *interstate_onset_5* in order to control for possible temporal dependence (see Beck et al. [1998]). As Table 1 indicates, I find that neither *interstate_conflict_5* nor *interstate_conflict_10* (both lagged one month) achieve a statistically significant effect on the likelihood of an onset of interstate conflict. Thus, I find no empirical support either *Hypothesis 1* or *Hypothesis 2*. Although these results seem surprising at first glance, a closer interpretation provides insight into potential relationships between onset of domestic and interstate conflict.

First, it is possible that despite these results, domestic conflict onsets may, in fact, still increase the likelihood of interstate conflict onsets. If the average time between a domestic conflict onset and an interstate conflict onset is very short (i.e. a few days), then the use of a one-month lag of the domestic conflict onset variables may inhibit a logistic regression's ability to discern statistically significant empirical relationships. Consider the example of domestic conflict in Burma, which lead to the interstate artillery fire between official Burmese and Thai military personnel. Burmese rebels crossed into Thailand on February 11 and February 12, 2001. Later on February 12, 2001, Burmese soldiers fired on Burmese rebels who had crossed into Thailand, which led to Thai soldiers fortifying the border and firing retaliatory shots at Burmese troops.[16][17] If this example is indicative of a broader population of similar cases, it is possible that even the monthly level of temporal aggregation is too coarse and a weekly or even daily level may be justified.[18,19]

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the dependent variable. I am working to overcome this problem and plan to implement the recommendations made in Zorn [2005] after the completion of the global dataset.

[16] "Border Tense despite retreat of Burmese." *The Nation*, Thailand. February 13, 2001. Keyword: Burma, rebels, conflict.

[17] "Thai-Burma border talks fail." *BBCNews*, England. February 15, 2001. Accessed via URL: http://news.bbc.co.uk/2/hi/asia-pacific/1171769.stm.

[18] Though generating domestic and interstate event data at the weekly level is outside the scope of this paper, it may serve as fruitful research in the future.

[19] In Table 2, I test for the effects of un-lagged *domestic_conflict_5* and *domestic_conflict_10* on *interstate_onset_5*. The results suggest that a month with an onset of domestic conflict(both *domestic_conflict_5* and *domestic_conflict_10*) are more likely to experience an onset of interstate conflict. However, without lagging the domestic onset variables, it is impossible to determine if the empirical significance is driven by reverse causation: interstate conflict onsets may occur early in a month and directly lead to an increase in the number of domestic conflictual events recorded by local and regional news sources. Additionally, interstate conflict may spark actual domestic conflict by emboldening rebels, or it may increase the level of media attention for a given state-month, thereby increasing the likelihood that

Second, unlike Gleditsch et al. [2008] who analyze for the effects of the *existence* of a domestic conflict on the likelihood of a MID *occurrence*, I focus Table 1 exclusively on the relationship between domestic and interstate conflict *onset*. By doing so, I am not able to account for the effects of dyad-months in which one or both states experienced high levels of domestic conflict if they also experienced domestic conflict in the previous month, as this reflects a continuation rather than an onset. In total, my dataset contains 1,919 dyad-months in which at least one of the two states comprising each dyad experienced more than 10 conflictual domestic events. However, only 205 of these dyad-months meet the coding criteria of *domestic_conflict_5*. Similarly, among the 329 dyad-months with 10 or more conflictual interstate events, only 129 meet the coding criteria of *interstate_onset_5*. Thus, this results in Table 1 reflect only a subset of all dyad-months that experience both domestic and interstate conflict. This suggests that focusing on measures of onset may not be the most effective approach to analyzing for empirical relationships between domestic and interstate conflict. As such, I next analyze relationships between varying levels of intensity of domestic conflict on the intensity of interstate conflict.

4.2. **Tests of Intensity.**

Empirically testing for the effects of variation in the severity of domestic conflict on the level of interstate conflict at the monthly level is a difficult task that, to the best of my knowledge, has not been done thus far. Consequently, I am unable to draw upon existing methodological approaches to operationalize event data measures to test for monthly level severity. Given the dearth of precedent, I test for a number of logical measures of both domestic and interstate conflict intensity.

The total number of conflictual domestic events seems like a reasonable proxy for domestic conflictual intensity, as greater numbers of conflictual events tend to indicate more severe conflicts. However, in many especially conflict-prone states (such as India, Burma, etc.), the government allots a certain level of military resources specifically for combating domestic rebel groups. As such, the mere occurrence of domestic conflict in these states would not lead to a reduction in the amount of resources available for interstate conflict. However, an increase in the level of domestic conflict above the expected levels may require military resources to be diverted from units with interstate defense objectives. Given this, an appropriate measure of the extent to which a domestic conflict forces a central government to divert resources away from potential interstate issues towards

domestic conflictual events are reported. As such, it is difficult to perform inference on the findings in Table 2 at this stage and further empirical testing is needed.

combating domestic rebels should account for increases in domestic conflict above an average level of conflict that a state expects to experience.

The challenge, therefore, is building appropriate independent variables that reflect *variation* from expected levels of conflict. To do so, I calculate 3- and 6-month moving averages of the number of domestic conflict events at the state-month level. Next, I calculate the difference between the number of domestic conflict events during month t and the 3- and 6-month moving averages, allowing me to create the following variables:

- *StateA_change_3 and StateB_change_3*
  - A continuous measure of the difference between the number of domestic conflict events occurring in state-month t and the moving average of events that occurred during months t-1, t-2, and t-3.
- *StateA_change_6 and StateB_change_6*
  - A continuous measure of the difference between the number of domestic conflict events occurring in state-month t and the moving average of events that occurred during months t-1, t-2, t-3, t-4, t-5, and t-6.

Also, I test for binary measures of whether one or both states comprising each dyad pair experienced higher levels of domestic conflict than the previous month.

- *One_worse_3*
  - A binary measure or 1 if *one* of the two states experienced more domestic conflict events during month t than moving average of events that occurred during months t-1, t-2, and t-3.
- *One_worse_6*
  - A binary measure or 1 if *one* of the two states experienced more domestic conflict events during month t than moving average of events that occurred during months t-1, t-2, t-3, t-4, t-5, and t-6.
- *Two_worse_3*
  - A binary measure or 1 if *one* of the two states experienced more domestic conflict events during month t than moving average of events that occurred during months t-1, t-2, and t-3.
- *Two_worse_6*

  - A binary measure or 1 if *one* of the two states experienced more domestic conflict events during month t than moving average of events that occurred during months t-1, t-2, t-3, t-4, t-5, and t-6.

In addition to determining appropriate measures of variation in intensity of domestic conflict, it is also necessary to measure similar concepts in terms of interstate intensity that reflect variation from average levels.[20] Because there is little precedence for testing variation in interstate conflict intensity at the dyad-month level, I test for four different operationalizations with the belief that strong findings will be robust across different specifications:

- Change from moving averages
  - *Interstate_change_1*: The difference between the number of interstate material conflict events at month t and t-1.
  - *Interstate_change_3*: The difference between the number of interstate material conflict events at month t and the 3-month moving average of months t-1, t-2, and t-3.
  - *Interstate_change_6*: The difference between the number of interstate material conflict events at month t and the 6 month moving average of months t-1, t-2, t-3, t-4, t-5, and t-6.
- The total number of interstate material conflict events: *Interstate_conflict*

In Table 3, I test for effects of variation in domestic conflict intensity on *interstate_conflict*, while controlling for the eight Russet and Oneal [2001] variables in addition to a lag of the dependent variable in order to account for the level of interstate conflict in the previous month. Because I am interested in analyzing intensity, rather than onset, I limit my analysis to only dyad-months that are preceded by a month with at least 5 interstate conflict events.[21]

[*INSERT TABLE 3 HERE*]

In Model 1 of Table 3, I test for the effects of *StateA_6_change* and *StateB_6_change* on *interstate_conflict* and find no statistically significant relationship. Model 2 and Model 4 illustrate the effects of the dichotomous measures of whether one of the two states comprising each dyad experienced a level of domestic conflict higher than its 3- and 6-month moving averages, designed to

[20]For example, 10 interstate material conflict events between Vietnam and Cambodia reflect a more dramatic increase in severity (due to historically low levels of conflict from 1997 to 2004) than the same number of events between India and Pakistan. Accounting for moving averages alleviates this potential concern.

[21]*EUGene* orders dyads based on country codes. As such, the ordering of the two states that comprise each dyad is not random. Before performing empirical testing in this section, I randomize the order to overcome potential biases.

reflect two different measures of the "average" level of domestic conflict. In Model 4, *one_worse_6* is statistically significant with a positive coefficient, suggesting that if one state in the dyad experiences an abnormally severe level of domestic conflict in June, the level of interstate conflict within dyads containing that state should intensify in July. Although this provides some support for *Hypothesis 3*, the lack of statistical significance of *one_worse_3* in Model 2 decreases the robustness of this finding. Whereas Model 2 and Model 4 test for whether *one* state in the dyad experienced "abnormal" levels of domestic conflict, Model 3 and Model 5 analyze the effects of *both* states in the dyad experiencing heightened levels of domestic conflict. The negative coefficients for both *both_worse_3* and *both_worse_6* in Model 3 and Model 5 suggest that if *both* states in the dyad experience worse than average levels of domestic conflict in the same month, the level of interstate conflict in the following month should decrease. Although the p-values for both *both_worse_3* and *both_worse_6* in Model 3 and Model 5 fail to reach the critical cutoff of .1, they are sufficiently small (.18) to provide weak support in favor of *Hypothesis 4*, which asserts that if both states in the dyad experience increasing levels of domestic conflict, the level of inter-state conflict decreases as both would prefer to focus their military resources domestically. Overall, Table 3 provides some support for a potential relationship between the levels of intensity of domestic and interstate conflict, but the strength of relationships is at best tenuous.

To provide further testing, I perform additional OLS regression to analyze the effects of variation in the level of domestic conflict intensity on two different operationalizations of variation in interstate conflict intensity in Table 4: *interstate_change_1* in Model 1, Model 2, and Model 3; and *interstate_change_6* in Model 4, Model 5, and Model 6.[22] as a dependent variable and results do not vary considerably from the presented results in Table 3. Again, I limit my analysis to only dyad-months that are preceded by a month with at least 5 interstate conflict events and randomize the order of states in each dyad.

[*INSERT TABLE 4 HERE*]

In Model 2, Model 3, Model 5, and Model 6, I test for the effects of whether one or both states in each dyad experienced higher levels of domestic conflict in month t than in month t-1. Neither *one_worse_3* nor *both_worse_3* variables approach statistically significant p-values across any of these

[22]I also perform analyses with _change_3

four model specifications, which indicates that the effects of these variables are not distinguishable from 0 when testing for their linear effects on variation in interstate conflict intensity.[23]

In Model 1 and Model 4 of Table 4, I test for the effects of variation from a 6-month moving average in the level of domestic conflict in the two states that comprise each dyad. The statistically significant and negative effect of *StateB_6_change* in Model 1 suggests that continuous measures of increases in the severity of domestic conflict should lead to decreases in the severity of interstate conflict relative to the previous month. For example, as the level of domestic conflict in State A increases in June, we should expect that State A's level of interstate conflict should increase in July. However, this relationship does not hold in Model 4, which analyzes the effects of the identical set of covariates as Model 2 of variation in interstate conflict intensity compared to its 6-month moving average; in Model 2, I find the opposite result, with *StateA_6_change* generating a significant and positive relationship to the severity of interstate conflict, suggesting that as *StateA_6_change* increases, the expected intensity of interstate conflict in the upcoming month should also increase. These results are difficult to interpret for two main reasons. First, the signs of the statistically significant coefficients vary between Model 1 and Model two, suggesting that increases in domestic conflict decrease interstate conflict intensity relative to the previous month, but increase it relative to a 6-month moving average. Second, within Model 1 and Model 2, the variation between the size and p-value of the State A and State B coefficients is peculiar as these statistics should be similar, especially given that ordering within each dyad is randomized.[24]

Despite these peculiarities, the lack of robust findings in Table 4 is not entirely surprising. Intensity as a concept related to conflict has received considerably less attention–both theoretical and empirical–than other aspects of conflict, such as onset. Although these linear models are logical and the most commonly used approach within related studies, it is possible that relationships between variation in the level of intensity of domestic conflict and the level of intensity of interstate conflicts are not linear (Beck and Jackman [1998]). Consider the possible combinations of levels of variation in *StateA_6_change* and *StateB_6_change*, which reflect the change in the number of domestic conflictual events between month t and 6-month un-weighted moving average for State A and State B, respectively.[25] Both *StateA_6_change* and *StateB_6_change* can take on negative

[23]The empirical results of *one_worse_6* nor *both_worse_6* are consistent with *one_worse_3* nor *both_worse_3*,

[24]It is that the future inclusion of data from South America, Africa, and North Africa data in the coming months will mitigate the variation in findings.

[25]The range of both *StateA_6_change*and *StateB_6_change* is from -10 to 31, which is expected given that conflicts tend to spike then gradually fade, rather than gradually build and rapidly end.

or positive values, meaning that four potential combinations exist. It seems logical that the joint effects on interstate conflict severity may vary according to both the direction and size of each observation. Although this suggests the use of a traditional interactive term, generated by simply multiplying *StateA_6_change*and *StateB_6_change* together, this would be problematic for two main reasons.

First, an interactive term would inhibit my ability to determine the extent to which one or both variables are driving potential coefficients. For example, 30*1=5*6, meaning that I would be unable to empirically distinguish between two case for which I have considerably different theoretical expectations. Moreover, it seems that the effects of *StateA_6_change* and *StateB_6_change* could be interactive, meaning that their effect on the intensity of interstate conflict may be dependent on the other measure. Second, it is likely that the relationship is not linear, which, if true, could begin to explain the inconsistent findings from the parametric models presented in Table 4 and Table 5.

4.3. **A Move Beyond Linear Models.**

To most effectively test for the joint effects of variation in conflict intensity in both states comprising each dyad, I utilize a two-dimensional spline, which allows me to test for the effects of all possible combinations of *StateA_6_change* and *StateB_6_change* values on the *interstate_change_1* and interstate_change_6 variables (see Endrodi [2011] for a technical discussion of this technique). This approach provides a more nuanced measure of the effects of domestic conflict severity on interstate conflict severity by directly accounting for the specific level of conflict variation of each state rather than employing a traditional, single-dimensional interactive term or assigning the higher/lower/mean (such as Democ_L). In order to generate interpretable results from this approach, I first perform empirical analyses using a generalized additive model (GAM) to determine if an interactive spline term of *StateA_6_change* and *StateB_6_change* has a statistically significant effect on *interstate_change_1* and *interstate_change_6*.[26]

[*INSERT TABLE 5 HERE*]

In Table 5, the two-dimensional interactive spline term of*StateA_6_change* and *StateB_6_change* is highly significant in both Model 1 and Model 2, indicating that variation in the level of domestic conflict in both states does have an important and non-linear effect on variation in interstate conflict. In order to better illustrate the non-linear relationship between this interactive spline term and

[26]Again, I include the 8 Russet and Oneal [2001] control variables, randomize the ordering of states in each dyad, and only use dyad-months preceded by a month with at least 5 interstate conflict events to reflect continuing conflict.

variation in the severity of interstate conflict, I use the empirical results to generate plots reflecting the predicted effects of all possible combinations of *StateA_6_change* and *StateB_6_change* across observed values (which range from -10 to +31) on both *interstate_change_1* and *interstate_change_6*. To do so, I hold all control variables at their mean value, with the exception of Non-Contiguity, which is set to "0" to reflect a dyad with a shared border.[27]

[*INSERTT FIGURE 1 HERE*]

In Figure 1 and Figure 2, the Y- and X-axis reflect variation in the intensity of domestic conflict from the 6-month moving average for both states that comprise each dyad. The z-axis indicates the predicted value of the dependent variables. Positive values indicate a prediction of more intense interstate conflict, while negative values indicates a prediction of less intense conflict relative to the previous month (in Figure 1) and a 6-month moving average of interstate conflict intensity (in Figure 2). Figure 1 suggests that at low levels of *StateA_6_change* and *StateB_6_change*–which is where observations are most densely clustered–the interstate conflict intensity if expected to remain constant or increase slightly, as indicated by the global maximum near 0,0. However, as either *StateA_6_change* or *StateB_6_change* move away form that point, the predicted intensity level of interstate conflict relative to the previous month decreases.[28] In sum, Figure 1 illustrates that relationships exist and provides some support for *Hypothesis 3* and *Hypothesis 5*: low levels increases in domestic conflict intensity lead to increased expected levels of interstate conflict, but when domestic conflict becomes considerably more intense, the effect of interstate conflict intensity is expected to be negative.

[*INSERTT FIGURE 2 HERE*]

In Figure 2 like Figure 1, low values of *StateA_6_change* and *StateB_6_change* lead to predictions of relatively unchanged levels of interstate conflict. However, as *StateA_6_change* and *StateB_6_change* become negative indicating reduced levels of domestic conflict, the model predicts that the level of interstate conflict with be lower than the six month average. Conversely, when *StateA_6_change* and *StateB_6_change* take on positive values meaning increases in levels of domestic severity, the predicted level of interstate conflict also increases. Figure 2 further suggests

[27]In order to use the GAM package with a continuous dependent variable, I scale and center to a mean of 0 and variance of 1 so that I am able to use a Gaussian distribution to predict the size of the change. I re-convert the data out of z-scores into the original count and plot these values.

[28]Figure 1 is does not reflect a symmetric slope, which is to be expected. Variation in State B appears to have a larger impact on *interstate_change_1*, which mirrors the empirical findings in Table 4, but is puzzling given that the dyad ordering is randomized.

that predicted interstate conflict intensity reduces sharply as levels of domestic conflict ease, and gradually increases as levels of domestic conflict intensify, providing further yet weak support for Hypothesis 3.[29] Overall, the multidimensional spline approach demonstrates that relationships between domestic and interstate conflict intensity exist, but they are likely more complex than either theory or linear, additive tests are able to explain. This suggests that clear cut relationships as theoretically argued and empirically demonstrated in extant literature may break down with more nuanced data and non-linear models that may be better suited to address actual data generating processes.

5. Conclusion

Throughout history, cases abound where domestic conflicts affect interstate conflicts. Given the amount of empirical research dedicated to conflict studies, the dearth of studies analyzing the effects that onset and intensity of domestic conflicts may have on the onset and intensity of interstate conflicts is somewhat surprising. Cognizant of this void in the literature, Gleditsch et al. [2008] and others have recently performed more comprehensive studies of the ways in which domestic conflicts can lead to interstate conflicts. Without doubt, these studies mark a strong progression in the literature, but the reliance on state-year binary measures of both domestic and interstate conflict greatly inhibit the range of potential relationships for which scholars have heretofore been able to test.

In this paper, I utilize the ICEWS event data dataset–with over 2 million machine-coded events for 29 Asian countries form 1997-2011–in order to build state- and dyad-month measures reflecting the number of domestic and interstate conflictual events, respectively. With this data, I provide the first monthly level tests for effects of domestic conflict on interstate conflict. Moreover, the continuous nature of the variables allows me to test across a range of logical yet different operationalizations of conflict intensity and onset. This enables me to perform the first empirical analysis of the impact of domestic conflict intensity on the likelihood of interstate conflict onset and on the intensity of ongoing interstate conflict.

[29] I perform similar multi-dimensional splines across *interstate_change_6* and *interstate_change_3*. The p-values on the interactive spline term are both ¡.01, providing further support that statistically important relationship between variation in domestic conflict intensity and interstate conflict intensity exists and is non-linear. Again, the surfaces do not tell a clear substantive story.

I find that at the monthly level onsets of domestic conflict do not increase the likelihood of an onset of interstate conflict in the following month. This result holds when distinguishing between "small" and "large" domestic conflict onsets. However, domestic conflict onsets in a given month are associated with a higher likelihood of interstate conflict onset in the same month, which indicates that the two events may be correlated and suggests the need for more nuanced testing of domestic conflict onset in the future. In addition to analyzing the *onset* of conflicts, I test for effects of variation in the intensity of domestic conflicts on interstate conflict intensity using linear and multi-dimensional spline approaches. Here, the results are more fruitful. The joint interpretation across a number of different operationalizations and methodological approaches suggests effects are statistically significant and non-linear, but a sparsity of domestic conflicts with high levels of variation in intensity inhibit my ability to draw strong conclusions about directionality of effects. Indeed, the results in this study highlight the difficulties in not only operationalizing measures of both domestic and interstate conflict intensity, but also testing for the complex effects of the former on the latter.

Overall, this paper provides an important alternative to the more commonly used ex-post, state-year measures of domestic and interstate conflict, which allows researchers to the freedom to test for more real time conceptualizations of onset. Additionally, the event-data derived variables allow for variation to be analyzed as a conflict progresses, rather than relying on the rigid ex-post measures of intensity at the conflict-duration unit of analysis (i.e. number of total deaths during the duration of the conflict) that dominate the literature. Hopefully, the utilization of increasingly nuanced measures of onset and intensity and non-linear empirical tests will become more common practice within the field.

Though I find a number of interesting empirical results, the temporal and spatial domain of my dataset reflects a small sample of the available global population. As such, with more comprehensive data, it is likely that the more nuanced empirical tests (like the multi-dimensional splines analyzing intensity) could provide more interpretable and robust results with additional data. By August 2011, similar data will become available from the ICEWS project for South America, Africa, and the Middle East, which will likely increase the robustness of my findings currently based solely on data from Asia. Specifically, I believe that this new data will increase the number of dyads in which both states are experiencing a domestic conflict (i.e. the DRC and a number of its neighbors) and increase the robustness of related findings.

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6. Appendix

CAMEO Codes Corresponding Categorized as "Material Conflict"

- EXHIBIT FORCE POSTURE
  - Demonstrate military or police power, not specified below
  - Increase police alert status
  - Increase military alert status
  - Mobilize or increase police power
  - Mobilize or increase armed forces
- REDUCE RELATIONS
  - Reduce relations, not specified below
  - Reduce or break diplomatic relations
  - Reduce or stop aid, not specified below
    - Reduce or stop economic assistance
    - Reduce or stop military assistance
    - Reduce or stop humanitarian assistance
- COERCE
  - Coerce, not specified below
  - Seize or damage property, not specified below
    - Confiscate propert
    - Destroy property
  - Impose administrative sanctions, not specified below
    - Impose restrictions on freedoms of speech and expression
    - Ban political parties or politician
    - Impose curfew
    - Impose state of emergency or martial law
  - Arrest, detain, or charge with legal action
  - Expel or deport individuals
  - Use violent repression
- FIGHT
  - Use conventional military force, not specified below
  - Impose blockade, restrict movement
  - Occupy territory
  - Fight with small arms and light weapons
  - Fight with artillery and tanks
  - Employ aerial weapons
  - Violate ceasefire
- ENGAGE IN UNCONVENTIONAL MASS VIOLENCE
  - Engage in unconventional mass violence, not specified below
  - Engage in mass expulsion
  - Engage in mass killings
  - Engage in ethnic cleansing
  - Use weapons of mass destruction, not specified below
    - Use chemical, biological, or radiological weapons
    - Detonate nuclear weapon

TABLE 1. **The Effects of Lagged Domestic Conflict Onset on Interstate Conflict Onset**

Independent Variable	Model 1 (*interstate_onset_5*)	Model 2 (*interstate_onset_5*)
log_distance	-.481***	-.481***
IGO_count	.032***	.032***
Alliance	1.238***	1.244**
Minor Powers	-.640***	-.644***
Power Ratio	-.156***	-.155**
Depend_L	.628	.737
Democ_L	.004	.004
Non-Contiguity	-1.383***	-1.383***
L.domestic_conflict_5	-.056	
L.domestic_conflict_5		.704
Constant	-1.286	1.300
N	35,727	35,728
# of Interstate onsets	129	119
# of Domestic onsets	475	475

Coefficients with p-values reflected by: ***(.01), **(.05), *(.10)

TABLE 2. **The Effects of Un-Lagged Domestic Conflict Onset on Interstate Conflict Onset**

Independent Variable	Model 1 (*interstate_onset_5*)	Model 2 (*interstate_onset_5*)
log_distance	-.491***	-.483***
IGO_count	.032***	.032***
Alliance	1.252***	1.245**
Minor Powers	-.681***	-.654***
Power Ratio	-.156**	-.154
Depend_L	1.195	.942
Democ_L	.005	.004
Non-Contiguity	-1.371***	-1.391***
domestic_conflict_5	1.110***	
domestic_conflict_10		1. 353**
Constant	-1.258	-1.341
N	36,133	36,133
# of Interstate onsets	129	129
# of Domestic onsets	475	475

Coefficients with p-values reflected by: ***(.01), **(.05), *(.10)

TABLE 3. **The Effects of Domestic Conflict Intensity on Interstate Conflict Intensity**

Independent Variable	Model 1	Model 2	Model 3	Model4	Model5
	(*Interstate_conflict*)				
log_distance	.755	.694	.736	.596	.741
IGO_count	-.105***	-.104***	-.103***	-.110***	-.103***
Alliance	-3.850	-3.938*	-4.064*	-3.789	-4.059*
Minor Powers	-1.213	-1.275	-1.132	-1.860	-1.135
Power Ratio	-.890**	-.863**	-.813**	-.949**	-.819*
Depend_L	-18.839	-20.876	-21.484	-15.708	-21.339
Democ_L	-.096	-.091	-.093	-.095	-.094
Non-Contiguity	-5.715***	-5.680***	-5.854***	-5.441***	-5.847***
L.domestic_conflict	.451***	.442***	.441***	.434***	.441***
L.StateA_change_6	.057				
L.StateB_change_6	-.273				
L.one_worse_3		-.593			
L.both_worse_3			-3.856'		
L.one_worse_6				1.693*	
L.both_worse_6					-3.985'
Constant	5.076	5.603	5.809	6.628	5.159
N	639	639	639	639	639
Adj. R^2	.339	.336	.336	.339	.338

Coefficients with p-values reflected by: ***(.01), **(.05), *(.10), '(.18)

TABLE 4. **The Effects of Variation in Domestic Conflict Intensity on Variation in Interstate Conflict Intensity**

Independent Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	(Interstate_change_1)			(*Interstate_change_6*)		
log_distance	.553	.452	.377	.110	.041	.185
IGO_count	-.038	-.033	-.035	-.016	-.018	-.013
Alliance	-1.236	-1.352	-1.280	-.590	-.540	-.820
Minor Powers	-.635	-.658	-.915	-.038	-.245	.298
Power Ratio	-.390	-.302	-.281	-.219	-.193	-.117
Depend_L	17.810	11.922	15.406	-4.049	-127	-5.290
Democ_L	-.075	-.058	-.062	-.019	-.022	-.023
Non-Contiguity	-2.979*	-2.762*	-2.709*	-.389	-.351	-.700
L.StateA_change_6	-.043			.176*		
L.StateB_change_6	-.664***			.025		
L.one_worse_3		-1.427			1.272	
L.both_worse_3			-3.676			-2.401
Constant	-5.035	-4.684	-3.285	.092	.032	-.757
N	639	639	639	619	619	619
Adj. R^2	.029	-.013	.008	-.010	-.011	-.012

Coefficients with p-values reflected by: ***(.01), **(.05), *(.10)

TABLE 5. **Multi-dimension spline model of interactive effects of variation in the level of domestic intensity in State A and State B on interstate conflict intensity**

Independent Variable	Model 1 (*Interstate_change_1*)	Model 2 (*Interstate_change_6*)
log_distance	.094	.046
IGO_count	-.003	-.001
Alliance	-.180	-.154
Minor Powers	.090	1.08
Power Ratio	-.026	-.026
Depend_L	.113	-1.621
Democ_L	-.010	-.004
Non-Contiguity	-.378**	-.128
Spline(StateA_change_6, StateB_change_6)	edf=15.9***	edf=6.948**
Constant	-.535	-.268
N	639	619
Adj. R^2	.079	.022

Coefficients with p-values reflected by: ***(.01), **(.05), *(.10)

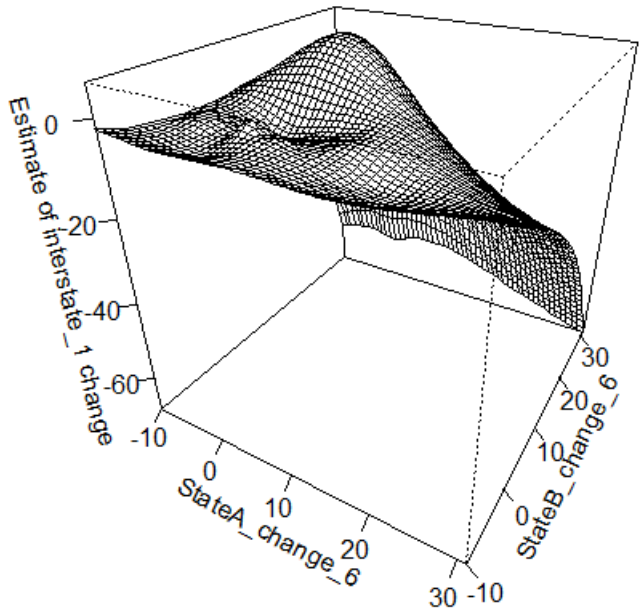

FIGURE 1. The Effects of Changes in Domestic Conflict Intensity on the Variation in the Level of Interstate Conflict Intensity Against the Previous Month

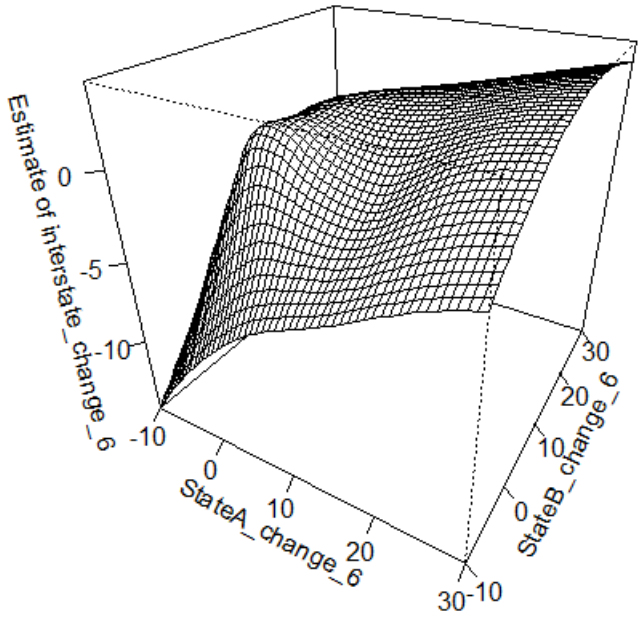

FIGURE 2. The Effects of Changes in Domestic Conflict Intensity on the Variation in the Level of Interstate Conflict Intensity Against its 6-month Moving Average