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**Political Cultures in Times of Crisis**  
**Measuring the Effects of Liberal Values on Interstate Crisis Onset**

By  
Timothy Milosch

Claremont Graduate University  
2022



## **Approval of the Dissertation Committee**

This dissertation has been duly read, reviewed, and critiqued by the Committee listed below, which hereby approves the manuscript of Timothy Milosch as fulfilling the scope and quality requirements for meriting the degree of Doctor of Philosophy in Political Science.

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# Abstract

## Political Cultures in Times of Crisis: Measuring the Effects of Liberal Values on Interstate Crisis Onset

by  
Timothy Milosch

Claremont Graduate University: 2022

The belief that democratic states are less likely to engage in war or initiate conflicts in the international system is deeply embedded in the international relations literature, but also hotly contested. Despite close to two centuries of theoretical presence and decades of empirical analysis, the democratic peace theory project still struggles to explain and measure the role democracy (understood as representative government, liberal culture, or both) plays in interstate relations generally, and the onset of conflict specifically. In the empirical international relations literature, in particular, problems persist surrounding measures for democracy and the modeling of interstate interactions (country level, dyad level, regional level, etc.). A seminal study in this project of establishing empirical support for democratic peace theory is Stuart Bremer's 1992 article "Dangerous Dyads," that helped establish the dyad as a critical unit of analysis in the literature and also verified Rummel's (1983) findings positing strong empirical support for democratic peace theory's central claim: democracies do not fight other democracies.<sup>1</sup> The decades since that article's publication have seen multiple attempts to replicate and refine Bremer's findings with decidedly mixed results. This dissertation reevaluates Bremer's original

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<sup>1</sup> Rummel's variable of interest was "libertarianism" understood as political and socioeconomic freedom. Though an earlier work than Bremer's in terms of finding statistically significant support for liberal democratic norms and values, Bremer's work generalizes and extends Rummel's work more systematically.

model and his findings on monadic democratic peace by first reassessing and refining Bremer's use of Poisson regression and then introducing an interaction variable for liberal values. Unlike Bremer, and many others, who focused their measures of democracy on the presence of democratic institutions as presented in the Polity Project, this study proposes a democracy measure that accounts for the interaction of institutions with broader political values of freedom as measured by Freedom House. It then adds that interaction variable to a modified Poisson regression model with crisis onset as the dependent variable. The results indicate statistically significant findings for crisis onset in dyads with undemocratic institutions in the 1972-2012 period but find that dyads with undemocratic institutions yet differing political values are even more prone to crisis indicating that the varying effects of "democracy" in past studies may be an effect of under specified models. It further notes the presence of "crisis clusters" in geographic regions that is likely an effect of the time period being studied, which suggests the need for a more temporally and spatially specified analysis of democratic peace theory's major claims.

## Acknowledgements

Writing this dissertation has been an exercise in intellectual humility. I quickly ran up against my own limitations of knowledge and experience and realized that an “original” piece of research is only made possible by the work and support of others. So, while the writing of this work (and its flaws) is my own, the degree to which it makes any contribution to the pool of human knowledge is due to contributions, large and small, of an amazing group of people.

My mother and father chose to homeschool me from the very beginning of my scholarly life. They encouraged and modeled being well read, understanding world affairs, and civic engagement. The fact that I am at this point has a lot to do with that early orientation towards a thirst for knowledge and a love of books. My wife, Meredith, has been my longsuffering, ever encouraging supporter in this endeavor, has edited many texts, and listened to many impromptu lectures.

Dr. Judith Rood, Professor Emeritus in History at Biola University was an early mentor in honing my academic writing and deepening my interest in studying Middle Eastern affairs. Her husband, Paul Rood, was my first instructor in international relations and political philosophy. In many ways, my graduate studies have been a continuation of the Rood program!

Though it may appear to some as though a Ph.D. was always in the cards for me, I exited my undergraduate years with no such ambition or vision. I am here because a few key people encouraged me towards an academic vocation. Kim VanGeloof and Buzz Lance gave me my first opportunity to teach and mentored me in developing the skills of an educator. Dr. Jennifer Jefferis, one of my professors at Regent University’s Robertson School of Government and now Georgetown’s School of Foreign Service, was one of the first to urge me towards a doctoral

program. That urging was echoed by Michael Long and Scott Waller who recommended Claremont Graduate University.

The faculty and students of CGU have deeply enriched my time at that institution. My thanks to Dr. Heather Campbell, Dr. Jean Schroedel, and Dr. Michael Uhlmann who I never took classes with yet made time to share their insight with me and provide administrative support. Dr. Uhlmann gave me the best piece of advice for writing my dissertation: “Just get the damn thing done.” That simple axiom helped me keep the project in perspective and stay adaptable amidst changing circumstances. Dr. Melissa Rogers, my committee chair, helped me operationalize Dr. Uhlmann’s axiom in terms of narrowing the scope of the study and adapting the project to a Covid-era context. Dr. Jacek Kugler provided critical guidance in helping me make sense of the data when I was awash in models, I was not sure what to do with. Dr. Sallama Shaker provided the consistent reminder to be precise in language and aware of historical contexts. Together, Drs. Rogers, Kugler and Shaker formed an excellent committee that stretched me, supported me, and encouraged me.

Paul Poast at the University of Chicago and Halvard Buhaug at the Peace Research Institute Oslo (PRIO) were very gracious to provide outside support on this work in the form of sharing data (Dr. Buhaug) and research tools (Dr. Poast). Dr. Steven Childs, Cal State San Bernardino, provided encouragement and support along the way in the form of early collaborations (along with Dr. Shaker) in academic writing and publishing, and in helping me visualize the dissertation as a document.

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## **Chapter 1: Introduction, Research Question and Hypotheses**

A key debate in both academic and policy circles that study international relations centers on the degree to which the makeup of a political society influences its interactions with other countries. What is it about the United States and Canada that allows these two countries to have the longest undefended border in the world while a much more historically homogenous region, the Korean peninsula, has one of the shorter and most heavily fortified borders dividing North and South Korea? Advocates of democratic peace theory would point to the presence of shared democratic institutions and liberal political values between the US and Canada while noting the opposite distinction on the Korean peninsula: North Korea is an absolutist communist dictatorship while South Korea is a democratic country. Given the vast differences between North and South Korea's political regimes, the argument goes, diplomatic friction and regular crises are to be expected. But must a society merely share democratic institutions with another to minimize conflict, or is there something deeper at work here? Indeed, democratic peace theory's advocacy in the foreign policy realm has been frequently critiqued in this century as attempts to impose and/or grow democratic institutions in Afghanistan and Iraq collapsed into civil war, more homegrown efforts to implement democratic reforms foundered in the Arab Spring, and post-Cold War gains in democratic forms of government have receded. What is clear is that elections and (mostly) peaceful transfers of power are not good indicators of democratic stability nor harbingers of peace (Hegre 2014). In fact, they can often be just the opposite (Henderson 2009).

So, are democratic institutions and liberal cultures of no account, then, in a country's foreign relations? Such a judgement would be equally premature, despite what the realists would have you believe (Mearsheimer 2014). That democratic institutions and liberal values influence

political culture, which in turn influences international interactions is recognized as a theoretical fact, yet it is incredibly difficult to demonstrate empirically in any standardized way. This dissertation hopes to clarify this troublesome disjointedness in international relations theory.

The central question of the dissertation is:

*To what extent liberal values affect the probability of crisis onset between countries?*

This question seeks to address a long-standing problem in empirical studies of international conflict, namely, the role of culture. The opacity of the term, coupled with variance in definitions and measures across the disciplines renders it almost impossible to define clearly, much less measure (Altman et al. 2021). And yet, scholars in the fields of international relations and foreign policy have long suspected the role of culture in contributing to the onset of conflict both between countries (interstate conflict) and within countries (intrastate, or civil, conflict) (Iriye, 1979; Jakobsen, et al. 2016). It is beyond the scope of this dissertation to address the theoretical question of culture definitively, though it will certainly be necessary to consider the “claims of culture,” to borrow Benhabib’s (2002) phrase, in contextualizing this study and defining its scope. When it comes to this dissertation, though, my objectives are more modest. First, I intend to focus my search for an indicative measure of culture within the existing international relations data, which necessarily limits the scope of this study to liberal values, an expansive enough concept, understood here as political rights, civil liberties, and democratic institutions. Secondly, having located such a measure, I will test it against other measures that have been used as implicit culture indicators in previous studies, most notably the role of democratic institutions in democratic peace theory. In proceeding along these lines, I plan to follow Bremer’s dyadic model for the onset of interstate war (1992), but with two significant adjustments: 1) using a dependent variable of dyadic crisis onset as opposed to war onset, and 2) narrowing the

timeframe. The former decision is recognizing interstate crisis as being a more regular feature of international interactions and thus indicative of latent tensions between countries, and the latter due to practical considerations arising from data being used in the study, which will be discussed more fully below.

Readers may object to such a narrow approach to an expansive topic; however, we must acknowledge that critical to making any meaningful contribution to the canon of human knowledge one must work with what currently exists in the field of study before extending the boundaries of that field in a constructive direction. Given the amount of ink that has been spilled on the role of democratic institutions and culture (whatever that may be) with no agreed upon empirical measures to robustly support theoretical claims, this dissertation would do well to first find such a measure, test it against the major claims of relevant theories, and thus refine the theoretical view.

This dissertation will thus concern itself with testing two major hypotheses derived from democratic peace theory:

**H1: Country dyads with undemocratic institutions are more likely to experience interstate crises.**

**H2: Country dyads with varying levels of liberalism are more likely to experience interstate crises.**

While different author's and data sets have understandably differentiated between democratic institutions and free societies in previous studies, what is more surprising is the degree to which the terms "democracy" or "democratic" have often conflated two distinct components of political societies: political institutions and liberal values (Munck 2016). While the two certainly interact

and influence one another, the nature of that relationship is less documented and consequently the role of liberal values on a country's interaction with other countries is contested.

If this dissertation succeeds in demonstrating 1) a meaningful measure for liberal values and 2) its role (if any) in the onset of interstate conflict, it will have succeeded in its chief objective and hopefully contributed to grounding the theoretical debate on the role of culture in international relations on a sounder empirical footing.

I will proceed with first defining the key concepts of this paper by surveying the extant literature on political culture and its relationship to liberalism, and the distinction between war and crisis in conflict literature. Next, I will develop the theoretical framework for this study and the statistical model to be used in evaluating the hypotheses stated above. I will then interpret and evaluate the model's results before applying them to selected case studies and finally drawing conclusions.

## **Chapter 2: Literature Review and Theoretical Framework**

Because this dissertation is asking a question about the relationship between culture and interstate crisis, it would be best to start with first defining the two terms and addressing the theoretical problems existing literature has identified in discussing the two concepts before articulating the theoretical assumptions that will guide this study. While the main assumptions this dissertation addresses are most frequently found in democratic peace theory, I will not be starting my discussion there. Rather, I will first cast a wider net so as to locate the ongoing debate over democratic peace in the broader debates of the international relations field.

### *Conflict as war or crisis?*

We start with a discussion on interstate conflict, the dependent variable in this study, and the predominant concern of international relations scholars. The question of war, its causes and

effects in many ways provides the *raison d'être* for the study of international relations. What then, is war? Empirical studies have sought to define interstate war in quantitative terms, and the field seems to have settled around the definition laid out by the Correlates of War (COW) project: “sustained combat between/among official military contingents involving substantial casualties (i.e., 1,000+ combat deaths)” (Small and Singer 1982 paraphrased in Sarkees and Schafer 2000). Within this broad definition of war are the major subcategories of interstate and civil wars, and within the interstate wars category is the sub-subcategory of wars between great powers (Organski and Kugler 1981). Broad though this definition of war may be, critics have pointed out that the combat deaths criterion leaves out many smaller conflicts, and the distinction between civil and interstate wars may be a false dichotomy which can skew models exploring the causes of conflict (Cunningham and Lemke 2013; Bleaney and Dimico 2011). This criticism has contributed to two parallel data projects COW’s Militarized International Disputes dataset (MID) and the International Crisis Behavior dataset (ICB) (Jones et al. 1996; Brecher and Wilkenfeld 2000). As their names imply, the concept of international conflict gets progressively wider, capturing an ever-larger number of cases for study. The MID dataset focused on those conflicts that engage the militaries of disputant countries, while the ICB dataset expands the definition of crisis beyond the military focus to consider crises of diplomatic or economic origins. The ICB project thus defines an international or foreign policy crisis as being an event that

hinges on three necessary conditions that are rooted in changes in the state’s internal or external environment. Each of the three conditions is based on the perceptions held by the state’s leading foreign policy decision makers. The three conditions are “a threat to one or more basic values, along with an awareness of finite time for response to the value threat, and a heightened probability of involvement in military hostilities” (Brecher and Wilkenfeld 2000, 3).

Unlike previous empirical studies on interstate conflict that focused primarily on economic, geographic, and military components of war onset, the ICB project shifts the focus of analyzing

conflict to that less defined territory foreign policy analysis refer to as “left of boom,” or the run up to war onset. The ICB project makes several notable assumptions in its conceptualization of an interstate crisis that are relevant to this project. First, the role of “basic values” as understood by foreign policy decision makers. The mere presence of values in the decision-making frame acknowledges the implicit, though undefined effect of internal cultural values. Second, the assumption of threat perception, which carries with it the implication of clashes with external value threats. Though these assumptions allow for the effect of competing cultural values within an empirical framework, the ICB dataset itself treads this ground tentatively. Direct references to cultural values, much less a definition of what those are, are relegated to whether or not decision makers perceive a threat to some set or subset of cultural values (Brecher et al. 2020 and 2021). Admittedly, this is probably as good as the authors can do given their data constraints. Suffice to say for this section, though, international crises are acknowledged to, at the very least, contain some cultural component in the minds of some decision makers. The theoretical question is thus threefold: 1) How do we define/identify those cultural components? 2) How do we measure them? And 3) what is the nature of their effect on international crisis onset? I will address questions two and three in the following chapters, and the first question below.

### *The debate on culture*

In discussing the debate on culture as it relates to international crises it is best to start with the bad news: No agreed upon definition exists, which in turn leads to all kinds of cultural assumptions being read into empirical studies of which democratic peace theory may be foremost in this analytical conceit (Feierabend and Klicperova-Baker 2015). However, across the many definitions of culture, some common threads emerge, which I will illustrate by quoting selected theorists at some length.

Seyla Benhabib (2002):

I think of cultures as complex human practices of signification and representation, or organization and attribution, which are internally riven by conflicting narratives. Cultures are formed through complex dialogues with other cultures. In most cultures that have attained some degree of internal differentiation, the dialogue with the other(s) is internal rather than extrinsic to the culture itself (ix).

Raymond Cohen (1997):

Amid the welter of formulations put forward in the literature, three key aspects of culture have gained general approval: that it is a quality not individuals, but of the society of which individuals are a part; that it is acquired -through acculturation or socialization – by individuals from their respective societies; and that each culture is a unique complex of attributes subsuming every area of social life (11).

Stella Ting-Toomey and Leeva Chung (2005):

In sum, *culture* is defined [...] as *a learned meaning system that consists of patterns of traditions, beliefs, values, norms, meanings, and symbols that are passed on from generation to the next and are shared to varying degrees by interacting members of a community* (28, emphasis the authors).

What the definitions above first do is warn us against any monolithic and static understanding of culture (Childs and Milosch 2019). Additionally, they share an awareness of the dynamism of culture, its tendency to define itself *vis a vis* interaction with other cultures, and they alert us to the presence of formal and informal cultural institutions. The formal-informal dichotomy is of particular importance when considering political culture broadly and the inferences of culture in empirical studies, which I will model below (Lacina and Lee 2013). Acknowledging the dynamism and multifaceted nature of what we call “culture” necessarily means that any claims made here in reference to culture will be narrow in scope.

Having said that, I thus define culture as a system of meaning that is passed on generationally through a variety of formal and informal pathways producing both consistency and change over time in a nation’s values, institutions, narratives, and language. In the political context, political culture is understood as those “attitudes, beliefs, and values which underpin the



operation of a particular political system” (Grant, 2018). As much as it is a communal project, political culture is also understood and even defined comparatively, in terms of distinction between groups (Benhabib 2002). At its smallest level, a political culture may be defined in terms of a small tribe or family unit, at its largest, it may be understood in national, supranational, or even civilizational terms (Huntington 1996 and Cohen 1997).

Given its multifaceted and dynamic nature, political culture as a function of international relations is difficult to pin down. For purposes of this study, I have tried to focus attention on a small number of indicator variables that, while not definitive of a broad national culture, are representative of it, and appear in the literature as critical components of several theories and empirical models. The indicator variables for liberalism, a particular type of political culture, that I propose to study in relationship to interstate crisis onset are listed below along with their data and/or theoretical source:

- **Democracy/No democracy** from the Polity IV dataset’s 10-point scale in which countries with scores equal to or above 5 are considered democracies (Marshall et al. 2019).
- **Free/Not Free political society** from a country’s freedom status in the Freedom House dataset (2022).

In evaluating different dataset and empirical studies, I also considered, but opted not to evaluate several variables as culture indicators, but I include them as a way of noting the breadth of possible “culture” variables that could be used as measures for culture:<sup>2</sup>

- **Perception of culture conflict** (understood as a clash of values, ideologies, or governing systems) and **preference for militarized diplomacy** variables from the International Crisis Behavior (ICB) dataset (Brecher et al. 2021).

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<sup>2</sup> These variables can help address several commonly held assumptions, both within and without the field of international relations:

- Religion as being a cause war.
- Clashes of civilizations (Huntington) are more (or less) common in a post-Cold War world
- Militarized nationalism
- Authoritarian systems engage in military adventures to avoid domestic criticism’

- **Civilization** measures of various kinds coded from Samuel Huntington’s “clash of civilizations” thesis (2003) that groups countries into broad civilizational groupings (Chiozza 2002; Ellis 2010; Gokmen 2019).
- **Dominant national religion (if any)** drawn from the Religious Characteristics of States dataset (Williams et al. 2019).<sup>3</sup>
- **Inglehart–Welzel cultural dimensions** derived from the World Values Survey dataset (Inglehart et al. 2020).
- **Hofstede’s national cultural dimensions** from Geert Hofstede’s work on studying national culture, particularly in the business environment (Hofstede 2003).<sup>4</sup>

Each of these datasets provided the opportunity for a more nuanced portrayal of culture but were rejected for methodological reasons. The Religious Characteristics of States and World Values Survey datasets are limited both in terms of chronological scope and in the number of countries sampled. Considering the nature of the dependent variable being addressed here (interstate crisis onset), the addition of this other data would have further limited the number of relevant observations, skewing the results. Second, the ICB variables are either underspecified or are captured by other variables and thus risk introducing collinear variables into the model. The perception of culture conflict is mixed in with other possible threat perceptions and never specified individually in the ICB data and the preference for militarized diplomacy is captured to a large degree by the measure for militarization. Finally, while it would be interesting to reevaluate Huntington’s “clash of civilizations” thesis in terms of the civilizational groupings he defined, Huntington’s work has been roundly (though not totally) refuted, and his civilizational maps only refer to a specific moment of time (Charron 2010; Chiozza 2002; Ellis 2010; Henderson and Tucker 2001; Henderson 2004; Gokmen 2019). To include such data would distract from the model as a whole.

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<sup>3</sup> The Correlates of War Project also has its own world religions dataset that was also reviewed for this dissertation.

<sup>4</sup> A problem with both the WVS and Hofstede data is the limited number of countries in both datasets. In the case of WVS, the countries Inglehart and Welzel use for their cultural mapping only have one interstate crisis between them and no wars, severing any real link with the dependent variable in this study. Hofstede’s data is not available in a time series format and several countries of interest for this dissertation (MENA countries) have their cultural dimensions estimated and thus do not make for a very robust measure.

Having established culture as being too multifaceted to pin down to a single variable and acknowledging the scope of this study to be concerned with the presence, or lack thereof, of liberalism within a country dyad this dissertation focuses on measures of political institutions and political values as key indicator variables of political culture. Those measures will be looked at as belonging to two distinct, though closely related, elements of liberalism: democracy and freedom.

### *The debate on democracy*

Almost as troublesome as defining culture is the task of defining democracy. Indeed, the theoretical literature on representative forms of government broadly grouped under the heading “democracy” ranges from the anarchic to the illiberal and everywhere in between. How, then, are we to understand the cornerstone of liberal theories of international relations, democratic peace theory? The acknowledged originator of democratic peace theory, Immanuel Kant, provides some guardrails for defining democracy. He understood democratic forms of government as being “republican” in nature, representative in form, and centralized in structure (Kant 1983). Writing as he did from a classical liberal perspective, we can safely assume his grounding of republican forms of government necessary to “perpetual peace” to be similarly built upon such liberal values, a presumption linking liberal values and institutions that may have been clear to Kant but is less clear today (Geis and Wagner 2011; Anderson et al. 2016).

The theoretical concept of “democracy” expanded beyond the institutional limits imposed by Kant to include the processes of democracy (democracy as elections) and different measures of democratic culture (Carothers 2004; Boehmer 2008). This more expansive view of democracy as institutions, processes, and legitimation of cultural self-determination plays some role in both muddying the theoretical definition of the term as well as necessitating the need to distinguish

between institutions of democracy and the cultural values of democracies (Munch 2016; Bakker 2017). Indeed, this distinction is evident in the datasets used for this dissertation. The Polity Project focuses on defining institutional components of representative systems of government, largely along Kantian lines while the Freedom House data concerns itself with the openness or freedom of political society as evidenced by the presence of civil rights and liberties. Taken together, a country's free status (Freedom House) coupled with the democratic nature of its institutions (Polity) can capture a great deal of variance in the global expressions of democracy, which presents a theoretical problem to the basic tenets of democratic peace theory (Fishman 2016).

Though Kant is often considered to be the father of democratic peace theory, its more modern proponents find philosophical justification in the works of Fukuyama (2002) and empirical backing in the work of Bremer (1992). Significantly, both Fukuyama and Bremer published their key works on democracy in the first decade following the end of the Cold War with a liberal democratic America triumphant, the third wave of democratization in full swing, and an unprecedented span of years without great power war. Surely, democratic peace theory argues, this is no small correlation. The central claims of democratic peace theory are 1) democracies do not fight one another and 2) democracies are less likely to engage in war in general (Dafoe et al. 2003; Altman et al. 2021). The policy implications thus seemed clear: Democracies need to maintain their strength while actively promoting the adoption of democratic forms of government in other countries, even to the extent of forcing regime change (Mandelbaum 2016).

In this century, the seemingly straightforward logic of democratic peace theory has been hotly contested with American efforts at democratization abroad languishing, China emerging as

an authoritarian great power, and numerous countries experiencing what Freedom House (2019) and others refer to as “democratic backsliding”. In the academic literature, the central claims of democratic peace theory have been critiqued and contested by the realist school and deconstructed by critical theorists, but still retains some explanatory power, though that too is contested (Rudy and Quackenbush 2009; Geis and Wagner 2011). Bremer’s basic argument that nondemocratic countries have a higher probability to go to war remains a repeatable and significant finding, however, even scholars like Buhaug who have verified and extended Bremer’s original findings indicating the relationship between democracies and peace have noted that the significance of those findings, and their bearing on global political realities appears to be conditioned on how one defines democracy (Buhaug 2005; Arena and Nicoletti 2014; Bayer and Bernhard 2010; Boehmer 2008). Democracy’s lack of definition, or its contestability, raises important theoretical question: Is it the mere presence of democratic systems that reduce interstate conflict, or is it the relative strength and stability of those democratic systems? Przeworski’s work on democratization indicates that it is the latter component of democracy that ought to be of concern and Buhaug’s data seems to indicate this (Przeworski 1991; Buhaug 2005).

In this dissertation, then, I follow the critics of democratic peace theory and their call to refine measures of democracy, while also separating indicators of political institutions from indicators of political values to 1) establish a more accurate, though partial, measure for liberalism within existing datasets, and 2) offer greater clarity in evaluating the claims of democratic peace theory. The organization of that data and specification of the models to be evaluated will be discussed in the following chapter.

### **Chapter 3: Remodeling “Dangerous Dyads”**

Having discussed the purpose and scope of this study, I proceed to its design. Since this study makes claims relevant to democratic peace theory and seeks to advance a more nuanced measure for liberalism into the empirical study of interstate crisis onset, it follows the lead of Bremer’s well known “Dangerous Dyads” model (1992). As noted in the previous chapter, Bremer’s model provides empirical backing for contemporary democratic peace theory. In the almost three decades since its publication, it has been one of the most cited articles in international relations literature. In particular, Bremer’s claims on the empirical validation of democratic peace are one of the most often cited components of the article (Altman et al. 2021; Baliga et al. 2011; Bennett 2006; Benson 2004; Gartzke and Weisiger 2014; Ghatak et al. 2017; Henderson 1999; Jungblut and Stoll 2002). Besides the theoretical claims of Bremer’s article, his methodological approach has also been much discussed and debated (Moul 2005; Croco and Teo 2005; Gallop 2017).

Vasquez and Mitchell (2014) point out that Bremer’s model set an early example for standardization in empirical studies of international relations, and his dyad-year unit of analysis has become a standard tool in the IR scholar’s toolbox, though not without some criticism (Poast 2016). In order to better frame this dissertation’s model, I first provide a brief outline of Bremer’s initial study and findings, followed by a survey of Bremer’s critics, then I will describe my own model and discuss how it seeks to address the shortcomings of Bremer’s original approach while benefiting from its recognized usefulness.

#### *Revisiting “Dangerous Dyads”*

Bremer’s original study is broadly divided into two parts: a theoretical discussion on the major factors related to the onset of interstate war, and a multivariate analysis on the effect each of

those factors (seven in total) had on the onset of war in each dyad type. In the first part of the study, Bremer conducted bivariate analysis assessing how each of the seven factors affected the probability of conflict in a dyad year. The variables being analyzed were geographic proximity, formal alliances, relative power differences, power status, type of government, and level of economic development. In the second part of the study, Bremer coded each of these variables in a binary format – ‘1’ for the variable component believed to most likely contribute to war onset, ‘0’ for all other components (Bremer 1992). For example, nondemocratic forms of government were thought to be more likely to contribute to war onset, so dyad years where both countries had undemocratic forms of government were thus coded as ‘1’ and democratic and mixed dyads were coded as ‘0’.

This basic approach to assessing the probabilities of war onset led Bremer to his first major methodological innovations: making the unit of analysis the dyad-year as opposed to the country-year and adopting a count-based statistical model for his multivariate analysis, namely, Poisson regression. I will discuss the basic assumptions of Poisson regression below when I discuss the specification of my own model, but here, it is important to quote Bremer’s justification for using Poisson regression:

Because the dependent variable, number of war onsets, is bounded (i.e., may not be less than zero) and discrete (i.e., only integer values are possible) the standard regression model is not appropriate (King 1989). However, the Poisson (or Exponential Poisson, as King refers to it) regression model is, because it assumes that dependent variable has precisely those characteristics mentioned above. (Bremer 1992 in Mitchell and Vasquez 2014, 19)

Bremer thus bases his use of the Poisson model on a critical property of the dependent variable: the dependent variable is a count variable (war happens or it does not) with a lower bound (“no war” means ‘0’ and there it stops). Bremer further modifies the model to account for some dyads having a greater or lesser amount of war onsets by including the log of the dyad years in which

each dyad type is present. This introduces a second assumption into the model, namely, a variable controlling for the effect of time, the assumption being that war onset is inevitable every 'X' number of years given 'Y' dyad type. Having established those basic assumptions in his model, Bremer proceeds to add the seven independent variables under evaluation (Bremer 1992). His basic findings, which are replicated below, found statistically significant evidence for the absence of a democratic polity in a given dyad contributing to war onset. Bremer sums up the implications of his findings thus:

Taken together these results give a stronger endorsement to the idealist prescription for peace than to the realist one. Core components of the Wilsonian recipe for a more peaceful world were: establish collective security alliances, spread democracy, promote economic progress, and reduce armaments levels. All of these save the last have been found to reduce strongly the likelihood of war at the dyadic level... Moreover, realist generally dismiss domestic factors as unimportant, yet these results suggest that they have greater impact on the likelihood of war than others which they consider far more important. (Bremer 1992 in Mitchell and Vasquez 2014, 23)

It is because Bremer saw his own study as both confirming a central tenet of democratic peace theory and opening the need to evaluate the effect of domestic political arrangements on international interactions that this study first seeks to replicate Bremer's model, critique it, then refine it. In order to proceed along those lines, we will first need to consider the critiques of Bremer's study.

### *Bremer and his critics*

Critiques of Bremer's model can be grouped around his choice of dyads as the unit of analysis, his definition and coding for independent variables, and a possible misuse of the Poisson regression model.

In the years since Bremer's use of the dyad-year unit of analysis, dyadic analysis has become a standard component of international relations studies. However, too much of a good thing can be a bad thing, and several scholars have drawn attention to the limitations of the dyad-



year as a unit of analysis (Benson 2005; Croco and Teo 2005; Cranmer and Desmarais 2016; Anderson et al. 2016; Gallop 2017). That international relations happen in a *k*-adic context where most negotiation and crises (especially interstate wars) frequently involve more than one actor is easily acknowledged, and critics maintain that dyadic models largely ignore the broader context of a given country's foreign policy and diplomatic profile (Corbetta and Dixon 2005; Corbetta and Grant 2012). However, one must be wary of throwing out the proverbial baby with the bath water. Especially in the case of crisis onset, as opposed to war onset, bilateral relations are often at the root of an interstate dust up.

In the case of Bremer's original study, a valid criticism can be leveled against the study given its dependent variable being interstate war onset, which rarely, if ever starts with just two actors. Bremer somewhat glancingly acknowledged this problem in his original study by drawing a theoretical distinction between the onset of war and the continuation of war (Bremer 1992 in Mitchell and Vasquez 2014, 11). However theoretically this may make sense, it does not make much sense practically. World War II may have started with a war onset in the Germany-Poland 1939 dyad, but it was understood at the time that such a war onset would draw in other countries as it did within days of the German invasion. However, Bremer's model does not account for this rapid expansion of the conflict, which has led some critics to point out that his model is under specified (Moul 2005).

Beyond the theoretical problem posed by the choice of dependent variable, a second criticism of Bremer's work grows out of his treatment of several of the independent variables. First, Bremer defined "alliances" as any type of treaty between two countries, obscuring the nature of the relationship. In Bremer's model, a trade agreement functions the same as a defense pact. While this seems strange, the implicit theoretical assumption (and very much a part of

neoliberal articulations of democratic peace theory) is that countries are less likely to go to war with countries they have treaties, any kind of treaties, with (Bremer 1992; Buhaug 2005). The idea here is that whether they are economic, security, or nuclear nonproliferation treaties, these agreements imply not only a level of trust between countries, but the existence of effective non-military problem-solving and dispute resolution mechanisms. However, the oversimplification of the alliance variable in the way that Bremer provides it here encapsulates quite a bit of variance, which in turn makes this a poor performing variable in a Poisson model generally, and in Bremer's own analysis specifically.<sup>5</sup>

Second, and more directly related to this study, Bremer's handling of democracy and freedom requires some scrutiny. In the original study, Bremer found statistically significant findings for war onset being higher in undemocratic dyads, thus drawing the theoretical conclusion that democratic dyads were good for peace, ergo the world needed more democratic dyads. Bremer also used Chan's freedom measure as a secondary democracy measure to draw a similar conclusion (Chan 1984). However, Buhaug's replication and extension of Bremer's study found a higher than anticipated degree of variance in Bremer's democracy variables and noted that

[the] "both not democratic" dummy shows a negative but far from statistically significant effect. This finding corresponds well to the work of other scholars who question the notion of a democratic peace at the country level, in particular when the conflict sample is restricted to first-day participants (Bueno de Mesquita et al., 1999; Gleditsch & Hegre, 1997). Evidently, Bremer's finding of a monadic democratic peace is sensitive to the choice of democracy indicator. (Buhaug 2005, 101).

That sensitivity that Buhaug is referring to is Bremer's rather arbitrary definition of democracy as being rated as '5' or higher on the Polity Project's 10-point scale. Bremer does not provide a

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<sup>5</sup> Steven Childs dissertation (2012) confronts a similar issue in the Power Transition Theory literature and measures of satisfaction. In that study, Childs finds that alliance and trade measures may not be as robust in signaling a country's satisfaction with the status quo order.

justification for choosing this number, it is after all the Polity Project's own brightline for a democratic regime, which creates both a theoretical and empirical problem. First, it creates a theoretical problem by not identifying a generally agreed upon standard for what constitutes a democracy, though one can infer something of a "lowest common denominator" democracy by looking at the Polity data. Second, a Polity score of '5' presents something of an empirical problem in that it groups stable and unstable democracies under the same heading, a potentially risky prospect given the proliferation of weak democracies in the late 1990s and early 2000s, many of which were born out of internal civil strife and frequently collapsed back into civil wars, producing an alternative explanatory variable for peace between countries, namely, one country in the dyad being too consumed with destabilizing politics and civil strife to engage in international conflict.<sup>6</sup> Buhaug's findings, and Bremer's critics, thus point the way to three issues this dissertation seeks to address: changing the dependent variable from interstate war onset to interstate crisis onset as a better fit for the dyadic unit of analysis; specifying a more nuanced definition of democracy to address problems of variance; and paying attention to the timespan the measure is applicable to.

This brings us to a third theoretical concern with Bremer's model, which was its rejection of time-series cross-sectional data (TSCS). The TSCS problem in empirical studies of international relations notes that the temporal aspect of country-year data created ongoing endogeneity problems where error terms were constantly correlating with another, and thus skewing findings. This was a conceptual problem Bremer was familiar with and sought to address with his combined dyad-year unit of analysis and Poisson regression model. The dyad-

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<sup>6</sup> Some scholars, noting this phenomenon have argued that interstate and intrastate wars need to be considered together in empirical studies on conflict at least in part for this very reason (Cunningham and Lemke 2013; Bleaney and Dimico 2011).

year unit of analysis coupled with the lagging of the dummy variables by one year removed the autocorrelation problem. However, removing one problem created another as Bremer's model essentially ignored time as having any function whatsoever, thus rendering his model too disconnected from historical reality to be of any practical use. A model that merely counted dyad types without reference to the context that dyad type exists in was potentially leaving major analytical information on the table and not accounting for it (Luo and Miller 2014; Gibler 2017).

Major criticisms of Bremer thus focus on his unit of analysis, his dependent variable, and his handling of indicator variables, specifically democracy. To sum up the criticisms of Bremer: his model is underspecified due to its overbroad definition of indicator variables, democracy in particular, and to the theoretical difficulties posed by removing consideration of the temporal nature of international interactions, however well-intentioned that initial discussion might have been.

A methodological criticism of Bremer can be directed at his use of the Poisson regression model as well. Is it the best model to use for this question and is he using it correctly? That his dependent variable requires a different regression model than the more typical linear regression models is beyond dispute.<sup>7</sup> However, as noted above, Bremer's choice of a Poisson regression model was based primarily on the binary nature of his dependent variable, and he does not explain any additional benefits of the Poisson model.

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<sup>7</sup> Count variables with a lower bound like the one being used in Bremer's study and this dissertation follow a Poisson distribution curve rather than the normal distribution more commonly recognized in linear regression models. The different properties in the two types of distribution affect many aspects of regression modeling and analysis, including the accuracy of measures like the  $R^2$  test statistic. In a typical OLS linear regression,  $R^2$  can be used to gauge the fit of a model, but because Poisson distribution are curvilinear rather than linear,  $R^2$  does not indicate a consistent measure across the distribution and is generally rejected as a useful measure in Poisson regression.

### *The Poisson model*

Poisson regression, like its cousin logit regression, is used in statistical analyses where the dependent variable is a count variable, the lower bound is zero, and the upper bound is unbounded. Additionally, Poisson regression is most often used to measure rare occurrences, another property of war and crisis onsets. Significantly for the Poisson model, in contradistinction to a linear regression model, is the relationship between variable variance and mean. In a standard linear regression model, it is assumed that different samples will have the same variance of a given measure. This assumption does not hold in a Poisson distribution as changes in variance rates are assumed to match changes in mean rates in the Poisson distribution.

Poisson regression models contain four basic assumptions:

1. Poisson Response: The response variable is a count per unit of time or space, described by a Poisson distribution.
2. Independence: The observations must be independent of one another.
3. Mean=Variance: By definition, the mean of a Poisson random variable must be equal to its variance.
4. Linearity: the log of the mean rate,  $\log(\lambda)$ , must be a linear function of  $x$ . (Roback and Legler 2021).

In Bremer's case, he correctly identifies the response/dependent variable as a count per dyad-year, and he avoids autocorrelation of his independent variables by lagging them by one year, thus fulfilling the conditions in Assumptions 1 and 2. It is unclear if Bremer fulfilled the conditions of Assumption 3, though, as he never mentions the mean-variance assumption and does not include any summary statistics on his dependent variable to verify that it meets this assumption. Failure to meet Assumption 3 indicates that a model does not correctly account for variance within the data, which can affect the goodness of fit (Assumption 4), which will be addressed later. Suffice to say, Bremer correctly identifies the usefulness of Poisson regression for certain properties of his dependent variable and specifies a model that makes effective use of

the model's first two assumptions but leaves an open question as to whether or not the last two assumptions are being considered.<sup>8</sup>

What, then, do the results of a Poisson regression tell us? Unlike linear regression models that indicate a change in the mean of Y for each unit change of X, the Poisson model's coefficients indicate a change in probabilities in  $\lambda$  (number of crises (k) divided by number of dyad years (n)) for each unit change of X. In a Poisson regression, one is either increasing or decreasing probabilities of a given outcome, rather than increasing or decreasing its magnitude. In the case of this dissertation, I use the Poisson regression model to evaluate the effect of liberalism on the *probability* of crisis onset within a dyad as opposed to the *magnitude* or *timing* of that outcome.

### *Refining the model*

Working off that distinction between Poisson and linear regression models, refining Bremer's model equates to drawing sharper lines of demarcation on the field of international relations. The model I specify here hopes to accomplish that refinement in several ways.

First, by changing the dependent variable from dyadic war onset to dyadic crisis onset, I capture a larger number of interactions across all dyads, and better fit the dyadic properties as some critics have noted the dyadic structure's inability to capture multilateral events (Poast 2010). While war onset and continuation frequently occur in multilateral contexts, the onset of interstate crises are more often experienced in the bilateral, or dyadic context, at least initially. Second, by separating political institutions from liberal values using measures from two distinct data sets (Polity for democratic institutions and Freedom House for democratic values), I hope to

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<sup>8</sup> Somewhat encouragingly, Buhaug's 2005 replication of Bremer's work compared the use of the Poisson model to logit regression models and found comparable results.

determine more accurately which of the two variables has a greater effect, if any, on a country's interactions with other countries. Third, because the Freedom House data starts in 1972, I will be able to evaluate the fitness of Bremer's general model within a subset of dyad-years, something that to the best of my knowledge has not yet been done in any systematic way and has been cited in criticisms of Bremer's model. Specifically, it does not sufficiently address changes over time within the international system, but generally weights all dyad types and their attendant indicator variables the same, a rather ahistorical presumption (Gibler 2017).<sup>9</sup>

### *Coding the variables*

To better compare findings, I follow Bremer as closely as possible in the coding of indicator variables and I replicate his rules for identifying dependent variable cases.

In the case of the dependent variable, Bremer focused on the war onset dyads, defining war onset as being those countries entering a state of war on a given start date as per the Correlates of War dataset. I follow the same rule but apply it to crisis onsets in the ICB data.

Bremer's bivariate analysis of his seven indicators of war onset coded the "most war-prone conditions" as '1' and all other conditions as '0'. Table 3.1 shows that rule as it is applied to each of the dependent variables and independent variables that will be evaluated in this particular study.

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<sup>9</sup> Much of the literature cited here notes this historical problem, but also struggles with it as most studies are focused on a particular time period. So, the general response to Bremer is to note the difference between the time period being studied with the full time series of Bremer without necessarily comparing numbers across multiple time periods.

**Table 3.1 – Coding rules for dependent and independent variables**

<b>Dependent Variables</b>	<b>Assignment Rule</b>
Interstate war onset	1 if war onset occurred in dyad-year, 0 otherwise
Interstate crisis onset	1 if crisis onset occurred in dyad-year, 0 otherwise
<b>Independent Variables</b>	
<i>Bremer's original set</i>	
Contiguous	1 if land or sea contiguous, 0 otherwise
No large power difference	1 if small or medium power difference, 0 otherwise.
At least one major (power)	1 if major-major or major-minor, 0 otherwise.
Allied	1 if any alliance, 0 otherwise
Both not democratic (Polity score 5 or above)	1 if both not democratic, 0 otherwise.
Both more advanced	1 if both more advanced, 0 otherwise.
Both militarized	1 if both more militarized, 0 otherwise.
<i>Additional variables</i>	
Both not democratic (Polity score 4 or above)	1 if both not democratic, 0 otherwise.
Both not democratic (Polity score 6 or above)	1 if both not democratic, 0 otherwise.
Both democratic (Polity score 6 or above)	1 if both democratic, 0 otherwise.
Both not free	1 if both not free, 0 otherwise
Both free	1 if both free, 0 otherwise

In addition to Bremer's use of Polity scores as a measure for democratic institutions, I add the eighth indicator variable of "freedom" from the Freedom House data as a measure for liberal values. Following Bremer's assumption that undemocratic/unfree dyads are more likely to experience war, I code unfree dyads as '1' if both countries in the dyad-year observation are rated as "unfree," and zero if otherwise. These variables are then regressed on the dependent variable of crisis onset for the following time series:

- 1816-1965: Bremer's original time series.
- 1816-2012: Extending Bremer to account for current data.
- 1972-2012: Incorporating the freedom variable from Freedom House.



## **Chapter 4: Empirical Tests of Liberalism on Crisis Onset**

In the previous chapter, I outlined a design that required replicating and extending Bremer's original model, then adapting the model by changing the dependent variable to a more appropriate, if less frequently studied element of interstate conflict: interstate crisis onset. Having identified the dependent variable and discussed the dyad-year unit of analysis, I turn my attention to evaluating the central concern of this dissertation: the effect of liberal values on interstate crisis onset.

In the results discussed below, I first explore Bremer's original model and apply it to the distinct time periods that come with extending Bremer, adding the dependent variable of crisis onset, and including a liberalism variable defined as an interaction variable between a country's freedom status per Freedom House data and its Polity score.

One of the unexpected results in the initial run of models was to find that the change from war onset to crisis onset as the dependent variable created a problem with overdispersion of the dependent variable, requiring a reevaluation of Bremer's use of the Poisson regression model. While this is an unexpected change, it is not necessarily surprising as prior chapters noted critiques of Bremer often point to the sensitivity of the model, but never identify its cause (Moul 2005; Croco and Teo 2005). In the case of this study, the change from a war onset dependent variable to a crisis onset dependent variable necessitated adjustments to the model which will be described below. First, however, we evaluate the findings from replicating Bremer's basic model with war onset as the dependent variable and dyad type as the unit of analysis.

*Replicating Bremer and comparing the different time series*

**TABLE 4.1 – Replicating Bremer’s Poisson Regression Model**

	<b>Model 1: Bremer (1816-1965)</b>	<b>Model 2: Bremer Extended (1816-2012)</b>	<b>Model 3: ICB Time Series (1918-2012)</b>	<b>Model 4: Freedom House Time Series (1972-2012)</b>
<b>War onset</b>				
<b>Log dyad-years</b>	0.332** (0.124)	0.535*** (0.105)	0.772*** (0.138)	1.059*** (0.194)
<b>Proximity</b>	1.518*** (0.365)	2.175*** (0.375)	3.095*** (0.548)	3.818*** (0.821)
<b>No large power difference</b>	0.622* (0.278)	0.648** (0.226)	0.753* (0.313)	0.558 (0.470)
<b>At least one major power</b>	0.354 (0.238)	0.683** (0.250)	1.391*** (0.414)	1.918** (0.621)
<b>Allied</b>	-0.619 (0.319)	-0.626* (0.269)	-0.859* (0.397)	-0.498 (0.592)
<b>Both not democratic (Polity=5)</b>	-1.075** (0.356)	-0.733** (0.256)	0.0494 (0.273)	-0.137 (0.449)
<b>Both developed</b>	-2.248*** (0.576)	-1.660*** (0.359)	-1.400** (0.436)	-0.871 (0.630)
<b>Both militarized</b>	-1.073** (0.408)	-0.503 (0.326)	0.227 (0.458)	0.791 (0.666)
<b>Constant</b>	-2.426* (1.208)	-4.768*** (1.213)	-8.384*** (1.648)	-11.73*** (2.254)
<b>Observations/dyad types</b>	109	124	124	118
<b>Dyad years</b>				

Standard errors in parentheses; \* $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Bremer's original model evaluated war onset in the period 1816-1965 in 117 dyad types. The model allowed for a maximum of 128 dyad types, but after dropping those dyads with missing data, Bremer reports a sample of 117. Following the same rule, my replication model found 109 dyad types, a change likely caused by updates to the COW and Polity dataset sets. In the replication model (Model 1 in Table 4.1), we find that Bremer's basic findings hold for the independent variables in terms of significance and directionality. Proximity remains the leading indicator of war onset while militarization of both countries continues to exhibit a negative effect on war onset. Pertinent to this study's main concern, the democracy variable is showing a statistically significant negative relationship to war onset, contradicting Bremer's initial finding of evidence supporting monadic democratic peace (the presence of democratic countries contributing to less war-prone relations) but reflect Buhaug's findings (Bremer 1992; Buhaug 2005).

Model 2, the extension of Bremer's model from 1965 to 2012 confirms these basic findings across the whole time series with some subtle changes, most notably militarization and alliances changing positions as statistically significant indicators, which may be partially explained by the Long Peace following World War II in tandem with the rise of globalism and its attendant regional security and trade networks. Democracy continues to retain its importance as a statistically significant indicator of war onset with that critical distinction that lack of democracy is a negative indicator of war onset, further calling into question Bremer's initial favorable affirmation of a monadic democratic peace and confirming the critique of Buhaug and others that Polity's democracy variable may not be the most useful indicative measure for democracy (Buhaug 2005; Bayer and Bernhard 2010; Boehmer 2008).

The subsamples represented in Model 3 and Model 4 seem to 1) confirm Buhaug's cautionary assessment that how one defines democracy matters, and 2) appears to agree with critics of Bremer that time series matters as well. Democracy loses its significance in both models (though generally retaining its negative association), which is fascinating given that the number of democracies around the world increased in the twentieth century (Model 3) and at the end of the Cold War specifically (Model 4). These models roughly, though unintentionally, correspond to Huntington's second and third waves of democratization, and correlating as they do with the Long Peace, it is easy to believe the logic of democratic peace theory (Huntington 1991; Dixon and Senese 2002). However, these models would seem to suggest a spurious relationship between increasing the number of democracies and the reduction of war. In fact, what appears surprising in these models is the emergence of great powers having a stronger effect on war onset. This would seem to make sense given the Cold War context and America's unipolar moment following the Cold War and would seem to confirm critiques of democratic peace theory (Kadera et al. 2003; Baliga et al. 2011). However, critics of democratic peace theory would do well to exercise caution in claiming validation as critical indicators in realist thought like relative power differences and militarization do not show the level of significance realist theories would attach to them.

Overall, replicating and extending Bremer's model demonstrates a certain consistency, while the subsamples indicate the importance of being mindful of the time periods under evaluation. Human nature may not change over time, but political dynamics do, and these models seem to indicate that.<sup>10</sup>

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<sup>10</sup> Indeed, changing political dynamics playing a role in affecting the behavior of independent variables may provide better supporting evidence for hierarchy-based theories like power transition theory as opposed to realist or democratic peace theories.

*Specifying the model*

**“Left of boom” – changing the dependent variable**

I next turn my attention to specifying and fitting a Poisson regression model to evaluate the role liberalism play in interstate crises. Replicating Bremer’s model indicates the stability of the model and its goodness of fit, but this dissertation changes the dependent variable from interstate war onset to crisis onset. Table 4.2 shows comparative results for the 1972-2012 period with dyad type as the unit of analysis.

**Table 4.2 - Comparing war and crisis onset (1972-2012)**

	<b>Model 7 War onset</b>	<b>Model 8 Crisis onset</b>
Log dyad-years	1.059 <sup>***</sup> (0.194)	0.908 <sup>***</sup> (0.0637)
Proximity	3.818 <sup>***</sup> (0.821)	3.698 <sup>***</sup> (0.270)
Not large power difference	0.558 (0.470)	0.156 (0.161)
At least one major power	1.918 <sup>**</sup> (0.621)	1.287 <sup>***</sup> (0.198)
Allied	-0.498 (0.592)	-0.183 (0.175)
Both not democratic*	-0.137 (0.449)	0.425 <sup>**</sup> (0.143)
Both developed	-0.871 (0.630)	-0.689 <sup>***</sup> (0.209)
Both militarized	0.791 (0.666)	0.484 <sup>*</sup> (0.224)
Constant	-11.73 <sup>***</sup> (2.254)	-8.041 <sup>***</sup> (0.720)
Observations	118	118

Standard errors in parentheses; \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

\* “Democratic” defined as a Polity score of 5 or higher.

Though the coefficients appear comparable, postestimation tests indicate a good fit for Model 7, but a poor fit for Model 8, indicating that the dependent variable is over dispersed, and the model maybe violating Poisson regression’s mean=variance assumption. So, before specifying the model, we first need to verify that the change in dependent variable does not violate any of the assumptions in Poisson regression models. A basic readout of descriptive statistics (Table 4.3) for the 1972-2012 period shows that, in fact, changing the dependent variable from war onset to crisis onset violates the assumption of mean=variance for both war and crisis onset, but significantly more so for crisis onset.

**Table 4.3: Summary Statistics - 1972-2012 (dyad type unit of analysis)**

	Mean	Variance	Std. Dev.	N
War onset	.310924	.978778	0.989332	119
Crisis onset	2.302521	55.348383	7.439649	119

However, if we change the unit of analysis from dyad-type to dyad-year, the assumption holds for crisis onset – the mean equals the variance (Table 4.4). If I were to retain the dyad type unit of analysis, I could specify a zero-truncated Poisson model that only counts dyad types reporting a non-zero number of crises, but this would reduce the sample size to 68 observations (see Appendix), which over narrows the sample.<sup>11</sup> Therefore, in order to proceed with fitting the Poisson regression model, it is necessary to “zoom out” as it were, to the much larger dyad-year sample and drop the log dyad-years variable as the control variable for time.<sup>12</sup>

<sup>11</sup> An alternative option would be to specify a negative binomial model that relaxes the mean=variance assumption while allowing me to retain dyad types as the unit of analysis. Preliminary tests indicated a better fit, but created widely varying results, which seemed a rather steep price to pay for retaining the log dyad-years variable.

<sup>12</sup> Interestingly, Bremer’s original model may have benefited from maintaining the dyad-year unit of analysis as well rather than focusing on dyad type. The table below indicates that mean and variance for war onset are equal when dyad-year is the unit of analysis as opposed to the smaller, though still noticeable, differences between mean and variance shown in the tables above where dyad type is the unit of analysis.

**Table: Summary Statistics - 1816-1965 (dyad-year unit of analysis)**

	Mean	variance	Std. Dev.	N
War onset	.000479	.000479	0.021877	204668

**Table 4.4: Summary Statistics - 1972-2012 (dyad-year unit of analysis)**

	Mean	variance	Std. Dev.	N
War onset	.000059	.000059	0.007706	623005
Crisis onset	.00044	.00044	0.020967	623005

**What makes a democracy?**

As noted in the previous chapter, a frequent criticism of Bremer's original study, and democratic peace theory at large, is the way democracy is defined. The use of Polity scores as a benchmark for democracies is frequently critiqued in the literature as being an unhelpful oversimplification. Germane to this study, is Polity's focus on democratic institutions as opposed to democratic values measures. Additionally, replications of Bremer's work indicate that the democracy measure is sensitive to updates and model specification. Given Polity's standing as something of standard in the field and the absence of another established data source of comparable size, I retain the Polity measure for democracy, but do a quick comparison of Polity's democracy scores where I define a democracy as 4 or more, 5 or more (Polity and Bremer's standard), and six or more. In the period covered in this dissertation (1972-2012), there is about a two to three point spread in variance (Table 4.5) that amounts to a difference of about four percent between undemocratic dyads where democracy is defined as four or above and six or above on the Polity scale (Table 4.6). Given that, it appears as though defining countries with a Polity score of five or better is a reasonable standard and so I retain it as the measure for democratic institutions in the final model.

**Table 4.5: Undemocratic dyads by Polity score (1972-2012)**

	Mean	variance	Std. Dev.	N
Polity 4+	.195596	.157338	0.396659	623005
Polity 5+	.212367	.167268	0.408984	623005
Polity 6+	.235568	.180076	0.424354	623005

**Table 4.6: Comparing different measures of democracy**

<b>Polity score 4+</b>	<b>Freq.</b>	<b>Percent</b>	<b>Cum.</b>
Democratic	501148	80.44	80.44
Both Undemocratic	121857	19.56	100.00
Total	623005	100.00	
<b>Polity score 5+</b>			
Democratic	490699	78.76	78.76
Both Undemocratic	132306	21.24	100.00
Total	623005	100.00	
<b>Polity score 6+</b>			
Democratic	476245	76.44	76.44
Both Undemocratic	146760	23.56	100.00
Total	623005	100.00	

**The freedom variable**

In addition to a variable for political institutions, the Polity score, I specify a liberalism variable using Freedom House data. Freedom House collates scores on civil liberties, civil rights, press freedoms and other indicators into a measure for political freedom, which can be used as an indicator of political values. The categories Freedom House assigns to countries are “free,” “partly free,” and “not free.” Following the democratic peace assumption that democratic countries (broadly understood to be democratic in both political institutions and free in political values) are less likely to fight each other, I code a dummy variable for political values as being ‘1’ for both countries being unfree and ‘0’ otherwise.

**The full model**

With the variables arranged thus, I can now specify my Poisson model as:

$$Y = \beta_0 + (\beta_1 X_1 * \beta_2 X_2) + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + e$$

Where Y is the predicted probability of dyadic crisis onset given each combination of the dummy variables.  $\beta_0$  is the intercept or constant term – the average number of dyad-years between crises in a given dyad;  $(\beta_1 X_1 * \beta_2 X_2)$  is the interaction term between democratic institutions ( $X_1$ ) and freedom ( $X_2$ ) - the liberalism measure; and the remaining variables are each



of the control variables (proximity, relative power difference, great power status, alliance status, level of economic development, and level of militarization); and  $e$  is the error term. All independent variables are coded ‘1’ or ‘0’ following the rules shown in Table 4.7.

**Table 4.7 – Coding rules for dependent and independent variables**

<b>Dependent Variable</b>	<b>Assignment Rule</b>
Interstate crisis onset	1 if crisis onset occurred in dyad-year, 0 otherwise
<b>Independent Variables</b>	
Both not democratic (Polity score 5 or above)	1 if both not democratic, 0 otherwise.
Both not free	1 if both not free, 0 otherwise
Contiguous	1 if land or sea contiguous, 0 otherwise
No large power difference	1 if small or medium power difference, 0 otherwise.
At least one major (power)	1 if major-major or major-minor, 0 otherwise.
Allied	1 if any alliance, 0 otherwise
Both more advanced	1 if both more advanced, 0 otherwise.
Both militarized	1 if both more militarized, 0 otherwise.

### *Results*

The Poisson regression estimates in Table 4.8 offer encouraging results in validating democratic institutions as being critical pieces in maintaining peaceful relations between countries, a central component of democratic peace theory, which will be discussed shortly. However, it is worth noting some significant differences in this model from the replication models in Table 4.1. First, relative power loses its statistical significance as an indicator of crisis onset. This may be a function of both the time period (1972-2012) and the change of dependent variable, but the replication models in Table 4.2 indicate that it is more likely due to the time period since relative power is statistically insignificant in the case of both war and crisis onset. Second, Model 10 in Table 4.8 indicates that unfree dyads have a negative, though statistically insignificant, relationship to crisis onset within a dyad. Both in terms of directionality and the lack of significance, this finding is somewhat paradoxical in that it implies that the lack of political

rights and civil liberties in a dyad have no bearing on countries engaging in conflict, something the results in Models 9 and 11 would contest.

**Table 4.8: Pooled Poisson regression results (1972-2012)**

	<b>Model 9 Democracy Measure</b>	<b>Model 10 Political Values Measure</b>	<b>Model 11 Interaction Measure</b>
DV: Crisis onset			
Both undemocratic	0.476*** (0.137)		
Both unfree		-0.0193 (0.167)	
Democratic/mixed			0 (.)
Democratic/unfree			-0.314 (0.367)
Undemocratic/mixed			0.591*** (0.159)
Undemocratic/unfree			0.271 (0.189)
Proximity	4.023*** (0.141)	4.139*** (0.140)	4.050*** (0.142)
Relative power	0.0715 (0.153)	0.100 (0.151)	0.0680 (0.152)
Great power status	1.465*** (0.159)	1.425*** (0.160)	1.499*** (0.161)
Alliance	-0.0634 (0.163)	-0.113 (0.162)	-0.0606 (0.163)
Developed	-0.667** (0.221)	-0.759*** (0.218)	-0.677** (0.221)
Militarized	0.642** (0.212)	0.566** (0.209)	0.624** (0.212)
Constant	-9.066*** (0.170)	-8.949*** (0.164)	-9.069*** (0.170)
Observations	603110	603110	603110
Wald Chi <sup>2</sup>	998.73***	986.97***	1001.89***
Log Likelihood	-1806.39	-1812.27	-1804.81

Standard errors in parentheses; \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Specific to this study, the results of the model specified above appear to validate the theoretical assumption that undemocratic countries are more likely to experience bilateral crises in the period 1972-2012. This appears to validate my first hypothesis:

**H1: Countries with undemocratic institutions are more likely to experience interstate crises.**

Model 9 indicates that undemocratic dyads in the 1972-2012 period are almost fifty percent more likely to experience a crisis in any given year. In terms of the incidence rate ratio (IRR) shown in Table 4.9, this means that a country dyad experiencing ten crises in a given period can expect to see closer to sixteen crises in the same time period if both countries have undemocratic political institutions. While these results appear to validate democratic peace theory's central claim, scholars attempting to replicate Bremer and other democratic peace theory models have found inconclusive associations between democratic dyads and war onset leading to equally inconclusive notions of an "autocratic" peace (Peceny et al. 2002; Bausch 2015; Bennett 2006; Di Lonardo et al. 2020). This is where the results of the full model exploring the interaction between institutions and political values get interesting.

By itself, the Freedom House measure of a country's level of political freedom does not produce statistically significant results (Model 10). However, the interaction variable indicates two important findings. First, it finds a statistically significant relationship between undemocratic and "mixed" freedom dyads. For example, two countries may have undemocratic institutions, but have various levels of political freedom being either unfree and partly free, both partly free, free, and partly free, or free and unfree. Second, the statistically significant relationship between these two terms accounts for more crisis dyads than just the lack of democratic institutions. The results of the incidence rate ratio analysis estimates that dyads that

share similarly undemocratic institutions but differ in their political values qua levels of freedom can expect to experience almost double the average number of crises than democratic and free dyads do.

**Table 4.9: Incidence Ratio Rate (IRR) results for Pooled regression models**

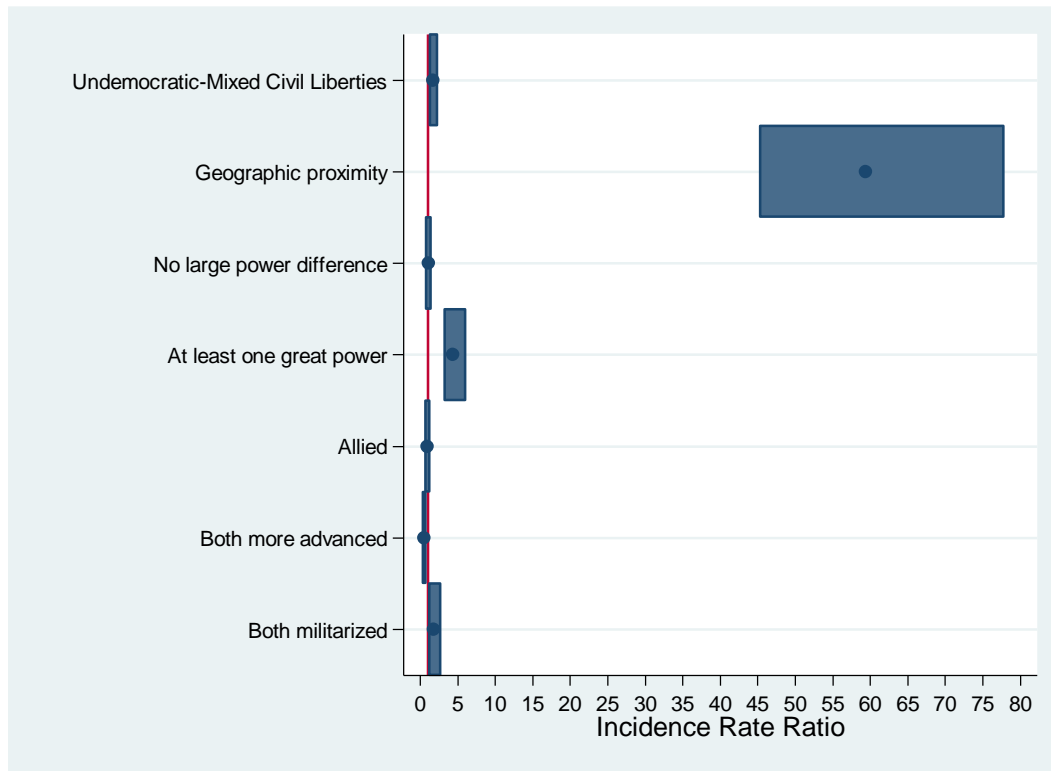
	Model 9.1 IRR	Model 10.1 IRR	Model 11.1 IRR
DV: Crisis dyad			
Undemocratic	1.61*** (0.22)		
Unfree		0.981 (0.164)	
Democratic/mixed			0 (.)
Democratic/unfree			0.73 (0.268)
Undemocratic/mixed			1.806*** (0.287)
Undemocratic/unfree			1.312 (0.248)

In other words, if the average number of crises in a dyad in each period of time were ten crisis onsets, then those dyads with similarly undemocratic institutions, but dissimilar political values are likely to experience closer to eighteen crises in a similar time period. This finding provides strong support for the second hypothesis:

**H2: Countries with differing varying levels of liberalism are more likely to experience interstate crises.**

Additionally, Figure 4.1 indicates that the interaction between political institutions and political values accounts for the fourth strongest positive indicator of crisis onset after proximity, great power status, and militarization.

**Figure 4.1: Incidence Rate Ratio (x-line=1 crisis onset)**



Of the variables offering statistically significant measures indicating crisis onset in Model 11, economic development and militarization of both countries have an offsetting effect (-0.677 and 0.624 respectively) while proximity, the presence of at least one great power in the dyad, and a lack of liberalism substantially increase the risk of crisis onset within dyads experiencing these conditions. Incidence rate ratio analysis indicates that dyads where these conditions exist experience a substantially higher rate of crisis onset against the average (see Table 4.10). In terms of IRR, militarization appears to account for more crisis onsets than economic development and slightly more than the institutions-values interaction suggesting that while varying levels of liberalism can certainly feed crisis onset, economic development may not have quite the offsetting effect on militarization that the Poisson coefficients indicate.

**Table 4.10 – Full model Incidence Rate Ratio (IRR)<sup>13</sup>**

	<b>Model 12 Full Model w/ IRR</b>
DV: Crisis onset	
Democratic/mixed	0 (.)
Democratic/unfree	0.73 (0.268)
Undemocratic/mixed	1.806*** (0.287)
Undemocratic/unfree	1.312 (0.248)
Proximity	57.405*** (8.142)
Relative power	1.07 (0.163)
Great power status	4.478*** (0.720)
Alliance	0.941 (0.153)
Developed	0.508** (0.113)
Militarized	1.866** (0.395)
Constant	0.0001*** (0.170)
Observations	603110
Wald Chi <sup>2</sup>	1001.89***
Log Likelihood	-1804.81

Standard errors in parentheses; \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

<sup>13</sup> The standard errors reported in this table can be used to calculate the upper and lower limits of a 95% confidence interval for the IRR but are not necessarily an indicator of statistical significance. Asterisks denoting statistical significance here correspond to the same statistically significant findings in Table 4.8.

Ultimately, the interaction term that defines liberalism as political values and political institutions clarifies democratic peace theory's main assumption: Democracies are less likely to be in conflict with each other, but the variance in democracy measures that have generated such conflicting results in the democratic peace literature, particularly in studies using the Polity data, may in part be due to a failure to account for more subtle differences like political values within a given dyads. Liberalism does play a role in international interactions, and a substantive one at that. While liberalism by itself is not necessarily a critical indicator of crisis onset, it is more than an error term, and empirical studies of interstate conflict need to take liberalism into greater account than they have historically tended to. Put another way, a difference in liberalism is not a necessary condition for crisis onset, but it is a sufficient condition.

In the next chapters, I explore three case studies that seek to both illustrate how these dyadic properties feed interstate crises and indicate implications for foreign policy and diplomacy in those contexts.

## **Chapter 5: Illiberal Crisis Clusters? 3 Case Studies**

The major empirical finding of this study is that differing levels of liberalism, defined as the interaction of mixed political values with undemocratic political institutions, substantially increase the likelihood of interstate crisis between two countries, especially when those two countries are geographically proximate to one another (sharing a land border or with coastlines within 150 miles of each other). While there are certainly other contributing factors to crisis onset, the Poisson regression results indicate these are the most significant components of crisis dyads in the time period 1972-2012. But are these crisis dyads evenly distributed across time and space, and do they share other properties that may assist in their predictive capacity? The answer



here is less clear cut than the empirical results may indicate. The following case studies will look at selected “crisis dyads” where differing levels of liberalism likely played a contributing role in crisis onset.

In selecting case studies, I chose three dyads from the global regions that experience 1) higher levels of crisis onset, and 2) a higher share of undemocratic and “mixed” dyads.

Unsurprisingly, given the empirical data, these two criteria correlate well with one another.

Figure 5.1 shows the breakdown of crisis onset dyads by region. Africa, the Middle East, and Asia are clear leaders, forming regional “crisis clusters” in the time period under consideration.

**Figure 5.1 – Number of interstate crises by region (1972-2012)**

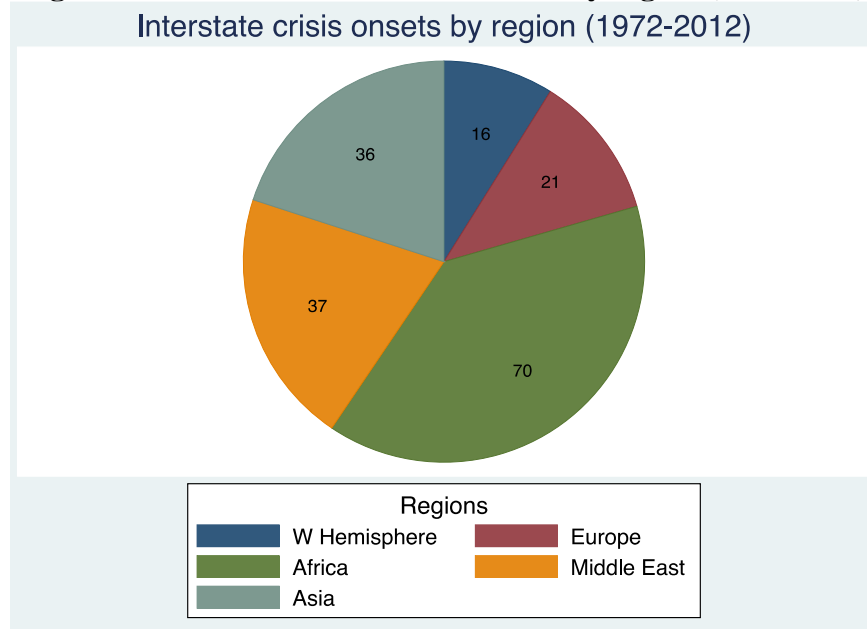
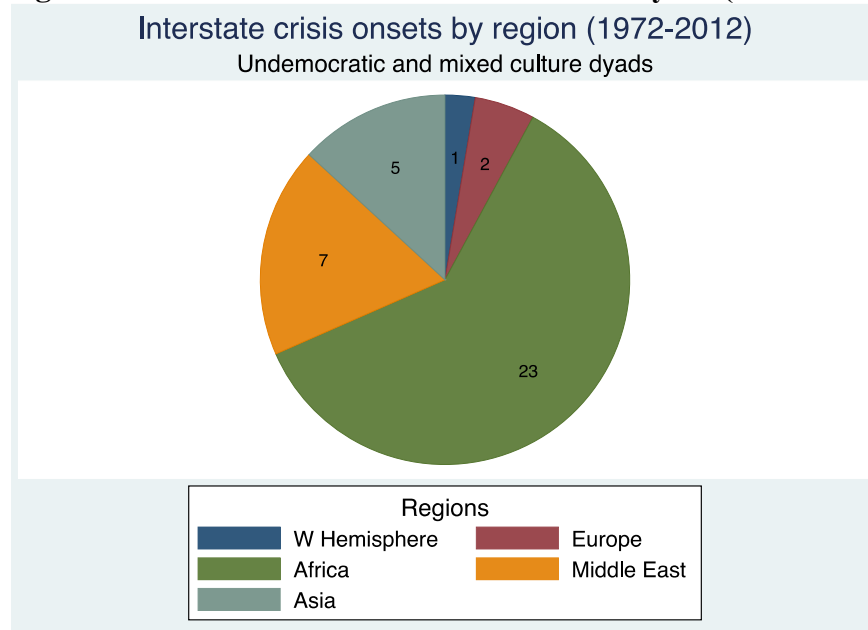


Figure 5.2 further breaks down these numbers with the total number of crisis onsets in dyads with undemocratic institutions and differing levels of liberalism.

**Figure 5.2 – Interstate crisis onset in “mixed” dyads (1972-2012)**



Again, Africa, the Middle East and Asia lead the way with the Africa appearing to be somewhat more crisis-prone in these types of dyads than in the other regions.<sup>14</sup> I therefore selected one crisis dyad from each of these regions to briefly evaluate their general properties and discuss the status of each country’s political institutions and culture at the point of crisis onset with its dyad partner.

### *Case study 1: Iran and Iraq*

In many ways, this is one of the easiest dyads in which varying levels of liberalism differences apparent and visible. Iran and Iraq both have quite different political histories post-independence. Iraq developed largely as a secular political society while post-revolutionary Iran is decidedly religious in its political cultural orientation. Aside from that, there are ethno-linguistic differences, religious differences, and very different political histories in terms of the

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<sup>14</sup> Africa’s inordinate amount of interstate crises and undemocratic/mixed culture dyads may be a function of deeper causes characteristic of post-colonial landscapes – dynamic borders, ethnic civil strife, weak institutions, etc. The claim of this paper is not that undemocratic/mixed culture dyads cause crisis but indicate higher probabilities and frequencies of interstate crisis. It therefore allows for the possibility of deeper causal factors without invalidating the findings of this study, but further study is required.

relationship both countries had with great powers. Of the three case studies in this chapter, the Iran-Iraq dyad is probably the most recognizable in terms of differences between political cultures (liberalism being just one facet) and the possibility that those differences contributed to conflict between the two countries.

From 1980 to 1988 the two countries fought a brutal war that saw the loss of over one million lives and sent ripple effects throughout the greater Middle East region. The initial belief may be that multiple crises precipitated the 1980 war, however, the time period covered in this study (1972-2012) shows five crises and all of them occur after the onset of war. One may well conclude, then, that it is the war itself that drives crisis onset, and that certainly could be the case as the war went through several cycles of fighting, stalemate, calm, then a resumption of fighting. However, the historical context of the war is notable here. Iran's Pahlavi dynasty collapsed in 1979 and was replaced by a fundamentalist revolutionary regime led by Ayatollah Khomeini, the same year Saddam Hussein took power in Iraq. In part, fearing the spread of the Iranian Revolution into the Shi'ite majority Iraq, Saddam Hussein launched an invasion into Iran the following year. Though both countries had undemocratic institutions at this time, in an apparent validation of democratic peace theory, neither country had democratic institutions at any point in the time period studied here. However, there is a time period in the dyad in which the two countries experienced mixed political values. From 1978-1986, Freedom House lists Iran as being "partly free" while Iraq is listed as "not free." Both the Iran-Iraq War and the five crises attached to that war occur in this timeframe of political upheaval and the change in Iran's freedom status is the only noticeable change in the indicator variables.

It is true that both countries share a land border that clearly contributed to the conflict, but what is notable is the direct correlation between war and crisis, and the dissimilar levels of

liberalism in both societies. If we were to use Bremer's initial seven indicators of war, we would see that most of the indicators of war actually do not apply to the Iran-Iraq dyad during the crisis period.<sup>15</sup> While they both share a border they were not both militarized over the same length of time, they were not both allied in any way, they were not considered developed countries, and neither one of them was a great power. This really only leaves proximity, and the differing levels of liberals as the only indicator variables from the models in this study to explain the onset of crises.

So, while it is easy to note that liberalism, or rather illiberalism, is a significant difference between these two countries, what has been less apparent is how that illiberalism manifests itself in relations between them. Importantly, after 1986 specifically, and the conclusion of the Iran-Iraq War in 1988 generally, there has been no crisis or war onset for these two countries. Even after the first Persian Gulf War in 1991, Saddam Hussein retained the ability to destabilize the region and challenge the security and stability of neighboring countries as noted in multiple crises with Kuwait and other countries in the 1990s.<sup>16</sup> Iran, for its part, never lost its animosity towards Hussein, and both regimes were practiced at conducting proxy operations. Of course, in the time period following 2003 and the invasion of Iraq by the United States one can argue that the presence of a great power prevented such crises from reoccurring. However, that only explains the 2003-2012 time period. Additionally, after 2012, Freedom House data lists both countries as “Not Free,” further indicating that a diminishment in crisis onset more recently

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<sup>15</sup> Bremer's 1992 study set the following conditions on seven indicators as contributing to war onset: “Add contiguity; remove alliance; make one or both less advanced; make or both not democratic; remove overwhelming preponderance; give one or both major power status; add alliance and make both militarized” (in Mitchell and Vasquez 2014, 22).

<sup>16</sup> Several such crises are included in the ICB data (Brecher and Wilkenfeld 2000; Brecher et al. 2021).

could be partially traced to a certain steady state achieved by both countries in their political institutions and values.

So, while the presence of America may have kept the two regional rivals at bay in terms of preventing the onset of war, it seems unlikely that crisis onset was also uniquely prevented by the presence of the US. What is clear from the data is that war and crisis alike clustered in one significant decade for Iran and Iraq, and it is the same decade that saw the greatest variance in top level measures of liberalism between the two countries.

### *Case study 2: Angola and South Africa*

The 1987 South African intervention in Angola comprises the opening of the final moves in the on again off again South African Border War (1966-1990). While the time period of the war and the date of this crisis may indicate this as an intrawar crisis, ICB does not code it as such (Brecher and Wilkenfeld 2000; Brecher et al. 2021). This is because at the time of the South African intervention, the South African Defense Forces (SADF) had largely withdrawn from Southwest Africa (Namibia) and fighting had shifted to being chiefly between Angolan forces and various Namibian groups. Functionally, South Africa was intervening in a civil war to prevent Angolan-backed groups from gaining the upper hand. This is an oversimplified description of an incredibly complex conflict, but still worth considering in this study as the dominant factor in predicting war and crisis onset, geographic proximity, is not present in this crisis.<sup>17</sup>

The zone of conflict in the South African Border War primarily focused on the South African-administered territory of South West Africa, later Namibia. Angola achieved

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<sup>17</sup> One could say that at the time of the South African intervention in 1987, Namibia's connection to South Africa made the latter share a land border with Angola, but since neither COW nor ICB datasets code the Angola-South Africa dyad as having a land border, neither do I.

independence from Portugal in 1975 and quickly fell into a state of civil war that eventually saw the Cuban and Soviet Union backed People's Movement for the Liberation of Angola (MPLA) defeat its two main rivals, the National Union for the Total Independence of Angola (UNITA) and the National Front for the Liberation of Angola (FNLA). As part of its conflict with the South African-backed UNITA, the MPLA supported rebel groups in Namibia, in a bid to develop an independent ally on Angola's southern border. This dynamic made the Angolan Civil War a component of the broader South African Border War, and eventually triggered the South African intervention of 1987 that saw SADF forces make several cross-border raids from Namibia into Angola.

The Angola-South Africa dyad covers almost the entire time period of this study, starting with Angolan independence in 1975. In the 1975-1990 period, which overlaps the conflicts outlined above, the dyad experienced one war onset and eight crisis onsets of which the South African Intervention was the final one. Like the Iran-Iraq case study discussed above, the 1970s and 1980s were decades of undemocratic institutions in this dyad but with a significant distinction in levels of liberalism if we take the interaction variable into account. Freedom House lists Angola as "not free" during this time period and apartheid South Africa as "partly free." Again, the combination of undemocratic institutions and mixed political values not only characterize a substantive time period within the dyad, but also correlates to a time period characterized by a cluster of crises. Post 1990 (and post Namibian independence), this dyad has seen no additional crisis onsets even as South Africa has moved into being a more stable democracy and free society.

The "not free" and "partly free" combination within a dyad, thus seems to be particularly crisis prone with or without the presence of proximity as a control variable. The Iran-Iraq and

Angola-South Africa cases both illustrate this phenomenon. Additionally, this case study seems to confirm Bremer's original conclusion that even the presence of one democracy in a dyad can contribute to more peaceful relations (1992). However, the peacefulness of this dyad may be more a function of 1) the independence of Namibia removing the problem of fluid/contested borders and 2) the "settling" of both country's respective values and institutions after a period of extraordinary change and upheaval.

### *Case study 3: Thailand and Laos*

The Thailand-Laos dyad is a dominantly peaceful dyad that would appear to be a strong counterexample to the empirical findings in the previous chapter. Except for two border-related crises in 1984 and 1987, this dyad has seen no war or crisis onsets for the entire time period covered in this study. Unlike the two prior case studies, there does not seem to be a "crisis cluster" occurring in tandem with differences in liberalism that have characterized the above case studies. Additionally, the nature of these two crises seems to be separate from consideration of political institutions and values. The crises listed in the ICB data feature that most important factor in interstate conflict: borders. The crises involved disputed interpretations of treaties demarcating the border between the two countries, which eventually spiraled in to militarized disputes when both sides sent soldiers to occupy villages on the contested border. The ICB record of the crisis also notes that while this border dispute was a high salience issue for Laos, it was a lower priority issue for Thailand ("ICB Data Viewer"). If differences in liberalism played any role here, then, they must be slight.

Despite the clear geographic nature of this dyad's set of crises, a closer look at the subsample of dyad years indicates that while proximity provided the major impetus towards crisis, political upheaval and change may have played a minor, but recognizable role. Like the

two case studies above, the crises occurred in years in which the levels of liberalism within the dyad can be characterized as “mixed” with Thailand being “partly free” and Laos “not free.” Additionally, Freedom House data indicates that Thailand, despite being the more institutionally established and the stronger of the two countries was experiencing a period of fluidity in its political values. In the 40-year period covered here, Thailand has seen some of greatest variance in its Freedom House assessments as illustrated in Table 5.1.

**Table 5.1 – Thailand freedom status**  
**Source: Freedom House**

Year	Freedom Status
1972	Not free
1973	Partly free
1974	Partly free
1975	Free
1976	Not free
1977	Not free
1978	Partly free
1979	Partly free
1980	Partly free
1981	Partly free
1982	Partly free
1983	Partly free
1984	Partly free
1985	Partly free
1986	Partly free
1987	Partly free
1988	Free
1989	Free
1990	Partly free
1991	Partly free
1992	Partly free
1993	Partly free
1994	Partly free
1995	Partly free
1996	Partly free
1997	Free



1998	Free
1999	Free
2000	Free
2001	Free
2002	Free
2003	Free
2004	Partly free
2005	Not free
2006-12	Partly free

It would seem as though Thailand had difficulty maintaining a stable political system, suggesting that even low salience border disputes may have presented an attractive opportunity for the Thai government to redirect popular frustration and opposition to an external opponent. Indeed, the Laotian government accused the Thai military of escalating the crisis to the point of military conflict in 1987, and the 1980s were characterized by multiple coup attempts directed at Prime Minister Prem Tinsulanonda who was eventually ousted from power in a general election in 1988 following a move to more democratic reforms in government.

So, the period of the Three Village Border crises may not have been driven by perceived difference in liberalism between Laos and Thailand but shifts in political values appear to have been playing some role in Thai politics that influenced decision making, though a more detailed account of this episode is beyond the scope of this study. Suffice to say, even when not a primary driver of crisis onset, differences in levels of liberalism borne out of political instability appear to have a substantive influence on foreign policy decision making, which while not an unknown phenomenon in foreign policy analysis is not often part of the empirical international relations theory discussion (Davies 2002; Dyson and Briggs 2018).

## **Chapter 6: Conclusion and Implications**

From the earliest days of political science, theorists have recognized that regime type and its attendant values not only shape national cultures and identities, but influence interstate interactions as well (Aristotle 2013; Kant et al 1983). Whether at the level of national cultural interactions or domestic subculture interactions, it is generally recognized that conflict can occur at the dynamic, often ambiguous, borders of cultural categories, of which one is liberal values (Benhabib 2002). Democratic peace theory is one of the strongest modern theoretical perspectives that makes direct claims on the role these political cultural values play in international relations, positing that democratic regimes are critical to reducing war and establishing peaceful relations between countries. Historically, the end of the Cold War, the “third wave” of democratization, and the post-World War II “long peace” provided powerful supporting examples to this hypothesis (Huntington 1993; Fukuyama 1992). However, democratic peace theory has long struggled to empirically validate its key claim regarding democracy’s peaceful effects.

Though Bremer’s original work in “Dangerous Dyads” offered a methodologically advanced justification for democratic peace theory, later attempts to replicate his findings and evaluate the strength of the relationship between democracy and peace found democracy to be a sensitive measure that offered contradictory findings leading some to wonder if it were not more accurate to refer to an “autocratic peace” (Bremer 1992; Buhaug 2005; Altman et al. 2021). That is quite a serious blow to an otherwise influential theoretical frame and body of literature.

This dissertation approached the notion of democratic peace differently. Rather than focusing on political institutions and the onset of war between countries, it considered the possibility that levels of liberalism and interstate crises may more accurately confirm the central assumption of democratic peace theory. If political institutions were inconsistent measures and

war an occurrence too rare to offer generalizable observations on, perhaps the scope of inquiry needed to be both broadened in terms of what constitutes interstate conflict and deepened in terms of what was understood by “democracy.”

To that end, this dissertation found substantive empirical backing to support the notion that the interaction between political values and institutions have a consistent and substantive effect on crisis onsets between countries. More specifically, the finding that countries featuring political cultures similar in undemocratic institutions but dissimilar in liberal values are more prone to crisis onsets alters the framing of democratic peace theory theoretically and empirically, with significant policy implications.

Theoretically, democratic peace theory has suffered from the lack of agreed upon definitions of democracy. Some focus on institutions only, while others include difference elements of political culture. This has proven problematic in the empirical literature as a lack of theoretical consistency has led to inconsistent empirical findings. This research strengthens democratic peace theory’s central tenet by identifying a more robust measure for democracy, or rather liberal democracy, in terms of the interaction between Polity’s institutions-based measure and Freedom House’s political values-based freedom measure. This measure, in fact, returns democratic peace theory to its original roots in Kantian philosophy that assumed such an interaction, though with the added caveat that historical time periods matter (Hewitt 2003; Anderson et al. 2016). The bifurcation between political institutions and values inherent in the separate datasets used in this dissertation suggests contemporary democratic peace literature started to wander from its original theoretical structure and has suffered the consequences though some scholars have worked to unify those disparate models (Huth and Allee 2003).

Empirically, the dissertation introduces a sound, albeit narrowly defined, measure for liberalism that can be utilized in empirical research. The nebulous nature of culture has proven difficult to measure and replicate, and those datasets that have attempted to do so do not always fit well with time series data that is often used in empirical international relations research. The interaction variable developed here offers a sound method for incorporating at least two facets of political culture into quantitative models without the need to specify “culture” as a single type or variable thus avoiding the frequent criticism of attempts to define culture as being too static. Additionally, the dissertation specifies a Poisson regression model with better fit than Bremer’s original model that not only avoids the problems of collinearity in time series data, but also gains additional insight into the possibility of historical conditionality on the formation of crisis clusters. In a way, this model gets to have its proverbial cake and eat it too: establish good fit with the data while enjoying the additional insights provided by a dyad-year unit of analysis rather than the over generalized dyad type unit of analysis Bremer used.

Foreign policy analysts and decision makers have long included considerations of political culture, and other facets of national culture, in their work but that work has been highly contingent on historical and personal contexts that are practically impossible to replicate across time and space. This dissertation’s findings connect recognizable components of political culture common to both foreign policy analysis and international relations theory in a model that provides deeper insight to historical contexts as well as identifies the contours of the diplomatic space at the regional level. The empirical results caution policymakers against an undue focus on democratic institution building as policy objectives and suggest a more cautionary approach to driving changes in political systems, especially rapid ones in politically unstable regions. In this,

the dissertation, while supporting a key theoretical element of democratic peace theory, would reject the more idealistic policy impulses of the kind Bremer's original study favored.

Though this dissertation achieves its core objectives of evaluating the effects of liberalism on interstate crisis onsets and finds those effects to be significant and substantive, the role of political culture in conflict between states is still not fully defined. Freedom House's freedom status variable, while taking many measures into account only reflects a country's political values. Other components of national culture such as language, religion, family structure, individual and collectivist values among others are not considered here and may have their own influencing role to play on state behavior. Additionally, the Poisson regression model presented here is, at the end of the day, a fairly general model that looks at the probabilities of crisis onset in the broadest possible terms. As such, it succeeds in drawing the boundaries of the operating environment in which states, and decision makers operate. However, marking the boundaries of crisis onset is different from predicting escalation and outcomes, which are potential future directions of this research. Finally, other elements of culture can, and probably should, be included in this model and evaluated alongside liberalism as potential indicators of crisis onset. Of the available data, variables related to religions, collectivist and individualist societies, and communication patterns may be of greatest relevance to the field.

Culture, in all its many guises has often been relegated to the status of an error term in empirical international relations theory, and possibly overemphasized in foreign policy analysis. The most important contribution of this research is spanning that intradisciplinary divide with a common use measure that can facilitate a more balanced consideration of political culture generally, and liberalism specifically, in the theories and models that are representations not of inanimate objects or matter, but of the living, breathing family of nations.



## Appendix

The following tables are additional tests done using Poisson regression and following Bremer's (1992) model. Table A.1 compares war and crisis onsets for the period covered by the ICB time period. Table A.2 indicates the violation of the mean=variance assumption in the models presented in Table A.1, which indicate the poor fit of the model and necessitate the need to drop dyad type as the unit of analysis, which indicates better fit (Table A.3).

**Table A.1 – Comparing war and crisis onset (1918-2012)**

	Model A1	Model A2
	War onset	Crisis onset
Log dyad-years	0.772*** (0.138)	0.715*** (0.0394)
Proximity	3.095*** (0.548)	2.482*** (0.152)
No large power difference	0.753* (0.313)	0.555*** (0.0966)
At least one major power	1.391*** (0.414)	1.483*** (0.123)
Allied	-0.859* (0.397)	-0.306** (0.115)
Both not democratic (Polity score 5+)	0.0494 (0.273)	0.244** (0.0935)
Both developed	-1.400** (0.436)	-0.525*** (0.117)
Both militarized	0.227 (0.458)	-0.0508 (0.133)
Constant	-8.384*** (1.648)	-5.485*** (0.467)
Observations	124	124

Standard errors in parentheses; \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

**Table A.2: Summary Statistics - 1918-2012 (dyad type unit of analysis)**

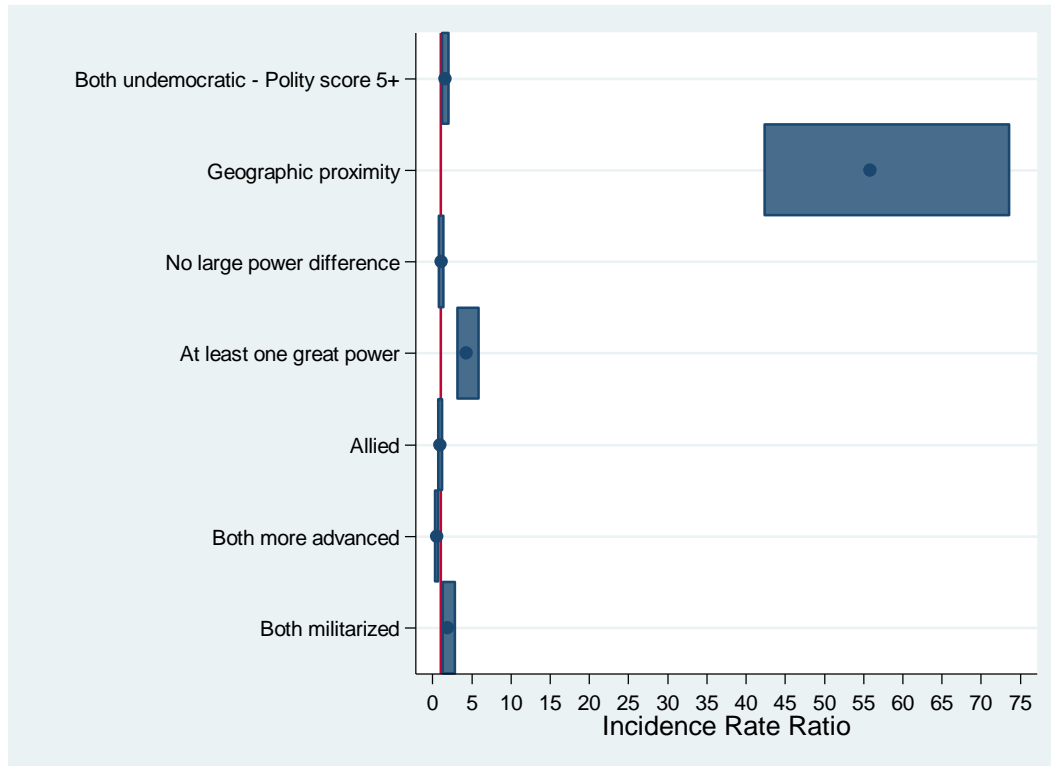
	Mean	Variance	Std. Dev.	N
War onset	.648	3.875097	1.968527	125
Crisis onset	5.328	175.54477	13.249331	125

**Table A.3: Summary Statistics - 1918-2012 (dyad-year unit of analysis)**

	Mean	variance	Std. Dev.	N
War onset	.0001	.0001	0.009984	812497
Crisis onset	.00082	.000819	0.028619	812497

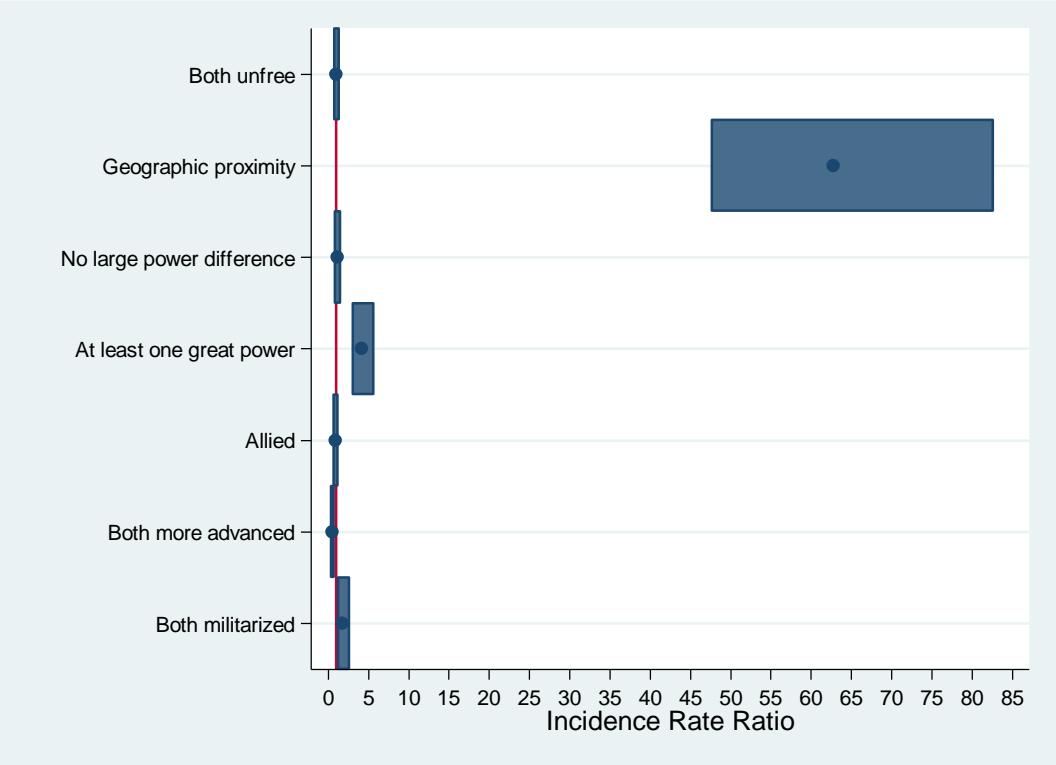
The figures below show the Incidence Rate Ratio (IRR) for the indicator variables of democracy and freedom. As noted in Chapter 4 and shown in Figure 4.1, the IRR for the interaction variable accounted for my crisis onsets than the democracy variable alone. Furthermore, the freedom variable by itself is shown here to be a fairly weak indicator of crisis onset.

**Figure 4.1: Full Model Incidence Rate Ratio, Undemocratic Dyad (x-line=1 crisis onset)**





**Figure A.2: Full Model Incidence Rate Ratio, Unfree Dyad (x-line=1 crisis onset)**



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